

## 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)

### **Abouchar, Alan**

**PD** April 1989. **TI** Through a Glass Darkly: How Modern Economics keeps us from seeing how the Economy Works. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8904; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 20. **PR** no charge. **JE** 541, 022. **KW** Cost Functions. Accounting. Microeconomic Analysis.

**AB** Criticism is increasingly leveled at economics by highly respected members of the profession, serious and widely read lay publications, and casual outside observers whose impression of analytic impotence is reinforced by the profession's inability to come up with the right numbers or to agree even roughly on the importance of causal economic interrelationships and variables. The disenchantment is the more surprising in view of the earlier promise that accompanied the introduction of advanced mathematical methods. But the problem goes much deeper than the failed promise of powerful and advanced techniques; we are misguided by a set of microeconomic cost definitions which are hopelessly at variance with life beyond the classroom and which are useless as an input to macroeconomic analysis or even to analysis of optimal microeconomic pricing policy.

### **Adelman, Irma**

**PD** February 1989. **TI** Is Structural Adjustment with a Human Face Possible? The Case of Mexico. **AU** Adelman, Irma; Taylor, J. Edward. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 500; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 43. **PR** \$8.60. **JE** 121, 133, 113, 225. **KW** Economic Policy. International Debt. Mexico. Agricultural Policy. Developing Countries. Debt Crisis.

**AB** The present paper attempts to shed some light on these issues by modelling structural adjustment patterns in a single, middle-income oil exporter, Mexico. It explores the economy-wide costs, in terms of economic growth, income inequality and poverty, of Mexico's economic stabilization policies of the 1980s. On the basis of counterfactual simulation, it also explores the likely impacts of alternative adjustment strategies. This analysis utilizes a modified Social Accounting Matrix (SAM) approach designed to overcome one of the major shortcomings of the conventional SAM: the assumption of unitary expenditure elasticities in household accounts. The base model is calibrated to track the overall and sectoral growth performance of the Mexican economy from 1980 to 1986 and becomes the foundation upon which our policy experiments are

built.

**PD** April 1989. **TI** What is the Evidence on Income Inequality and Development? **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 502; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 39. **PR** \$7.80. **JE** 226, 112, 111, 221. **KW** Income Distribution. Economic Development. Economic Growth.

**AB** In the present paper we investigate the issue of whether there is a trade-off between inequality and economic growth, using changes over time in the shares of income accruing to the poor and rich deciles as dependent variables and the rate of growth of per capita GNP together with conditioning variables as independent variables. Our procedure provides a more direct test than previous studies of the policy issues raised by the Kuznets curve.

### **Aghion, Phillippe**

**PD** May 1989. **TI** A Model of Growth through Creative Destruction. **AU** Aghion, Phillippe; Howitt, Peter W. **AA** Aghion: Massachusetts Institute of Technology. Howitt: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8904; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 49. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** 111, 621. **KW** Growth Theory. Innovations. Obsolescence. Economic Growth. Monopoly.

**AB** This paper presents a model of economic growth based on Schumpeter's process of creative destruction. Growth results exclusively from technological progress, which in turn results from innovations produced by competitive research firms. The model possesses a unique balance growth equilibrium, in which there is a constant allocation of labor between research and manufacturing. The paper analyzes the effects on these parameters of time preference, the elasticity of intertemporal substitution, the size of innovations, the productivity of research, and the degree of monopoly power in the intermediate sector.

### **Ahman, I. A.**

**PD** September 1988. **TI** Nonparametric Estimation of the Pth Derivative of a Regression Function: Stochastic Regressors Case. **AU** Ahman, I. A.; Ullah, Aman. **AA** Ahman: University of Northern Illinois. Ullah: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8903; Department of Economics, Social Sciences Center, University of Western Ontario,

London, Ontario, CANADA N6A 5C2. PG 11. PR \$5.00 Canada; \$7.00 Elsewhere. JE 213. KW Regression Model. Nonparametric. Kernel Estimation. Asymptotic Theory.

**AB** In this paper we propose a simple nonparametric kernel method of estimating derivatives of the regression function. The regressors in the regression model are considered to be stochastic. The consistency and asymptotic normality results are established.

#### **Aivazian, VA**

**PD** May 1989. **TI** Precommitment and Financial Leverage: An Analysis of the Effects of Taxes. **AU** Aivazian, VA; Berkowitz, M. K. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8910; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 43. **PR** no charge. **JE** 022, 521. **KW** Precommitment. Taxes. Investment. Business Finance.

**AB** This paper examines the role of precommitment by an incumbent firm in an environment with taxes, as well as under alternative contractual arrangements for financing precommitted investment. The problem is analyzed under different assumptions about potential entry in the output market. The analysis has implications for the role of precommitment as an entry-detering mechanism and also for the nature of the interactions between real and financial decisions of the firm.

#### **Alesina, Alberto**

**PD** August 1989. **TI** Moderating Elections. **AU** Alesina, Alberto; Rosenthal, Howard. **AA** Alesina: Harvard University. Rosenthal: Carnegie-Mellon University. **SR** National Bureau of Economic Research Working Paper: 3072; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$2.00. **JE** 025, 213. **KW** Elections. Voting. Democracies.

**AB** This paper extends the spatial theory of voting to an institutional structure in which policy choices are a function of the composition of the legislature and of the executive. In an institutional setup in which the policy outcome depends upon relative plurality, each voter has incentives to be strategic since the outcome depends upon how everybody else votes. By applying to this game between voters the refinements of Strong Nash and Coalition Proof Nash we prove existence of equilibria with properties which appear intuitive and realistic. In fact, the model has several testable implications which seem consistent with some observed patterns of voting behavior in the United States and perhaps in other democracies in which the executive is directly elected.

**PD** August 1989. **TI** Why are Stabilizations Delayed? **AU** Alesina, Alberto; Drazen, Allan. **AA** Alesina: Harvard University. Drazen: Princeton University. **SR** National Bureau of Economic Research Working Paper: 3053; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** 133, 023, 323. **KW** Stabilization Policy. Tax Policy. Income Distribution.

**AB** When a stabilization has significant distributional implications different socioeconomic groups 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.

Stabilization occurs 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.

#### **Allen, Polly Reynolds**

**PD** April 1988. **TI** Saving, Investment and Capital Market Integration. **AU** Allen, Polly Reynolds; Stein, Jerome L. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-12; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 15. **PR** No charge. **JE** 441, 431, 411. **KW** Capital Mobility. Capital Market. International Trade.

**AB** Feldstein and Horioka and others regress the investment ratio on the saving ratio to determine the degree of capital market integration. They claim that the closer the regression coefficient is to unity the less the international mobility of capital. The present paper develops a growth model of perfect capital mobility in a two country world. The implied regression coefficient can take on any value. In a world of actual capital market integration, when the returns from capital are equal across countries, the regression coefficient is unity if each country's share of world profits equals its share of world saving. A regression coefficient of zero capital mobility. Alternative tests of capital market integration are proposed.

#### **Alogoskoufis, George S.**

**PD** June 1989. **TI** On Fiscal Policies, External Imbalances and Fundamental Equilibrium Exchange Rates. **AA** Birkbeck College. **SR** Centre for Economic Policy Research Discussion Paper: 322; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 29. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** 431, 321, 131. **KW** Exchange Rates. Fiscal Policy. Unemployment. Inflation.

**AB** This paper presents an investigation of the relationship between fiscal policies, fundamental equilibrium real exchange rates and misalignments under fixed nominal exchange rate regimes like those proposed by McKinnon and supply-side fiscal policy. The medium-run effects operate mainly through the accumulation or decumulation of external assets. The analysis suggests that even temporary shifts in fiscal policy have permanent effects on fundamental equilibrium exchange rates and the natural rate of unemployment. In addition, because of differential inflation across countries, real exchange rates become misaligned in the short-run.

**PD** June 1989. **TI** The Phillips Curve and the Lucas Critique: Some Historical Evidence. **AU** Alogoskoufis, George S.; Smith, Ron. **AA** Birkbeck College. **SR** Centre for Economic Policy Research Discussion Paper: 321; 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** 134, 133, 132. **KW** Phillips Curve. Inflation. Unemployment. Lucas Critique.

**AB** This paper presents an investigation of the empirical significance of the Lucas Critique for the Phillips Curve. The investigation is carried out with annual historical time series for the United Kingdom (1857-1987) and the United States (1892-1987). The results, for two different models of the Phillips Curve, suggest that there are sizeable and statistically

significant shifts in the parameters of wage equations when the process generating price inflation changes. The two major shifts that we identify coincide with the abandonment of the classical gold standard in 1914, and the disintegration of the Bretton Woods gold-dollar standard in the late 1960s.

### Altonji, Joseph G.

**PD** July 1989. **TI** Is the Extended Family Altruistically Linked? Direct Tests Using Micro Data. **AU** Altonji, Joseph G.; Hayashi, Fumio; Kotlikoff, Laurence J. **AA** Altonji: Northwestern University. Hayashi: University of Pennsylvania. Kotlikoff: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3046; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 58. **PR** \$2.00. **JE** 921. **KW** Households. Consumers. Altruism. Consumption. Life-Cycle Model.

**AB** What is the basic economic decision-making unit? Is it the household or the extended family? Despite its importance, the boundaries of economic decision-making units have not, to our knowledge, been examined directly with micro data. Stated differently, the altruism model has not been tested against the Life Cycle and Keynesian alternatives with such data. This paper uses matched data on parents and their adult children, contained in the Panel Study of Income Dynamics, to perform such a test. In essence our test asks whether the distribution of consumption and labor supply across households within the extended family depends on the distribution of resources across households within the extended family.

### Andrews, Donald W. K.

**PD** May 1989. **TI** Asymptotics for Semiparametric Econometric Models: II. Stochastic Equicontinuity. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 909; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 38. **PR** No charge. **JE** 211. **KW** Asymptotic Theory. Semiparametric Estimator. Semiparametric Test.

**AB** This paper presents a number of stochastic equicontinuity results that are useful for establishing the asymptotic properties of estimators and tests in parametric and semiparametric econometric models. Stochastic equicontinuity results in the probability literature rely on entropy conditions of one sort or another. The purpose of this paper is to present an array of more primitive conditions that are sufficient for such entropy conditions, and hence, for stochastic equicontinuity. The primitive conditions considered here include: Differentiability conditions, Lipschitz conditions, Vapnik-Cervonenkis conditions, and combinations thereof. The various results given here cover independent,  $m$ -dependent, strong mixing, and near epoch dependent random variables.

**PD** May 1989. **TI** Asymptotics for Semiparametric Econometric Models: III. Testing and Examples. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 910; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 52. **PR** no charge. **JE** 211. **KW** Lagrange Multiplier Test. Likelihood Ratio Test. Semiparametric Model. Semiparametric Tests. Wald Test. Asymptotic Theory.

**AB** This paper considers tests of nonlinear parametric restrictions in semiparametric econometric models. To date, only Wald tests of such restrictions have been considered in the literature. Here, Wald, Lagrange multiplier, and likelihood

ratio-like tests statistics are considered and are shown to have asymptotic chi-square distributions under the null and local alternatives. The results hold for a wide variety of underlying estimation techniques and in a wide variety of model scenarios. A number of examples are given to illustrate the testing results of this paper and the estimation and stochastic equicontinuity results of the antecedents to this paper, viz. Andrews (1989b, c).

**PD** May 1989. **TI** Asymptotic Optimality of Generalized C(L), Cross-Validation, and Generalized Cross-Validation in Regression with Heteroskedastic Errors. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 906; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 23. **PR** No charge. **JE** 211. **KW** Heteroskedasticity. Linear Regression. Nonparametric Regression. Model Selection. Asymptotic Theory. Cross Validation.

**AB** The problem considered here is that of using a data-driven procedure to select a good estimate from a class of linear estimates indexed by a discrete parameter. In contrast to other papers on this subject, we consider models with heteroskedastic errors. The results apply to model selection problems in linear regression and to nonparametric regression estimation via series estimators, nearest neighbor estimators, and local regression estimators, among others. Generalized C(L), cross-validation, and generalized cross-validation procedures are analyzed.

**PD** May 1989. **TI** An Empirical Process Central Limit Theorem for Dependent Non-Identically Distributed Random Variables. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 907; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 24. **PR** No charge. **JE** 211. **KW** Central Limit Theorem. Empirical Process. Fourier Series. Semiparametric Estimator. Time Series.

**AB** This paper establishes a central limit theorem (CLT) for empirical processes indexed by smooth functions. The underlying random variables may be temporally dependent and non-identically distributed. In particular, the CLT holds for near epoch dependent (i.e., functions of mixing processes) triangular arrays, which include strong mixing arrays, among others. The results apply to classes of functions that have series expansions. The proof of the CLT is particularly simple; no chaining argument is required. The results can be used to establish the asymptotic normality of semiparametric estimators in time series contexts. An example is provided.

**PD** May 1989. **TI** Asymptotics for Semiparametric Econometric Models: I. Estimation. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 908; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven CT 06520. **PG** 47. **PR** No charge. **JE** 211. **KW** Asymptotic Normality. Semiparametric Estimators. Semiparametric Model. Asymptotic Theory. Minimization.

**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.

**PD** June 1989. **TI** Asymptotic Normality of Series Estimators for Nonparametric and Semiparametric. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 874R; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 65. **PR** no charge. **JE** 211. **KW** Asymptotic Normality. Nonparametric Regression. Polynomial Series. Semiparametric Regression. Series Estimators.

**AB** This paper establishes the asymptotic normality of series estimators for nonparametric regression models. Gallant's Fourier flexible form estimators, trigonometric series estimators, and polynomial series estimators are prime examples of the estimators covered by the results. The results apply to a wide variety of estimands in the regression model under consideration, including derivatives and integrals of the regression function. The errors in the model may be homoskedastic or heteroskedastic. The paper also considers series estimators for additive interactive regression (AIR), semiparametric regression, and semiparametric index regression models and shows them to be consistent and asymptotically normal. All of the consistency and asymptotic normality results in the paper follow from one set of general results for series estimators.

#### **Apps, Patricia F.**

**PD** December 1988. **TI** Modeling Household Labor Supply and the Welfare Effects of Tax Reforms. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 175; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 36. **PR** no charge. **JE** 024, 822, 022. **KW** Labor Supply. Welfare Effects. Tax Reform. Households.

**AB** The paper presents a comparative analysis of the welfare effects of tax reforms derived from different models of household labor supply and decision making. Flexible functional forms are selected for estimation and results are presented for a neoclassical household model and for individualistic models implying alternative decision processes within the household. Simulation results for reform induced welfare changes defined on equivalent income are compared for each type of model. The study examines the effects of changing the structure of marginal rates to introduce selective taxation of the income of husbands and wives. Differences between distributions of gains and losses indicate the sensitivity of welfare measures to the approach taken to modeling household behavior.

#### **Araujo, A.**

**PD** July 1989. **TI** General Equilibrium with Infinitely Many Goods the Case of Separable Utilities. **AU** Araujo, A.; Monteiro, P. K. **AA** University of Bonn. **SR** Universitat of Bonn Sonderforschungsbereich 303 - Discussion Paper: A-249; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** No charge. **JE** 021. **KW** General Equilibrium. Infinite Goods.

**AB** General equilibrium is nowadays, perhaps, the most well established framework to study the several aspects of economic

phenomena. Such diverse topics as growth, money, finance and international trade use the methods and the framework of general equilibria. Recently, there has been an increasing interest in the generalization of this work to the case of infinitely many goods, needed for some applications, like finance, money, monopolistic competition and growth theory. This paper is a contribution to this literature. We start by giving a general overview of the problem of general equilibrium with infinitely many goods.

#### **Arellano, Manuel**

**PD** May 1989. **TI** A Note on the Anderson-Hsiao Estimator for Panel Data. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 75; Institute of Economics and Statistics, St Cross Building Manor Road, OXFORD OX1 3UL. **PG** 9. **PR** no charge. **JE** 211. **KW** Panel Data. Instrumental Variables.

**AB** The asymptotic variances of the IV estimators for dynamic panel data proposed by Anderson and Hsiao (1982) are obtained for some simple models. With an autoregressive exogenous variable, the estimator that uses differenced instruments has a singularity point and very large variances over a significant range of parameter values. On the contrary, the estimator that uses instruments in levels has no singularities and much smaller variances.

#### **Artis, M. J.**

**PD** April 1989. **TI** Abolishing Exchange Control: the UK Experience. **AU** Artis, M. J.; Taylor, M. P. **AA** Artis: Manchester University. Taylor: City University Business School. **SR** Centre for Economic Policy Research Discussion Paper: 294; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** Not available. **PR** \$4.00. **JE** 423, 431, 441. **KW** Exchange Controls. Liberalization. Financial Integration. Stock Market. Capital Market. Asset Prices.

**AB** The paper addresses some of the effects of the removal of exchange controls in the UK in 1979. Nonparametric tests indicate that one consequence of the removal was a marked reduction in the volatility of the on-shore/off-shore differential. Co-integration tests suggest that abolition contributed positively to the long run integration of the UK stock market with similar markets in other international centers, though there is no evidence that the correlation of short run stock market returns across international centers was more strongly positive after 1979. The evidence of strong integration effect at the 'short' end of the capital market is consistent with qualitative monetary regulations which have a 'tax-like' effect.

#### **Attanasio, Orazio P.**

**PD** April 1989. **TI** Consumption, Productivity Growth and the Interest Rate. **AU** Attanasio, Orazio P.; Weber, Guillermo. **AA** Attanasio: Stanford University. Weber: University College London. **SR** University College London Discussion Paper: 89-07; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 38. **PR** 2.00. **JE** 921, 221, 229. **KW** Consumption. Intertemporal Substitution. Productivity. Life-cycle Model.

**AB** In this paper we try to assess the size of the elasticity of intertemporal substitution (EIS) and to explain why very different results are obtained using aggregate and micro data. We use two overlapping generations models to establish that

estimates of the EIS based on aggregate data are downward biased due to the presence of cohort effects and productivity growth. Our theoretical model can also be used to explain the "excess sensitivity" of aggregate consumption to labor income, even in a world without liquidity constraints or myopia. While our empirical estimates must be taken with some caution, we hope to have proved that the investigation of pseudo panel data based on Expenditure Survey can give considerable insights on consumption behavior and dominates the use of aggregate National Account data.

#### **Auerbach, Alan J.**

**PD** June 1989. **TI** Corporate Savings and Shareholder Consumption. **AU** Auerbach, Alan J.; Hassett, Kevin. **AA** University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 2994; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$2.00. **JE** 522, 521, 611, 921. **KW** Dividends. Corporations. Consumption.

**AB** This paper reexamines the implications of changing corporate savings, testing for the presence of a "corporate veil." We argue that previous tests for such a veil have lacked proper focus, identifying influences of corporate saving on private saving that are entirely consistent with a complete piercing of the corporate veil. We formulate two tests. Results based on the first find that wealth-neutral changes in corporate dividend policy do not significantly affect aggregate consumption, suggesting that no corporate veil exists. The second test finds the aggregate consumption response to changes in corporate wealth is close to zero, consistent with the presence of a veil but also with heterogeneity in the population with respect to consumption behavior.

**PD** August 1989. **TI** How Rational is the Purchase of Life Insurance. **AU** Auerbach, Alan J.; Kotlikoff, Laurence J. **AA** Auerbach: University of Pennsylvania. Kotlikoff: Boston University. **SR** National Bureau of Economic Research Working Paper: 3063; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 44. **PR** \$2.00. **JE** 921, 914, 918. **KW** Life Insurance. Consumer Economics. Annuities. Poverty.

**AB** This paper examines whether middle age American households purchase adequate amounts of life insurance. Our findings indicate that a significant minority of American wives are highly underinsured with respect to the possible deaths of their husbands. Under the assumptions that actuarially fair annuities are available we find that just over 30 percent of wives are inadequately insured, by which we mean they would suffer a loss in their rate of sustainable consumption of at least 30 percent in the event of being widowed. These findings on inadequate life insurance are even more striking if one focuses on those households in which over half of the couple's present expected value of resources is dependent on the husband's survival.

#### **Badgett, Lee D.**

**PD** October 1988. **TI** Defeated by a Maze: The Soviet Economy and Its Defense-Industrial Sector. **AA** Rand Corporation. **SR** Rand Note: N-2644; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 73. **PR** no charge. **JE** 052, 114, 027, 113. **KW** Soviet Union. Communism. Central Planner. Defense. Military.

**AB** In this note, principles drawn from the history of

economic thought are related to some of the key feature of Russian and Soviet history to define and interpret the functionally distinct character of the Soviet defense sector. The author draws a number of conclusions on which to base modifications to current models of the Soviet economy: (1) centrally administered economies differ fundamentally from market-exchange economies in where effective decisionmaking is made and, consequently, in the preferences or objectives that characterize the systems and the control mechanisms employed to realize those objectives; (2) the Soviet economy may be portrayed as dualistic; and (3) the Soviet economic system has more in common with nonmarket institutions than it has with the market-exchange system upon which the Western societies are based.

#### **Bagnoli, Mark**

**PD** August 1989. **TI** Voluntary Provision of Public Goods: The Multiple Unit Case. **AU** Bagnoli, Mark; Ben, David Shaul; McKee, Michael. **AA** Bagnoli: University of Michigan. Ben-David: University of New Mexico. McKee: University of Colorado. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-20; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 19. **PR** No charge. **JE** 024, 026, 614, 613. **KW** Public Goods. Game Theory. Donations.

**AB** Economists have long held the belief that public goods will be undersupplied when funded through voluntary contributions. To many, this suggested that the government's power to command payments through the tax system was needed to provide such goods. More recently, several incentive-compatible mechanisms have been proposed as provision schemes. Since these schemes share a common trait - they are quite complex to implement - they are generally viewed as an alternative to the tax systems for the government to directly provide public goods. Among the simpler mechanisms that have been studied are voluntary contribution games.

**PD** September 1989. **TI** Log-Concave Probability and its Applications. **AU** Bagnoli, Mark; Bergstrom, Ted. **AA** University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-23; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 21. **PR** No charge. **JE** 213. **KW** Information. Concave Function. Distribution Function. Mean Value Theorem.

**AB** The object of this paper is to extend and systematize the known results on log-concave densities, distribution functions, reliability functions and their integrals. We also explain the relation between the concepts used in the economics of information to those used in reliability theory. We present a new proof of the inheritance of log-concavity from density functions to distribution functions and from distribution functions to their integrals. This proof is direct and elementary, depending only on the generalized mean value theorem from calculus. Prekopa's proof, in contrast, derives this result as a consequence of a much more elaborate theory and the proof is accordingly much more difficult. Finally, we present a detailed catalog of common distributions and information about the log-concavity of their density functions, their distribution functions, their reliability functions, and of the integrals of the distribution functions and reliability functions.

**Baillie, Richard**

**PD** April 1989. **TI** Commodity Prices and Aggregate Inflation: Would a Commodity Price Rule be Worthwhile? **AA** Michigan State University. **SR** Michigan State Econometrics and Economic Theory Workshop Paper: 8808; Department of Economics, Michigan State University, East Lansing, Michigan 48824. **PG** 75. **PR** no charge. **JE** 134, 132, 133. **KW** Price Index. Commodities. Inflation. Economic Fluctuations.

**AB** This paper investigates the possible use of commodity price indexes as predictors of future inflation and as a potential variable to supplement a monetary target rule of the type proposed by McCallum. Individual spot and futures prices of six unrelated commodities are found to be well represented by a martingale process with a GARCH conditional variance process. The Commodity Research Bureau's spot and future indexes, an index of the change in sensitive materials, gold prices and indexes published by the Economist and the IMF are examined on a monthly basis and found to have similar properties to the individual commodity price series.

**Bardhan, Pranab**

**PD** November 1988. **TI** Some Reflections on the use of the Concept of Power in Economics. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 8896; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 17. **PR** \$3.50. **JE** 036, 022. **KW** Bargaining Power. Credible Threat. Bargaining.

**AB** This is an overview paper with a critical assessment of the ways the concept of economic power is applied in various fields of economics.

**Barrell, Ray**

**PD** June 1989. **TI** Fundamental Equilibrium Exchange Rates for the G7. **AU** Barrell, Ray; Wren, Lewis Simon. **AA** National Institute of Economic and Social Research. **SR** Centre for Economic Policy Research Discussion Paper: 323; Centre for Economy Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 12. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** 431, 411. **KW** Exchange Rates. Current Account. Capital Flows.

**AB** The Fundamental Equilibrium Exchange Rate (FEER) is the real exchange rate which produces a current account that is exactly matched by equilibrium medium-term capital flows. This paper sets out a small model to calculate FEERs for the G7 from 1971 to 1988. This model's parameters are either directly estimated or derived from the long-run properties of a larger world econometric model, GEM. Particular attention is paid to feedbacks from the FEER to the NAIRU, and interactions between world output, trade and commodity prices.

**Bartel, Ann P.**

**PD** July 1989. **TI** Formal Employee Training Programs and Their Impact on Labor Productivity: Evidence from a Human Resources Survey. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 3026; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$2.00. **JE** 825, 811. **KW** Productivity. Manpower Training. Job Training.

**AB** Although economic models of training decisions are framed in terms of a company's calculation of the costs and

benefits of such training, empirical work has never been able to test this model directly on company behavior. This paper utilizes a unique database to analyze the determinants of the variation in formal training across businesses and the impact of such training on labor productivity. Major findings are that large businesses, those introducing new technology and those who rely on internal promotions to fill vacancies are more likely to have formal training programs. Formal training is found to have a positive effect on labor productivity.

**Bartholdy, Jan**

**PD** May 1989. **TI** An Empirical Study of the Impact of Corporate Taxation on the Debt Policy of Canadian Firms. **AU** Bartholdy, Jan; Fisher, Gordon R.; Mintz, Jack M. **AA** Bartholdy: St. Mary's University. Fisher and Mintz: Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 742; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 45. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** 323, 521, 511, 514, 522. **KW** Corporate Taxation. Capital Structure. Tax Rates. Debt-Asset Ratio.

**AB** This paper discusses the influence of Canadian corporate tax rates on the debt-asset ratios of Canadian firms, 1970-82. Five theoretical models are reviewed and used to construct a linear encompassing model of financial structure. This is estimated using time series of cross sections of Canadian Firms from the COMPUSTAT file. Empirical evidence is found to support the tax loss, bankruptcy cost, managerial incentive and adverse selection models of financial structure and to reject the Miller model. The most novel and significant finding is that corporate tax rates have a strong, significantly positive and stable effect on debt-asset ratios.

**Bartoli, Gloria**

**PD** November 1988. **TI** Fiscal Expansion and External Current Account Balance. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/100; International Monetary Fund, Washington, DC 20431. **PG** 42. **PR** no charge. **JE** 321, 431, 121. **KW** Fiscal Policy. Current Account. Developing Countries. Stabilization Policy.

**AB** This paper analyzes, in a general equilibrium framework, how fiscal policy transmits its effects to the current account of the balance of payments. In discussing the role of fiscal policies in the Fund's stabilization programs, the paper compares different approaches to explain the determination of the external balance. The model presented here is based on intertemporal optimization and focuses on the behavior of private and public agents. Some empirical evidence is also presented, based on data from ten Latin American countries. Finally, an appendix presents an integrated system of financial, external, and government accounts.

**Basu, Susanto**

**PD** August 1989. **TI** Optimal Advice for Monetary Policy. **AU** Basu, Susanto; Kimball, Miles S.; Mankiw, N. Gregory; Weil, David N. **AA** Basu, Weil, and Mankiw: Harvard University and National Bureau of Economic Research. Kimball: National Bureau of Economic Research and University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3054; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** 311, 023.

**KW** Monetary Policy. Uncertainty. Macroeconomic Model.

**AB** This paper addresses the issue of how to give optimal advice about monetary policy when it is known that the advice may not be heeded. We examine a simple macroeconomic model in which monetary policy has the ability to stabilize output by offsetting exogenous shocks to aggregate demand. The optimal policy rule for such a model is easily derived. But an advisor who knows that his advice may not be followed should not recommend the optimal policy rule. This is true because, in giving activist advice, such an advisor increases uncertainty about what monetary policy will be followed. We solve for the rule that such an advisor should use in giving advice.

### Beckerman, Wilfred

**PD** May 1989. **TI** Wage Bargaining and Profitability: A Disaggregative Analysis. **AU** Beckerman, Wilfred; Jenkinson, Tim. **AA** Beckerman: Balliol College, Oxford. Jenkinson: Keble College and Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 74; Institute of Economics and Statistics, St Cross Building Manor Road, OXFORD OX1 3UL. **PG** 21. **PR** no charge. **JE** 824, 832, 631. **KW** Wages. Bargaining. Collective Bargaining. Manufacturing. Profits.

**AB** Previous analyses of the wage/profit relationship at a disaggregative level in Britain have given positive results for pre-war years but negative results for early post-war years. However, this is probably due to the increasingly unreliable nature of the enterprise-based profits series published in the National Accounts until 1982. We have constructed, instead, what are essentially establishment-based Census data on profits for fourteen manufacturing industries, up to 1986. We have also been able to extend the disaggregative unemployment data, the publication of which also ceased in 1982. The wage equations that we have estimated include profits and unemployment (and other variables) in an explicit Nash bargaining model, in line with widely held views as to the way that wage negotiations are actually conducted.

### Beckmann, Martin J.

**PD** February 1989. **TI** When does the Income Elasticity Exceed the Price Elasticity of Demand? **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-6; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 8. **PR** No charge. **JE** 022. **KW** Elasticity. Utility Function.

**AB** It is a well-known economic fact that for broadly defined classes of goods the income elasticity exceeds the price elasticity of demand. What inferences can be drawn from these observations about the shape of the underlying utility function?

### Beghin, John

**PD** December 1988. **TI** Tariff Reform in the Presence of Sector-Specific Distortions. **AU** Beghin, John; Karp, Larry S. **AA** Beghin: North Carolina State University. Karp: University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 497; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 67. **PR** \$13.40. **JE** 713, 422, 411, 132. **KW** Tariff Reform. Trade Policy. Agriculture.

**AB** The problem of choosing second-best trade policies is modified by including sector-specific policies as well as tariffs.

We obtain conditions under which reduction of the largest tariff is welfare improving. Formulae for the optimal tariff and sector-specific subsidy are used to study the design of optimal policy menus. The theory is illustrated by an empirical general equilibrium model of the U.S. economy which emphasizes agriculture. The model suggests that unilateral reductions in agricultural protection in the United States would be welfare improving.

### Bell, Linda A.

**PD** August 1988. **TI** The Incidence of Union Concessions in the 1980s: What, Where, and Why? **AU** Bell, Linda A.; Hall, Elizabeth A.; Hayes, Daniel R. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8819; 33 Liberty St., Rm. 901, New York, NY 10045. **PG** 21. **PR** no charge. **JE** 832, 831, 824, 825. **KW** Unions. Wage Freezes. Collective Bargaining. Wage Contracts.

**AB** We show that union concessions continue to dominate the contract data through 1988, although the pattern of givebacks appears to be towards more productivity oriented concessions like lump-sum payments and bonus plans, and away from harsher methods of nominal wage reduction and benefit cuts. Our conclusion is that a significant share of the trend in concessions is "structural" unrelated to economic developments at the aggregate or industry level.

**PD** December 1988. **TI** The Causes of Rising U.S. Industrial Wage Dispersion. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8825; 33 Liberty Street, Rm. 901, New York, NY 10045. **PG** 23. **PR** no charge. **JE** 824, 826, 825, 821. **KW** Wages. Productivity. Human Capital. Income Distribution.

**AB** Wage inequality across industries, measured with data from establishments, has grown consistently and substantially in the U.S. since 1970. Our analysis attributes the large bulk of rising industry wage dispersion to two factors: changes in the demographic and skill mix of industry employment and in the pay of demographic/skill groups, and to the existence of a strong independent association between industry wage and productivity movements. The impact of the first factor fits the standard competitive model of industry wage behavior, but the impact of the second is not readily explicable by this model, and instead appears to be due to industry rent sharing.

### Ben, David Shaul

**TI** Voluntary Provision of Public Goods: The Multiple Unit Case. **AU** Bagnoli, Mark; Ben, David Shaul; McKee, Michael.

### Benabou, Roland

**PD** February 1989. **TI** Using Privileged Information to Manipulate Markets: Insiders, Gurus, and Credibility. **AU** Benabou, Roland; Laroque, Guy. **AA** Benabou: Massachusetts Institute of Technology. Laroque: INSEE. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 513; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 55. **PR** No charge. **JE** 313, 026. **KW** Asset Market. Information. Insider Information. Repeated Games.

**AB** We show how an insider, a financial journalist, or a "guru" can repeatedly manipulate an asset market to his own benefit, by making strategically distorted announcements or

predictions. We also analyze the extent to which the public's attempt to learn over time whether or not this informed agent can be trusted may limit, in the long run, his influence on the market. In solving the model, we extend Sobel's (1985) results for repeated games of information transmission to the case where the sender has imperfect information, which generates richer and more realistic reputation processes over an infinite horizon.

#### Berger, Allen N.

**PD** December 1988. **TI** Collateral, Loan Quality, and Bank Risk. **AU** Berger, Allen N.; Udell, Gregory. **AA** Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 51; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 19. **PR** no charge. **JE** 315. **KW** Collateral. Credit. Banking. Loans.

**AB** Most commercial loans are made on a secured basis, yet little is known about the relationship between collateral and credit risk. Several theoretical papers find that when borrowers have private information about risk, the lowest risk borrowers tend to pledge collateral. In contrast, conventional wisdom in banking holds that when risk is observable, the highest risk borrowers tend to pledge collateral. An additional issue is whether secured loans (as opposed to secured borrowers) tend to be safer or riskier than unsecured loans. The empirical evidence in this paper strongly suggests that collateral is most often associated with riskier borrowers, riskier loans, and riskier banks.

#### Bergstrom, Ted

**TI** Log-Concave Probability and its Applications. **AU** Bagnoli, Mark; Bergstrom, Ted.

#### Berkowitz, M. K.

**TI** Precommitment and Financial Leverage: An Analysis of the Effects of Taxes. **AU** Aivazian, VA; Berkowitz, M. K.

#### Bernard, Jean Thomas

**PD** June 1989. **TI** Multinational Corporations, Transfer Prices, and Taxes: Evidence from the U.S. Petroleum Industry. **AU** Bernard, Jean Thomas; Weiner, Robert J. **AA** Bernard: Universite Laval. Weiner: Brandeis University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-07; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 39. **PR** \$7.50. **JE** 721, 723, 442, 521. **KW** Multinationals. Oil. Natural Resources. Tax Rates. Corporate Taxes.

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

#### Berndt, Ernst R.

**PD** April 1989. **TI** Economic Capacity Utilization and Productivity Measurement for Multiproduct Firms with Multiple Quasi-Fixed Inputs. **AU** Berndt, Ernst R.; Fuss Melvyn A. **AA** Berndt: Massachusetts Institute of Technology. Fuss: University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8908; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 36. **PR** no charge. **JE** 641, 226. **KW** Capacity Utilization. Productivity.

**AB** In this paper we develop measures of economic capacity output and economic capacity utilization for firms producing multiple outputs and having one or more quasi-fixed inputs. Although we produce an impossibility theorem showing that based only on the assumption of cost minimization, the concept of capacity output is undefined whenever the number of outputs  $I$  exceeds the number of fixed inputs  $M$ , we are able to provide alternative constructive procedures for defining capacity output whenever  $I < M$ . We also propose a number of additional primal and dual measures of utilization of the variable and fixed inputs, including a multi-fixed input analog to Tobin's  $q$ .

#### Bertocchi, Graziella

**PD** April 1988. **TI** Bubbles and Inefficiencies. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-15; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 26. **PR** No charge. **JE** 313, 311. **KW** Speculation. Capital Markets. Stochastic Model. Risk.

**AB** We study speculative behavior in a stochastic overlapping generations model with production, and we show how the intergenerational risk-sharing opportunities which are opened by speculative trades introduce a new motive for existence of worthless assets. If the economy is dynamically efficient, but not risk-sharing efficient, speculative bubbles may arise, when the impact of the factors reflecting risk-sharing considerations is sufficiently strong; in particular, the existence of bubbles is associated with low values of the (stochastic) marginal rate of substitution, and with high values of the risk premia and of the capital gains and losses associated with capital holdings.

**PD** April 1988. **TI** Asset Return Valuation and Capital Accumulation. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-13; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 54. **PR** No charge. **JE** 621, 522, 322, 022. **KW** Capital Accumulation. National Debt. Investment Technology. Uncertainty.

**AB** In a stochastic version of the Diamond (1965) model of capital accumulation, I examine the role of national debt as a safe asset when claims on physical capital are risky. I first analyze the impact of aggregate technological uncertainty on capital accumulation. National debt in this economy is a safe asset; a return valuation equation relates its yield to the return on risky capital, defining a risk premium. Welfare considerations show that national debt, which in the certainty case is a cure for oversaving, provides only partial insurance against technological uncertainty, and at the cost of a decline in productive savings; in the uncertainty case, the achievement of optimality is therefore not guaranteed by the introduction of national debt.

**PD** May 1989. **TI** Marketing of Public Debt: The Fixed-



Price Technique. AA Brown University. SR Brown University Department of Economics Working Paper: 89-19; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 23. PR No charge. JE 311, 023. KW Government Debt. Public Debt. Government Bonds. Monetary Policy.

AB Even if in many countries government debt is floated on a fixed price, rather than through competitive bidding, the literature on debt management has devoted little attention to studying a simple dynamical model where government bonds are marketed at a preset yield, rather than at a competitive one. An equilibrium is then obtained by introducing quantity constraints on trades of government securities. We show how equilibrium sequences with a ration on bond demand can exist under yield setting, and are associated with service costs that are higher than in the competitive case.

### Besley, Timothy

PD April 1989. TI Public Provision of Private Goods and the Redistribution of Income. AU Besley, Timothy; Coate, Stephen T. R. AA Besley: Princeton University. Coate: Harvard University. SR John M. Olin Program for the Study of Economic Organization and Public Policy: 36; Department of Economics/Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. PG 35. PR no charge. JE 614, 024, 022. KW Public Goods. Income Distribution. Public Sector.

AB In this paper we investigate the role that the public provision of private goods can play in the redistribution of income. We argue that many goods which are publicly provided can be thought of as being demanded discretely and that provision of such goods may be redistributive. The key conditions are that the publicly provided quality level is not "too high." Under these conditions, the rich will opt to consume a higher quality level in the private sector and the provision is effectively targeted to those with low incomes. We also characterize the socially optimal quality level and assess the desirability of redistribution through public provision when other redistributive instruments, such as income taxes, are available.

### Betancourt, Roger

PD January 1989. TI Demand Complementarities, Household Production, and Retail Assortments. AU Betancourt, Roger; Gautschi, David. AA Betancourt: University of Maryland, College Park. Gautschi: INSEAD, France. SR University of Maryland Department of Economics Working Paper Series: 89-11; Department of Economics, University of Maryland, College Park, MD 20742. PG 29. PR no charge. JE 611, 022, 531, 514. KW Distribution Services. Consumption. Retail Markets. Retail Trade.

AB This paper presents a formal model of retail demand, based upon a household production framework that permits rigorous analysis of retail assortments. The model captures the essential shifting of distribution costs between retailers and consumers that manifests itself in retailers' provision of distribution services for consumers. We apply the model to define rigorously conventional retailing concepts, such as assortment breadth and depth, and to explain the appearance of certain well-known phenomena such as market-basket pricing, non-price retail competition, and the incentives for retail agglomerations to form. Throughout, distribution services play

a critical role in binding together the analytical model and the diverse reality giving rise to retail assortments.

PD April 1989. TI Two Essential Characteristics of Retail Markets and their Economic Consequences. AU Betancourt, Roger; Gautschi, David. AA Betancourt: University of Maryland, College Park. Gautschi: INSEAD, France. SR University of Maryland Department of Economics Working Paper Series: 89-6; Department of Economics, University of Maryland, College Park, MD 20742. PG 34. PR no charge. JE 611, 022. KW Competition. Retail Markets. Distribution Services.

AB This paper views retail markets as composed of transactions between sellers and consumers where explicit products or services are exchanged together with a set of distribution services. The demand for retail products is rigorously derived from a household production model in which distribution services operate as fixed inputs in the household's production activities. The supply side is characterized in terms of a joint cost function for the retailer where the distribution services are treated as outputs. The resulting model allows for a shifting of distribution costs between consumers and retailers. This model is used to derive a number of pricing implications which, among other things, explain the differences in margins between supermarkets and department stores.

PD April 1989. TI Variations in the Speed of Capital Usage and the Aggregate Supply Curve. AU Betancourt, Roger; Madan, Dilip B. AA Betancourt: University of Maryland. Madan: College of Business and Management, University of Maryland. SR University of Maryland Department of Economics Working Paper Series: 89-8; Department of Economics, University of Maryland College Park, MD 20742. PG 13. PR no charge. JE 641, 824, 022, 023. KW Employment. Wages. Capital Utilization. Aggregate Supply.

AB Cost minimizing solutions for the duration of employment and the speed of capital usage are studied. It is shown that for certain technological assumptions short-run variations in output, wages and capital costs are adjusted to by altering speed, leaving duration unchanged. Procyclical real wage movements are shown to be consistent with neoclassical profit maximizing behavior, provided variations in speed are optimally chosen and real capital cost movements are countercyclical.

### Bhandari, Jagdeep S.

PD November 1988. TI Exchange Rate Reform and Structural Disturbances in a Dual Exchange Rate Economy. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/88/99; International Monetary Fund, Washington, DC 20431. PG 24. PR no charge. JE 431, 311. KW Exchange Rates. Devaluation. Currency. Foreign Exchange.

AB This paper analyzes the implications of devaluation and a variety of structural disturbances in a dual exchange rate economy. A key feature of the model developed is its explicit recognition of both private (fraudulent) and officially-sanctioned cross transactions between the two exchange markets. The principal lesson to be learned from the analysis is that popular notions as to the effects of devaluation or of other disturbances are to be viewed with considerable caution when the dual rate regime involves intermarket transactions.

**TI** Evolution of Exchange Rate Regimes. **AU** Flood, Robert P.; Bhandari, Jagdeep S.; Horne, Jocelyn P.

### **Bikhchandani, Sushil**

**PD** August 1987. **TI** A Doupoly Model of Pricing for Inventory Liquidation. **AU** Bikhchandani, Sushil; Mamer, John W. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-12; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 14. **PR** \$2.00; checks payable to U.C. Regents. **JE** 026, 022, 611. **KW** Doupoly. Inventory. Nash Equilibrium. Game Theory. Prices.

**AB** We consider the problem of pricing to liquidate inventory in a doupoly. The problem is modelled as a multi-player game with complete information. The unique Nash equilibrium for the game, which is also sequential, involves mixed strategies for the sellers. The equilibrium extends in a limited fashion to multi-period and many seller situations.

**PD** April 1988. **TI** A Characterization of Equilibria in Common Value Second-Price and Open-Exit Auctions. **AU** Bikhchandani, Sushil; Riley, John G. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-2; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 34. **PR** \$2.00; checks payable to U.C. Regents. **JE** 022, 213. **KW** Common Value. Auctions. Nash Equilibrium. Bidding.

**AB** A sufficient condition for uniqueness of Nash equilibrium in second-price, common value auctions is identified. We establish that there exists a continuum of equilibria in open-exit, common value auctions. For the case of two bidders, we provide plausible sufficient conditions under which the expected seller revenue is maximized at the symmetric equilibrium. An example in which the auctioneer's revenue at the symmetric equilibrium in a second-price auction is strictly greater than the revenue at many asymmetric equilibria in the corresponding open-exit auction is provided.

**PD** June 1988. **TI** A Bargaining Model with Incomplete Information. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-6; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 29. **PR** \$2.00; checks payable to U.C. Regents. **JE** 021, 026, 213. **KW** Bargaining. Equilibrium Theory. Sequential Equilibrium. Incomplete Information.

**AB** Multiplicity of sequential equilibria is a common problem in bargaining models with incomplete information in which the informed player makes an offer. Most of these equilibria are supported by optimistic disequilibrium beliefs by the uninformed player. This paper re-examines the bargaining model in Rubinstein. We select only those sequential equilibria which are robust to an inessential transformation in the game tree. This provides a natural way in which to exclude equilibria supported by optimistic disequilibrium beliefs. A randomized strategy sequential equilibrium that satisfies our criterion is obtained for a range of parameter values and limit properties of this equilibrium are established.

**PD** June 1988. **TI** Auction with Resale Markets: A Model

of Treasury Bill Auctions. **AU** Bikhchandani, Sushil; Huang, Chi fu. **AA** Bikhchandani: University of California, Los Angeles. Huang: Massachusetts Institute of Technology. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-4; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 33. **PR** \$2.00; checks payable to U.C. Regents. **JE** 022, 313. **KW** Auctions. Resale Markets. Treasury Bills. Auction. Bidding.

**AB** This paper develops a model of competitive bidding with a resale market. The primary market is modelled as a common-value auction, where bidders participate for the purpose of resale. After the auction the winning bidders sell the objects in a secondary market. Buyers on the secondary market do not have any private information about the true value of the objects. All their information is publicly known and includes information on the bids submitted in the auction. The effect of this information linkage between the primary auction and the secondary market on bidding behavior of the primary auction bidders is examined. The auctioneer's expected revenues from organizing the primary market as a discriminatory auction versus a uniform-price auction are compared, and plausible sufficient conditions under which the uniform-price auction yields higher expected revenues are obtained.

### **Bils, Mark Joseph**

**PD** July 1989. **TI** Testing for Contracting Effects on Employment. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 3051; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** \$2.00. **JE** 824, 832, 821. **KW** Wages. Wage Contracts. Bargaining. Wage Rigidities. Employment.

**Manufacturing.**

**AB** I test the importance of wage rigidities from long-term contracts by observing how employment behaves when firms and workers recontract. If rigidities are important then we should observe employment adjusting after recontracting to undo movements in employment during the past contract that were excessive due to rigid wages. The data are for twelve manufacturing industries that display a strong bargaining pattern. I find that contract rigidities are important, causing considerably larger fluctuations in employment than would occur with flexible wages. By far the most striking case is in motor vehicles where long-term contracts much more than double the size of fluctuations in employment.

**PD** July 1989. **TI** Cyclical Pricing of Durable Goods. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 3050; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 48. **PR** \$2.00. **JE** 227, 131, 133, 825. **KW** Price Markup. Prices. Monopoly. Productivity.

**AB** I examine price markups in monopolistically-competitive markets that experience fluctuations in demand because the economy experiences cyclical fluctuations in productivity. Markups depend positively on the average income of purchasers in the market. For a nondurable good average income of purchasers is procyclical; so the markup is procyclical. For a durable good, however, the average income of purchasers is likely to decrease in booms because low income consumers of the good concentrate their purchases in

boom periods; so the markup is likely countercyclical. This is particularly true for growing markets. I find markups make the aggregate economy fluctuate more in response to productivity if goods are sufficiently durable.

### **Binmore, Ken**

**PD** 1989. **TI** Noncooperative Models of Bargaining. **AU** Binmore, Ken; Osborne, Martin J.; Rubinstein, Ariel. **AA** Binmore: University of Michigan. Osborne: McMaster University. Rubinstein: The Hebrew University. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-26; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 37. **PR** No charge. **JE** 026. **KW** Noncooperative Games. Bargaining. Game Theory. Bargaining Theory.

**AB** In the past decade John Nash's (1950, 1953) pioneering work on noncooperative bargaining theory has been taken up again and developed by numerous authors. We see three directions in which progress has been particularly fruitful: 1. Sequential models have been introduced in studying specific bargaining procedures. 2. Refinements of Nash equilibrium have been applied. 3. Bargaining models have been embedded in market situations to provide insights into markets with decentralized trading. In spite of this progress. Important challenges are still ahead. The most pressing is that of establishing a properly founded theory of bargaining under incomplete information.

**PD** January 1989. **TI** Do People Exploit their Bargaining Power? An Experimental Study. **AU** Binmore, Ken; Morgan, Peter; Shaked, Avner; Sutton, John. **AA** University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-15; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 25. **PR** No charge. **JE** 026. **KW** Bargaining. Experimental Economics. Strategic Behavior. Game Theory.

**AB** Human behavior, even in simple bargaining situations, is not well understood. Numerous rival theories compete for attention, but the data is seldom adequate to justify a rejection of one in favor of another. It is often not even clear what the significant control variables are. This paper seeks to shed light on only one small aspect of the problem. It describes an experimental attempt to compare the predictions of two qualitatively distinct types of theory. Firstly there are the fairness/focal theories of bargaining behavior as propounded by Guth (1986), Roth (1985), Selten (1978) and others. Secondly, there are the strategic theories of bargaining behavior, notably that of Rubinstein (1982).

### **Blackburn, Keith**

**PD** April 1989. **TI** Credibility and Time Consistency in Monetary Policy. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8906; Department of Economics, University of Southampton, Southampton, S09 5NH, ENGLAND. **PG** 32. **PR** No charge. **JE** 311, 133, 131. **KW** Monetary Policy. Stabilization Policy.

**AB** How does time inconsistency arise in optimal monetary policy? What steps might society take to alleviate the problem? In the absence of commitments, are there other mechanisms that may do the trick? What are the implications of private information? Is the case for stabilization policy qualified in a

strategic environment? And under what other circumstances might credibility problems arise? These and many more issues are discussed in the following sections.

### **Blanchflower, D.**

**PD** May 1989. **TI** Wages and House Prices: Cross-Section Evidence. **AU** Blanchflower, D.; Oswald, Andrew J. **AA** Blanchflower: University of Surrey. Oswald: Centre for Labour Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 345; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 10. **PR** no charge. **JE** 824, 932. **KW** Wages. Housing. Unemployment.

**AB** The paper uses cross-section data to examine claims that wage pressure depends on (i) house price levels, (ii) the rate of change of unemployment and (iii) the proportion of long term unemployment. The results are consistent with (i), namely, that house prices affect wage formation (in accordance with Bover, Muellbauer and Murphy). Effects (ii) and (iii) are not found.

### **Blank, Rebecca M.**

**PD** February 1989. **TI** Recent Trends in Housing Conditions among the Urban Poor. **AU** Blank, Rebecca M.; Rosen, Harvey S. **AA** Blank: Princeton University and Massachusetts Institute of Technology. Rosen: Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 35; Department of Economics/Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 30. **PR** no charge. **JE** 932, 931, 914, 921. **KW** Housing. Poverty. Urban Economics. Households. Homeowners.

**AB** In this paper we examine the trends in housing conditions among the urban poor over the last decade, relate these trends to the economic environments of the cities, and compare the poor to other income groups. We find that there has been a substantial decrease in "housing independence" among the poor, the percentage of family heads who live with their parents has risen, and the percentage of family heads who are also household heads has fallen. This paper provides little evidence for the popular hypothesis that changes in housing attributes over the last decade are predominantly related to changes in housing markets.

### **Blejer, Mario I.**

**PD** November 1988. **TI** The Fiscal Implications of Trade Liberalization. **AU** Blejer, Mario I.; Cheasty, Adrienne. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/102; International Monetary Fund, Washington, D.C. 20431. **PG** 15. **PR** no charge. **JE** 421, 422, 431, 411. **KW** Trade Policy. Exchange Rates. Government Spending. Adjustment Costs.

**AB** Trade liberalization affects not only the external sector, production and prices, but also the fiscal balance, through changes in tariff revenue, and through the sensitivity of the budget to induced changes in the exchange rate and in the level and distribution of income and employment. This paper discusses the effects of liberalization on the budget, which may differ in the short- and long-run. The short-run cost of adjustment to open trade could force the government to reverse the liberalization even if longer-term benefits could be realized. Long-run budget gains are more likely when the tax and transfer systems are broad, neutral, and efficiently administered.

**Bloom, David E.**

**PD** February 1989. **TI** The Labor Force Implications of Expanding the Child Care Industry. **AU** Bloom, David E.; Steen, Todd P. **AA** Bloom: Columbia University. Steen: Hope College. **SR** Columbia Department of Economics Working Paper: 422; Department of Economics, Columbia University, New York, New York 10027. **PG** 50. **PR** \$5.00. **JE** 822, 824, 826, 821. **KW** Labor Force. Child Care. Females. Labor Supply.

**AB** This paper researches the labor force implications of increased social investment in the child care industry. We have two main conclusions to report. First, expanding the child care industry will remove a major barrier to employment for a sizable number of women. Second, expanding the child care industry will help employers cope with a range of personnel problems they will increasingly face as the U.S. undergoes a major transition from being a labor surplus economy to being a labor shortage economy.

**PD** July 1989. **TI** An Analysis of the Earnings of Canadian Immigrants. **AU** Bloom, David E.; Gunderson, Morley. **AA** Bloom: Columbia University. Gunderson: University of Toronto. **SR** National Bureau of Economic Research Working Paper: 3035; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** \$2.00. **JE** 823, 824, 822. **KW** Immigration. Wages. Immigration Policy. Income Distribution.

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

**Boadway, Robin W.**

**PD** January 1989. **TI** Optimal Public Sector Employment Policy with Endogenous Involuntary Unemployment. **AU** Boadway, Robin W.; Marchand, Maurice; Pestieau, Pierre. **AA** Boadway: Queen's University. Marchand: Universite Catholique de Louvain. Pestieau: Universite de Liege. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8902; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 44. **PR** no charge. **JE** 822, 824, 821. **KW** Employment. Wages. Public Sector. Efficiency Wages.

**AB** This paper analyzes optimal employment and wage policies in the public sector in a model with endogenous involuntary unemployment. Two versions of efficiency wage models are used to generate the unemployment. One is the shirking model, and the other is the turnover model. A public sector is introduced into these models, where shirking or turnover costs are also present in the public sector. Optimal wage and employment policies are derived for the public sector in the absence and presence of wage subsidies. In both models, the shadow wage generally differs from the market wage, but it may be either higher or lower depending upon the parameters of the problem and whether or not there is free entry in the private sector.

**Bodie, Zvi**

**PD** July 1989. **TI** Labor Supply Flexibility and Portfolio Choice. **AU** Bodie, Zvi; Samuelson, William. **AA** Boston University. **SR** National Bureau of Economic Research Working Paper: 3043; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$2.00. **JE** 921, 313. **KW** Labor Supply. Financial Markets. Investment. Portfolios. Risky Assets.

**AB** This paper develops a model showing that people who have flexibility in choosing how much to work will prefer to invest substantially more of their money in risky assets than if they had no such flexibility. Viewed in this way, labor supply flexibility offers insurance against adverse investment outcomes. The model provides support for the conventional wisdom that the young can tolerate more risk in their investment portfolios than the old. This model implies that households will take account of the value of labor supply flexibility in deciding how much to invest in their own human capital and when to retire.

**Boehm, Stephan**

**PD** January 1989. **TI** The Austrian Tradition: Schumpeter and Mises. **AA** New York University. **SR** New York University Economic Research Reports: 89-02; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 59. **PR** none. **JE** 031. **KW** Economic Thought. Entrepreneurship. Disequilibrium. Equilibrium Theory.

**AB** The intention underlying this paper is to survey and critically evaluate the vast interpretive literature -- particularly that forthcoming since World War Two -- on two Austrian-born economists, Schumpeter and Mises. As such, it cannot claim originality. Rather than providing a customary history-of-economic-thought assessment of their work per se, the overriding concern is with the dynamics, lacunae, strengths, and limits of the commentaries enunciated on the economics of Schumpeter and Mises. Needless to say, within the proverbial confines of a single paper, the account is bound to be highly selective.

**Bogart, William T.**

**PD** May 1989. **TI** Capitalization and the Efficiency Argument for Equalizing Grants. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 39; Department of Economics/Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 25. **PR** no charge. **JE** 324. **KW** Capitalization. Grants. State Government. Government.

**AB** Equalizing grants are typically justified on the basis of perceived vertical or horizontal inequities. There has also been an economic efficiency argument for them based on incomplete capitalization is neither a necessary nor a sufficient condition for an equalizing grants program. A model of local communities with complete capitalization is presented. An inefficiency, exclusionary zoning, is pointed out. Two types of equalizing grants programs that mitigate this inefficiency are discussed.

**Bonin, John P.**

**PD** September 1987. **TI** Incentives and Monitoring in Cooperatives under Labor-Proportionate Sharing Schemes. **AU** Bonin, John P.; Putterman, Louis. **AA** Bonin:

Wesleyan University. Putterman: Brown University. **SR** Brown University Department of Economics Working Paper: 87-18; Department of Economics, Brown University, Providence, RI 02912. **PG** 35. **PR** No charge. **JE** 824, 821, 027, 022. **KW** Monitoring. Cooperatives. Incentives. Payment System.

**AB** The notion that the work incentives generated by the payment rules of producers' cooperatives or labor-managed firms are inherently deficient runs counter to a large body of specialized theoretical literature. The purpose of the present paper is to extend existing models of **PC** internal incentives in which the payment system is assumed to be by share of the labor input, "needs", or a mix of the two, to the case in which measurement of labor input is imperfect and costly.

### Bonnisseau, Jean Marc

**PD** 1988. **TI** Existence of Marginal Cost Pricing Equilibria: The Nonsmooth Case. **AU** Bonnisseau, Jean Marc; Cornet, Bernard. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8815; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 30. **PR** no charge. **JE** 022, 213. **KW** Marginal Cost. Prices. Production Functions.

**AB** In this article we report a general existence theorem of a marginal (cost) pricing equilibrium for an economy which may exhibit increasing returns to scale or more general types of nonconvexities in the production sector. Our model considers an arbitrary number of firms and no smoothness assumption is made on their production sets or on the aggregate production set.

### Bordes, Christian

**PD** February 1989. **TI** The Macroeconomic Implications of Financial Deregulation. **AU** Bordes, Christian; Melitz, Jacques. **AA** Melitz: INSEE. Border: Universite de Limoges. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8901; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 36. **PR** no charge. **JE** 311, 312, 023. **KW** Deregulation. Monetary Policy. Bank Failure. Interest Rates. Lending. Inflation. Banking.

**AB** This paper explores the possible macroeconomic consequences of financial deregulation in an institutional environment where deregulation raises risks in banking. The central bank is supposed to maximize an objective function in which the probability of bank failure is an argument. It is then shown that the usual tradeoffs between policy objectives imply that financial deregulation will affect optimal monetary policy. The framework for the discussion is a Poole model with a Lucas-supply function and imperfect wage indexation. The analysis deals separately with the stationary equilibrium and the movement from regulation to deregulation.

**PD** June 1989. **TI** The Macroeconomic Implications of Financial Deregulation. **AU** Bordes, Christian; Melitz, Jacques. **AA** Bordes: Faculte de Droit et des Sciences Economiques, Universite de Limoges. Melitz: INSEE. **SR** Centre for Economic Policy Research Discussion Paper: 309; Centre for Economic Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 30. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** 312, 311. **KW** Banking. Regulation. Monetary Policy. Bank Failure.

**AB** See additional entry under this author.

**PD** July 1989. **TI** Business Debt and Default in France. **AU** Bordes, Christian; Melitz, Jacques. **AA** Bordes: Faculte de Droit et des Sciences Economiques, Universite de Limoges. Melitz: INSEE. **SR** Centre for Economic Policy Research Discussion Paper: 333; 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** 521, 131. **KW** Bankruptcy. Debt. Financial Markets. Fluctuations.

**AB** On the basis of quarterly data in 1977-87 and the use of the Engle-Granger method of co-integration, we find that real and financial factors, insolvency and illiquidity, are all important, separate influences on the defaults of French firms. We capture the effect of illiquidity by constructing stationary series to represent both cyclical departures of output from normal levels and deviations of financial prices from "fundamentals". We reflect the impact of financial factors by using debt-output ratios and real interest rates. These last two variables emerge as influences on business defaults in the long run and the short run, which we interpret to mean that business indebtedness affects both solvency and liquidity. Real wages and the terms of trade appear to affect solvency alone.

### Bos, Dieter

**PD** December 1988. **TI** Tax Reform in Germany. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-229; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** No charge. **JE** 323. **KW** Tax Reform. Direct Taxes. Indirect Taxes. Tax Rates. Political Tax Cycle.

**AB** There is not much of a theoretical basis for the German income tax reform. The discussion of both theory and practice concentrated on the redistributive effects of the new rate structure. The influence of the income tax on the labor-leisure choice and on investments of small and medium-sized firms has been mentioned by theorists and by practitioners, but has not been elaborated. I shall argue that the reform of the rate structure can only be understood on the basis of the German accentuation of the taxonomy of tax functions and the absence of a sophisticated treatment of tax-related labor-leisure distortions. Section 3 will be devoted to the distributional consequences of the tax reform, including tax relief for families.

### Bound, John

**PD** June 1989. **TI** Self-Reported vs. Objective Measures of Health in Retirement Models. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 2997; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$2.00. **JE** 824, 913. **KW** Labor Supply. Health. Employment.

**AB** Labor supply estimates are sensitive to the measures of health used. When self reported measures are used health seems to play a larger role and economic factors a smaller one than when more objective measures are used. While most authors have interpreted these results as an indication of the biases inherent in using self-reported measures, there are reasons to be suspicious of estimates based on more objective measures as well. In this paper I construct a statistical model incorporating both self-reported and objective measures of

health. I use the model to show the potential biases involved in using either measure of health or in using one to instrument the other. When outside information on the validity of self-reported measures of health are incorporated into the model estimates suggest that the self-reported measures of health perform better than many have believed.

#### **Bovenberg, A. Lans**

**PD** December 1988. **TI** Tax Policy and National Savings in the United States: A Survey. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/110; International Monetary Fund, Washington, D.C. 20431. **PG** 24. **PR** no charge. **JE** 323, 322, 313, 221. **KW** Tax Policy. Taxes. Savings. Investment.

**AB** This paper explores how tax policy affects the level and allocation of national savings in the United States. It argues that the effect of taxes on the overall private saving level is relatively small and uncertain and that raising public saving is the most direct and efficient way to raise national saving. However, the tax system has a powerful impact on the composition of savings and investment. The paper suggests various specific tax measures that would not only raise government revenue but also enhance the efficiency of savings and investment.

#### **Bowen, Harry P.**

**PD** August 1989. **TI** Judging Factor Abundance. **AU** Bowen, Harry P.; Sveikauskas, Leo. **AA** Bowen: New York University. Sveikauskas: Bureau of Labor Statistics. **SR** National Bureau of Economic Research Working Paper: 3059; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** \$2.00. **JE** 641, 226, 442. **KW** Trade Balance. Factors of Production. Land. Labor. Capital.

**AB** Recent theoretical developments have cast doubt on the reliability of the commonly used cross-industry regression as a method for inferring a country's abundant factors. This paper examines the empirical importance of these theoretical cautions by comparing regression derived estimates of factor abundance with both revealed and actual factor abundances for thirty-five countries and up to twelve resources. Trade imbalances are found to importantly affect the regression estimates and we therefore derive and implement a theoretically consistent trade balance correction. The indicate that despite theoretical concerns, the regression measures are reliable indicators of revealed factor abundances. The results therefore enhance the credibility of the findings of the numerous regression studies that have been conducted over the past thirty years.

#### **Bowes, Michael D.**

**PD** January 1989. **TI** Temporal Aggregation in FORPLAN Linear Programs. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR89-03; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 56. **PR** \$5.00 (U.S. funds only). **JE** 721, 722, 214. **KW** National Forests. Forestry. Linear Programming.

**AB** This paper provides a review and analysis of the FORPLAN linear programming methods used for national forest planning. It is suggested that alternatives to standard modelling approaches could both reduce the excessive model size and be more helpful in the decision on current management

plans. We illustrate methods for building Forplan models with a two-staged temporal structure. These models encourage greater attention to current management choices and allow for a reduction in the unnecessary detail with which the future forest is modeled.

**TI** Management of Watersheds for Augmented Water Yields-Plumas National Forest. **AU** Krutilla, John V.; Bowes, Michael D.; Stockton, Thomas B.

#### **Bradford, David F.**

**PD** May 1989. **TI** Tax Expenditures and the Problem of Accounting for Government. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 38; Department of Economics/Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 30. **PR** no charge. **JE** 321, 322, 323. **KW** Accounting. Taxes. Governments. Government Spending. Fiscal Policy.

**AB** Tax expenditure lists have become a standard item of information about the U.S. fiscal system and are widely used in other countries as well. The lists are controversial largely because they are derived by identifying tax provisions that are deemed to deviate from some standard or reference system, and the reference system is often represented as a kind of ideal. In this paper I draw attention to two desirable avenues to improve the accounting for government. The first amounts to evolutionary development of the tax expenditure concept, emphasizing improved interpretation. The second, and ultimately more important, avenue is a radical reconstruction of the accounts for spending and taxing alike to put them on an economically meaningful basis.

#### **Brander, James A.**

**PD** August 1989. **TI** Election Polls, Free Trade, and the Stock Market: Evidence from the 1988 Canadian General Election. **AA** Australian National University. **SR** National Bureau of Economic Research Working Paper: 3073; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** 441, 025, 321. **KW** Fiscal Policy. Elections. Election Polls. Canada. Free Trade.

**AB** This paper examines the relationship between the Toronto Stock Exchange (TSE) and election polls during the 1988 Canadian General Election campaign. Two hypotheses are investigated: first, did polls influence the TSE, and secondly, if so, did the nature of the influence suggest that investors were reacting to expectations concerning the effect of the Canada-U.S. Free Trade Agreement (FTA)? I find that the TSE was positively related to Conservative popularity as measured by polls, but that the differential movement of TSE subindices does not offer additional support to an FTA based interpretation of events.

**PD** August 1989. **TI** Taxation of Foreign-Owned Land. **AA** University of British Columbia. **SR** National Bureau of Economic Research Working Paper: 3070; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 10. **PR** \$2.00. **JE** 441, 323, 024. **KW** Tax Policy. International Investment. Land.

**AB** This paper examines the welfare effects of a tax on foreign purchases of Domestic land. Using a simple static framework the paper shows that an appropriately chosen tax will generally be welfare-improving for the domestic country.

**Bregman, Arie**

**PD** May 1989. **TI** High Tech and Productivity: Evidence from Israeli Industrial Firms. **AU** Bregman, Arie; Fuss, Melvyn A.; Regev, Haim. **AA** Bregman: Bank of Israel, Jerusalem. Fuss: University of Toronto. Regev: Israel Central Bureau of Statistics, Jerusalem. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8909; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 40. **PR** no charge. **JE** 621, 813, 226. **KW** Productivity. Technology. Labor Force. Industrialization.

**AB** The main purpose of this study is to characterize and analyze high technology industrial firms. Our empirical results pertain to Israel, for which we possess a unique individual firm data set. This study is based on an analysis of 670 establishments in Israel for the year 1982. Not only do we have basic operating input and output production data, but also each firm's capital stock revalued to 1982 dollars. A technology index is constructed from three technological indicators -- substantial R&D investment, a high proportion of the work force consisting of engineers and technicians, and a high proportion of the capital stock being of recent vintages. This technology index is used to classify firms.

**Brown, Charles**

**PD** August 1989. **TI** Firms' Choice of Method of Pay. **AA** University of Michigan, Ann Arbor. **SR** National Bureau of Economic Research Working Paper: 3065; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$2.00. **JE** 824, 825, 821. **KW** Merit Pay. Wages. Productivity.

**AB** Three types of pay-setting methods are piece rates (pay mechanically linked to output), merit pay (pay based on less formal judgements by one's supervisor), and standard rates (pay based on one's job classification and perhaps seniority, but not directly on performance). Firm's choice among methods depends on balancing the gains from more precise links between performance and pay against the costs of either precise or judgmental measures of output. Using data from the BLS Industry Wage Study program, hypotheses suggested by this observation are tested and for the most part confirmed.

**Brown, E. Cary**

**PD** March 1989. **TI** Alvin H. Hansen's Contributions to Business Cycle Analysis. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 515; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 10. **PR** No charge. **JE** 031, 036, 133. **KW** Business Cycles. Stabilization Policy. Economic Thought. Economic Methodology.

**AB** Alvin H. Hansen (1886-1895) approached business cycle analysis broadly from the theoretical, statistical, structural, and historic views. From an orthodox position that gave primary emphasis to investment fluctuations he became the leading protagonist of the Keynesian analysis in the United States, extending and stimulating its application to business cycle analysis and stabilization policy. The development of compensatory fiscal policy as a complement to monetary policy received was given great impetus by his work.

**Bruce, Neil**

**PD** June 1989. **TI** Defense Expenditures by Countries in

Allied and Adversarial Relationships. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 745; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 36. **PR** \$3.00 Canada; \$3.50 U.S. and Foreign. **JE** 114, 322, 026, 024. **KW** Arms Race. Public Goods. National Security. Defense Spending. Military. Treaty.

**AB** In this paper, the linkage between a country's national security and the defense spending of its allies and adversaries is modelled. In this way, the cost of an arms race between adversaries is introduced into the alliance public good framework of Olson and Zeckhauser. It is shown that, contrary to the Olson-Zeckhauser presumption, a cooperative treaty to increase defense spending in an alliance may actually make it worse off. Further, even where the treaty makes an alliance better off, *ceteris paribus*, such treaty making may constitute a form of the prisoner's dilemma for the world as a whole with both sides worse off than in the absence of cooperative treaties.

**Brunello, G.**

**PD** October 1989. **TI** The Determinants of Wage Flexibility in Japan: Some Lessons from a Comparison with the UK using Micro-Data. **AU** Brunello, G.; Wadhvani, Sushil B. **AA** Brunello: Osaka. Wadhvani: London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 362; Centre for Labour Economics, London School of Economics, Houghton Street, London ENGLAND, WC2A 2AE. **PG** 43. **PR** No charge. **JE** 824, 825, 821. **KW** Productivity. Firm Size. Wages. Unemployment.

**AB** Using microeconomic datasets, this paper shows that in comparing wage behavior in large Japanese and British firms: (i) There is no substantial difference in the responsiveness of wages to unemployment. (ii) "Insider" forces play a more important role in explaining wages in Japan. Further, in both countries, wages in small firms are more responsive to unemployment than wages in large firms. Also, wages in small firms do not vary positively with increases in productivity in small firms. On the basis of these findings, it is argued that it is unlikely that the oft-observed flexibility of aggregate wages in Japan arises from different labor market institutions or policies, but more plausibly derives from the fact that the proportion of Japanese employees who work in small firms is substantially higher than other OECD countries.

**Burrows, Peter M.**

**TI** Interpretation and Use of Generalized Chow Tests. **AU** Cantrell, R. Stephen; Burrows, Peter M.; Vuong, Quang H.

**Burton, John F., Jr**

**TI** The Employers' Costs of Workers' Compensation Insurance: Magnitudes, Determinants, and Public Policy. **AU** Krueger, Alan B.; Burton, John F., Jr.

**Caballero, Ricardo J.**

**PD** January 1989. **TI** The S-s Economy: Aggregation, Speed of Convergence and Monetary Policy Effectiveness. **AU** Caballero, Ricardo J.; Engel, Eduardo **MRA**. **AA** Caballero: Columbia University. Engel: Massachusetts Institute of Technology. **SR** Columbia Department of Economics Working Paper: 420; Department of Economics, Columbia University, New York, New York 10027. **PG** 71.

- PR** \$5.00. **JE** 511, 514, 311, 133. **KW** Menu Costs. Monetary Policy. Price Distribution. Prices.
- AB** The behavior of prices and output in an economy with "menu costs" of price setting, or "near rational" price setters, has been the focus of much research in recent macroeconomics. The role of monetary policy in such an economy depends crucially on the distribution of firms' price deviations from their optima. We call the latter "distribution of prices" for short. Caplin and Spulber (1987) showed that when firms follow one side S-s rules (in response to the presence of menu costs or near rationality), individual price stickiness does not necessarily render monetary policy effective. In particular, they show that if prices are distributed uniformly within the S-s bands, small changes in the money stock are neutral. Our paper studies the behavior of S-s economies when the initial distribution of prices is not uniform.
- PD** May 1989. **TI** Internal versus External Economies in European Industry. **AU** Caballero, Ricardo J.; Lyons, Richard K. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 427; Department of Economics, Columbia University, New York, New York 10027. **PG** 20. **PR** \$5.00. **JE** 631, 122. **KW** Internal Economies. External Economies. Europe. Manufacturing.
- AB** This paper presents estimates of an index of returns to scale for two-digit manufacturing industries in the four European countries for which the requisite data are available in adequate length: West Germany, France, the U.K., and Belgium. The strength of our approach is that it permits us to discriminate between internal and external economies. Overall, we find very little evidence of internal economies: of the thirteen two-digit industries, only Rubber and Plastic Products, Agricultural and Industrial Machinery, and Mineral Products exhibits any significant internal economies, and for none of the three is internal economies present in more than two of the four countries. Nevertheless, evidence of external economies exists for all four countries, the effects of which are especially strong in France and Belgium.
- PD** May 1989. **TI** Time Dependent Rules, Aggregate Stickiness and Information Externalities. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 428; Department of Economics, Columbia University, New York, New York 10027. **PG** 31. **PR** \$5.00. **JE** 227, 023. **KW** Time Dependent Rules. Information. Externalities. Price Rigidity.
- AB** Most of the recent studies of price rigidities using time dependent models either impose such a rule or -if optimal-complement it with some sort of extraneous price rigidity. This paper concentrates on the characteristics and implications of time dependent rules when derived from first principles. The source of such rules is some cost of gathering information about the state. In this context if information externalities are present sampling is uniformly staggered. Prices, however, change every time new information arrives, therefore need not be staggered. In spite of this, when this mechanism is combined with signal extraction problems, nominal shocks have more persistent-although smaller-effects than in economies with no information externalities.
- PD** May 1989. **TI** The Role of External Economies in U.S. Manufacturing. **AU** Caballero, Ricardo J.; Lyons, Richard K. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 431; Department of Economics, Columbia University, New York, New York 10027. **PG** 26. **PR** \$5.00. **JE** 631. **KW** External Economies. Manufacturing. Returns to Scale.
- AB** This paper develops a method for joint estimation of both the degree of internal returns to scale and the extent of external economies. We apply the method in estimating returns to scale indexes for U.S. manufacturing industries at the two-digit level. Overall, we find that only three of the twenty industry categories show any evidence of internal increasing returns: (1) Primary Metals, (2) Electrical Machinery, and (3) Paper Products. More striking, however, is the very strong evidence of the existence of external economies, where external is defined as external to a given two-digit industry and internal to the U.S. According to our preferred estimates, if all manufacturing industries simultaneously raise their inputs by 10%, aggregate manufacturing production rises by 13%, of which about 15% is due to external economies. Thus, when an industry increases its inputs in isolation by 10%, its output rises by no more than 8%.
- PD** June 1989. **TI** Competition and the Non-Robustness of the Investment-Uncertainty Relationship. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 432; Department of Economics, Columbia University, New York, New York 10027. **PG** 14. **PR** \$5.00. **JE** 313, 522, 611, 022. **KW** Competition. Investment. Uncertainty. Adjustment Costs.
- AB** This paper shows that the presence of asymmetric adjustment costs (of which irreversible investment is an extreme case) is not sufficient to render a negative relationship between investment and uncertainty. Some non-negligible degree of imperfect competition (or decreasing return to scale) is also required. In fact, the Hartman-Abel result (positive relationship between investment and uncertainty) for symmetric and convex adjustment costs under perfect competition carries over to the case of asymmetric adjustment costs. Conversely, when the asymmetry of adjustment costs is large and the negative dependence of the marginal profitability of the capital on the level of capital is strong (i.e. there is an important degree of imperfect competition or decreasing returns to scale), the investment-uncertainty relationship becomes negative. The irreversible investment arguments analyzed in the literature typically corresponds to this case.
- PD** July 1989. **TI** The Role of External Economies in U.S. Manufacturing. **AU** Caballero, Ricardo J.; Lyons, Richard K. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 3033; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$2.00. **JE** 631, 611. **KW** Returns to Scale. Manufacturing. External Economies.
- AB** See additional entry under this author.
- Callahan, Joseph**
- PD** February 1989. **TI** The San Francisco Bay/Delta Striped Bass Fishery: Anatomy of a Decline. **AU** Callahan, Joseph; Fisher, Anthony C.; Templeton, Scott. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 499; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 97. **PR** \$19.40. **JE** 721, 722. **KW** Fishery. Pollution. Fishing. Fish Reserves.
- AB** The striped bass population in the San Francisco



Bay/Delta estuary has been declining over the past two decades. Though the decline has been studied intensively, the causes are not completely understood. In this report we provide a review of theories about the decline, empirical evidence, and relevant experimental results. We also suggest what sort of research might help us better understand the fishery population dynamics, especially as they are affected by changes in the Bay/Delta hydrological regime.

### Calvo, Guillermo A.

**PD** January 1989. **TI** A Delicate Equilibrium: Debt Relief and Default Penalties in an International Context. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/10; International Monetary Fund, Washington, D.C. 20431. **PG** 22. **PR** No charge. **JE** 443, 433. **KW** Debt Relief. International Loans. Debt Crisis. Debtor Nation.

**AB** Debt relief and penalties are discussed in connection with sovereign country loans. We focus on conditions for the existence of penalties that are too low for ensuring Pareto efficiency, and show the possible time inconsistency of optimal debt contracts. A methodology for ascertaining debt relief implicit in international loans is outlined.

### Canova, Fabio

**PD** October 1987. **TI** On the Time Varying Risk Premium in the Yen/Dollar Exchange Market. **AU** Canova, Fabio; Ito, Takatoshi. **AA** Canova: Brown University. Ito: University of Minnesota and National Bureau of Economic Research. **SR** Brown University Department of Economics Working Paper: 87-17; Department of Economics, Brown University, Providence, RI 02912. **PG** 22. **PR** No charge. **JE** 431, 131, 132. **KW** Exchange Rates. Risk Premium. Forecasting. Fluctuations.

**AB** The purpose of this paper is two-fold. First, a vector autoregressive model (VAR) is constructed to investigate the relative importance of monetary and real factors in the determination of the yen/dollar exchange rate. Second, the forecasts from the VAR model are used to calculate a risk premium series. We show that real factors, represented by the stock price indices, statistically account for the dollar appreciation better than monetary factors, represented by the interest rates. The dynamic structure of interdependence between the exchange rate and the domestic variables changed considerably after October 1982.

**PD** January 1988. **TI** The Sources of Financial Panics: Pre and Post Fed Evidence. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-1; Department of Economics, Brown University, Providence, RI 02912. **PG** 31. **PR** No charge. **JE** 311, 131. **KW** Financial Crisis. Seasonality. Federal Reserve. Money Market.

**AB** This paper investigates questions regarding the predictability of financial crises, their structural determinants and the changes introduced by the creation of the Fed on these structural determinants. The analysis shows that previous views of seasonally driven financial crises are partially supported by the data. However, the historical evidence is better explained by Jevons' (1884) position, that crises occurred because of unexpected events on a regular seasonal pattern. Using a structural VAR model it is shown that external monetary shocks to the U.S. market were the driving force for interest rate and stock price variability before 1914 and

generated responses in variables which closely mimic the occurrence of crises.

**PD** January 1988. **TI** An Econometric Analysis of the Disappearance of Interest Rates Seasonals: Real Factors or the Fed? **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-9; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 26. **PR** No charge. **JE** 131, 133, 042, 411. **KW** Seasonality. Interest Rates. Arbitrage. Economic History. **AB** This paper describes the seasonal patterns of U.S. macro variables at the beginning of the century and attempts to resolve the question of what caused seasonality in interest rates to disappear after 1914. Using a general definition of seasonality and alternative statistical techniques it is found that seasonality in high powered money is significant before 1914 and that the disappearance of interest rate seasonals after 1914 is the result if changes in the real side of the economy. Internationally, while the breakdown of the Gold Standard is responsible for the disappearance of seasonality in European Central Bank discount rates, there are certain private rates in which seasonality persists. The asymmetric behavior of interest rates across countries did not cause unexploited arbitrage opportunities to exist.

**PD** January 1989. **TI** Several Nonparametric Tests for the Existence of Hidden Periodicities in Time Series. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-2; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 29. **PR** No charge. **JE** 131, 132, 133, 211. **KW** Time Series Model. Asymptotic Theory. Seasonality. Business Cycle.

**AB** Three tests for the existence of cycles in univariate time series are proposed and applied to actual data. The properties of the integrated spectrum are employed to derive the asymptotic distribution of the tests. The power of the tests is computed using simulated data. A statistic to test for the equality of cycles of different length in univariate time series is also constructed and applied to detect the existence of similarities in the seasonal and the business cycle in the U.S.

**PD** March 1989. **TI** An Empirical Analysis of Ex-Ante Profits from Forward Speculation in Foreign Exchange Markets. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-8; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 42. **PR** No charge. **JE** 431, 441. **KW** Exchange Rates. Time Series Model. Random Walk. Forward Premium.

**AB** This paper constructs and examines two time series bands for ex ante profits from forward speculation and the permanent component of the median of the bands for six different exchange markets. Several nonparametric tests concerning the predictability of the ex-ante profits are designed and rejected. Deviations of the ex-ante profits from the forward premia are attributed to deviations of nominal exchange rates from random walks. It is also shown that movements in the terms of trade are responsible for most of the variability and for the time variation properties of ex-ante profits. The results are robust to the choice of the sample, are unaffected by changes in the unit of measurement, persist when alternative measures of ex-ante profits are employed and when ex-post profits are used in place of ex-ante profits.

**Cantrell, R. Stephen**

**PD** January 1988. **TI** Interpretation and Use of Generalized Chow Tests. **AU** Cantrell, R. Stephen; Burrows, Peter M.; Vuong, Quang H. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8902; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 17. **PR** no charge. **JE** 211. **KW** Linear Models. Chow Tests. Structural Change. Hypothesis Testing.

**AB** We examine tests of structural change in linear models of arbitrary rank. Contrary to some beliefs, we find that they do not constitute tests of coefficient equality across models. Hypotheses implicit in the tests are dependent on ranks of the design matrices constituting these models but all tests of this class possess a UMP property. Despite this limitation we find Chow test well adapted to problems of pooling observations from several sources. Imposing restrictions implicit in the test produces the conventional pooled estimator. Finally, using a general equivalence, we provide predictive and dummy variable interpretations of generalized chow tests.

**Cao, Abad R.**

**PD** June 1989. **TI** Rates of Convergence for the Normal and the Bootstrap Approximations in Nonparametric Regression. **AA** Universidad de Santiago de Compostela, Spain. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-247; Sonderforschungsbereich 303 an der Universitat Bonn, Adenaueralle 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** No charge. **JE** 211. **KW** Bootstrap. Kernel Smoothing. Nonparametric Regression. Confidence Intervals.

**AB** This paper is concerned with the distributions used to construct confidence intervals for the regression function in a nonparametric setup. The rates of convergence for the normal limit, its plug in approach and the wild bootstrap are compared conditionally on the explanatory variable  $X$  and also unconditionally. It turns out that the wild bootstrap performs better than the other approximations conditionally, but this behavior does not hold in the unconditional situation.

**Card, David**

**PD** August 1989. **TI** The Impact of the Mariel Boatlift on the Miami Labor Market. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 3069; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$2.00. **JE** 826, 823, 824. **KW** Labor Supply. Immigration. Unemployment.

**AB** This paper presents an empirical analysis of the effect of the Mariel Boatlift on the Miami labor market, focusing on the wages and unemployment rates of less-skilled workers. The Mariel immigrants increased the population and labor force of the Miami metropolitan area by 7 percent. Most of the immigrants were relatively unskilled: as a result, the proportional increase in labor supply to less-skilled occupations and industries was much greater. Nevertheless, an analysis of wages of non-Cuban workers over the 1979-85 period reveals virtually no effects of the Mariel influx.

**Carr, Jack**

**PD** March 1989. **TI** The Effects of Deposit Insurance on Financial Institutions. **AU** Carr, Jack; Mathewson, G.

Franklin. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8903; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 38. **PR** no charge. **JE** 312, 311, 612. **KW** Deposit Insurance. Bankruptcy. Financial Institutions. Banking.

**AB** In this paper, we examine the impact of non-risk rated deposit insurance upon the behavior of financial institutions. In particular, we focus on the impact of deposit insurance on the financial structure of deposit-taking firms. Finally, we offer a political economy interpretation of the jurisdictional competition between governments that precipitated the introduction of the deposit insurance in Canada at a time of financial stability. Contrary to general belief, we believe that deposit insurance serves private and not public interests.

**Carter, Grace M.**

**TI** Insurance Aspects of DRG Outlier Payments. **AU** Keeler, Emmett B.; Carter, Grace M.; Trude, Sally.

**Case, Anne C.**

**PD** March 1989. **TI** Copycatting: Fiscal Policies of States and their Neighbors. **AU** Case, Anne C.; Hines, James R., Jr.; Rosen, Harvey S. **AA** Case: Harvard University. Hines and Rosen: Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 37; Department of Economics/Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 35. **PR** Not available. **JE** 324, 731. **KW** State Government. Government Spending. Governments. **AB** This paper formalizes and tests the notion that states' expenditures depend on the spending of similarly situated states. We find that even after allowing for fixed state effects, year effects, and common random shocks between neighbors, a state government's level of per capita expenditure is positively and significantly affected by the expenditure levels of its neighbors. *Ceteris paribus*, a one dollar increase in a state's neighbors' expenditures increases its own expenditure by over 70 cents.

**PD** July 1989. **TI** Copycatting: Fiscal Policies of States and their Neighbors. **AU** Case, Anne C.; Hines, James R., Jr.; Rosen, Harvey S. **AA** Case: Harvard University. Hines and Rosen: Princeton University. **SR** National Bureau of Economic Research Working Paper: 3032; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** 324. **KW** State Governments. Government Expenditures. Fiscal Policy. **AB** See additional entry under this author.

**Ceglowski, Janet**

**PD** June 1988. **TI** Intertemporal Substitution in Import Consumption. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8815; 33 Liberty St., Rm. 901, New York, NY 10045. **PG** 33. **PR** no charge. **JE** 411, 421, 431. **KW** Imports. Income Elasticity. Price Elasticity.

**AB** This paper develops a model of import consumption based on the rational expectations version of the permanent income hypothesis. Expressions for the level of import consumption and innovations in the level are derived from the first-order conditions of the model. The model is estimated for quarterly U.S. data to provide estimates of two key elasticities for import consumption, the elasticity of intertemporal

substitution and the relative price elasticity. Both the intertemporal elasticity and the implied long run value of the relative price elasticity of import consumption are estimated to be close to one.

#### Chalfant, James A.

**TI** On the Behavior of the Competitive Producer Under Multivariate Risks. **AU** Finkelshain, Israel; Chalfant, James A.

**PD** January 1989. **TI** Evaluating Prior Beliefs in a Demand System: The Case of Meats Demand in Canada. **AU** Chalfant, James A.; Gray, Richard S.; White, Kenneth J. **AA** Chalfant and Gray: University of California, Berkeley. White: University of British Columbia. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 483; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 28. **PR** \$5.60. **JE** 921. **KW** Demand System. Meat. Monte Carlo. Demand Theory. Bayesian Model. Consumer Demand.

**AB** An almost ideal demand system for meats is estimated using Canadian data. We use a Bayesian approach to impose restrictions on substitution elasticities, via Monte Carlo integration and importance sampling, in order to conform with prior beliefs about curvature restrictions and substitution relationships. Results are consistent with demand theory, but not with the prior belief that all meats included are substitutes.

#### Chan, M. W. Luke

**TI** Modelling Ontario Regional Electricity System Demand Using a Mixed Fixed and Random Coefficients Approach. **AU** Hsiao, Cheng; Mountain, Dean C.; Tsui, Kai Y.; Chan, M. W. Luke.

#### Cheasty, Adrienne

**TI** The Fiscal Implications of Trade Liberalization. **AU** Blejer, Mario I.; Cheasty, Adrienne.

#### Chichilnisky, Graciela

**PD** June 1989. **TI** Intransitivity and the Loss of Market Efficiency. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 433; Department of Economics, Columbia University, New York, New York 10027. **PG** 15. **PR** \$5.00. **JE** 021, 227, 213. **KW** Intransitivity. Market Efficiency. Marginal Costs. Pricing Equilibrium.

**AB** For any intransitive community preference we construct a non-convex economy where all the marginal cost pricing equilibria are Pareto inefficient (Theorem 3.2). Intransitive community preferences are a frequent occurrence (Theorem 3.1): Necessary and sufficient conditions for transitivity of the community preference fail in a set which is open and dense in the space of individual preferences with a standard topology.

#### Cicchetti, Charles J.

**PD** June 1989. **TI** Incentive Regulation: Some Conceptual and Policy Thoughts. **AA** Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-09; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 35. **PR** \$7.50. **JE** 613, 723, 722. **KW** Regulation.

Utilities. Energy. Conservation.

**AB** There are a number of reasons that are often given for overhauling traditional utility regulation. Two ideas are central to the current debate. First, utility prices are likely to be set by political and market forces, rather than cost-of-service criteria. Second, conservation rather than new generation is the preferred option for closing the emerging gap between current supply and future demand. Reforming traditional regulation can mean one of two things. To some it means substituting market forces for regulation. To others it means a more comprehensive form of regulation and integrated resource planning. This paper discusses the two approaches and concludes that current efforts intended to expand the contribution of utility-sponsored conservation programs are likely to combine important characteristics of both market-based incentives and integrated planning.

**PD** July 1989. **TI** The Federal Regulatory Commission's Proposed Policy Statement on Gas Inventory Charges. **AU** Cicchetti, Charles J.; Hogan, William W.; Kalt, Joseph P. **AA** Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-11; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 61. **PR** \$7.50. **JE** 723, 721, 613, 612. **KW** Natural Gas. Natural Resources. Regulation. Utilities. Energy.

**AB** In this study, we analyze the Interim Gas Inventory Charges (IGICs) that the FERC has proposed. One proposal would make pipelines' IGICs demand charges, to be set at 11.25% of an index of spot gas prices. Customers paying the IGICs demand charge would be assured the right to purchase nominated volumes at the previous month's spot prices. FERCs alternative proposal would set the IGIC at 20% of a pipeline's weighted average cost of gas, to be paid as a deficiency charge when a customer's purchases fall below a specified percentage of the volumes that they have nominated from the pipeline. While these proposed standards for IGICs have their strengths, they both are somewhat arbitrary and likely to be poorly related to pipelines' actual costs of providing assured sales service. We propose an alternative pro-competitive standard for setting IGICs.

#### Clark, Andrew

**PD** August 1989. **TI** An Empirical Study of Union Preferences. **AU** Clark, Andrew; Oswald, Andrew J. **AA** London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 352; Centre for Labour Economics, London School of Economics, Houghton Street, London ENGLAND, WC2A 2AE. **PG** 20. **PR** No charge. **JE** 229, 831, 832. **KW** Microdata, Trade Unions. Collective Bargaining.

**AB** Although the assumption of a utility maximizing trade union now appears in hundreds of academic papers, empirical knowledge of unions' preferences is slight. In this study we gather and report data designed to calculate the nature of unions' utility functions and bargaining activities. Our survey suggests that the majority of Britain's unions (i) have relatively flat indifference curves (that is, favoring wages over employment) and (ii) do not bargain over the number of jobs.

#### Clements, Michael P.

**PD** May 1989. **TI** The Estimation and Testing of Cointegrating Vectors: A Survey of Recent Approaches and an

Application to the U.K. Nondurable Consumption Function. AA Institute of Economics and Statistics, Oxford. SR Oxford Applied Economics Discussion Paper: 79; Institute of Economics and Statistics, St Cross Building Manor Road, OXFORD OX1 3UL. PG 33+15. PR no charge. JE 211, 921. KW Co-integration. Maximum Likelihood Estimation. Canonical Correlations. Hypothesis Testing. Structural Breaks.

AB The unrestricted estimation of vector autogressions in either levels or differences is inappropriate for nonstationary variables which are nevertheless cointegrated: there are gains to be had from imposing the implied restrictions on the long-run. Two recently proposed methods of estimating and testing for cointegration vectors are considered, the Engle and Granger two step procedure and Johansen's maximum likelihood method, and illustrated with an application to the UK consumption function. The conflicting results that arise are argued to be in part due to misleading inferences concerning the order of integration of one of the variables, resulting from a structural break.

#### Coate, Stephen T. R.

TI Public Provision of Private Goods and the Redistribution of Income. AU Besley, Timothy; Coate, Stephen T. R.

#### Coates, Dennis

PD September 1988. TI Capital Utilization in Two-Sector Models of Tax Incidence. AA University of North Carolina, Chapel Hill. SR University of North Carolina Working Paper Series: 88-15; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. PG 32. PR no charge. JE 521, 522, 641. KW Corporate Tax. Capital. Capital Utilization.

AB The major step in the general equilibrium analysis of tax incidence was taken in Harberger (1962). Mieszkowski (1967) used Harberger's model to show that taxes of certain types had equivalent comparative statics effects. A shortcoming of these models is the implicit assumption that utilization of the capital stock is exogenous. An interesting set of questions, therefore, concerns the implications of endogenous capital utilization for the tax incidence results in the literature. I adapt the model developed by Betancourt, Clague, and Panagariya (1983, 1985, 1988) to address these issues.

PD October 1988. TI Capital Utilization and the Welfare and Efficiency Effects of the Corporation Profits Tax. AA University of North Carolina, Chapel Hill. SR University of North Carolina Working Paper Series: 88-16; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. PG 48. PR no charge. JE 323, 522, 641, 521. KW Corporate Tax. Capital Utilization. Capital. Profits.

AB This paper measures the incidence and welfare effects of the corporate profits tax when utilization of corporate capital is explicitly a choice variable. The results of the analysis are very interesting. For example, using the comparative statics equations to compute the incidence of the tax one finds that the exogenous utilization model may be in error by as much as sixty percent, with errors of twenty to thirty percent most likely. Errors of similar magnitude are found for the misallocation of capital and the efficiency-loss induced by the tax. Additionally, utilization is computed to be from ten to thirty percent greater in the presence of the tax than in the no-tax case.

#### Cole, Harold L.

PD July 1989. TI Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter? AU Cole, Harold L.; Obstfeld, Maurice. AA Cole: University of Pennsylvania. Obstfeld: University of California at Berkeley, National Bureau of Economic Research and Harvard University. SR National Bureau of Economic Research Working Paper: 3027; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 47. PR \$2.00. JE 441, 442. KW Capital Mobility. Capital Markets. International Trade. Portfolios.

AB This paper evaluates the gains from international risk sharing in some simple general equilibrium models with output uncertainty. Under empirically plausible calibration, the incremental loss from a ban on international portfolio diversification is estimated to be quite small-0.15 percent of output per year is a representative figure. Even the theoretical gains from asset trade may disappear under alternative sets of assumptions on preferences and technology. The paper argues that the small magnitude of potential trade gains, when coupled with small costs of cross-border financial transactions, may explain the apparently inconsistent findings of empirical studies on the degree of international capital mobility.

#### Coleman, Wilbur John II

PD May 1989. TI An Algorithm to Solve Dynamic Models. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 351; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 24. PR No charge. JE 214, 213, 027. KW Dynamic Model. Algorithm. Computer Program. Recursive Systems.

AB This paper presents an algorithm to solve recursive systems, formulated in discrete or continuous time, which have an endogenous state variable. The basis of the algorithm is a fixed point equation in the function from the state variables to the control variables.

#### Conway, Patrick J.

PD August 1988. TI Growth and Trade with Asymmetric Returns to Scale: A Model for Nicholas Kaldor. AU Conway, Patrick J.; Darity, William A., Jr. AA University of North Carolina, Chapel Hill. SR University of North Carolina Working Paper Series: 88-11; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. PG 39. PR No charge. JE 411, 111, 226. KW Returns to Scale. Growth Theory. Productivity. International Trade.

AB Nicholas Kaldor's views on divergent growth and productivity patterns in international trade due to asymmetric returns to scale in production are formalized, and his conclusions confirmed, for a dynamic North-South model. The asymmetry in returns to scale, with North having increasing returns and South decreasing returns, is consistent with a steady state of widening gaps in output growth and labor productivity, and in some cases with absolute impoverishment in the South. These conclusions hold in a Kaldorian intermediate run and a number of long-run scenarios, suggesting that the technological asymmetry is the key factor in Kaldor's analysis.

**Cooper, Russell**

**PD** April 1989. **TI** Macroeconomic Implications of Production Bunching: Factor Demand Linkages. **AU** Cooper, Russell; Haltiwanger, John C. **AA** Cooper: University of Iowa. Haltiwanger: University of Maryland, College Park. **SR** University of Maryland Department of Economics Working Paper Series: 89-10; Department of Economics, University of Maryland, College Park, MD 20742. **PG** 50. **PR** no charge. **JE** 023, 131, 022. **KW** Production. Inventories. Production Smoothing. Nonconvex Technology.

**AB** The literature on inventory holdings stresses their role in smoothing production when costs are convex. Existing empirical evidence suggests that output is more variable than consumption so that production smoothing is not apparently present. One way of explaining this finding is to allow for nonconvex technologies. In this paper, we investigate some macroeconomic implications of the proposition that at least some firms in the economy produce with nonconvex technologies.

**Corden, Max**

**PD** November 1988. **TI** Trade Policy and Macroeconomic Balance in the World Economy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/101; International Monetary Fund, Washington, D.C. 20431. **PG** 18. **PR** no charge. **JE** 431, 422. **KW** Trade Policy. Current Account. Protectionism.

**AB** The paper explores the relationship between trade policy and current accounts. The effect on the current account of a change in protection at home and then abroad is analyzed, assuming that the exchange rate floats. The "savings-and-investment approach" is used. It shows that there is no presumption that protection would reduce a deficit. With a fixed exchange rate, the effect on savings and investment is brought about by the reduction in absorption that is required to maintain internal balance when restrictions are imposed. A current account deficit or real appreciation may generate protectionist pressures stimulated by "conservative resistance".

**Cornet, Bernard**

**TI** Existence of Marginal Cost Pricing Equilibria: The Nonsmooth Case. **AU** Bonnisseau, Jean Marc; Cornet, Bernard.

**PD** August 1988. **TI** Marginal Cost Pricing and Pareto Optimality. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8837; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 42. **PR** no charge. **JE** 022, 024. **KW** Prices. Marginal Cost. Welfare Theorem. Production Functions. Convexity.

**AB** The aim of this paper is to reexamine the optimality properties of the doctrine of "marginal cost pricing" and to study this question at the same level of generality as the Walrasian model, as presented in the books "Theory of Value" by Gerald Debreu, or "Lectures on Microeconomic Theory" by Edmond Malinvaud. We provide formulations of the Second Fundamental Welfare Theorem without convexity assumption on the production sets of the firms. This allows us to cover the presence of increasing returns in the production sector.

**Courakis, Anthony S.**

**PD** May 1989. **TI** Does Constant Relative Risk Aversion Imply Asset Demands that are Linear in Expected Returns? **AA** University of Oxford. **SR** Oxford Applied Economics Discussion Paper: 78; Institute of Economics and Statistics, St Cross Building Manor Road, OXFORD OX1 3UL. **PG** 23. **PR** no charge. **JE** 311, 313. **KW** Portfolios. Risk. Asset Returns. Portfolio Choice. Asset Demand. Capital Market.

**AB** This paper shows that the power functions typically employed in this context to describe investor's preferences imply asset demands that are not linear in expected returns, and that the additional assumption necessary, thereafter, to deliver linearity is not advisable. One corollary of this is that power functions imply asset demands that exhibit neither zero sums nor symmetry of responses to expected returns. Another is that none of the empirical studies purporting to model asset demands in accordance with power utility functions actually relies on a specification that is consistent with such behavior in discrete time.

**Crane, Keith**

**PD** August 1988. **TI** Eastern Europe's Economic Contribution to Soviet Defense. **AA** Rand Corporation. **SR** Rand Paper: P-7455; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 20. **PR** no charge. **JE** 114, 124. **KW** Defense Spending. Military. Defense. Technology. Soviet Union. Europe.

**AB** The economic contribution of Eastern Europe to Soviet defense can be gauged through the consideration of a variety of factors. This paper discusses three such factors: (1) the value to the Soviet Union of East European military forces, estimated in terms of the ruble cost of equivalent Soviet troops; (2) the economic gain derived from exporting arms from the Soviet Union to Eastern Europe; and (3) the extent to which the Soviets benefit from technology transfer.

**PD** September 1988. **TI** Specialization Agreements: An Effective CMEA Policy Tool? **AU** Crane, Keith; Skoller, Deborah. **AA** Rand Corporation. **SR** Rand Paper: P-7477; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 11. **PR** no charge. **JE** 423, 421, 411. **KW** Trade policy. Economic Integration. **AB** The Council for Mutual Economic Assistance (CMEA) provides an institutional framework in which the Soviet Union and its East European allies conduct their economic relations. One of the goals of this organization has been to increase economic integration among the member states. An important policy instrument employed in the pursuit of this goal has been specialization agreements. This study, which assesses the efficacy of this instrument in promoting economic integration, found little evidence that specialization agreements have contributed to economic integration.

**Cukierman, Alex**

**PD** May 1989. **TI** Oligopolistic Financial Intermediation, Inflation and the Interest Rate Spread. **AU** Cukierman, Alex; Hercowitz, Zvi. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 17-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 35. **PR** no charge. **JE** 021, 023. **KW** Market Power. Banking. Interest Rates. Financial Intermediation. Inflation.

**AB** As is the case in Israel, England, France and other

countries, the financial intermediation sector is dominated by a small number of large banks. Also, these countries experienced drastic changes in inflation rates in the last two decades. Motivated by these two facts, this paper is mainly a theoretical exploration of the relationship between the degree of market power of financial intermediaries and anticipated inflation. The index of market power we focus on is the spread between the debitory rate and the creditory rate. The present framework combines competitive households and firms with Cournot-Nash oligopolistic intermediaries, interacting in general equilibrium.

### Currie, David

**PD** July 1989. **TI** The Theory and Practice of International Policy Coordination: Does Coordination Pay? **AU** Currie, David; Holtham, Gerald; Hallett, Andrew Hughes. **AA** Currie : London Business School. Holtham: Shearson Lehman Hutton, London. Hallett: University of Newcastle. **SR** Centre for Economic Policy Research Discussion Paper: 325; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** 49. **PR** \$4.00. **JE** 113, 422, 411. **KW** Policy Coordination. International Policy.

**AB** This paper is a review of the theory and practice of international economic policy coordination. Coordination is defined as the joint control of some economic policies by several countries. We review the experience and the preferences of policymakers for coordination since the War, and distinguish between the relative gains and the absolute gains. We then consider the evidence, from the academic literature, as to whether coordination is likely to pay, and we pick out some particular problems which make the policy design problem very difficult. Given that, we suggest a framework for coordinated policies involving a rule-based exchange rate management scheme aimed principally at capturing the gains of relative coordination.

### Darity, William A., Jr

**PD** August 1988. **TI** The Pure Theory of International Trade in a Surplus Economy. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-12; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 61. **PR** no charge. **JE** 411, 023. **KW** International Trade. Distribution Theory. Surplus. Trade Theory.

**AB** The objective of this essay is to bring together the pure theory of international trade with the analysis of economies where a surplus exists above and beyond the returns to the factors of production. Indeed, the existence of a pure profit in excess of factor payments is the most general case emerging from economists' theory of distribution. Once a departure is made from a world of constant returns to scale the surplus invariably comes on the scene.

**TI** Growth and Trade with Asymmetric Returns to Scale: A Model for Nicholas Kaldor. **AU** Conway, Patrick J.; Darity, William A., Jr.

**PD** November 1988. **TI** What's Left of the Economic Theory of Discrimination? **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-18; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 66. **PR** no charge. **JE** 851, 824, 823,

917. **KW** Human Capital. Minorities. Discrimination. Income Distribution. Immigration.

**AB** The objective of this paper is to examine the culturalogical explanation for variations in ethnic/racial group patterns of economic achievement. It will be argued that differences in ethnic culture fail as explanations for differences in patterns of ethnic achievement on theoretical grounds because of "the Austrian problem." They fail on empirical grounds largely because the evidence on ethnic immigrant success stories omits considerations of social class.

**PD** October 1989. **TI** British Industry and the West India Plantations. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-17; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 49. **PR** no charge. **JE** 044. **KW** Slave Trade. Economic History. Minorities. Exports.

**AB** The Atlantic slave trade remains oddly invisible in the commentaries of modern economic historians on the sources and causes of British industrialization in the late eighteenth century. This contrasts sharply with the perspective of eighteenth century strategists who, on the eve of the Industrial Revolution, placed great stock on both the trade and the colonial plantations as vital instruments for British economic progress.

### Darmstadter, Joel

**TI** Improving Performance of Wholesale Electric Generation Markets. **AU** Toman, Michael A.; Darmstadter, Joel.

### Davidson, James

**PD** March 1989. **TI** Cointegration in Recursive Systems: The Structure of Wage and Price Determination in the United Kingdom. **AU** Davidson, James; Hall, Stephen. **AA** Davidson: London School of Economics. Hall: Bank of England. **SR** London School of Economics Econometrics Programme Discussion Paper: EM/89/191; Department of Economics, London School of Economics and Political Science, Houghton Street, London ENGLAND, WC2A 2AE. **PG** 39. **PR** no charge. **JE** 211, 212, 132. **KW** Co-integration. Unit Roots.

**AB** In this paper we consider the way in which the concept of co-integration may be extended to a model where a set of variables are modelled conditionally on another set, taken to be strongly exogenous in the sense of Engle, Hendry and Richard (1983). Unit root behavior may then be associated with either the endogenous or exogenous variables, or both. In the former case we are able to draw a close parallel with the conventional stability analysis of dynamic systems, and in the latter we analyze the types of economic behavior which will give rise to unit roots in the system.

### Davies, James

**PD** April 1989. **TI** Taxes and Capital Formation: How Important is Human Capital? **AU** Davies, James; Whalley, John. **AA** University of Western Ontario. **SR** Queen's University John Deutsch Institute Discussion Paper: 1; c/o Department of Economics, Queen's University, Kingston, Ontario, Canada K7L 3N6. **PG** 53. **PR** \$3.00 Canada and U.S.; \$3.50. Foreign. **JE** 851, 323, 024, 022. **KW** Human Capital. Taxes. Income Taxes. Life-cycle Model.

**AB** This paper explores how explicit incorporation of human

capital affects dynamic general equilibrium analysis of the effects of taxes on capital and welfare in a life-cycle growth model. In contrast to the results of partial equilibrium analysis, we find that estimates of the full dynamic welfare costs of capital income taxes are little affected by incorporating human capital. While the short-run impact effects of replacing income taxes with wage or consumption taxes are significantly affected by endogenizing human capital, these effects are short-lived. In the long-run the rate of return on non-human capital falls to approximately its initial net of tax level, and steady-state human capital investment plans are therefore little affected by the tax changes. Although incorporating human capital thus does not greatly alter results in our numerical simulations, a wide range of extensions and modifications of the model are discussed which could in principle modify this conclusion.

#### de Gorter, Harry

**PD** May 1989. **TI** Endogenizing U.S. Milk Price Supports. **AU** de Gorter, Harry; Rauser, Gordon C. **AA** de Gorter: Cornell University. Rauser: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 504; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 32. **PR** \$6.40. **JE** 227, 713, 612. **KW** Price Supports. Agricultural Policy. Dairy Products. Public Policy. Prices. Agriculture.

**AB** The purpose of this paper is to develop a microframework to explain the systematic forces, both economic and political, determining price supports and to present an empirical test of this framework to the level of milk prices. Accordingly, agricultural price supports for the U.S. milk market will be endogenized. The vast majority of econometric models that exist for the U.S. milk industry are misspecified largely because they treat the level of price supports as an exogenous variable. Second, the model will formally recognize the joint interactions that are implied by the "iron triangle" of the public policy process in the United States.

#### De Grauwe, Paul

**PD** July 1989. **TI** The Cost of Disinflation and the European Monetary System. **AA** University of Leuven. **SR** Centre for Economic Policy Research Discussion Paper: 326; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** 35. **PR** \$4.00. **JE** 431, 432, 134. **KW** European Monetary System. Inflation. EMS. Europe.

**AB** In this paper we present empirical evidence indicating that the EMS countries have experienced a worsening of their inflation/unemployment trade-off since 1979 which on average was more pronounced than in the rest of the OECD area (including the other European countries). We interpret this evidence as follows: the EMS forced its high-inflation members to follow gradual disinflationary policies. As a result, the authorities of these countries gained reputation only slowly compared with countries which applied a shock therapy (UK, US). This also forced them to apply deflationary policies longer than if they had used a shock therapy.

#### de Kock, Gabriel

**PD** August 1989. **TI** Endogenous Exchange Rate Regime Switches. **AU** de Kock, Gabriel; Grilli, Vittorio U. **AA** de Kock: Federal Reserve Bank of the New York. Grilli: Yale University. **SR** National Bureau of Economic Research

Working Paper: 3066; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$2.00. **JE** 431, 311. **KW** Exchange Rates. Tax Policy. Seigniorage. Government Policy.

**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 fixed and flexible exchange rates because it combines some of the flexibility of the floating exchange rates with some of the benefits of precommitment afforded by fixed rates.

#### de Palma, Andre

**PD** December 1988. **TI** Equilibria in Multi-Party Competition under Uncertainty. **AU** de Palma, Andre; Hong, Chew Soo; Thisse, Jacques Francois. **AA** de Palma and Hong: Northwestern University. Thisse: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8839; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve BELGIUM. **PG** 20. **PR** no charge. **JE** 025. **KW** Voters. Political Party. Voting. Choice Rules.

**AB** This paper presents a model of multiparty competition when extraneous considerations unobservable to the parties do influence voters' behavior. This leads political parties to model voters' preferences by means of probabilistic choice rules. The equilibrium analysis for 2,...,6 parties is provided and compared to the outcomes of the standard (certainty) model.

#### Dellas, Harris

**PD** February 1989. **TI** International Reserve Currencies. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/15; International Monetary Fund, Washington, DC 20431. **PG** 15. **PR** No charge. **JE** 432, 431, 311, 123. **KW** Foreign Reserves. Federal Reserve. Central Bank. Monetary Policy.

**AB** We study the composition of central bank holdings of foreign reserves when the level of currency riskiness is endogenously determined by economic structure and policymaker preferences in reserve issuing countries. Examination of the behavior of official foreign reserves of the industrial and developing country groups in the period 1977-1984 offers support to the notion that central banks employ mean-variance criteria in selecting international reserves.

#### Dertouzos, James N.

**PD** May 1988. **TI** The End of Employment-At-Will: Legal and Economic Costs. **AA** Rand Corporation. **SR** Rand Paper: P-7441; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 36. **PR** no charge. **JE** 833, 916, 822. **KW** Employment. Litigation. Civil Suits. Turnover.

**AB** In the past, employers have had almost complete discretion in firing employees. But as a result of recent judicial decisions, employment-at-will is eroding. This paper discusses the implications of, and the changes brought about by, these

decisions; judicial theories; and how the specter of litigation can affect the workplace. It also discusses and extrapolates statistical evidence on wrongful termination trials and post-trial adjustments. Finally, the paper suggests proposals for judicial and workplace reform.

### Desai, Padma

**PD** May 1989. **TI** Perestroika: Problems and Prospects. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 430; Department of Economics, Columbia University, New York, New York 10027. **PG** 20. **PR** \$5.00. **JE** 052. **KW** Soviet Union. Economic Reforms. Communism.

**AB** "How is perestroika doing?" is a recurring but a difficult question to resolve. It refers to the wellbeing of Mikhail Gorbachev's economic reforms. Some, prompted by persistent rumors of shortages, have declared its impending demise. Others, noting the speedier progress on glasnost, are skeptical about perestroika by contrast. The question that must be addressed, and answers to which justify optimism, are the following: Does perestroika have a sensible, feasible reform strategy? Does glasnost contribute positively to that strategy? Does glasnost contribute positively to that strategy? Does the strategy have a forward momentum coming from appropriate responses to old problems and new pressures?

**PD** September 1989. **TI** Perestroika and Prices: The New Challenge in CPEs from Micro to Macro Economies. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 441; Department of Economics, Columbia University, New York, New York 10027. **PG** 28. **PR** \$5.00. **JE** 052, 027. **KW** Economic Reforms. Communism. Economic Systems. Political Systems.

**AB** Economic reforms under perestroika have proceeded at a cautious pace that disappoints many impatient Western observers and some articulate economists in the Soviet Union. Yet the slowness of economic reform when compared to the speed of political reform is a sensible strategy. This is especially so in light of recent events in China, where the opposite approach was deployed. By immediately responding to the Soviet people's political and cultural aspirations, glasnost has bought the leadership time to implement demanding economic reforms. It has even produced indirect economic benefits via arms control (in reduced defense spending) and improved foreign relations (in increased flow of credits).

### Detemple, Jerome Gottardi P.

**PD** May 1989. **TI** The Relevance of Financial Policy. **AU** Detemple, Jerome Gottardi P.; Polemarchakis, Heraklis. **AA** Detemple and Polemarchakis: Graduate School of Business, Columbia University Gottardi: Trinity College, Cambridge. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-89-11; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 20. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 521, 522, 313, 311. **KW** Incomplete Markets. Monetary Policy. Asset Market. Options.

**AB** When the asset market is incomplete, equilibrium allocations are not invariant to changes in the financial policies of firms: in the presence of secondary assets, such as options, whose payoffs depend nonlinearly on the price of equity, the range of attainable reallocations of revenue varies as a firm

alters its position in the asset market. Corporate financial policy is thus relevant. When assets are nominal, monetary policy implemented through open market operations is effective.

### Devereux, Michael B.

**PD** May 1989. **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** Queen's Institute for Economic Research Discussion Paper: 743; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 24. **PR** \$3.00 Canada; \$3.50 U.S. and Foreign. **JE** 832, 831, 522. **KW** Bargaining. Unions. Capital. Wage Contracts.

**AB** This paper provides a counterexample to some recent results of Grout (1984) 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 argument is built around a simple Diamond-type overlapping generations model where the young work 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. It is also shown that a rise in trade union power will in general (a) increase the capital stock and (b) reduce the speed of adjustment of the economy.

### Diamond, Peter A.

**PD** December 1988. **TI** Search, Sticky Prices, and Inflation. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 509; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 18. **PR** No charge. **JE** 022, 611. **KW** Market Equilibrium. Free Entry. Market Power. Inflation. Search Theory.

**AB** This paper examines equilibrium in a market with free entry where consumers search and firms set prices on individual units of the commodity. The prices attached to newly produced goods are continuously adjusted. Prices attached to previously produced goods can only be changed at a cost. Inflation cuts into the market power created by the need to search for the good. Thus consumer welfare is u-shaped in inflation.

### Diebold, Francis X.

**PD** November 1988. **TI** Unit Roots in Economic Time Series: A Selective Survey. **AU** Diebold, Francis X.; Nerlove, Marc L. **AA** Diebold: Federal Reserve Board. Nerlove: University of Pennsylvania. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 49; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 94. **PR** no charge. **JE** 211, 212. **KW** Unit Roots. Time Series. Autoregressive Models.

**AB** The literature on testing and estimation in the presence of unit roots is selectively surveyed. We consider in turn first-order autoregressive models, higher-order autoregressive models, seasonal models, and mixed models. The discussion centers on unit roots in autoregressive lag-operator polynomials, but some attention is also given to "overdifferencing" and the associated problem of unit moving



average roots, particularly in the context of unobserved components models. The concept of fractional integration is motivated as a natural and potentially useful generalization of the unit root models. Finally, some of the implications and applications of unit roots in econometric work with time series data are highlighted.

#### Dinopoulos, Elias

**PD** September 1988. **TI** On the Product Mix within Import-Restricted Commodity Categories. **AU** Dinopoulos, Elias; Koo, Anthony YC. **AA** Dinopoulos: University of Florida. Koo: Michigan State University. **SR** University of Florida Working Paper: 88-5; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 19. **PR** no charge. **JE** 422, 431, 411. **KW** Tariffs. Imperfect Competition. Product Mix. Oligopoly. Imports. International Trade.

**AB** This paper analyzes the effects of import restrictions on the mix of products within an import restricted category. We incorporate the effects of domestic production, which usually triggers the import restriction, on the product mix under perfect competition and two types of Cournot oligopoly. In the presence of domestic production, a trade restriction shifts the import mix against the imported good which is a closer substitute (or a strategic substitute) for the domestic good. In general, in imperfectly competitive markets, changes in the import mix triggered by trade restrictions, depend on the levels of demand elasticities and their rates of changes.

**PD** September 1988. **TI** Quid Pro Quo Foreign Investment. **AA** University of Florida. **SR** University of Florida Working Paper in Economics: 88-2; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 27. **PR** no charge. **JE** 422, 441, 411. **KW** Foreign Investment. Tariffs. Imperfect Competition. Protectionism.

**AB** The paper analyzes the phenomenon of industry-specific direct foreign investment (DFI) which occurs with the view to defusing the threat of future protection by the host country (quid pro quo), under alternative imperfectly competitive market structures. It is established that, even the absence of government intervention, firms in imperfectly competitive markets change the level of trade DFI in response to future protectionist threats.

**TI** Domestic Unionization and Import Competition. **AU** Mezzetti, Claudio; Dinopoulos, Elias.

#### Donahoo, Kathleen K.

**PD** August 1988. **TI** The Impact of Capital Requirements on the Securitization Decision. **AU** Donahoo, Kathleen K.; Shaffer, Sherrill. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8820; 33 Liberty Street, Rm. 901, New York, NY 10045. **PG** 16. **PR** no charge. **JE** 313, 311, 522. **KW** Capital Requirements. Capital Markets.

**AB** An important issue underlying discussions of the recent surge in securitization activity is the extent to which such activity has been driven by an increase in regulatory or market capital requirements, or equivalently, an increase in the cost of capital. This is followed by the case of a large financial firm subject only to market capital requirements. Contrary to the widespread opinion that capital requirements have been a driving force behind securitization activity, the results of this analysis indicate that these requirements influence a firm's

decision to securitize only under certain conditions.

#### Dooley, Michael P.

**PD** November 1988. **TI** Debt Relief and Leveraged Buy-Outs. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/103; International Monetary Fund, Washington, D.C. 20431. **PG** 6. **PR** no charge. **JE** 433, 441. **KW** Debt Relief. Investment. Creditors. Debtors.

**AB** Analyses of debt relief that focus on the behavior of debtors and existing creditors understate the incentives for collective action by creditors. It is well known that debt relief could benefit existing creditors by providing incentives for domestic investment by residents of debtor countries. It is argued here that relief could also make available additional profit opportunities to international investors. Under these circumstances, arrangements that would allow international investors to capture economic profits would make a leveraged buy-out of existing creditors, followed by relief, a profitable strategy for any investor or group of investors that could act collectively.

#### Dowlatabodi, Hadi

**PD** January 1989. **TI** Changes in Electricity Markets and Implications for Generation Technologies. **AU** Dowlatabodi, Hadi; Toman, Michael A. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR89-01; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 112. **PR** \$5.00 (U.S. funds only). **JE** 723, 621, 635. **KW** Electricity. Technical Change. Energy.

**AB** Electricity generation markets in the United States have experienced dramatic changes over the past two decades. In this study we use a multi-period, multi-region simulation model to examine how plant use and incremental capacity investment may evolve under various market conditions. We also consider the investment and efficiency consequences of expanded interstate power trading with competitive pricing. Because the model inputs regarding demand, costs, and other factors are uncertain, we use risk analysis to examine which input assumptions most influence the results.

#### Drazen, Allan

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

#### Driffil, John

**PD** April 1989. **TI** Costs of Inflation. **AU** Driffil, John; Mizon, Grayham E.; Ulph, Alistair. **AA** University of Southampton. **SR** Centre for Economic Policy Research Discussion Paper: 293; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** Not available. **PR** \$4.00. **JE** 134, 227. **KW** Inflation. Welfare Costs. Fluctuations.

**AB** We review theoretical and empirical analyses of the costs of inflation. Part 2 of the paper examines microeconomic models in which inflation is perfectly anticipated, and viewed as the only distortion in the economy or as one of many distortionary taxes, which may or may not be chosen optimally. Part 3 turns to stochastic models with a more macroeconomic orientation, in which inflation is imperfectly perceived, or where real costs of price adjustment cause agents not to adjust

fully in the presence of inflation. Part 4 discusses empirical work, which largely focuses on the relationship between the level of inflation, its variability, its unpredictability, and variation in relative prices.

#### Dubey, Pradeep

**PD** May 1989. **TI** Existence of Walras Equilibrium without a Price Player or Generalized Game. **AU** Dubey, Pradeep; Geanakoplos, John D. **AA** Dubey: State University of New York Stony Brook. Geanakoplos: Yale University. **SR** Yale Cowles Foundation Discussion Paper: 912; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven CT 06520. **PG** 11. **PR** \$2.00. **JE** 026, 213. **KW** Walras Equilibrium. Game Theory. Nash Model. Noncooperative Games.

**AB** We derive the existence of a Walras equilibrium directly from Nash's theorem on noncooperative games. No price player is involved, nor are generalized games.

#### Dubin, Jeffrey A.

**PD** April 1989. **TI** Alternative Policies for Unemployment Insurance. **AU** Dubin, Jeffrey A.; Rivers, R. Douglas. **AA** Dubin: California Institute of Technology. Rivers: University of California, Los Angeles. **SR** Caltech Social Science Working Paper: 697; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 34. **PR** no charge. **JE** 813, 822, 824, 821. **KW** Wage Subsidy. Unemployment Insurance. Duration Models. Employment. Search.

**AB** The effects of a wage subsidy program on the duration of insured unemployment are investigated using data from a demonstration project conducted by the Illinois Department of Employment Security. UI claimants were offered a voucher that could be presented to potential employers as an inducement for their hire. Participation in the subsidy program was voluntary and eligibility was limited to a ten week period following the initial UI claim. In principle, the subsidy should increase the demand for the unemployed worker's services by reducing an employer's net wage costs. It may also have supply effects if the expiration of eligibility for the subsidy causes an increase in search effort, though it is also possible that the subsidy causes workers to adjust their reservation wage levels upward.

**PD** April 1989. **TI** Selection Bias in Linear Regression, Logit and Probit Models. **AU** Dubin, Jeffrey A.; Rivers, R. Douglas. **AA** Dubin: California Institute of Technology. Rivers: University of California, Los Angeles. **SR** Caltech Social Science Working Paper: 698; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena CA 91125. **PG** 33. **PR** no charge. **JE** 211. **KW** Selection Bias. Logit Model. Elections. Missing Values.

**AB** Missing data are common in observational studies due to self-selection of subjects. Missing data can bias estimates of linear regression and related models. The nature of selection bias and econometric methods for correcting it are described. The econometric approach relies upon a specification of the selection mechanism. We extend this approach to binary logit and probit models and provide a simple test for selection bias in these models. An analysis of candidate preference in the 1984 U.S. presidential election illustrates the technique.

#### Dumas, Bernard

**PD** April 1989. **TI** Super Contact and Related Optimality Conditions: A Supplement to Avinash Dixit's: "A Simplified Exposition of Some Results Concerning Regulated Brownian Motion". **AA** University of Pennsylvania. **SR** National Bureau of Economic Research Technical Paper: 77; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** Not available. **PR** \$2.00. **JE** 213, 022, 026. **KW** Brownian Motion. Uncertainty. Payoff Function.

**AB** Dixit (1988) observed that the mathematical construct of "regulated Brownian motion" developed by Harrison (1985) had proved useful in economic models of decision-making under uncertainty. In a recent note he provided a number of methods for calculating expected discounted payoff functions based on such processes. The purpose of this supplement is twofold: 1) determine to what extent the first-degree conditions reached by Dixit are simply a consequence of the definition of the expected discounted payoff and 2) extend Dixit's treatment to the case where there are fixed costs of regulation as in Grossman-Laroque (1987).

#### Dutta, Jayasri

**PD** August 1989. **TI** What do tests for Heteroskedasticity Detect? **AU** Dutta, Jayasri; Zaman, Asad. **AA** Columbia University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-248; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 35. **PR** No charge. **JE** 211. **KW** Asymptotic Tests. Robust Test. Heteroskedasticity.

**AB** A test is said to detect an alternative hypothesis if it is unbiased against it, at all levels and all sample sizes. It is a robust test if this property is true for a large class of null distributions. We show that a robust test for non-specific heteroskedasticity is impossible. Usual tests both exact and asymptotic, usually retain robustness while giving up non-specificity. We demonstrate and apply methods which characterize, for a large class, the directions which such tests detect. Alternatively, one may give up robustness in order to detect all departures from the null. We show that such a test can be developed along lines suggested by Pitman (1938). The test is distribution specific.

#### Dutta, Prajit K.

**PD** May 1989. **TI** What do Discounted Optima Converge to? A Theory of Discount Rate Asymptotics in Economic Models. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 426; Department of Economics, Columbia University, New York, New York 10027. **PG** 27. **PR** \$5.00. **JE** 211. **KW** Discount Rates. Dynamic Models. Stochastic Models.

**AB** This paper considers a sequence of stochastic dynamic problems in which the discount rate goes to zero. Sufficient conditions are given under which the limit of discounted optimal values and policies are a) long-run average optimal and b) catching-up optimal. These conditions are shown to be satisfied, and easily checked, in many economic models. A generalization of Fatou's lemma, which has wider applicability, is presented.

#### Ebrill, Liam P.

**PD** October 1988. **TI** Ricardian Equivalence and National Saving in the United States. **AU** Ebrill, Liam P.;

Evans, Owen. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/88/96; International Monetary Fund, Washington, DC 20431. PG 30. PR no charge. JE 322, 323, 221, 023. KW Government Spending. Taxes. Savings. Taxation.

AB This paper examines the relative efficacy of cuts in government spending on goods and services and increases in taxation as tools for augmenting national saving an issue related to Ricardian equivalence. The theoretical analysis shows little presumption in favor of spending cuts for this purpose and suggests that the issue is ultimately empirical. The empirical work for the United States suggests behavior close to zero Ricardian equivalence. Consequently, while there may be other reasons for favoring one approach or the other, cuts in government spending and increases in taxation appear broadly equivalent in terms of their impact on national saving.

### Edwards, Sebastian

PD January 1989. TI Devaluation Crises and the Macroeconomic Consequences of Postponed Adjustment in Developing Countries. AU Edwards, Sebastian; Montiel, Peter. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/89/11; International Monetary Fund, Washington, DC 20431. PG 31. PR no charge. JE 431. KW Devaluation. Macroeconomic Adjustment. Exchange Rates.

AB This paper develops a small analytical model to explore the relationship between the dynamics of macroeconomic adjustment and the timing of the implementation of an adjustment program featuring a nominal devaluation. The effects of postponing adjustment depend on the source of the original shock. In the case of a fiscal expansion, postponement implies a larger eventual devaluation and greater deviations of macroeconomic variables from their steady-state values. For adverse terms of trade shocks, postponement does not affect the size of the eventual devaluation, but does magnify the degree of post-devaluation overshooting by key macroeconomic variables.

### Eichengreen, Barry

PD November 1988. TI The U.S. Basic Industries in the 1980's: Can Fiscal Policies Explain their Changing Competitive Position? AU Eichengreen, Barry; Goulder, Lawrence H. AA Eichengreen: University of California, Berkeley. Goulder: Harvard University. SR University of California at Berkeley Working Paper in Economics: 8897; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 71. PR \$3.50. JE 631, 321. KW Industries. Competitiveness. Fiscal Policy. Manufacturing.

AB The first half of the 1980s was not an easy period for American industry. Following mounting difficulties in the second half of the 1970s, between 1979 and 1984 the basic industries steel, motor vehicles, textiles and apparel—each experienced alarming declines in output and employment. The industries' deteriorating competitive position had an immediate impact on financial performance, as reflected in declining returns on equity and widespread bankruptcy among textile and apparel firms. The persistence and severity of the difficulties led industrialists and politicians to fear for the survival of basic industry in the United States.

PD February 1989. TI Dealing with Debt: The 1930s and the 1980s. AU Eichengreen, Barry; Portes, Richard.

AA Eichengreen: University of California, Berkeley. Portes: Centre for Economic Policy Research. SR Centre for Economic Policy Research Discussion Paper: 300; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. PG 50. PR \$4.00. JE 411, 433, 443, 441. KW International Debt. Sovereign Borrowing. Loan Default. Debt.

AB This paper summarizes and extends the conclusions of a series of papers on the interwar experience of sovereign borrowing, default and debt readjustment. In explaining the incidence and extent of default, we highlight the importance of a range of factors, both economic and political. We find evidence that countries that interrupted debt service recovered more quickly from the Depression; were able subsequently to render substantially reduced transfers to their creditors; and did not experience access to capital markets in the 1940s and 1950s that was any more restricted than that available to debtors who fully serviced their debts throughout. Attempts at global schemes to short cut protracted bilateral negotiations foundered on disagreements over the funding and control of such schemes, casting doubt on the prospects for such global plans in the 1990s.

TI Trade Liberalization in General Equilibrium: Intertemporal and Inter-Industry Effects. AU Goulder, Lawrence H.; Eichengreen, Barry.

### Engel, Charles M.

TI A Test of International CAPM. AU Rodrigues, Anthony; Engel, Charles M.

### Engel, Eduardo MRA

TI The S-s Economy: Aggregation, Speed of Convergence and Monetary Policy Effectiveness. AU Caballero, Ricardo J.; Engel, Eduardo MRA.

### Erdos, Paul

PD October 1988. TI Some of my Old and New Combinatorial Problems. AA Mathematical Institute of the Hungarian Academy of Science, Budapest. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88531-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 15. PR No charge. JE 213. KW Combinatorial Problems. Number Theory.

AB I published many papers on combinatorial problems and to avoid repetitions I will mention only a few of my favorite old problems and a few problems which have been forgotten and will try to concentrate on some more recent ones. First I discuss some of the old problems.

### Ericson, Richard E.

PD December 1988. TI Priority, Duality, and Penetration in the Soviet Command Economy. AA Rand Corporation. SR Rand Note: N-2643; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 37. PR no charge. JE 052, 113, 226. KW Productivity. Central Planner. Communist System. Soviet Union.

AB This note analyzes characteristics of the Soviet economy that are underemphasized in existing macroeconomic models of the Soviet Union. Some empirically verifiable implications that do not emerge in standard macroeconomic models stem from

this analysis: (1) the variance of output (plan fulfillment) is greater in nonpriority than in priority sectors; (2) there is more excess capacity in priority sectors; (3) priority factor/input use proportions are unrelated to economy-wide tradeoffs; (4) inputs into priority sectors are protected from fluctuations in economic activity; and (5) factor productivity is lower in priority sectors, perhaps because of flexibility considerations.

### Ericsson, Neil R.

PD June 1989. TI Encompassing and Rational Expectations: How Sequential Corroboration can Imply Refutations. AU Ericsson, Neil R.; Hendry, David F. AA Ericsson: Board of Governors of the Federal Reserve System. Hendry: Nuffield College, England. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 354; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 21. PR No charge. JE 036, 212. KW Conditional Models. Economic Methodology. Economic Models.

AB Even though pieces of empirical evidence individually may corroborate an economic theory, their joint existence may refute that same theory. We discuss examples concerning testing for omitted variables, simultaneity, and rational expectations in the context of general-to-simple versus simple-to-general modeling. The proposition in the first sentence strongly favors the building of empirical models which are consistent with all available evidence.

TI An Econometric Analysis of UK Money Demand in 'Monetary Trends in the United States and the United Kingdom' by Milton Friedman and Anna J. Schwartz. AU Hendry, David F.; Ericsson, Neil R.

### Ermisch, John F.

PD February 1989. TI Employment Dynamics among British Lone Mothers. AU Ermisch, John F.; Wright, Robert E. AA Ermisch: National Institute of Economic and Social Research. Wright: Birkbeck College. SR Centre for Economic Policy Research Discussion Paper: 302; Centre for Economy Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. PG 33. PR \$4.00. JE 824, 826, 914, 921. KW Labor Turnover. Single Mothers. Labor Supply. Labor Market.

AB We adopt a stochastic model of labor market turnover in order to analyze entries to and exits from paid employment by British lone mothers. We estimate the model using demographic and employment history data from the 1980 Women and Employment Survey. The theoretical model predicts that the exit rate falls and entry rises with a higher woman's human capital wage, and that a higher utility flow received when out of employment has the opposite effects. These predictions are generally confirmed by the parameter estimates, although welfare benefits received when not employed are only found to discourage employment in a restricted model that is rejected by the data.

PD February 1989. TI The Duration of Lone Parenthood in Britain. AU Ermisch, John F.; Wright, Robert E. AA Ermisch: National Institute of Economic and Social Research. Wright: Dept of Economics, Birkbeck College, London. SR Centre for Economic Policy Research Discussion Paper: 303; Centre for Economic Policy Research, 6 Duke of York Street, London SW1A 6LA, United Kingdom.

PG 35. PR \$4.00. JE 911, 914, 841. KW Single Mothers. Family. Welfare.

AB We model duration of lone parenthood among previously married British mothers. Using a proportional hazards model and demographic and employment history data from the 1980 Women and Employment Survey we investigate how the duration of lone parenthood varies with a number of characteristics of a woman and her family. In particular, we find that lone mothers with a job are likely to remain lone parents longer, as are women who worked in a manual job before becoming a mother. In contrast, being employed in the year prior to marital dissolution has the opposite effect. There is no evidence that higher welfare benefits prolong the length of lone parenthood.

### Evans, Owen

TI Ricardian Equivalence and National Saving in the United States. AU Ebrill, Liam P.; Evans, Owen.

### Evans, William N.

PD May 1989. TI General Deterrence of Drunk Driving: Evaluation of Recent American Policies. AU Evans, William N.; Neville, Doreen; Graham, John D. AA Evans: University of Maryland, College Park. Neville: Memorial University of Newfoundland, Canada. Graham: Harvard School of Public Health. SR University of Maryland Department of Economics Working Paper Series: 89-9; Department of Economics, University of Maryland, College Park, MD 20742. PG 37. PR no charge. JE 916, 931, 921. KW Deterrence. Drunk Driving. Alcohol. Crime. Punishment. Crime Rate.

AB In this paper, we examine whether the incidence of drinking and driving is responsive to escalation of the punitive threat. The recent national campaign against drunk driving provides a natural experiment in which to test the predictions of deterrence theory. Using state level data over the 1975-1986 period, we report no conclusive evidence that any specific form of punitive legislation is having a measurable effect on motor vehicle fatalities. The most striking finding is that mandatory seat belt use laws and beer taxes may be more effective at reducing drunk driving than policies aimed at general deterrence.

PD June 1989. TI Deregulation and Airline Safety: Evidence from Count Data Models. AA University of Maryland, College Park. SR University of Maryland Department of Economics Working Paper Series: 89-12; Department of Economics, University of Maryland College Park, MD 20742. PG 50. PR no charge. JE 615, 612. KW Airline Deregulation. Airline Safety. Airline Industry.

AB Using firm level data for the years 1970-87, this paper tests whether accident levels of airlines that existed prior to deregulation (incumbent airlines) have changed since deregulation, and whether the accident experience of airlines that emerged after deregulation (newly certified carriers) are different from incumbent carriers. Modified count data models are employed to account for the rarity of airline accidents. In contrast to the predictions made by many prior to deregulation, the results indicate that incumbents are, on average, safer after deregulation than before, and that new airlines are, on average, safer than incumbents.

### Fair, Ray C.

PD July 1989. TI Does Monetary Policy Matter?

Narrative versus Structural Approaches. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 3045; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 14. **PR** \$2.00. **JE** 311, 131, 133. **KW** Monetary Policy. Economic Growth. Economic Fluctuations.

**AB** This paper compares results from the narrative approach of Romer and Romer (1989) to those from the structural approach regarding the effects of monetary policy on real output. The results from both approaches lead to the conclusions that monetary policy matters and that the effects build slowly following a monetary policy shock. The narrative approach, however, leads to larger and more persistent effects than does the structural approach. Reasons are advanced in the paper as to why this might be so.

### Fallick, Bruce Chelimsky

**PD** September 1989. **TI** The Industrial Mobility of Displaced Workers. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 572; Department of Economics, 2263 Bunche, Los Angeles, CA 90024. **PG** \$2.50. **JE** 824, 823, 821. **KW** Displaced Workers. Mobility. Sectoral Shifts. Search Theory. Unemployment Job Search.

**AB** This paper uses a two-industry model of unemployment duration and job search to estimate the rates of transition of displaced workers from unemployment to employment in their previous industry and in another industry. The competing risks structure allows inferences about search strategies to be drawn from data about employment outcomes. Improvements in their prospects for employment in one industry and at their current jobs induce displaced workers to reduce their search intensity or increase their reservation wages in other industries. The determinants of the rate reemployment differ between a worker's previous industry and other industries.

### Farber, Henry

**PD** December 1988. **TI** Trends in Worker Demand for Union Representation. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 512; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 13. **PR** No charge. **JE** 831, 833. **KW** Unions. Labor Force. Working Conditions. Wages.

**AB** The dramatic decline in the demand for union representation among nonunion workers over the last decade is investigated using data on worker preferences for union representation from four surveys conducted in 1977, 1980, 1982, and 1984. Relatively little of the decline can be accounted for by shifts in labor force structure. However, virtually all of the decline is correlated with an increase in the satisfaction of nonunion workers with their jobs and a decline in nonunion worker's beliefs that unions are able to improve wages and working conditions.

### Farrell, Joseph

**PD** February 1989. **TI** Cheap Talk with Two Audiences. **AU** Farrell, Joseph; Gibbons, Robert S. **AA** Farrell: University of California, Berkeley. Gibbons: Massachusetts Technology Department of Economics Working Papers, at Department of Economics, Massachusetts Institute of Tech-

nology, Cambridge, MA 02139. **PG** 19. **PR** No charge. **JE** 026. **KW** Cheap Talk. Signalling. Communication. Information Incentives.

**AB** When an informed party can engage in cheap talk with more than one audience, we show how the presence of one audience may either discipline or subvert the speaker's relationship with the other audience. We ask how welfare is affected by public or private disclosure, and predict how much communication will take place.

### Favero, Carlo

**PD** May 1989. **TI** The Lucas' Critique, Feedback and Feedforward Mechanisms and the Consumption Function: An Empirical Study. **AA** St. Anthony's College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 73; Institute of Economics and Statistics St Cross Building Manor Road. OXFORD OX1 3UL. **PG** 32. **PR** no charge. **JE** 132, 211, 921. **KW** Feedback Models, Cointegration. Life Cycle Hypothesis. Life Cycle Model. Consumption Functions.

**AB** The use of a feedback mechanism while agents follow a feedforward behavior is commonly argued as the most important application of the Lucas' critique. A test of feedback versus feedforward mechanisms in the framework of a small system has been recently proposed (Hendry, D.F. [1988]). The purpose of this paper is to apply this test to feedback and feedforward consumption functions.

### Fawzi, Samir

**PD** December 1988. **TI** An Analysis of Reserve Tranche Positions and Their Use. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/107; International Monetary Fund, Washington, D.C. 20431. **PG** 35. **PR** no charge. **JE** 432, 431. **KW** International Monetary Fund. Reserves. Balance of Payments.

**AB** This paper analyzes the frequency and magnitude of the use by members of their reserve tranche positions since the Second Amendment of the Articles in light of key economic factors which may have influenced this use. After reviewing the characteristics of reserve tranche positions, the paper examines development in these positions over the period 1979-1987 in relation to a number of indicators of balance of payments financing needs as well as to rate of return considerations. Lastly, the implications of actual and potential reserve tranche uses for the Fund's liquidity position are discussed.

### Fernandez, Luis

**PD** March 1989. **TI** Perfectly Contestable Monopoly and Adverse Selection. **AU** Fernandez, Luis; Rasmusen, Eric. **AA** Fernandez: Oberlin College. Rasmusen: University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 89-03; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 22. **PR** \$2.00; checks payable to U.C. Regents. **JE** 612, 611, 022. **KW** Monopoly. Adverse Selection. Contestable Market. Imperfect Information.

**AB** In a contestable market the possibility of "hit-and-run" XXXXX natural monopoly earns zero points despite economies of scale. We show that informational imperfections

can also result in a single firm serving the entire market, but with zero profits. This is possible even under constant returns to scale, and when barriers to exit preclude "hit-and-run" attacks and force potential entrants to consider the post-entry response of the incumbent firm. Furthermore, the equilibrium involves cross-subsidization, which is not possible in conventional contestable markets.

#### Ferrier, Gary D.

**PD** September 1988. **TI** Measuring Cost Efficiency in Banking: Econometric and Linear Programming Evidence. **AU** Ferrier, Gary D.; Lovell, C. A. Knox. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-14; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 38. **PR** no charge. **JE** 312. **KW** Banking. Commercial Banks. Economies of Scale.

**AB** This study has two distinct but methodologically linked goals. The institutional goal is to analyze the structure of cost efficiency in banking. By structure we mean the way efficient cost varies with service provision, and how actual cost departs from efficient cost. The analytical goal is to compare the ability of econometric and linear programming techniques to reveal the structure of cost efficiency in banking.

#### Fershtman, Chaim

**PD** June 1989. **TI** Noisy Search and the Diamond Paradox. **AU** Fershtman, Chaim; Fishman, Arthur. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 24-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 19. **PR** no charge. **JE** 022, 611. **KW** Search Theory. Market Equilibrium. Search Equilibrium.

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

**PD** July 1989. **TI** Strikes and Deadline Effects in Bargaining with Endogenous Commitment. **AU** Fershtman, Chaim; Seidmann, Daniel J. **AA** Fershtman: Tel Aviv University. Seidmann: Trinity College, Dublin. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 27-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 30. **PR** no charge. **JE** 022, 026, 821, 332. **KW** Negotiations. Collective Bargaining. Strikes. Bargaining.

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

#### Field, Alfred J., Jr

**PD** January 1989. **TI** The Impact of Gender and Working Life Cycle Position on the Likelihood and Accumulation of Formal On-the-Job Training. **AU** Field, Alfred J., Jr.; Goldsmith, Arthur H. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 89-1; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 32. **PR** No charge. **JE** 811, 851, 825, 917. **KW** Manpower Training. Discrimination. Human Capital. Productivity.

**AB** The literature concerning the influence of race and gender on layoff likelihood suggests that differences persist between whites and blacks as well as males and females even after controlling for factors expected to influence personal productivity. However, it appears that formal on-the-job training has often not been adequately accounted for. This paper uses direct objective measures of formal on-the-job training to examine the influence of gender and working life cycle stage on the likelihood of participating in formal on-the-job training programs and on the duration of these on-the-job training experiences for program participants.

**PD** January 1989. **TI** The Impact of Recent Formal On-the-Job Training on the Likelihood of Layoff Unemployment. **AU** Field, Alfred J., Jr.; Goldsmith, Arthur H. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 89-2; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 19. **PR** No charge. **JE** 811, 851, 824. **KW** Unemployment. Layoffs. Manpower Training.

**AB** A shortcoming in the literature on the determinants of the likelihood of layoff unemployment is that the influence of direct measures of formal on-the-job training have not been adequately investigated. This stems from the fact that the proxies often used to capture this influence such as job tenure likely reflect a number of worker characteristics making it difficult to ascertain the pure effect of formal on-the-job training on employment. This paper attempts to deal with this shortcoming by using direct measures of workers' formal on-the-job training to examine its influence on the layoff experience.

#### Fields, Judith

**PD** March 1989. **TI** The Decline of Sex Segregation and the Wage Gap, 1970-80. **AU** Fields, Judith; Wolff, Edward N. **AA** Fields: Lehman College of the City University of New York. Wolff: New York University. **SR** New York University Economic Research Reports: 89-04; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 50. **PR** none. **JE** 917, 826, 824, 812. **KW** Sex Discrimination. Occupation. Earnings. Demographics. Labor Force. Labor Demand.

**AB** This study examines changes in the distribution of the U.S. workforce by sex across occupations and industries between 1970 and 1980 at a detailed level and assesses their impact on relative female earnings. For this purpose, we make use of 1970 and 1980 Census of Population employment and earnings data at the detailed occupation and industry level. We find that our indices of occupational and industrial segregation declined between 1970 and 1980 for the total workforce, as well as for major occupational groups. Employment growth

clearly has an impact on industrial segregation of the workers in an occupation. Overall, the fastest growing occupations showed the largest declines in industry segregation between 1970 and 1980.

### Findlay, Ronald

**PD** March 1989. **TI** The "Triangular Trade" and the Atlantic Economy of the Eighteenth Century: A Simple General Equilibrium Model. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 424; Department of Economics, Columbia University, New York, New York 10027. **PG** 44. **PR** \$5.00. **JE** 042, 823. **KW** Slaves. Raw Materials. Manufacturing. Migration. Economic History.

**AB** The only analytical model of the triangular trade as a whole at present available, however, is by Darity (1982). He provides an ambitious specification that attempts to integrate all three components into a comprehensive model of growth and trade of the Atlantic economy. The price of the attempt to be comprehensive, as might be expected is some unwieldiness in the resulting formulas and solutions and difficulty in grasping the reasons for some of the results of numerical simulations. The alternative model that I present in the next three sections of this paper is simpler and more "streamlined" in structure, but it is clearly indebted to Darity's pioneering effort.

**PD** August 1989. **TI** The New Political Economy: It's Explanatory Power as Related to LDC's. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 440; Department of Economics, Columbia University, New York, New York 10027. **PG** 39. **PR** \$5.00. **JE** 121, 112, 113. **KW** Economic Policy. Developing Countries. Political Economy. Economic Development.

**AB** It is of course an unfortunate fact that most LDCs today are ruled by military juntas or one-party dictatorships of one kind or another, in none of which does it appear that economic policy is decided by the kind of equilibrium between contending interest groups that is such a prominent feature of the New Political Economy. Hence, I suppose, the reason for Gerry Meier to raise the question with which this paper will be concerned, of whether or not the New Political Economy is relevant for the LDCs. My answer, in short, is going to be a resounding "yes", despite the fact just noted that most of the existing literature on the New Political Economy generally presumes political conditions vastly different from those prevailing in the typical LDC.

### Finkelshtain, Israel

**PD** September 1988. **TI** On the Behavior of the Competitive Producer Under Multivariate Risks. **AU** Finkelshtain, Israel; Chalfant, James A. **AA** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 484; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 40. **PR** \$8.00. **JE** 227, 021, 026. **KW** Multivariate Risks. Prices. Consumer Behavior. Competition. Production.

**AB** We examine the behavior of the competitive producer facing multivariate risk. The prices of both output and of the goods bought with profits are assumed to be random. Under very plausible assumptions, the objective function of a self-employed individual is shown to reduce to the usual indirect utility function. Only for preferences with implausible

properties will the level of output under multivariate risk coincide with the corresponding level under univariate risk. Using a multivariate risk premium, we derive equilibrium conditions for the producer for both the short and long runs. We show that for every indirect utility function there is a probability distribution of prices for which output will exceed the level under certainty.

### Finn, Mary G.

**PD** June 1989. **TI** An Econometric Analysis of the Intertemporal General Equilibrium Approach to Exchange Rate and Current Account Determination. **AA** Arizona State University. **SR** University of Western Ontario Department of Economics Research Report: 8911; 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** 431, 411, 921. **KW** Exchange Rates. Current Account. Consumption. Life Cycle Model. Open Economy.

**AB** This paper attempts the econometric implementation of a monetary, intertemporal general equilibrium model of exchange rate and current account determination in a small open economy. The reduced form of the model comprises a statement of the permanent income hypothesis of consumption and the rational expectations extension of the monetary approach to exchange rate determination. The model is estimated using full information maximum likelihood methods and quarterly data over the recent flexible exchange rate period on the UK and US economies. The empirical findings suggest that the model shows considerable promise in explaining the exchange rate and consumption side of current account behavior.

**PD** June 1989. **TI** On Savings and Investment Dynamics in a Small Open Economy. **AA** Arizona State University and University of Rochester. **SR** University of Western Ontario Department of Economics Research Report: 8910; 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** 441, 411. **KW** Capital Mobility. Open Economy. Savings. Investment. Overlapping Generations Model.

**AB** This paper constructs a stochastic, overlapping generations, two-country model of savings and investment under conditions of perfect international capital mobility. The focus of the analysis is on the relationship between savings and investment dynamics in a small open economy in response to stochastic variations in domestic and/or foreign production technologies. The model is simulated under alternative specifications of the stochastic distribution governing both technologies. This provides insight into the very complicated nature and rich diversity of possible relationships between savings and investment dynamics.

### Fisher, Anthony C.

**TI** The San Francisco Bay/Delta Chinook Salmon Fishery: A Review and Analysis of Recent Trends. **AU** Keeler, Andrew; Fisher, Anthony C.; Hanemann, W. Michael.

**TI** The San Francisco Bay/Delta Striped Bass Fishery: Anatomy of a Decline. **AU** Callahan, Joseph; Fisher, Anthony C.; Templeton, Scott.

**PD** May 1989. **TI** Option Value: Theory and Measurement. **AU** Fisher, Anthony C.; Hanemann, W.

Michael. AA University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 503; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 24. PR \$4.80. JE 511, 721. KW Option Value. Risk. Natural Resources. Contingent Valuation. Decision Theory.

AB In this paper we provide a theoretical review of option value and its relationship to a more familiar concept in decision analysis, the value of information. We further show how option value might be measured with the aid of a partly realistic and partly hypothetical example. Finally, we consider how contingent valuation techniques might be used to estimate option value.

### Fisher, Gordon R.

TI An Empirical Study of the Impact of Corporate Taxation on the Debt Policy of Canadian Firms. AU Bartholdy, Jan; Fisher, Gordon R.; Mintz, Jack M.

### Fishman, Arthur

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

### Flood, Robert P.

PD December 1988. TI Evolution of Exchange Rate Regimes. AU Flood, Robert P.; Bhandari, Jagdeep S.; Horne, Jocelyn P. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/88/106; International Monetary Fund, Washington, D.C. 20431. PG 26. PR no charge. JE 431, 432, 411, 113. KW Exchange Rates. Inflation. Fluctuations. Monetary Shocks. International Theory.

AB This paper studies issues relating to the evolution of exchange rate regimes. Empirical regularities concerning the variation over time of real and monetary disturbances and cross-country inflation differentials are first discussed. The paper then develops a model that incorporates these regularities and thereby enables exchange rate regime changes to be viewed as optimal and predictable responses by policymakers to a changing economic environment.

### Fogel, Robert W.

PD May 1989. TI Second Thoughts on the European Escape from Hunger: Famines, Price Elasticities, Entitlements, Chronic Malnutrition, and Mortality Rates. AA University of Chicago. SR National Bureau of Economic Research Working Paper Series on Historical Factors and Long-Run Growth: 1; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG Not available. PR \$2.00. JE 044, 711, 713, 921. KW Mortality. Food Supply. Famine. Agriculture. Food Distribution. Agricultural Policy. Malnutrition.

AB Three findings in this paper are as follows: (1) Crisis mortality accounted for less than 5 percent of total mortality in England prior to 1800 and the elimination of crisis mortality accounted for just 15 percent of the decline in total mortality between the eighteenth and nineteenth centuries. (2) The use of variations in wheat prices to measure variations in the food supply has led to gross overestimates of the variability of the food supply. (3) The famines that plagued England between 1500 and 1800 were man-made, the consequence of failures in the system of food distribution related to an extremely inelastic

demand for food inventories, rather than to natural calamities or inadequate technology.

### Fons, Jerome S.

PD November 1988. TI Default Risk and Duration Analysis. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8824; 33 Liberty Street, Rm. 901, New York, NY 10045. PG 37. PR no charge. JE 313. KW Default Risk. Junk Bonds. Risk Spreads.

AB This paper argues that the appropriate duration for default-prone bonds is their effective duration. However, because of the complicated way default-prone bonds respond to changing interest rates, a simple algorithm for this measure is not available. As an alternative, we estimate the effective durations of default-prone bonds, as well as their Macaulay durations, from historic corporate bond price and yield data. We find that the effective duration of risky bonds, perhaps because of firm-specific and macroeconomic partial effects, is lower than the commonly used Macaulay duration and find that the difference between these measures widens as credit quality falls.

### Foster, William E.

PD October 1988. TI Farmer Behavior under Risk of Failure. AU Foster, William E.; Rauser, Gordon C. AA University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 488; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 37. PR \$7.40. JE 714, 716, 715, 712. KW Farmers. Agriculture. Human Capital.

AB This article addresses farm behavior under risk of failure, where failure implies a large cost to the farmer of leaving agriculture. The models developed here focus on the consequences of large, risky adjustment costs associated with moving a farmer's human capital from agricultural production. The term risky adjustment costs refers to the possibility that a farmer may have to accept involuntarily transition out of agriculture due to events beyond his control. In the absence of risk, the acceptance of adjustment costs would be entirely the farmer's (discrete) choice whether or not to remain in agriculture. The farmer would first maximize his expected utility as if he relied only on farm revenue; and then compare this level of farm-derived utility with that which is available elsewhere. The difference between these two utility levels would equal the net costs corresponding to adjusting a farmer's human capital.

### Frankel, Jeffrey A.

PD February 1989. TI A Modest Proposal for International Nominal Targeting (INT). AA Harvard University. SR Harvard John F. Kennedy School of Government Discussion Paper: 176D; J.F. Kennedy School of Government, 79 J.F.K. Street, Cambridge, MA 02138. PG 61. PR no charge. JE 431, 432, 411, 311, 133. KW International Coordination. Monetary Policy. Exchange Rates. Stabilization. Income Targeting. Monetary Reform. Policy Coordination.

AB The paper reviews the obstacles to successful international macroeconomic policy coordination, and then offers a proposal for coordination that is designed to have the best chance of overcoming these obstacles: an international version of



nominal GNP targeting. There are three sorts of obstacles to coordination: uncertainty, enforcement, and inflation fighting credibility. Enforcement is always a problem for coordination, but the problem is particularly great in the presence of uncertainty. This is partly because it is difficult to verify compliance if the "performance criteria" by which compliance is monitored are not directly enough under the control of the authorities, and partly because a country may end up regretting *ex post* the criterion that it agreed to *ex ante* if the criterion is not directly enough related to the target variables about which it ultimately cares.

**PD** February 1989. **TI** International Capital Mobility and Exchange Rate Volatility. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Discussion Paper: 175D; J.F. Kennedy School of Government, 79 J.F.K. Street, Cambridge, MA 02138. **PG** 59. **PR** no charge. **JE** 441, 442, 431. **KW** Capital Mobility. Savings. Investment. Interest Rates. Purchasing Power Parity. Interest Parity. Exchange Rates. Volatility. .

**AB** The first half of the paper addresses the question whether the degree of international capital mobility has increased. It reviews four criteria for measuring barriers to capital mobility that have been proposed: the correlation between national saving and investment rates, real interest differentials, uncovered interest differentials, and covered interest differentials. The conclusion is that financial integration has become almost complete in the 1980s for many countries (out of a sample of 25 for whom covered interest differentials can be computed), though this does not mean that real interest rates are equalized or that saving and investment rates are uncorrelated. The second half of the paper addresses the question whether high capital mobility can lead to excessive exchange rate variability.

#### **Frederick, Kenneth D.**

**PD** November 1988. **TI** Water Resources: Status, Trends and Policy Needs. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR88-02; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 51. **PR** \$5.00 (U.S. funds only). **JE** 721, 722. **KW** Water Resources. Natural Resources. Droughts.

**AB** Water is a scarce resource and becoming scarcer. Improved management of existing infrastructure is likely to provide the lowest cost means of expanding effective supplies. Nevertheless, opportunities for increasing supplies are limited, and demand side management is essential to prevent shortages and crises. Regulatory measures can help adjust to short term extreme events, encourage development and adoption of water-conserving products, and protect water quality. Markets and improved pricing incentives are needed, however, to encourage conservation, discourage abuse, and facilitate transfers in response to changing conditions.

#### **Frenkel, Michael**

**PD** April 1989. **TI** Balance of Payments Crises and the Structure of Adjustment Policies. **AU** Frenkel, Michael; Klein, Martin. **AA** Frenkel: University of Mainz. Klein: University of Bonn. **SR** International Monetary Fund Working Paper: WP/89/37; International Monetary Fund, Washington, DC 20431. **PG** 20. **PR** No charge. **JE** 431, 322, 311. **KW** Trade Relations. Balance of

Payments. Africa. Exchange Rates. Fiscal Deficit.

**AB** This paper presents an integration of the theory of balance of payments crises and an approach of macroeconomic adjustment. At the heart of the problem is the conflict between an overly high fiscal deficit and the fixed exchange rate system. It is shown that different adjustment measures that aim at preventing the collapse of the fixed exchange rate system exert different immediate and medium-term effects on the stock of official foreign exchange reserves and on the real sector of the economy. The effects also depend on whether the adjustment measures are implemented with or without prior announcement.

#### **Froot, Kenneth A.**

**PD** June 1989. **TI** Stochastic Process Switching: Some Simple Solutions. **AU** Froot, Kenneth A.; Obstfeld, Maurice. **AA** Froot: Massachusetts Institute of Technology. Obstfeld: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 2998; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 13. **PR** \$2.00. **JE** 431, 313, 311, 113. **KW** Economic Policy. Asset Prices. Exchange Rates.

**AB** When changes in the economic policy regime occur stochastically, asset prices will reflect the possibility of such shifts. In this paper we apply techniques of regulated Brownian motion to obtain closed-form analytic price solutions when policy reaction functions are subject to prospective changes. We focus on the case in which the authorities promise to peg a currency's exchange rate once it reaches a predetermined future level. We also show how an open-ended commitment to exchange rate targeting may lead to multiple equilibria.

#### **Frydl, Edward J.**

**PD** February 1989. **TI** Prospects for LDC Debt Management: Debt Reduction versus Debt Forgiveness. **AU** Frydl, Edward J.; Sobol, Dorothy M. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8826; 33 Liberty St. Rm. 901, New York, NY 10045. **PG** 38. **PR** no charge. **JE** 432, 433, 443, 121. **KW** Debt Management. Economic Growth. Developing Countries. Debtor Nation.

**AB** The paper distinguishes debt forgiveness from other forms of debt reduction for LDCs and suggests that debt forgiveness not only will fail to produce many of the benefits its proponents claim but also is an inefficient form of debt reduction. The paper concludes by suggesting that debt reduction schemes that expand the menu of options in the absence of efforts to support the liberalization and privatization of developing country economies will not be sufficient to make much of a dent in the LDC debt burden.

#### **Fuglie, Keith**

**PD** March 1989. **TI** "Vent-for-Surplus" as a Source of Agricultural Growth in Northeast Thailand, 1950-1986. **AA** University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-3; Dept. of Agricultural & Applied Economics, 316 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 39. **PR** Free. **JE** 711, 713, 226, 715. **KW** Agricultural Development. Thailand. Agricultural Productivity. Agriculture. Trade. Economic Growth.

**AB** This paper reviews the "vent-for-surplus" model of agricultural development, in which access to foreign markets allows "surplus productive capacity" to be exploited. The

"indirect effects" of trade contribute to long-term economic growth even after the direct gains from trade are realized. How the new income streams are distributed amongst the population may also carry implications for long-term growth prospects. The model is used to explain the rapid expansion in export crop production that has taken place in the Northeast Region of Thailand over the past twenty-five years.

#### Fuss Melvyn A.

TI Economic Capacity Utilization and Productivity Measurement for Multiproduct Firms with Multiple Quasi-Fixed Inputs. AU Berndt, Ernst R.; Fuss Melvyn A.

#### Fuss, Melvyn A.

TI High Tech and Productivity: Evidence from Israeli Industrial Firms. AU Bregman, Aric; Fuss, Melvyn A.; Regev, Haim.

PD June 1989. TI Heteroskedasticity-Consistent Estimation of the Variance-Covariance Matrix for the Almost Ideal Demand System. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8911; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 14. PR no charge. JE 211. KW Heteroskedasticity. Variance-covariance Matrix. AIDS Model. Demand Model. Consumer Theory.

AB In this note I demonstrate the previously overlooked fact that if the AIDS aggregate demand model is constructed as the aggregation of individual consumer demands, then the error structure for any individual equation is necessarily heteroskedastic even if the individual consumer error terms are homoskedastic, unless the distribution of total expenditure is constant across aggregates. Maximum likelihood estimation which ignores this heteroskedasticity yields inconsistent estimates of the variance-covariance matrix and renders likelihood ratio tests of the restrictions of consumer demand theory inappropriate. A heteroskedasticity-consistent estimator of the variance-covariance matrix is proposed by adapting the technique of White (1980). This estimator, which is computationally simple, is also valid when the individual consumer's error terms are heteroskedastic.

#### Gagnon, Joseph E.

PD August 1989. TI A Forward-Looking Multicountry Model: MX3. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 359; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, DC 20551. PG 57. PR no charge. JE 411, 431, 311, 321, 023. KW Macroeconometric Model. Rational Expectations. Lucas Critique. Fiscal Policy. Monetary Policy.

AB This paper discusses the theoretical structure and empirical properties of MX3, a multicountry macroeconomic model with rational expectations. MX3 is a medium-sized quarterly model of the United States, Japan and West Germany. The primary objective of the model is to analyze the effect of fiscal and monetary rules on national economies in an international context. By incorporating rational expectations into almost all of the model's behavioral equations, MX3 takes a large step toward addressing the "Lucas critique" of model-based policy analysis.

#### Gale, G. William

PD August 1989. TI Collateral, Rationing and Government Intervention in Credit Markets. AA University of California, Los Angeles. SR National Bureau of Economic Research Working Paper: 3083; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 28. PR \$2.00. JE 315, 322, 321. KW Credit Markets. Government Policy. Rationing. Borrowing.

AB This paper analyzes the effects of government intervention in credit markets when lenders use collateral, interest, and the probability of granting a loan as potential screening devices. Equilibria with and without rationing are examined. Most government credit programs explicitly attempt to fund investors that cannot obtain private financing. In the model presented here, these subsidies increase the extent of rationing and reduce efficiency. In contrast, policies that subsidize the nonrationed borrowers, or all borrowers, are efficiency enhancing, and reduce the extent of rationing.

#### Galenson, David W.

PD May 1989. TI Economic and Geographic on the Farming Frontier: Evidence from Appanoose County, Iowa, 1850-1870. AU Galenson, David W.; Pope, Clayne L. AA Galenson: University of Chicago. Pope: Brigham Young University. SR National Bureau of Economic Research Working Paper Series on Historical Factors and Long-Run Growth: 4; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG Not available. PR \$2.00. JE 042, 714, 921. KW Farming. Pioneers. Agriculture. Wealth.

AB This paper investigates the characteristics of the early settlers on the midwestern farming frontier, the correlates of their geographic mobility, and the determinants of their wealth. Using evidence drawn from the manuscripts of the federal censuses of 1850-1870, we find average rates of growth of wealth over time that were considerably above the national average, a steeper cross sectional relationship between wealth and age than those found for populations drawn more broadly from throughout the United States at the same time, and a substantial positive effect of early arrival on the frontier on wealth levels.

#### Galor, Oded

PD March 1988. TI Trade Growth and Welfare in a Small Overlapping Generation Economy. AA Brown University. SR Brown University Department of Economics Working Paper: 88-4; Department of Economics, Brown University, Providence, RI 02912. PG 38. PR No charge. JE 441, 411, 111, 023. KW Growth Theory. Welfare Theory. Free Trade. Overlapping Generations Model.

AB This paper analyzes the short-run as well as the long-run welfare implications of growth for a small overlapping generations economy that is engaged in free trade of produced goods. The analysis establishes sufficient conditions which, in the absence of the possibility for international transactions in financial assets growth of the small economy, results in a Pareto welfare deterioration despite its policy of free trade of produced goods. In contrast to the static analysis, unrestricted international transactions of financial assets as well as free trade of produced goods are required to ensure that growth of a small economy results in a Pareto welfare improvement.

PD March 1988. TI Is Free-Trade Indeed Optimal for a

Small Economy? A Dynamic General Equilibrium Analysis. AA Brown University. SR Brown University Department of Economics Working Paper: 88-8; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 43. PR No charge. JE 422, 411, 023. KW Free Trade. Trade Policy. Tariffs. Perfect Competition. Overlapping Generations Model.

AB This paper analyzes the influential presumption concerning the optimality of free trade policy for a small perfectly competitive economy. The analysis is conducted within a dynamic general equilibrium framework for a two-good, two-factor overlapping generations world. The study demonstrates that for a small overlapping generations economy restricted trade may Pareto dominate free trade despite the absence of externalities, uncertainties, and nonconvexities; sufficient conditions under which the imposition of a tariff results in a Pareto welfare improvement are derived. Furthermore, the study provides the conditions under which the existing presumption holds.

PD April 1988. TI Welfare Aspects of Unemployment: A Dynamic General Equilibrium Analysis. AA Brown University. SR Brown University Department of Economics Working Paper: 87-5; Department of Economics, Brown University, Providence, RI 02912. PG 34. PR No charge. JE 023, 021. KW Unemployment. Transfer Payments. General Equilibrium Model.

AB This paper analyzes the short-run and the long-run welfare implications of anticipated or unanticipated unemployment within a dynamic general equilibrium model characterized by overlapping generations. The analysis indicates that in a stable stationary equilibrium, unemployment improves stationary welfare only if the long-run elasticity of wage with respect to employment is larger than unitary (negative) and the economy under- (over-) invests relative to the Golden Rule. The old generation at the time of the change is made worse off whereas all other generations during the transition period can be made better off. If transfer payments are feasible, unemployment may result in Pareto improvement.

PD September 1988. TI A Theory of Career Mobility. AU Galor, Oded; Sicherman, Nachum. AA Galor: Brown University. Sicherman: Rutgers University. SR Brown University Department of Economics Working Paper: 88-21; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 49. PR No charge. JE 823, 851, 824, 812, 821. KW Labor Market. Labor Mobility. Human Capital. Promotion.

AB This paper provides a theoretical and empirical analysis of the role as well as the significance of the phenomenon of occupational mobility in the labor market focusing on individuals' careers. The study provides an additional dimension to the existing analysis of prominent labor market phenomena including investment in human capital, wage profile differences across individuals and the relationships among promotions, quits, and inter-firm occupational mobility. The introduction of the concept of occupations and occupational mobility into the study of investment in human capital and labor mobility captures explicitly heterogeneity in human capital (i.e. skills are to a large extent occupation specific and their transferability across jobs is limited).

PD October 1988. TI Existence, Uniqueness, and Stability of Equilibrium in an Overlapping Generations Model with Productive Capital. AU Galor, Oded; Ryder, Harl E.

AA Brown University. SR Brown University Department of Economics Working Paper: 88-7; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 19. PR No charge. JE 023, 213, 111. KW Steady State Equilibrium. Production Function.

AB This paper analyzes the existence, uniqueness, and stability of a steady state equilibrium in an overlapping generations model with productive capital. It is shown that for any feasible set of well-behaved preferences there exists a production function that satisfies the Inada conditions under which the economy experiences global contraction and the steady state equilibrium is characterized by the absence of production and consumption. The study establishes a strengthened Inada condition which is necessary to preclude global contraction, and sufficient conditions for the existence of a unique and globally stable non-trivial steady state equilibrium.

PD March 1989. TI Dynamic Microeconomic Foundations for International Capital Movements: The Role of Multiplicity of Stable Steady State Equilibria. AA Brown University. SR Brown University Department of Economics Working Paper: 89-7; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 30. PR No charge. JE 441, 411, 023. KW International Capital. Capital Mobility. Capital Movement. International Markets.

AB This paper establishes a theory concerning the patterns of international capital movements and their implications for capital formation, output growth, and welfare. The proposed theory emerges from an analysis conducted within a dynamic general equilibrium framework characterized by multiple steady state equilibria. Despite the absence of cross-countries in either time preferences or production technologies, incentives for international capital movements exist in the long run; the historical paths of capital accumulation determine the countries' long-run equilibrium levels of capital, output and interest rate, and thus govern the patterns of international capital movements.

PD June 1989. TI Search Unemployment in an Overlapping Generations Setting. AU Galor, Oded; Lach, Saul. AA Galor: Brown University. Lach: The Hebrew University, Jerusalem. SR Brown University Department of Economics Working Paper: 89-20; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 23. PR No charge. JE 821, 022. KW Search Theory. Unemployment. General Equilibrium Model. Imperfect Information.

AB This paper constructs an overlapping generations model in which the steady-state equilibrium is characterized by the existence of search unemployment. This dynamic general equilibrium model captures the possible existence of search unemployment in the long run despite the absence of exogenous shocks. Furthermore, it allows for the wage offers' distribution to be determined endogenously. The effect of partial revelation of information on the existence of search unemployment in the long-run despite the persistence of the state of imperfect information.

### Gasmi, Farid

PD May 1988. TI An Econometric Analysis of Some Duoplistic Games in Prices and Advertising. AU Gasmi, Farid; Vuong, Quang H. AA University of Southern

California. **SR** University of Southern California Modelling Research Group Working Paper: M8903; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 44. **PR** no charge. **JE** 531, 132, 023. **KW** Advertising. Duopoly. Noncooperative Games. Market Demand.

**AB** The purpose of this paper is to evaluate the effect of advertising on market demand in the context of a duopoly. In such a context, firms can be viewed as being involved in a noncooperative game, where choices of levels of advertising and prices are the strategies available to each firm. The novelty of the analysis is to recognize explicitly this gaming nature in the econometric modelling. More specifically, we shall derive and estimate econometric models under the assumption that the data are the equilibrium outcomes of various games in prices and advertising. The approach presents two advantages. First, using recent econometric techniques, it allows us to identify the game which is most adequate to the data. Second, it provides full information estimates of the effect of advertising on market demand.

### Gaudet, Gerard

**PD** July 1989. **TI** Towards a Theory of Horizontal Mergers. **AU** Gaudet, Gerard; Salant, Stephen. **AA** Gaudet: Universite du Quebec a Montreal. Salant: University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-24; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 28. **PR** No charge. **JE** 022, 611. **KW** Mergers. Horizontal Merger. Oligopoly Models.

**AB** The purpose of this chapter is to explain and illustrate some recent developments in the theory of horizontal mergers. In Section 2, we derive the key property of oligopoly models-analyzed in detail in Gaudet and Salant (1988a)-on which our subsequent merger analysis is based. This property has widespread implications-not only for the theory of mergers but also for international trade theory, the relationship of Stackelberg to Cournot equilibrium and other topics. We briefly discuss these implications before focusing on mergers.

### Gautschi, David

**TI** Demand Complementarities, Household Production, and Retail Assortments. **AU** Betancourt, Roger; Gautschi, David.

**TI** Two Essential Characteristics of Retail Markets and their Economic Consequences. **AU** Betancourt, Roger; Gautschi, David.

### Gavin, Michael

**PD** July 1989. **TI** Commercial Policy and the Trade Balance: The Case of Export Subsidies. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 436; Department of Economics, Columbia University, New York, New York 10027. **PG** 27. **PR** \$5.00. **JE** 422, 431, 411. **KW** Commercial Policy. Trade Policy. Current Account. Trade Balance. Subsidies. Exports.

**AB** A need to reestablish balance in a nation's external accounts is often put forward as a reason for commercial policy interventions that might not otherwise be desirable. Similarly, external financing constraints are often given as the reason why an otherwise desirable liberalization of trade policy cannot be undertaken. The link between commercial policy and the trade

balance is, therefore, of considerable policy importance, and the purpose of this paper is to reopen the question whether one popular commercial policy, the export subsidy, will in fact succeed in improving a nation's current account.

### Geanakoplos, John D.

**TI** Existence of Walras Equilibrium without a Price Player or Generalized Game. **AU** Dubey, Pradeep; Geanakoplos, John D.

**PD** May 1989. **TI** The Capital Asset Pricing Model as a General Equilibrium with Incomplete Markets. **AU** Geanakoplos, John D.; Shubik, Martin. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 913; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven CT 06520. **PG** 33. **PR** \$2.00. **JE** 313, 311, 021. **KW** Capital Asset Pricing Model. Incomplete Markets. Asset Prices. CAPM. General Equilibrium Model.

**AB** We recast the capital asset pricing model (CAPM) in the broader context of general equilibrium with incomplete markets (GEI). In this setting we give proofs of three properties of CAPM equilibria: they are efficient, asset prices lie on a "security market line," and all agents hold the same two mutual funds. The first property requires a riskless asset, the latter two do not. We show that across all GEI only one of these three properties of equilibrium is generally valid: asset prices depend on covariances, not variances. We extend CAPM to many consumption goods in such a way that all three properties hold. But now the definition of a riskless asset depends on preferences and endowments, and so cannot be specified a priori.

**PD** May 1989. **TI** Game Theory without Partitions, and Applications to Speculation and Consensus. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 914; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven CT 06520. **PG** 45. **PR** \$2.00. **JE** 511, 313, 026. **KW** Game Theory. Decision Theory. Speculation. Consensus. Information. Common Knowledge.

**AB** Decision theory and game theory are extended to allow for information processing errors. This extended theory is then used to reexamine market speculation and consensus, both when all actions (opinions) are common knowledge and when they may not be. Five axioms of information processing are shown to be especially important to speculation and consensus. They are called nondelusion, knowing that you know, nested, balanced, and positively balanced. We show that it is necessary and sufficient that each agent's information processing errors be nondeluded and (1) balanced so that the agents cannot agree to disagree, (2) positively balanced so that it cannot be common knowledge that they are speculating, and (3) KTYK and nested so that agents cannot speculate in equilibrium. Each condition is strictly weaker than the next one, and the last is strictly weaker than partition information.

### Gertler, Mark L.

**TI** Financial Factors in Business Fluctuations. **AU** Hubbard, Robert Glenn; Gertler, Mark L.

### Ghosh, Atish

**PD** December 1988. **TI** Model Uncertainty, Learning and the Gains from Coordination. **AU** Ghosh, Atish; Masson, Paul R. **AA** International Monetary Fund.

**SR** International Monetary Fund Working Paper: WP/88/114; International Monetary Fund, Washington, D.C. 20431. **PG** 35. **PR** no charge. **JE** 411, 431, 422, 432. **KW** Policy Coordination. Learning. Money. Exchange Rates. Economic Policy. World Economy.

**AB** This paper considers gains from international economic policy coordination when there is uncertainty concerning the functioning of the world economy, but also learning about the "true" model on the part of policymakers. The paper reports estimates of plausible alternative versions of a standard, two-country model. Activist policy (either coordinated or uncoordinated) may produce large welfare losses in the absence of learning, if policymakers believe in the wrong model; hence exogenous money targets and freely flexible exchange rates may be best. However, model learning (from observations on macroeconomic variables) causes coordinated policies to dominate activist uncoordinated policies or exogenous money targets.

#### **Giavazzi, Francesco**

**PD** May 1989. **TI** Confidence Crises and Public Debt Management. **AU** Giavazzi, Francesco; Pagano, Marco. **AA** Giavazzi: University of Bologna. Pagano: University of Naples. **SR** Centre for Economic Policy Research Discussion Paper: 318; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** 21. **PR** \$4.00. **JE** 321, 431, 432. **KW** Debt Management. EMS. Exchange Rates. Debt Crisis. Public Debt.

**AB** Under free capital mobility, confidence crises can lead to devaluations even when fixed exchange rates are viable, if fiscal authorities can obtain temporary money financing of deficits. During a crisis domestic interest rates increase, reflecting the expected devaluation. Rather than selling debt at punitive rates, fiscal authorities will turn to temporary money financing, leading to equilibria with positive probability of devaluation. These equilibria can be ruled out if the amount of debt maturing during the crisis is sufficiently small - a condition that can be met by reducing the stock of public debt, lengthening its average maturity and/or smoothing the time distribution of maturing issues.

#### **Gibbons, Robert S.**

**TI** Cheap Talk with Two Audiences. **AU** Farrell, Joseph; Gibbons, Robert S.

#### **Gilbert, Richard J.**

**PD** October 1988. **TI** Mobility Barriers and the Value of Incumbency. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 8895; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 10. **PR** \$3.50. **JE** 022, 611. **KW** Entry Barriers. Competition. Capital.

**AB** This paper surveys developments in the theory of barriers to new competition for the forthcoming Handbook of Industrial Organization, R. Schmalensee and R. Willig (eds). Several definitions of entry barriers are considered and a definition is proposed that emphasizes rents to incumbency. Structural barriers, including economies of scale, product differentiation, and cost advantages are discussed and the conditions that determine their consequence for the mobility of capital are examined. Particular emphasis is placed on potential entrants' expectations of the behavior of incumbent firms.

**PD** January 1989. **TI** Optimal Patent Length and Breadth. **AU** Gilbert, Richard J.; Shapiro, Carl. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-102; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 11. **PR** \$3.90. **JE** 022, 612, 621. **KW** Patents. Technical Change. Antitrust. Innovation.

**AB** In providing rewards to innovators, there is a tradeoff between patent length and breadth. This paper provides quite general conditions under which the optimal patent policy involves infinitely-lived patents, with patent breadth adjusting to provide the required reward for innovation.

**PD** January 1989. **TI** Product Line Rivalry with Brand Differentiation. **AU** Gilbert, Richard J.; Matutes, Carmen. **AA** Gilbert: University of California, Berkeley. Matutes: Institut d'Anàlisi Econòmica, CSIC. **SR** University of California at Berkeley Working Paper in Economics: 89-103; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 52. **PR** \$3.50. **JE** 022, 611, 621. **KW** Product Differentiation. Entry. Oligopoly. Innovation.

**AB** Competition with product rivalry is examined in a model where products are differentiated by both quality and brand name. With no commitments, symmetric equilibria exist where firms produce all products and the markups over marginal cost and profits are identical to the markups and profits with single product firms. If product innovation is costly, there is a prisoners' dilemma in product introduction. When firms can commit to restrict their product offerings, firms will specialize in different products if the degree of brand-specific differentiation is small, but will produce all products if the degree of brand-specific differentiation is sufficiently large.

#### **Goldberg, Linda S.**

**PD** January 1989. **TI** Heterogeneous Agents and the Collapse of an Exchange Rate Regime. **AA** New York University. **SR** New York University Economic Research Reports: 89-01; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 23. **PR** none. **JE** 431, 432. **KW** Exchange Rates. Heterogeneous Agents. Speculation. Currency.

**AB** This paper argues that the form of speculative attacks on currencies is inextricably tied to the nature of heterogeneity of speculators. Heterogeneity of speculators, derived from differences in relative risk aversion, differences in information sets, and nonuniformity in liquidity or market power may lead to a spectrum of expectations and stimuli response patterns. Under such circumstances a balance of payments crisis can be characterized by a series of mini-speculative attacks on a currency.

#### **Goldsmith, Arthur H.**

**TI** The Impact of Gender and Working Life Cycle Position on the Likelihood and Accumulation of Formal On-the-Job Training. **AU** Field, Alfred J., Jr.; Goldsmith, Arthur H.

**TI** The Impact of Recent Formal On-the-Job Training on the Likelihood of Layoff Unemployment. **AU** Field, Alfred J., Jr.; Goldsmith, Arthur H.

#### **Gonzalo, Jesus**

**PD** June 1989. **TI** Co-integration and Aggregation.

**AA** University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 89-30; Department of Economics (D-008), University of California, San Diego, La Jolla, CA 92093. **PG** 17. **PR** no charge. **JE** 211. **KW** Co-integration. Common Factors. Aggregation.

**AB** This paper explores the connection between co-integration at the micro level and at the macro level. Conditions for going from one to the other are provided. Most of these conditions are based on a common factor structure.

### Goodfellow, Jessica

**PD** February 1989. **TI** An Experimental Examination of the Simultaneous Determination of Input Prices and Output Prices. **AU** Goodfellow, Jessica; Plott, Charles R. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 691; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** Not available. **PR** no charge. **JE** 022, 215. **KW** Competitive Equilibrium. Disequilibrium. Experimental Economics. Demand Function.

**AB** This paper was motivated by students who were curious about the ability of markets to simultaneously determine the prices of inputs and the prices of outputs. The experiments involved four agents that had the capability of producing with a nonlinear production function from a single input. Supply functions for  $y$  were induced in some subjects and demand functions for  $x$  were induced in others. The paper proceeds with a step-by-step calculation of the competitive equilibrium in order to emphasize all assumptions. The model is then compared to the actual data generated in the experimental markets.

### Goulder, Lawrence H.

**TI** The U.S. Basic Industries in the 1980's: Can Fiscal Policies Explain their Changing Competitive Position? **AU** Eichengreen, Barry; Goulder, Lawrence H.

**PD** May 1989. **TI** Trade Liberalization in General Equilibrium: Intertemporal and Inter-Industry Effects. **AU** Goulder, Lawrence H.; Eichengreen, Barry. **AA** Goulder: Harvard University. Eichengreen: University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-110; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 33. **PR** \$3.50. **JE** 422, 431, 441, 411, 132. **KW** Trade Policy. Tariffs. Exports. International Trade.

**AB** This paper uses a dynamic computable general equilibrium model to simulate the effects of unilateral reductions by the U.S. in tariffs and "voluntary" export restraints (VER's). The model features intertemporal optimization by households and firms, explicit adjustment dynamics, an integrated treatment of the current and capital accounts of the balance of payments, and industry disaggregation. Central findings include: (1) VER's are considerably more significant than tariffs in terms of the magnitude of the macroeconomic effects induced by their reduction; (2) while VER reductions enhance domestic welfare, unilateral tariff cuts reduce domestic welfare and (3) international capital movements critically regulate the responses of the U.S. and foreign economies to these trade initiatives and produce significant differences between short- and long-run effects.

### Gourieroux, Christian

**PD** January 1989. **TI** Additive Log-differenced Probability Models for Count Data. **AU** Gourieroux, Christian; Monfort, Alain. **AA** Gourieroux: CREST-ENSAE. Monfort: Unite de Recherche, INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8902; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 30. **PR** no charge. **JE** 211. **KW** Poisson Models. Endogenous Sampling. Heterogeneity. Maximum Likelihood. Discriminant Analysis. Asymptotic Theory.

**AB** In this paper we define a new class of models for count data: the additive log-differenced probability models. This class might be seen as the analogue of proportional hazard models for duration data and, moreover, it has interesting interpretations in terms of costs (or benefits). The asymptotic properties of the maximum likelihood estimators for these models are studied and compared with those of the discriminant analysis estimators. Estimators for the case of endogenously stratified samples are also proposed. Finally the case of heterogenous observations is discussed.

**PD** February 1989. **TI** Econometrics Based on Endogenous Samples. **AU** Gourieroux, Christian; Monfort, Alain. **AA** Gourieroux: CREST-ENSAE. Monfort: Unite de Recherche INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8903; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 27. **PR** no charge. **JE** 211. **KW** Endogenous Sampling. Berkson Method. Likelihood Function. Asymptotic Theory.

**AB** In this paper we propose statistical methods for the models in which the observations are endogenously stratified. First, it is shown that the Exogenous Sampling Berkson (ESR) method keeps interesting properties of consistency and asymptotic normality in the endogenous case. Secondly, we propose a modification of the previous method, called the Modified Exogenous Sampling Berkson (MESB) method, which is asymptotically more efficient than the ESR method and easy to implement. Finally it is shown that the MESB method is asymptotically more efficient than the weighted maximum likelihood method.

### Graham, John D.

**TI** General Deterrence of Drunk Driving: Evaluation of Recent American Policies. **AU** Evans, William N.; Neville, Doreen; Graham, John D.

### Gray, Richard S.

**TI** Evaluating Prior Beliefs in a Demand System: The Case of Meats Demand in Canada. **AU** Chalfant, James A.; Gray, Richard S.; White, Kenneth J.

### Grilli, Vittorio U.

**PD** August 1989. **TI** Nominal Exchange Rate Regimes and the Real Exchange Rate Evidence from the U.S. and Britain, 1885-1986. **AU** Grilli, Vittorio U.; Kaminsky, Graciela Laura. **AA** Grilli: Yale University. Kaminsky: University of California, San Diego. **SR** National Bureau of Economic Research Working Paper: 3067; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$2.00. **JE** 431, 411. **KW** International Finance. Exchange Rates. International

**Markets.**

**AB** Two propositions are common in the international finance literature: (1) the real exchange rate is a random walk, (2) the real exchange rate time series properties essentially depend on the nominal exchange rate regime. The first proposition has been used in support of the claim that PPP cannot even be considered a long run relationship since deviations from it are permanent in nature. The second proposition has been used as evidence of price stickiness. Contrary to the first proposition, this paper presents evidence that the random walk behavior of the real exchange rate is just a characteristic of the post-WWII period, while in the prewar period we observe the presence of transitory fluctuations.

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

**Gros, Daniel**

**PD** January 1989. **TI** Monetary Policy Interaction within the EMS. **AU** Gros, Daniel; Lane, Timothy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/8; International Monetary Fund, Washington, D.C. 20431. **PG** 31. **PR** no charge. **JE** 431, 311, 432, 411. **KW** Stochastic Model. Monetary Policy. Exchange Rates. European Monetary System. **AB** A simple two-country stochastic model is used to analyze monetary policy interaction in a system of exchange rate bands such as the EMS, in the context of internationally-integrated financial markets. We consider the widely-acknowledged asymmetry of the system, as it pertains to member countries' use of monetary policy to offset shocks that impinge on their national incomes. Our results suggest, among other things, that tightening the exchange rate bands would lead to more intervention by all members, even if formal responsibility for keeping exchange rates within the bands lay only with the peripheral countries.

**PD** January 1989. **TI** Seigniorage in the EC: The Implications of the EMS and Financial Market Integration. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/7; International Monetary Fund, Washington, D.C. 20431. **PG** 15. **PR** no charge. **JE** 432, 423, 323. **KW** European Monetary System. Economic Integration. Seigniorage. Inflation.

**AB** The paper measures the effects of the integration of European financial markets and lower inflation in the EMS on the revenue from seigniorage for the EC member countries with particular focus on the high inflation countries. Assuming that by 1992 all EC members participate fully in the EMS and reserve requirements are unified, the revenue from seigniorage will be reduced by about 2 percentage points of GDP in Greece and Portugal and 0.5-0.8 percentage points in Italy and Spain. Two different measures of seigniorage yield similar results regarding the change, but differ regarding the level.

**Grossman, Herschel I.**

**PD** January 1989. **TI** Proprietary Public Finance, Political Competition, and Reputation. **AU** Grossman, Herschel I.; Noh, Suk Jae. **AA** Grossman: Brown University. Noh: Dartmouth College. **SR** Brown University Department of Economics Working Paper: 88-16; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 32. **PR** No charge. **JE** 323, 024, 053. **KW** Tax Policy. Political Economy.

**AB** Although tax policy in most historical cases has been barely distinguishable from legalized theft, why have tax and spending policies in a few unusually fortunate communities, such as some of the modern democracies, apparently been, if not welfare maximizing, at least relatively benevolent? We address this question within a positive analysis of the tax and spending policy of a self-interested political establishment. In this analysis a positive amount of political competition can induce the political establishment to pursue relatively benevolent policies in order to enhance its survival probability.

**Guidotti, Pablo E.**

**TI** Optimal Taxation Policies in the EMS: A Two-Country Model of Public Finance. **AU** Vegh, Carlos A.; Guidotti, Pablo E.

**PD** May 1989. **TI** Currency Substitution and Financial Innovation. **AA** International Monetary Fund. **SR** International Monetary Fund: WP/89/39; International Monetary Fund, Washington, DC 20431. **PG** 19. **PR** No charge. **JE** 431, 411. **KW** Currency Substitution. Financial Innovation. Seigniorage.

**AB** This paper presents a cash-in-advance framework, with variable income velocity, where the domestic effects, as well as the international transmission, of financial innovation can be analyzed. In particular, the discussion emphasizes the role of currency substitution and of cross-border transfers of seigniorage in determining the general equilibrium effects of financial innovation.

**Gunderson, Morley**

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

**Haines, Michael R.**

**PD** May 1989. **TI** A State and Local Consumer Price Index for the United States in 1890. **AA** Wayne State University. **SR** National Bureau of Economic Research Working Paper Series on Historical Factors and Long-run Growth: 2; Nation Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** Not available. **PR** \$2.00. **JE** 134, 227, 042. **KW** Cost of Living. Price Index. Economic History.

**AB** This paper estimates a cost of living index for 39 states of the United States and the District of Columbia, as well as for 70 individual cities and towns, for the year 1890. It gives an overall index in addition to seven commodity subindices (food, clothing, housing, fuel and lighting, furniture, liquor and tobacco, and other commodities). The cost of housing is only provided for 21 of the states and 5 of the cities, however. Separate overall indices are calculated with and without housing costs. These price indices constitute simple fixed-weight Lespeyres indices and are not "true" constant utility cost of living indices.

**Haliassos, Michael**

**PD** July 1989. **TI** On Perfect Foresight Models of a Stochastic World. **AA** University of Maryland, College Park. **SR** University of Maryland Department of Economics Working Paper Series: 89-13; Department of Economics, University of Maryland, College Park, MD 20742. **PG** 30. **PR** no charge. **JE** 023, 313, 311. **KW** Perfect Foresight. Asset Substitutability. Asset Models. Expectations. Stochastic

Models.

**AB** Perfect foresight asset models analyze asset substitutability, return behavior, and policy effects. What do they tell us about our stochastic world, and how can they be tested with data from a stochastic environment? Typically, such models are considered as limiting cases where shocks "average out" and are therefore unimportant. Interestingly, despite the "averaging" justification, existing models are purely deterministic: perfect foresight and irrelevance of shorter-run uncertainty are imposed rather than derived from the model. This creates problems both for theory and for empirical work which uses data from a stochastic world.

#### Hall, Bronwyn H.

**PD** May 1989. **TI** Research and Development as an Investment. **AU** Hall, Bronwyn H.; Hayashi, Fumio. **AA** Hall: University of California, Berkeley. Hayashi: University of Pennsylvania. **SR** University of California at Berkeley Working Paper in Economics: 89-108; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 43. **PR** \$3.50. **JE** 621, 522, 521. **KW** R&D. Capital Expenditures. Technological Shocks.

**AB** About 20 percent of the gross investment expenditures of U.S. manufacturing firms is spent on research and development. Like investment in physical capital, R&D also responds to news about future prospects of the firm, such as profitability technological opportunities, or changes in factor prices. Using data from a panel of large U.S. manufacturing firms that was developed within the Productivity Program of the NBER, we investigate the differential responses of these two types of investment to changes in the value of the firm's assets as perceived by financial markets and the interaction of these responses. In order to study this topic empirically, we develop a stochastic dynamic programming model of a firm with two types of capital (physical and knowledge capital) which are used to produce profits. The model distinguishes between the accumulation of the two kinds of capital: expenditures on the physical capital stock are incurred one or more years before the capital actually becomes and the past technological position of the firm.

#### Hall, Elizabeth A.

**TI** The Incidence of Union Concessions in the 1980s: What, Where, and Why? **AU** Bell, Linda A.; Hall, Elizabeth A.; Hayes, Daniel R.

#### Hall, Robert E.

**PD** July 1989. **TI** Invariance Properties of Solow's Productivity Residual. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 3034; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 62. **PR** \$2.00. **JE** 825, 023. **KW** Productivity. Market Power. Returns to Scale.

**AB** In 1957, Robert Solow published a paper that provided the theoretical foundation for almost all subsequent work on productivity measurement. Although most applications of Solow's method have measured trends over fairly long time periods, the method also has important uses at higher frequencies. Under constant returns to scale and competition, the Solow residual measures the pure shift of the production function. Shifts in product demand and factor supplies should have no effect on the residual. Tests of this invariance property

show that it fails in a great many industries. Though other explanations may deserve some weight, it appears that the leading cause of the failure of invariance is increasing returns and market power. The empirical findings give some support to the theory of monopolistic competition.

#### Hall, Stephen

**TI** Cointegration in Recursive Systems: The Structure of Wage and Price Determination in the United Kingdom. **AU** Davidson, James; Hall, Stephen.

#### Hallett, Andrew Hughes

**TI** The Theory and Practice of International Policy Coordination: Does Coordination Pay? **AU** Currie, David; Holtham, Gerald; Hallett, Andrew Hughes.

#### Haltiwanger, John C.

**TI** Macroeconomic Implications of Production Bunching: Factor Demand Linkages. **AU** Cooper, Russell; Haltiwanger, John C.

#### Hamilton, Jonathan H.

**PD** September 1988. **TI** Spatial Competition and the Core. **AU** Hamilton, Jonathan H.; McLeod, W. Bentley; Thisse, Jacques Francois. **AA** Hamilton: University of Florida. MacLeod: Queen's University. Thisse: CORE, Universite Catholique de Louvain. **SR** University of Florida Working Paper in Economics: 88-6; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 29. **PR** no charge. **JE** 026, 611. **KW** Location Theory. Spatial Competition. Market Game. Differentiated Products. Nash Equilibrium. Duopoly.

**AB** Models of spatial competition have proven very useful in describing differentiated products markets. A problem with these models is that, for some location choices, no Nash equilibrium prices using pure strategies exists. This problem is resolved by viewing equilibrium prices as contracts subject to renegotiation. Formally, this is modeled by requiring prices to yield allocations in the core of the market game between firms and consumers. Given this restriction, we show that, for all location pairs, Nash equilibrium prices in pure strategies exist.

**PD** September 1988. **TI** Endogenous Timing in Duopoly Games: Stackelberg or Cournot Equilibria. **AU** Hamilton, Jonathan H.; Slutsky, Steven M. **AA** University of Florida. **SR** University of Florida Working Paper in Economics: 88-4; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 30. **PR** no charge. **JE** 026, 611. **KW** Duopoly. Game Theory. Extended Game. Sequential Play.

**AB** Simultaneous versus sequential play by duopolists is studied by way of an extended game in which players choose when to move. In a preplay stage, players choose whether to move at the first opportunity or to wait until a second turn. If a firm waits, it observes its rival's first period action. Thus, whether firms play simultaneously or sequentially is endogenized. In one extended game, players first choose when to move without committing themselves to actions in the basic game. Simultaneous play is the equilibrium of the extended game unless payoffs in a sequential move game Pareto dominate payoffs in simultaneous play.

**PD** September 1988. **TI** Endogenizing the Order of Moves in Matrix Games. **AU** Hamilton, Jonathan H.;



Slutsky, Steven M. AA University of Florida. SR University of Florida Working Paper in Economics: 88-3; Department of Economics, University of Florida, Gainesville, FL 32611. PG 35. PR no charge. JE 026. KW Bimatrix Games. Game Theory. Sequential Play. Extended Game.

AB Players often have flexibility in when they move and thus whether a game is best modeled by simultaneous or sequential play may be endogenously determined. For bimatrix games, we analyze this by considering an extended game. Our strongest results are for 2 X 2 games. If both players have dominant strategies in the basic game, payoffs are affected if and only if some pair of pure strategies Pareto dominates the simultaneous play payoffs. If so, the Pareto dominating payoffs are attained by sequential play in the extended game.

#### Hanemann, W. Michael

TI The San Francisco Bay/Delta Chinook Salmon Fishery: A Review and Analysis of Recent Trends. AU Keeler, Andrew; Fisher, Anthony C.; Hanemann, W. Michael.

TI Option Value: Theory and Measurement. AU Fisher, Anthony C.; Hanemann, W. Michael.

#### Hansen, Bruce E.

TI Statistical Inference in Instrumental Variables Regression with I(1) Processes. AU Phillips, Peter C. B.; Hansen, Bruce E.

#### Hardle, Wolfgang

PD May 1989. TI Kernel Estimation: The Equivalent Spline Smoothing Method. AU Hardle, Wolfgang; Nussbaum, Michael. AA Hardle: University of Bonn. Nussbaum: Akademie der Wissenschaften der DDR. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-239; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 17. PR No charge. JE 211. KW Kernel Estimator. Spline Smoothing. Variable Bandwidth. Bandwidth Choice. Nonparametric Model.

AB Among nonparametric smoothers, there is a well-known correspondence between kernel and Fourier series methods, pivoted by the Fourier transform of the kernel. We establish a similar analytic correspondence between kernel and spline estimators. Silverman's (1984) result on the effective kernel for the classical Reinsch-Schoenberg smoothing spline appears as a special case. The methods are used to obtain a Gaussian approximation for this extended class of smoothing splines in a nonparametric regression model. Asymptotic risk optimality of adaptive bandwidth choice under nonnormal errors follows. This in particular applies to Speckman's (1985) minimax linear smoothing spline, which thus attains a recently established overall minimax bound.

#### Hardouvelis, Gikas A.

PD July 1988. TI Margin Requirements, Volatility, and the Transitory Component of Stock Prices. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8818; 33 Liberty St., Rm. 901, New York, NY 10045. PG 51. PR no charge. JE 313, 522. KW Margin Requirements. Stock Prices. Volatility. Speculation. Equity Markets.

AB Higher initial margin requirements in cash equity

markets are associated with lower stock price volatility, lower excess volatility, and smaller deviations of stock prices from their fundamental values as in the case of "fads." Thus margin requirements seem to be an effective tool in curbing destabilizing speculation.

PD November 1988. TI Margin Requirements, Volatility and the Transitory Component of Stock Prices. AA Columbia University. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-38; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 32. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE 313, 521, 522. KW Margin Requirements. Volatility. Speculation. Fads. AB Higher initial margin requirements in cash equity markets are associated with lower stock price volatility, lower excess volatility, and smaller deviations of stock prices from their fundamental values as in the case of "fads." Thus margin requirements seem to be an effective tool in curbing destabilizing speculation.

#### Harley, C. Knick

PD October 1988. TI Coal Exports and British Shipping, 1850-1913. AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 8807; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 46. PR \$5.00 Canada; \$7.00 Elsewhere. JE 044. KW Coal. Shipping. Exports. England.

AB The export of British coal was a major element in the shipping trades of the late nineteenth century, it has often been argued that British coal was key to the success of British shipping. The connection is far from obvious. Most British coal went to European ports where British ships carried a smaller proportion of the trade than they did in more distant trades. There was an important relationship between coal freight rates and the freight rates on imports into northwestern Europe. In general, however, there seems to be little connection between Britain's shipping success and the export of coal.

#### Harris, Ethan S.

PD July 1988. TI A Reexamination of the Inventory Buffer Effect with Disaggregated Data. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8817; 33 Liberty Street, Rm. 901, New York, NY 10045. PG 25. PR no charge. JE 522, 521, 133, 131. KW Inventories. Finished Goods. Buffer Stock. Aggregation.

AB Despite its strong intuitive appeal, a series of studies have found virtually no empirical support for the traditional buffer stock model. This paper argues that these poor results reflect problems with aggregate inventory data and are therefore not a fair test of the buffer stock model. Using industry data, this paper shows that demand buffering of both seasonal and unexpected fluctuations in demand is the primary function of finished goods inventories at the macro level.

#### Harris, Richard G.

PD May 1989. TI The 1988 Canada-United States Free Trade Agreement: A Dynamic General Equilibrium Evaluation of the Transition Effects. AU Harris, Richard G.; Kwakwa,

Victoria. AA Harris: Queen's University. Kwakwa: University of Regina. SR Queen's Institute for Economic Research Discussion Paper: 744; Department of Economics, Queen's University, Kingston, Ontario, CANADA K6L 3N6. PG 58. PR \$3.00 Canada and U.S.; \$3.50 Foreign. JE 422, 421, 132. KW Free Trade. Trade Liberalization. Tariffs. Policy Analysis. General Equilibrium Model.

AB Canada and the United States have implemented legislation to form a free trade area in the classic sense. The Canada-America Free Trade Agreement, or CAFTA, is to be phased in over a ten year period which began on January 1, 1989. There are many elements to the agreement, but the most significant is the phased in reduction of tariffs on bilateral trade over a ten year period, plus removal of some significant non-tariff barriers. In addition the agreement sets out a new mechanism for resolving trade disputes involving the application of countervail and anti-dumping laws in both countries. This paper reports some estimates of the transition effect of the agreement using a sequenced general equilibrium model incorporating imperfect competition, scale economies and some labor market rigidities.

#### Hassan, Md Nazmul

TI Productivity, Health and Inequality in the Intrahousehold Distribution of Food in Low-Income Countries. AU Pitt, Mark M.; Rosenzweig, Mark R.; Hassan, Md Nazmul.

#### Hassett, Kevin

TI Corporate Savings and Shareholder Consumption. AU Auerbach, Alan J.; Hassett, Kevin.

#### Haveman, Robert

PD June 1989. TI Market Work, Wages and Men's Health. AU Haveman, Robert; Stone, Mark; Wolfe, Barbara L. AA University of Wisconsin, Madison. SR National Bureau of Economic Research Working Paper: 3020; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$2.00. JE 913. KW Health. Employment.

AB In this paper, we investigate the complex interrelationships among worktime, wages and health identified in the Grossman model of the demand for health. We specify a 3-equation simultaneous model designed to capture the time dependent character of these interrelationships, and estimate the model using 8 years of panel data on 882 males aged 22 to 71. The model is estimated using Hansen's generalized methods of moments imposing a weak set of conditions on the error term covariance structure. Using our data, we estimate simpler models with more restrictive assumptions commonly found in the literature, and find substantial differences between these estimates and those from the simultaneous model.

#### Hayashi, Fumio

TI Research and Development as an Investment. AU Hall, Bronwyn H.; Hayashi, Fumio.

TI Is the Extended Family Altruistically Linked? Direct Tests Using Micro Data. AU Altonji, Joseph G.; Hayashi, Fumio; Kotlikoff, Laurence J.

#### Hayes, Daniel R.

TI The Incidence of Union Concessions in the 1980s: What, Where, and Why? AU Bell, Linda A.; Hall, Elizabeth A.;

Hayes, Daniel R.

#### Helkie, William L.

TI Implications for Future U.S. Net Investment Payments of Growing U.S. Net International Indebtedness. AU Stekler, Lois E.; Helkie, William L.

#### Helpman, Elhanan

PD May 1989. TI The Non-Competitive Theory of International Trade and Trade Policy. AA Tel Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 18-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 52. PR no charge. JE 411, 421, 422. KW International Trade. Trade Theory. Trade Policy.

AB The non-competitive theory of international trade and trade policy are reviewed with an eye towards application. In addition to implications for static trade structures recent developments on dynamics and endogenous long-run growth are also examined. Policy implications are discussed in the context of one-sided market process as well as strategic interactions.

PD June 1989. TI Monopolistic Competition in Trade Theory. AA Tel Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 25-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 65. PR no charge. JE 411. KW Trade Theory. Monopolistic Competition. International Trade.

AB The study of international trade under monopolistic competition has been central to trade theory during the last ten years. This literature is reviewed, beginning with the basic structure of this approach, through its implications for trade structure, trade policy, trade dynamics and long-run growth.

#### Hendershott, Patric H.

PD June 1989. TI Reforming Conforming Loan Limits: The Impact on Thrift Earnings and Taxpayer Outlays. AU Hendershott, Patric H.; Shilling, James D. AA Hendershott: Ohio State University. Shilling: Louisiana State University. SR National Bureau of Economic Research Working Paper: 3010; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$2.00. JE 315, 932. KW Housing. Mortgages. Banking.

AB In recent years, the conforming loan limit has risen rapidly (62 percent between 1985 and 1989 versus a 10 percent rise in the price of a constant-quality new house) and has assumed significant importance to homebuyers and portfolio lenders. In this paper we calculate the impact on thrift interest income of two redefinitions of conforming loans: making all refinancings nonconforming and lowering the loan limit to the loan ceiling for FHA/VA loans (which was, in fact, the conforming limit prior to 1975). Each of these redefinitions makes sense from a public policy perspective. Thrifts would have earned nearly \$700 million more in 1987 had both redefinitions been in place at the start of 1986.

PD July 1989. TI Interest Rates in the Reagan Years. AU Hendershott, Patric H.; Peek, Joe. AA Hendershott: Ohio State University. Peek: Boston College. SR National Bureau of Economic Research Working Paper: 3037; National Bureau of Economic Research, 1050 Massachusetts Avenue,

Cambridge, MA 02138. PG 33. PR \$2.00. JE 131, 133. KW Interest Rates.

**AB** The Reagan Administration entered office in 1981 with one of the clearest and most ambitious agendas in recent times. The new administration advanced five economic/budgetary goals to rebuild America economically and militarily: (1) reduce inflation, (2) deregulate the economy, (3) cut taxes, (4) increase military spending and (5) reduce nondefense spending sufficiently to balance the budget. Achieving, or not achieving, these economic/budgetary goals likely had a significant impact on interest rates. Six specific hypotheses are investigated in this paper.

**PD** July 1989. **TI** Treasury Bill Rates in the 1970s and 1980s. **AU** Hendershott, Patric H.; Peek, Joe. **AA** Hendershott: Ohio State University. Peek: Boston College. **SR** National Bureau of Economic Research Working Paper: 3036; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$2.00. **JE** 131, 133. **KW** Interest Rates. Treasury Bills.

**AB** As is widely recognized, real interest rates in the early 1980s were at peaks not witnessed since the late 1920s. Less well perceived is the sharp decline in real interest rates since 1984. By 1986-88, real interest rates were back at their average levels of the previous quarter century. This paper seeks to identify the underlying determinants of the major movements in real six-month Treasury bill rates.

**Henderson, J. Vernon**

**PD** April 1987. **TI** Land Development Regulations. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 87-11; Department of Economics, Brown University, Providence, RI 02912. **PG** 35. **PR** No charge. **JE** 931, 932. **KW** Urban Economics. Land Development. Regulation.

**AB** This paper analyzes the potential effectiveness of different instruments which existing residents of a community can use to regulate the actions of developers of vacant land in the community. The focus is on a traditional community setting, where public services are provided by the public sector in a voting context and are financed by property taxes. There is vacant land in the community initially owned atomistically. Developers, or contractors, who may or may not be initial landowners propose projects for developing sections of the vacant land to the community, which may accept or refuse permission to develop. Apart from the overall desirability of proposed projects, for the community a central issue is how to regulate the activities of developers who are given permission to develop, so as to ensure outcomes in the best interests of the community.

**Hendry, David F.**

**TI** Encompassing and Rational Expectations: How Sequential Corroboration can Imply Refutations. **AU** Ericsson, Neil R.; Hendry, David F.

**PD** July 1989. **TI** An Econometric Analysis of UK Money Demand in 'Monetary Trends in the United States and the United Kingdom' by Milton Friedman and Anna J. Schwartz. **AU** Hendry, David F.; Ericsson, Neil R. **AA** Hendry: Nuffield College, Oxford. Ericsson: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance

Discussion Paper: 355; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 55. **PR** no charge. **JE** 122, 132, 131, 023. **KW** Co-integration. Diagnostic Testing. Error Correction. Exogeneity. Money Demand. Time Series.

**AB** This paper evaluates an empirical model of UK money demand developed by Friedman and Schwartz in Monetary Trends... . Testing reveals misspecification and hence the potential for an improved model. Using recursive procedures on their annual data, we obtain a better-fitting, constant, dynamic error-correction (co-integration) model. Results on exogeneity and encompassing imply that our money demand model is interpretable as a model of money but not of prices since its constancy holds only conditional on contemporaneous prices.

**Hercowitz, Zvi**

**TI** Oligopolistic Financial Intermediation, Inflation and the Interest Rate Spread. **AU** Cukierman, Alex; Hercowitz, Zvi.

**Hines, James R., Jr**

**TI** Copycatting: Fiscal Policies of States and their Neighbors. **AU** Case, Anne C.; Hines, James R., Jr.; Rosen, Harvey S.

**Hirshleifer, David**

**PD** June 1988. **TI** Cooperation in a Repeated Prisoners' Dilemma with Ostracism. **AU** Hirshleifer, David; Rasmusen, Eric. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-9; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 30. **PR** \$2.00; checks payable to U.C. Regents. **JE** 026, 213. **KW** Prisoners' Dilemma. Game Theory. Nash Equilibrium. Repeated Game.

**AB** The unique Nash equilibrium of the finitely repeated n-person Prisoners' Dilemma calls for defection in all rounds. One way to enforce cooperation in groups is ostracism: players who defect are expelled. If the group's members prefer not to diminish its size, ostracism hurts the legitimate members of the group as well as the outcast, putting the credibility of the threat in doubt. Nonetheless, we show that ostracism can be effective in promoting cooperation with either finite or infinite rounds of play. The model can be applied to games other than the Prisoners' Dilemma, and ostracism can enforce inefficient as well as efficient outcomes.

**PD** July 1988. **TI** Futures versus Share Contracting as Means of Diversifying Output Risk. **AU** Hirshleifer, David; Subrahmanyam, Avanihar. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-10; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 28. **PR** \$2.00; checks payable to U.C. Regents. **JE** 715, 313, 026. **KW** Diversification. Contracts. Futures Markets. Hedging. Trading.

**AB** Two coexisting alternatives for diversifying commodity output risk are share contracting and futures hedging. Purchases of output shares from multiple growers can diversify imperfectly correlated output risks, even when transaction costs or incentive problems prevent fine subdivision of shares. The

main result of this paper is that futures trading and share contracting can be complementary means of transferring risk. Futures contracts are useful in hedging of the systematic but not the idiosyncratic components of output risk. Share purchases can have the disadvantage of loading excessive systematic risk on the purchaser. In consequence, futures trading can increase the benefits to share diversification.

**PD** December 1988. **TI** Futures Trading, Storage, and the Division of Risk: A Multiperiod Analysis. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-10; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 35. **PR** \$2.00; checks payable to U.C. Regents. **JE** 313, 715, 716, 711. **KW** Futures Markets. Commodities. Risk Premium. Vertical Integration. Hedging. Inventories.

**AB** This paper analyzes the interaction of storage and futures trading when producers make decisions covering many harvests. In this more general context, by examining how risks are distributed between storers and growers, results are obtained that differ dramatically from previous models in the literature. When storage is costly, storers may reduce risk by taking long hedging positions, rather than selling inventories short. Contrary to the conventional view, costless storage does not imply downward bias of futures prices. Hedging against the optimally varying planting costs promotes upward price bias, while hedging against storage costs to be incurred promotes downward bias. When the risks faced by growers and storers are negatively correlated, futures trading can substitute for vertical integration as a means of reducing risk.

**PD** May 1989. **TI** Facilitation of Competing Bids and the Price of a Takeover Target. **AU** Hirshleifer, David; Png, I. P. L. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management in Business Economics Working Paper: 87-10; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 41. **PR** \$2.00; checks payable to U.C. Regents. **JE** 614, 611, 022. **KW** Prices. Bidding. Takeovers.

**AB** Initially uninformed bidders must incur costs to learn their (independent) valuations of a potential takeover target. The first bidder makes either a preemptive bid that will deter the second bidder from investigating, or a lower bid that will induce the second bidder to investigate and possibly compete. We show that the expected price of the target may be higher when the first bidder makes a deterring bid than when there is competitive bidding. Hence, by weakening the first bidder's incentive to choose a preemptive bid, regulatory and management policies to assist competing bidders may reduce both the expected takeover price and social welfare.

### Hirtle, Beverly

**PD** June 1988. **TI** Default and Liquidity Risk in the Junk Bond Market. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8816; 33 Liberty St. Rm. 901, New York, NY 10045. **PG** 30. **PR** no charge. **JE** 313, 315. **KW** Junk Bonds. Default Risk. Liquidity. Portfolios.

**AB** This paper examines abnormal returns on a portfolio of junk bonds following the LTV default and the Ivan Boesky

scandal in order to assess the vulnerability of the junk bond market to a general decline in credit quality and to a market-specific reduction in liquidity. Overall, however, both the LTV default and the Boesky affair appear to have generated only a short-term decrease in returns in the junk bond market. The relatively short duration of these decreases suggests that liquidity effects are only a moderate threat to the junk bond market.

### Hogan, William W.

**PD** June 1989. **TI** World Oil Price Projections: A Sensitivity Analysis. **AA** Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-04; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 45. **PR** \$7.50. **JE** 721, 723, 227, 722. **KW** Oil. Natural Resources. Energy. Oil Prices. Conservation.

**AB** Over the past several years, Harvard's Energy and Environmental Policy Center has published a series of studies on world oil markets. Much of the reaction to these reports has been skeptical. Specifically they asserted that 1) despite low prices, the rate of energy conservation would continue indefinitely-often a level equal to a 1-2 percent annual reduction in the oil-GNP ratio; 2) oil markets had experienced a significant structural change; and 3) significant amounts of new oil--both from non-OPEC sources and from OPEC itself as a result of the termination of the Iran-Iraq war would significantly deter the ability of the cartel to raise prices. To address these issues, this paper presents sensitivity analyses and alternative models that allow for trends in conservation, structural change, and expanded oil production. In each case, the alternative model is estimated with the available historical data.

**PD** June 1989. **TI** Firm Natural Gas Transportation: A Priority Capacity Allocation Model. **AA** Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-08; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 82. **PR** \$7.50. **JE** 723, 721, 641. **KW** Natural Gas. Energy. Natural Resources. Capacity Utilization.

**AB** Open access to natural gas pipeline networks should allow large customers ample opportunity to compete for cost-effective natural gas supplies. The competitive criterion is that all potential customers have equivalent access at the market clearing price to any building blocks in natural gas transportation service. Access to firm transportation capacity rights, defined as reliability priority blocks at critical bottlenecks, is offered as a workable mechanism for planning and managing capacity allocations on the pipeline network. A bidding model provides an allocation of capacity rights for a given period, with allocations reflecting the willingness to pay.

**TI** The Federal Regulatory Commission's Proposed Policy Statement on Gas Inventory Charges. **AU** Cicchetti, Charles J.; Hogan, William W.; Kalt, Joseph P.

### Holden, Steiner

**PD** June 1989. **TI** Non-Cooperative Wage Bargaining. **AA** University of Oslo. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 349; Centre

for Labour Economics, London School of Economics, Houghton Street, London ENGLAND, WC2A 2AE. PG 21. PR no charge. JE 832, 833, 824. KW Wages. Bargaining. Negotiations. Collective Bargaining. Strikes.

AB The paper argues that the Rubinstein perfect information infinite-horizon alternating-offers model is problematic when applied to wage negotiations. A strike or any other industrial action is not an automatic consequence of a delay in reaching an agreement, because production can continue as normal also when negotiations take place. An infinite-horizon alternating-offers model incorporating the choice of calling a strike is developed. It is shown that in this model there is no longer a unique subgame perfect equilibrium, and that strikes with a length in real time can occur in equilibrium.

PD June 1989. TI Wage Drift and Bargaining: Evidence from Norway. AA University of Oslo. SR London School of Economics Centre for Labour Economics Discussion Paper: 348; Centre for Labour Economics, London School of Economics, Houghton Street, London ENGLAND, WC2A 2AE. PG 35. PR no charge. JE 824, 832, 631. KW Wages. Bargaining. Manufacturing. Inventories.

AB Empirical equations, based on a theoretical bargaining model, are estimated on data for wage drift in six industries and in the aggregate manufacturing sector in Norway. It is shown that the central wage settlement has a strong impact on aggregate and relative wages in the short run, and that this effect is not offset by wage drift. Wage drift is also found to depend negatively on the size of inventories. This is interpreted as arising from the effect of the initial size of the inventories on the cost to the firm of an industrial conflict.

### Holtham, Gerald

TI The Theory and Practice of International Policy Coordination: Does Coordination Pay? AU Currie, David; Holtham, Gerald; Hallett, Andrew Hughes.

### Holtz, Eakin Douglas

PD July 1989. TI The Spillover Effects of State-Local Capital. AA Columbia University. SR Columbia Department of Economics Working Paper: 435; Department of Economics, Columbia University, New York, New York 10027. PG 32. PR \$5.00. JE 324, 931. KW State Governments. Government Ownership. Public Sector.

AB This paper examines the role of public sector capital, namely the capital stocks of state and local governments, as an input in the production of private output in the United States. The primary theme is to provide a quantitative assessment of the importance of this public input, which I shall refer to as infrastructure capital. There are (at least) two reasons to be interested in the outcome of the empirical analysis. First, a prominent recent issue in the professional and public press is the "infrastructure crisis".

PD July 1989. TI Municipal Labor Demand in the Presence of Uncertainty: An Economic Approach. AU Holtz, Eakin Douglas; Rosen, Harvey S. AA Holtz-Eakin: Columbia University. Rosen: Princeton University. SR Columbia Department of Economics Working Paper: 438; Department of Economics, Columbia University, New York, New York 10027. PG 31. PR \$5.00. JE 324, 813. KW Public Sector. Labor Demand. State Governments.

AB State and local governments play an important role in the U.S. labor market. There is now a large literature analyzing

this market, much of which has been devoted to comparing public and private sector labor with respect to wage setting processes, strike frequency and duration, the impact of unions, etc.. A smaller group of papers has focused on the important question of how state and local governments' labor demand responds to changes in their economic environments. In this paper we formulate a model of community labor demand in the presence of uncertainty, and estimate it using panel data from 1973 to 1980. The model allows us to test the hypothesis that employment decisions are rational in the sense that they incorporate all available information at the time that the decisions are made.

### Hong, Beom Gyo

TI Price Volatility and Speculation. AU Stein, Jeromè L.; Hong, Beom Gyo.

### Hong, Chew Soo

TI Equilibria in Multi-Party Competition under Uncertainty. AU de Palma, Andre; Hong, Chew Soo; Thisse, Jacques Francois.

### Horne, Jocelyn P.

TI Evolution of Exchange Rate Regimes. AU Flood, Robert P.; Bhandari, Jagdeep S.; Horne, Jocelyn P.

### Horstmann, Ignatius J.

PD March 1989. TI Is there Advertising, in Truth? AU Horstmann, Ignatius J.; MacDonald, Glenn M. AA Horstmann: University of Western Ontario and University of Rochester. MacDonald: University of Western Ontario, University of Rochester and Economics Research Center/NORC. SR Economics Research Center/NORC Discussion Paper: 89-4; Economics Research Center/NORC, 1155 E.60th St., Chicago, Illinois 60637. PG 43. PR \$2.00; Send requests to Librarian, Economics Research Center. JE 531, 026, 022. KW Advertising. Sequential Equilibrium. Signalling. Asymmetric Information.

AB This paper presents a new model of firm pricing and advertising behavior with persistent informational asymmetries. The persistence results from the fact that a single consumption experience is imperfectly informative about the good's characteristics. In contrast to previous models, dissipative advertising never occurs when the good is first introduced; any advertising of this sort is observed only for established products. As well, while price and advertising levels are positively correlated with the quality of established goods, these levels do not perfectly signal quality, again in contrast to previous results. The model also predicts that the price at which a good is offered for sale once it has become established exceeds its introductory price if and only if the good is advertised once established.

### Howard, David H.

PD May 1989. TI The United States as a Heavily Indebted Country. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 353; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 32. PR No charge. JE 431, 122, 132, 133. KW External Debt. External Adjustment. Developed Countries. Debt Crisis. AB In this paper, the U.S. net external debt position is

examined and compared with the experience of the other countries. The paper then proceeds to analyze the dynamic process of external debt accumulation. Concepts of external debt "stability" and "sustainable" external deficits are discussed. Next, a simulation model is developed with which various illustrative scenarios -- involving alternative assumptions about exchange rates and demand growth -- for the U.S. external accounts are generated and compared. Using these scenarios as background, the U.S. external adjustment process is discussed. Policy implications are then addressed, including the usefulness of focusing on the trade balance, rather than the current account, as the key indicator of external adjustment.

#### Howitt, Peter W.

TI A Model of Growth through Creative Destruction.  
AU Aghion, Phillippe; Howitt, Peter W.

#### Hsiao, Cheng

PD 1989. TI Modelling Ontario Regional Electricity System Demand Using a Mixed Fixed and Random Coefficients Approach. AU Hsiao, Cheng; Mountain, Dean C.; Tsui, Kai Y.; Chan, M. W. Luke. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8906; Department of Economics, University of Southern California, University Park, Los Angeles, CA: 90089-0152. PG 27. PR No charge. JE 941, 723, 635. KW Heterogeneity. Multicollinearity. Demand System. Electricity. Energy.

AB In examining the municipal peak and kilowatt-hour demand for electricity in Ontario, we begin by exploring the issue of homogeneity across geographic regions. A common model across municipalities and geographic regions cannot be supported by the data. We consider various procedures which deal with this heterogeneity and yet reduced the multicollinearity problems associated with regional specific demand formulations. The recommended model controls for regional-seasonal specific factors are fixed while the coefficients of economic and weather variables are random draws from a common population for any one municipality by combining the information on all municipalities through a Bayes procedure.

#### Huang, Chi fu

TI Auction with Resale Markets: A Model of Treasury Bill Auctions. AU Bikhchandani, Sushil; Huang, Chi fu.

#### Hubbard, Robert Glenn

PD September 1988. TI Financial Factors in Business Fluctuations. AU Hubbard, Robert Glenn; Gertler, Mark L. AA Hubbard: Columbia University. Gertler: University of Wisconsin. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-37; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 71. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE 313, 522, 521, 131. KW Investment. Capital Market. Fluctuations. .

AB Recent research in macroeconomics has resurrected the idea that capital market imperfections may be significant factors in business volatility by making new progress in characterizing the mechanisms. This paper outlines a case for a financial aspect to business fluctuations. We present a theoretical model that explicitly motivates how financial factors may affect

investment. We then report some existing tests of the model's basic predictions, and also present two new sets of results. The first demonstrates that the inverse relation between sale variability and size documented in many studies may be due to financial rather than technological factors. The second lends support to a theoretical prediction of the model, that the effects of capital market frictions on investment should be asymmetric -- having more impact in recessions than booms.

#### Hurd, Michael D.

PD June 1989. TI Issues and Results from Research on the Elderly I, II and III. AA State University of New York, Stony Brook. SR National Bureau of Economic Research Working Paper: 3018; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 90. PR \$2.00. JE 918, 841, 921, 915. KW Elderly. Aging. Retirement. Savings. Demographics. Pensions. Consumption. Housing.

AB Part I covers background material on demographic change, living arrangements, income growth and labor force participation, and research on economics status. Part II is about retirement. A substantial fraction of the research on retirement has aimed at explaining the large drop in the labor force participation rate of elderly males. Part III is about consumption and saving. The impetus for much of the research on consumption and saving by the elderly was the finding that in cross-section wealth seems to increase with age, contradicting a prediction of the life-cycle hypothesis of consumption.

#### Hwang, Chuan Yang

TI Non-Disclosure and Adverse Disclosure as Signals of Firm Value. AU Teoh, Siew Hong; Hwang, Chuan Yang.

#### Hwang, Jiunn T.

PD June 1989. TI Confidence Sets Centered at James-Stein Estimators - A Surprise Concerning the Unknown Variance Case. AU Hwang, Jiunn T.; Ullah, Aman. AA Hwang: Cornell University. Ullah: University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 8909; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 17. PR \$5.00 Canada; \$7.00 Elsewhere. JE 211. KW Domination. Coverage Probability. Asymptotic Theory. Linear Model.

AB We compare the confidence set centered at James-Stein point estimator to usual F-confidence set for the p regression parameters of a linear model. Previous studies usually focused on the known variance case and typically conclude that whatever holds in the known variance case should hold in the unknown variance case when the variance is replaced by its best linear estimator  $S(2)$ . We are surprised that this is not entirely the picture we observe here. In fact, in many unknown variance cases, the range of the shrinkage factor, for the associate confidence set to have uniformly higher coverage probabilities than its F counterpart, can be ten times bigger than  $2(p-2)$  (the expected upper bound in the known variance case).

#### Imbens, Guido

TI Choice-Based Sampling of Dynamic Populations. AU Lancaster, Tony; Imbens, Guido.

**Imhoff, Eugene A.**

**TI** Economic Consequences of Accounting Standards: The Lease Disclosure Rule Change. **AU** Thomas, Jacob K.; Imhoff, Eugene A.

**Ito, Takatoshi**

**TI** On the Time Varying Risk Premium in the Yen/Dollar Exchange Market. **AU** Canova, Fabio; Ito, Takatoshi.

**PD** June 1989. **TI** Bonuses, Overtime, and Employment: Korea vs. Japan. **AU** Ito, Takatoshi; Kang, Kyoungsik. **AA** Hitotsubashi University. **SR** National Bureau of Economic Research Working Paper: 3012; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$2.00. **JE** 824, 821. **KW** Wages. Employment. Overtime. Korea. Labor Market.

**AB** This paper examined the bonus and wage behavior in Korea. We found that both bonuses and wages in Korea respond to economic conditions much more than their counterparts in Japan. This finding may reflect the fact that the Korean labor market is much closer to a spot market rather than a long-term contract (lifetime employment) market. Hence the bonus/wage ratio is apparently sensitive to economic conditions in Korea, unlike in Japan (Freeman and Weitzman). When "overtime" component of the wage is separately examined, it responds to economic conditions less than bonuses but more than base wages.

**Janssens, de Bisthoven Olivier**

**PD** October 1988. **TI** Solving Arborescent Linear Programs with Nested Decomposition. **AU** Janssens, de Bisthoven Olivier; Loute, Etienne. **AA** Janssens: Universite Catholique de Louvain. Loute: Universitaires Saint-Louis, Bruxelles and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8836; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 26. **PR** no charge. **JE** 222, 214, 213. **KW** Linear Programming. Corporations.

**AB** Linear programming used as a modelling technique in the context of large scale organizations leads to very large problems by today's standards, particularly when multidivisional, dynamic and stochastic aspects are taken into account. We consider a solution technique based on a recursive use of primal decomposition applied to an arborescent organization of the problem data. Data structuring is discussed in the paper. We briefly recall the basics of nested decomposition, focusing on implementation aspect, i.e., computational data structures, computational strategies. We point out ways to circumvent the problem raised by the reconstruction of the solution in terms of the original variables. A full scale implementation based on a modular commercial LP software is presented along with numerical experience.

**Jayet, H.**

**PD** May 1989. **TI** A Model of Rural-Urban Repeat Migration Induced by Job Turnover. **AA** Unite Recherche, INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8904; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 55. **PR** no charge. **JE** 823, 941, 824, 826. **KW** Labor Market. Employment. Migration. Job Turnover. Urban Economics.

**AB** The present paper examines workers' behavior when choosing between employment in a low-turnover rural area and a high-turnover urban area. The model shows that unemployed workers look for jobs in the two areas simultaneously, no matter what area they are located in, and take the first job they find. If it is an urban job, they continue to search for a rural one. The outcome of this behavior is a labor market equilibrium with migration flows between the two areas. Migration may be repeated several times by the same individual. If workers are unemployed at their time of entry into labor force, in most situations, urban net migration is positive for young workers and decreases with age.

**Jenkins, Stephen**

**PD** December 1988. **TI** Inequality Measurement using 'Norm Incomes': Were Garvey and Paglin onto Something After All? **AU** Jenkins, Stephen; O'Higgins, Michael. **AA** Jenkins: University of Bath. O'Higgins: OECD, Paris. **SR** Australian National University Working Paper in Economics and Econometrics: 174; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 32. **PR** no charge. **JE** 914, 921. **KW** Inequality Measures. Income distribution. Poverty. **AB** The 'norm income' approach to inequality measurement is based on a comparison of the observed income distribution with a reference distribution consistent with the socially desired minimum degree of inequality (and not the equal shares distribution). Garvey and Paglin suggested such an approach, and we show that their methods, suitably modified, are closely related to the multivariate methods recently proposed by Atkinson and Bourguignon. The advantages and disadvantages of a norm income approach are analyzed in detail.

**Jenkinson, Tim**

**TI** Wage Bargaining and Profitability: A Disaggregative Analysis. **AU** Beckerman, Wilfred; Jenkinson, Tim.

**Johnson, Leland L.**

**PD** October 1988. **TI** Use of Excess Capacity in International Telecommunications to Deter Competitive Entry. **AA** Rand Corporation. **SR** Rand Note: N-2792; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 19. **PR** no charge. **JE** 611, 612, 613, 514, 635. **KW** Satellites. Communications. Regulations. **AB** This note explores possibilities that owners of satellite and undersea cable facilities invest in excess capacity as a strategy to deter competitive entry by outsiders. The study concludes that (1) The cost of excess capacity may be worth bearing if it helps to break monopolies held by postal, Telegraph and telephone administrations (PTTs); (2) INTELSAT and Comsat must be given pricing flexibility in a competitive market; (3) elimination of the Federal Communication Commission's ban on switched traffic on separate satellite systems might hasten liberalization by the PTTs; and (4) substitution of price cap regulation for rate-of-return regulation of AT&T might reduce any pressures for excessive investment from the U.S. side.

**Johnson, Martin**

**PD** March 1989. **TI** The GATT Negotiations and U.S./E.C. Agricultural Policies: Solutions to Noncooperative Games. **AU** Johnson, Martin; Roe, Terry L.; Mahe, Louis. **AA** Johnson and Roe: University of Minnesota. **Mahe:**

Institut National de la Recherche Agronomique, France. **SR** University of Minnesota Economic Development Center Bulletin: 89-2; Dept. of Agricultural & Applied Economics, 316 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 12. **PR** Free. **JE** 026, 713. **KW** Noncooperative Game. Agricultural Policy. GATT. Bilateral Treaty. Treaties.

**AB** Countries cooperate in negotiation treaties. However, treaty compliance is noncooperative; signatories comply with treaties only if compliance leaves them better off than noncompliance. US and EC agricultural policies of 1986 are modeled through a noncooperative game. Bilateral treaties, formalizations of Nash Equilibria, are presented which improve US and EC welfare.

### Johnson, Paul

**PD** December 1988. **TI** The Labour Force Participation of Older Men in Britain, 1951-81. **AA** London School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 284; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** Not available. **PR** \$4.00. **JE** 813, 824, 826, 918. **KW** Retirement. Trade Unions. Elderly. Employment. Labor Force.

**AB** This paper evaluates the relative impact of range of health, economic and structural factors on the employment experience of older male workers in Britain in the 30 years since 1951. It is based on a cross sectional analysis of data on age of workforce in 34 industrial sectors drawn from the decennial censuses from 1951 to 1981. It finds that early retirement is influenced primarily by economic factors, although health becomes important in 1981. By showing that retirement and early retirement behavior are influenced by different factors, and that the importance of these factors has changed over time, this paper demonstrates why earlier research focusing on monocausal explanations has been unable to generate robust results.

### Jones, Ronald W.

**TI** Trade and Protection in Vertically Related Markets. **AU** Spencer, Barbara J.; Jones, Ronald W.

### Jones, Stephen R. G.

**PD** October 1989. **TI** Alternative Implications of a Structural Model of Job Search. **AA** Centre for Labour Economics, London School of Economics and McMaster University. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 363; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 26. **PR** No charge. **JE** 824, 821. **KW** Job Search. Search Theory. Unemployment. Reservation Wage.

**AB** This paper evaluates the implications of a structural model of job search using panel data from Great Britain in the late 1970s. It presents a number of ways of assessing a search theoretic interpretation of unemployment and it exploits the rich nature of this data set to compare and contrast these alternatives. Overall, it is not clear that reservation wages decline over time; in these longitudinal data, as many agents report a reservation wage that rises with duration as report one that falls. When interpreted in the context of a structural search model, with use of the data on subsequent unemployment durations, the evidence is quite mixed.

### Jonung, Lars

**PD** October 1988. **TI** Are Perceptions of Inflation Rational? Some Evidence for Sweden. **AU** Jonung, Lars; Laidler, David. **AA** Jonung: Stockholm School of Economics. Laidler: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8808; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 17. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** 134. **KW** Inflation. Expectations. Rational Expectations. Peso Problem.

**AB** Survey data (collected before the publication of official statistics) on agents' perceptions of the recent inflation rate are used to test the hypotheses that those perceptions are unbiased, and free of serially correlated errors. The second of these hypotheses is rejected, and given the nature of the data, this departure from "rationality" cannot be attributed to the effects of "Peso problems."

### Joskow, Paul L.

**PD** January 1989. **TI** Regulatory Failure, Regulatory Reform and Structural Change in the Electric Power Industry. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 516; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 114. **PR** no charge. **JE** 613, 723, 612. **KW** Electricity. Utilities. Regulation. Energy. Public Policy.

**AB** I begin with a discussion of the "traditional" structure and regulation of the electric power industry as it had evolved by the early 1970s. I turn next to an overview of the changes that have begun to take place in the structure of the electric power industry in the last decade with particular emphasis on developments in wholesale power markets generally and on the growth of an unintegrated independent generating sector in particular. The rest of the paper examines and evaluates in much more detail the public policies that have stimulated the rapid development of an independent generating sector, utility purchases from independent suppliers, and the growth and importance of competitive wholesale power markets.

**PD** February 1989. **TI** The Performance of Long Term Contracts: Further Evidence from Coal Markets. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 517; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 40. **PR** no charge. **JE** 614, 616, 632, 723, 613. **KW** Contracts. Coal. Prices. Utilities. Electricity.

**AB** This paper extends my previous work on price adjustment in long term coal contracts to cover the years 1984 and 1985 (and to lesser extent, 1986 and 1987 as well). I am interested in two related sets of question. First, how did actual transactions prices for coal sold pursuant to "old" long term contracts (contracts negotiated before 1980) adjust to changing market conditions after 1983 when the nominal and real market value of coal declined significantly? Were old contract prices rigid downward or did they adapt quickly to the new market conditions? Second, what were the roles of the formal adjustment provisions, renegotiation and litigation in determining transactions prices, quantities and the durability of existing contractual relationships?



**Jovanovic, Boyan**

**PD** August 1988. **TI** An Estimate of a Sectoral Model of Labor Mobility. **AU** Jovanovic, Boyan; Moffitt, Robert. **AA** Jovanovic: New York University. Moffitt: Brown University. **SR** Brown University Department of Economics Working Paper: 88-29; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 35. **PR** No charge. **JE** 823, 813, 824, 821. **KW** Labor Mobility. Labor Market. Labor Force. Employment.

**AB** This paper develops a model of sectoral labor mobility and tests its main implications. The model nests two distinct hypotheses on the origin of mobility: (a) sectoral shocks, and (b) worker-employer mismatch. We estimate the relative importance of each hypothesis, and find that the bulk of labor mobility is caused by mismatch rather than by sectoral shift.

**Jump, Gregory V.**

**PD** April 1989. **TI** Equilibrium in a Two-Country World with Neoclassical Production Technologies and National Currencies. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8906; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 42. **PR** no charge. **JE** 431, 432, 411. **KW** Interest Rates. Exchange Rates. International Trade. Two Country Model. Open Economy.

**AB** The existence and properties of symmetric equilibrium are examined in three models of a world consisting of two neoclassical economies, each of which specializes in the production of a specific good. All goods and assets are internationally traded. The models differ in their transactions technologies and are examined in a progression from pure barter, to a single world currency, to national currencies. The progression mirrors that of Lucas [1982] in his study of two-country endowment models. The analysis extends Lucas' results to include endogenously-determined production and capital formation. It yields a two-country model with an equilibrium business cycle in response to both real and monetary shocks.

**PD** April 1989. **TI** Stationary Equilibrium in a Neoclassical Production Model with a Cash-In-Advance Constraint. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8905; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 45. **PR** no charge. **JE** 111, 023, 311. **KW** Monetary Policy. Interest Rates. Business Cycle. Production. Neoclassical Theory.

**AB** A binding cash-in-advance constraint is imposed on otherwise standard neoclassical production economy with capital accumulation. Both production technology and the monetary growth rate are modelled as stochastic processes. Existence of stationary competitive equilibrium is established by showing that the binding cash-in-advance constraint is equivalent to imposing a particular stochastic shock to agents' preferences in a barter variant of the same economy. The model yields an equilibrium business cycle in response to both real and monetary shocks. An interesting finding is that the existence of a binding cash-in-advance constraint does not necessarily preclude the achievement of a Pareto Optimal equilibrium.

**Jun, Joosung**

**PD** July 1989. **TI** U.S. Tax Policy and Direct Investment Abroad. **AA** Yale University. **SR** National Bureau of

Economic Research Working Paper: 3049; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$2.00. **JE** 323, 441, 522, 442. **KW** Taxes. Tax Policy. Investment. International Business.

**AB** The analysis present in this paper shows that U.S. tax policy can have significant effects on U.S. direct investment outflows through various channels. It is stressed that a sensible choice of specification and data in an empirical model entails a rigorous examination of the theoretical underpinnings behind the model. In particular, we emphasize the difference between foreign fixed investment undertaken by the foreign subsidiary and direct investment of the entire international firm, and the need to use *different theoretical frameworks in each case*.

**PD** July 1989. **TI** Tax Policy and International Direct Investment. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 3048; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** 323, 441, 442, 522. **KW** Taxes. Tax Policy. Investment. International Business.

**AB** The effects of taxes on direct investment capital outflows are investigated using a theoretical model which integrates the investment and financial decisions of the parent and subsidiary. The resulting marginal qs and costs of capital show that intrafirm investment allocation and tax neutrality results critically hinge on the marginal financing regime. By identifying a channel(s) through which a specific tax policy affects firm decisions, the model evaluates the combined effects of the home country tax system on direct investment. Our analysis suggests that while the 1986 U.S. Tax Reform Act may have an ambiguous effect on the overall level of capital outflows, it may induce more equipment investments to be undertaken abroad.

**PD** August 1989. **TI** What is the Marginal Source of Funds for Foreign Investment? **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 3064; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** \$2.00. **JE** 442, 441, 521. **KW** Foreign Investment. International Firms. International Business.

**AB** This paper analyzes the marginal source of funds for foreign investment using both aggregate and micro data on the intrafirm transactions of U.S. international firms. Tax arbitrage regarding the form and timing of transactions, combined with risk involved with foreign operations and the desire of the parent to control subsidiaries, suggest that parent transfers provide the marginal source of funds for most foreign investment. Our conclusion is consistent with the seemingly puzzling evidence that some subsidiaries have positive dividends and transfers simultaneously despite the associated tax penalties, and others neither pay dividends nor receives transfers. Our analysis and empirical evidence are in sharp conflict with the widely-held tax capitalization view that retained subsidiary earnings are the marginal source of financing foreign investment.

**Kahn, Robert B.**

**TI** External Debt and Developing Country Growth. **AU** Kamin, Steven B.; Kahn, Robert B.; Levine, Ross.

**Kalaba, Robert**

**PD** February 1989. **TI** A Multicriteria Approach to Dynamic Estimation. **AU** Kalaba, Robert; Tesfatsion, Leigh.

**AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8904; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 15. **PR** No charge. **JE** 211. **KW** Optimization. Econometric Techniques. Probability Theory.

**AB** Standard econometric techniques assume that probability relations can be specified for discrepancy terms so that commensurability, and hence the ability to construct a single scalar measure of theory and data incompatibility, is ensured. These probability relations can be difficult to formulate in a credible manner. The present paper suggests that the problem of measuring the incompatibility between theory and data can feasibly and fruitfully be addressed as a multicriteria optimization problem if an investigator is either unable or unwilling to provide probabilistic assessments for discrepancy terms.

#### **Kalt, Joseph P.**

**TI** The Federal Regulatory Commission's Proposed Policy Statement on Gas Inventory Charges. **AU** Cicchetti, Charles J.; Hogan, William W.; Kalt, Joseph P.

#### **Kamecke, Ulrich**

**PD** July 1989. **TI** A Note on the Uniqueness of the Solution to a Large Linear Assignment Problem. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-243; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** No charge. **JE** 021, 213. **KW** Equilibrium Allocation. Core. Linear Problem.

**AB** The core of a linear assignment problem contains in general a continuum of allocations. A model is presented where the core shrinks to a unique solution as the population grows.

#### **Kamin, Steven B.**

**PD** May 1989. **TI** External Debt and Developing Country Growth. **AU** Kamin, Steven B.; Kahn, Robert B.; Levine, Ross. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 352; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 47. **PR** No charge. **JE** 431, 443, 121, 132. **KW** Developing Country. External Debt. Growth Theory. Debt Crisis.

**AB** This paper examines the question of how the path of real GDP in four important Latin American countries. Argentina, Brazil, Chile and Mexico, might have differed if the sharp run-up in borrowing during the late 1970s and early 1980s had not occurred. Specifically, we ask whether these countries are better off or worse off for having borrowed heavily prior to the debt crisis, and we attempt to gauge the extent to which they would have received greater benefits if policies that improve economic efficiency had been followed. A simple macroeconomic model is developed, and the simulation results are compared to the historical outcomes.

#### **Kaminsky, Graciela Laura**

**TI** Nominal Exchange Rate Regimes and the Real Exchange Rate Evidence from the U.S. and Britain, 1885-1986. **AU** Grilli, Vittorio U.; Kaminsky, Graciela Laura.

#### **Kane, Alex**

**PD** February 1989. **TI** The Delivery of Market Timing Services: Newsletters vs. Market Timing Funds. **AU** Kane, Alex; Marks, Stephen. **AA** Kane: University of California, San Diego. Marks: Boston University. **SR** National Bureau of Economic Research Technical Paper: 75; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** Not available. **PR** \$2.00. **JE** 313, 026. **KW** Newsletter. Market Information. Investment.

**AB** This paper examines the dissemination of market timing information (signals on the overall performance of risky assets relative to the risk free rate). We consider two delivery systems. Under the newsletter delivery system market timing information is disseminated solely through newsletter. Under the fund delivery system, timers set up timing funds in which investors can invest. In the absence of market imperfections we find the newsletter system to be superior.

#### **Kang, Kyoungsik**

**TI** Bonuses, Overtime, and Employment: Korea vs. Japan. **AU** Ito, Takatoshi; Kang, Kyoungsik.

#### **Kaplow, Louis**

**PD** June 1989. **TI** Optional Taxation with Costly Enforcement and Evasion. **AA** Harvard Law School. **SR** National Bureau of Economic Research Working Paper: 2996; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 16. **PR** \$2.00. **JE** 323, 321. **KW** Taxation. Tax Rates. Tax Agency. Tax Enforcement.

**AB** This paper analyzes the relationship between optimal taxation where the literature considers raising revenue with minimum distortion and optimal tax enforcement where much of the literature emphasizes raising revenue at the least cost. It is demonstrated that, under each of several assumptions about evasion and enforcement, some expenditure on enforcement is optimal despite its resource cost, its distortionary effects, and the availability of other revenue sources having no enforcement costs. Rules for optimal tax rates and enforcement expenditures are derived, which also indicate the marginal cost of government funds and optimal enforcement priorities for a tax collection agency.

**PD** June 1989. **TI** Legal Advice about Acts Already Committed. **AU** Kaplow, Louis; Shavell, Steven. **AA** Harvard Law School. **SR** National Bureau of Economic Research Working Paper: 3005; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$2.00. **JE** 916. **KW** Law. Legal system.

**AB** Much legal advice is provided after individuals have committed acts when they come before a tribunal rather than at the time they decide how to act. This paper considers the effects and social desirability of such legal advice. It is emphasized that legal advice tends to reduce expected sanctions, which may encourage acts subject to sanctions. There is, however, no a priori basis for believing that this is socially undesirable, because, among other reasons, it may be possible to raise the level of sanctions to offset their dilution due to legal advice. In addition, legal advice has no general tendency to improve the effectiveness of the legal system through its influence on the information presented to tribunals.

**Karp, Larry S.**

**TI** Tariff Reform in the Presence of Sector-Specific Distortions. **AU** Beghin, John; Karp, Larry S.

**Kats, Amoz**

**PD** February 1989. **TI** Spatial Oligopolies with Uniform Delivered Pricing. **AU** Kats, Amoz; Thisse, Jacques Francois. **AA** Kats: Virginia Polytechnic Institute. Thisse: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain **CORE** Discussion Paper: 8903; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 31. **PR** no charge. **JE** 611, 941, 613, 615. **KW** Oligopoly. Price Equilibrium. Price Theory. Location Theory.

**AB** This paper studies markets where uniform delivered pricing is used. Two cases are considered. In the first (named non-regulated), firms can choose the set of customers they serve while in the second (named regulated), each firm has to supply all customers wishing to be served by it. The location-price equilibria are derived in each case. All price equilibria in the non-regulated case are in mixed strategies while in the regulated case they are in pure strategies, but not unique. The vector of equal distance is a location equilibrium in either case. Last, the strategic choice of a pricing policy by each firm, mill or u.d.p., is studied and it is shown that when firms are not regulated the choice of u.d.p. by each is always an equilibrium, the choice by each of mill pricing is sometimes an equilibrium, while the choice of a different policy by each is almost never an equilibrium.

**Katz, Lawrence F.**

**PD** July 1989. **TI** Changes in the Structure of Wages: The U.S. versus Japan. **AU** Katz, Lawrence F.; Revenga, Ana L. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3021; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** \$2.00. **JE** 824, 826, 023. **KW** Wage Differentials. Labor Market. Labor Force. Education. Experience.

**AB** This paper examines changes in wage differentials by educational attainment and experience in the U.S. and Japan since the early 1970s. While educational earnings differentials have expanded dramatically in the U.S. in the 1980s, the college wage premium has increased only slightly in Japan. In contrast to the large expansion in experience differentials for high school males in the U.S., the wages of male new entrants have relative to more experienced workers for both high school and college graduates in Japan from 1979 to 1987. Macroeconomic factors (increased openness, trade deficits, and labor market slack) and changes in institutional structures (the decline in unionization) are likely to have amplified each other in contributing to an unprecedented decline in real and relative earnings of young less-skilled males in the U.S. in the 1980s.

**Keane, Michael**

**PD** March 1988. **TI** Real Wages over the Business Cycle: Estimating the Impact of Heterogeneity with Micro Data. **AU** Keane, Michael; Moffitt, Robert; Runkle, David. **AA** Keane and Moffitt: Brown University. Runkle: Federal Reserve Bank of Minneapolis. **SR** Brown University Department of Economics Working Paper: 87-10; Department of Economics, Brown University, Providence, RI 02912. **PG** 50. **PR** No charge. **JE** 131, 133. **KW** Business

Cycle. Real Wage. Aggregation Bias.

**AB** One of the oldest questions in macroeconomics concerns the correlation between the business cycle and the real wage. We provide new evidence on this question by examining the possible bias that arises when (1) workers have unobserved characteristics that affect their wages and (2) those workers who move in and out of the workforce over the cycle have systematically different unobserved characteristics from those who stay in. We distinguish as well between the bias that arises from those unobserved characteristics that are permanent components of wages and those which are transitory. We utilize micro, panel data and maximum likelihood selectivity bias techniques to estimate both the extent of this selectivity-cum-aggregation bias and the true effect of the cycle on real wages.

**Keeler, Andrew**

**PD** February 1989. **TI** The San Francisco Bay/Delta Chinook Salmon Fishery: A Review and Analysis of Recent Trends. **AU** Keeler, Andrew; Fisher, Anthony C.; Hanemann, W. Michael. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 501; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 34. **PR** \$6.80. **JE** 721, 722. **KW** Fishery. Hatcheries. Fishing. Fish Reserves.

**AB** This paper is intended to provide a review of theories and evidence on factors affecting the size and composition of the salmon population in the San Francisco Bay/Delta system, with a focus on the implications of management strategies. We begin, in section 2, with a brief introduction to the biology and economic importance of the fishery and the role of hatcheries. In section 3, trends in the population are examined, with special attention paid to composition in terms of hatchery and wild (naturally reproducing) salmon. Section 4 is about the causes of these trends. We distinguish three factors: environmental conditions, hatchery operations and fishing harvest regulations. We also consider an alternative explanation-the so-called "mixed-stock" hypothesis. The last section summarizes our findings and presents a plan for research to investigate the interaction of the various management controls on the fishery.

**Keeler, Emmett B.**

**PD** October 1988. **TI** Insurance Aspects of DRG Outlier Payments. **AU** Keeler, Emmett B.; Carter, Grace M.; Trude, Sally. **AA** Rand Corporation. **SR** Rand Note: N-2762; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 35. **PR** no charge. **JE** 913. **KW** Medicare. Health Care. Hospitals. Medical Costs. Health Insurance.

**AB** As part of Medicare's prospective payment system, the government pays "outlier" payments for especially long or expensive cases. These payments can be viewed as insurance losses, and mitigate problems of access and underprovision of care for the sickest patients and problems of fairness for the hospitals that take care of them. This note characterizes the outlier payment formulas that minimize risk for hospital coinsurance rate. The authors then simulate per case payments for a policy that did not include any outlier payments, the current outlier policy, and several other policies that minimize risk subject to different coinsurance constraints.

**Keeler, Theodore E.**

**TI** Pricing in a Deregulated Environment: The Motor Carrier Experience. **AU** Ying, John S.; Keeler, Theodore E.

**PD** January 1989. **TI** Deregulation and Scale Economies in the U.S. Trucking Industry: An Econometric Extension of the Survivor Principle. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-100; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 38. **PR** \$3.50. **JE** 615, 612, 613. **KW** Trucking. Freight. Transportation. Regulatory Policy. Regulation. Economies of Scale.

**AB** This paper develops a new method (based on probit analysis) for the estimation of scale economies using Stigler's survivor technique. The method has the advantage that it allows several variables (such as product quality attributes and factor prices) to be incorporated into the model. This new approach is applied to the U.S. trucking industry, with data for 1975, 1980, and 1984. The results for 1980-84 (more likely to be based on the natural structure of the trucking industry because of deregulation) indicate increasing returns to scale over the entire range of outputs in the trucking industry, although the strongest and most significant evidence is for the smaller half of the sample. The results for 1975-80 are more ambiguous, most likely because regulation constrained the growth of efficient firms during that period.

**Kelsey, David**

**PD** February 1989. **TI** A More General Measure of Risk Aversion When Utility is State-Dependent. **AU** Kelsey, David; Nordquist, Gerald L. **AA** Kelsey: Australian National University and Churchill College, Cambridge. Nordquist: University of Iowa. **SR** Australian National University Working Paper in Economics and Econometrics: 177; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 31. **PR** No charge. **JE** 026, 022. **KW** State-Dependent Utility. Risk Aversion. Insurance. Utility Model.

**AB** In this paper we propose a method for comparing risk aversion within the state-dependent utility model. This model is useful for analyzing problems such as health or life insurance. We extend the Arrow-Pratt measure of risk aversion to the case where utility is state-dependent. Our measure is a generalization of earlier methods of comparing risk aversion in this context, since it agrees with them where they are defined but can be applied to a much larger class of utility functions. We show how our analysis can be applied to a simple model of demand for insurance.

**Kessides, Ioannis N.**

**PD** March 1989. **TI** Profit Adjustment and Market Structure. **AA** University of Maryland, College Park. **SR** University of Maryland Department of Economics Working Paper Series: 89-5; Department of Economics, University of Maryland, College Park, MD 20742. **PG** 29. **PR** no charge. **JE** 611, 612, 631. **KW** Market Structure. Sunk Costs. Profitability. Manufacturing. Competition.

**AB** This paper tests a simple partial adjustment model that describes the profits of industries over time. The model is fit to Census data on U.S. manufacturing industries over the period 1967-82. Industry-specific estimates of the speed of adjustment of the profit rate towards its long-run equilibrium level, and hence measures of the degree of persistence in performance

across the various industries, are obtained. These estimates are then linked to structural characteristics that theory suggests might be pertinent in determining the rate at which the forces of competition erode excess returns. We find support for both the Chamberlinian hypothesis and the more recently advanced contestability conjecture which states that the performance of industries depends continuously on the degree to which they exhibit imperfect contestability.

**Khan, Moshin S.**

**PD** December 1988. **TI** The Macroeconomic Effects of Fund-Supported Adjusted Programs: An Empirical Assessment. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/113; International Monetary Fund, Washington, D.C. 20431. **PG** 37. **PR** no charge. **JE** 121, 431, 131, 133. **KW** Developing Countries. Current Account. Growth Rate. Inflation.

**AB** This paper reviews the existing evidence on the macroeconomic effects of fund-supported adjustment programs, and provides new estimates of these effects for 67 developing countries with programs during 1973-86. The empirical analysis indicates that in the short run, programs have led to an improvement in the current account, the balance of payments, and inflation, but this was accompanied by a decline in the growth rate. In the longer run the positive effects of programs on the external balance and inflation are strengthened, and the adverse growth effects reduced. These results are more definitive than those from previous studies.

**PD** January 1989. **TI** Islamic Banking: Experiences in the Islamic Republic of Iran and Pakistan. **AU** Khan, Moshin S.; Mirakhor, Abbas. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/12; International Monetary Fund, Washington, DC 20431. **PG** 28. **PR** no charge. **JE** 312. **KW** Banking. Commercial Banks. Iran. Pakistan.

**AB** In an Islamic system, as interest is prohibited, banks are expected to operate solely on the basis of profit and risk sharing. This paper describes the developments in Islamic banking in Iran and Pakistan. As these two countries have initiated the most far-reaching experiments with Islamic banking, their experiences have a significant bearing on the feasibility of such a system. The developments in these countries are evaluated against the theory underlying banking, and suggestions are made to achieve a more efficient system.

**Kimball, Miles S.**

**TI** Optimal Advice for Monetary Policy. **AU** Basu, Susanto; Kimball, Miles S.; Mankiw, N. Gregory; Weil, David N.

**Klein, Martin**

**PD** February 1989. **TI** ECU Interest Rates and ECU Basket Adjustments: An Arbitrage Pricing Approach. **AU** Klein, Martin; Muller, Sigrid. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-119; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 25. **PR** no charge. **JE** 431, 432, 441. **KW** Arbitrage Pricing. Interest Rates. European Currency Unit. European Market. European Monetary System. Arbitrage.

**AB** The paper considers the arbitrage pricing of bonds and the determination of interest rates in the European Currency

Unit (ECU) in situations of impending ECU basket adjustments. These adjustments disrupt the markets for private ECU assets with a lead of several months. The approach of the paper is based on the observation that the ECU is a derivative asset so that in the absence of transaction costs prices of ECU denominated assets should be determined by the prices of the existing member currency assets and the member currencies' exchange rate. Using the technical apparatus of arbitrage pricing theory it is shown how the fundamental arbitrage pricing relationships implied by the derivative character of the ECU have to be adjusted in order to be applicable during periods of ECU basket adjustments.

**TI** Balance of Payments Crises and the Structure of Adjustment Policies. **AU** Frenkel, Michael; Klein, Martin.

### **Klitgaard, Thomas**

**PD** May 1988. **TI** Managing Exchange Rates: The Experience of the European Monetary System. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8814; 33 Liberty St. Rm. 901, New York, NY 10045. **PG** 28. **PR** no charge. **JE** 432, 431, 423, 411, 113. **KW** European Monetary System. Exchange Rates. Fiscal Policy. Inflation.

**AB** The paper examines the economic rationales for the European Monetary System. It then documents the system's financial market success in achieving greater currency stability and in protecting member exchange rates from dollar fluctuations. From a macroeconomic perspective, the system appears to have created the necessary incentives with the implicit rule of less than complete adjustment of parity rates to inflation differentials. (An exception seems to have been made for France.) Unfortunately, it also appears, using a crude sacrifice ratio, that member countries paid more dearly in lowering inflation in the early 1980s than the United Kingdom, the United States or Japan.

### **Kniesner, Thomas J.**

**PD** July 1989. **TI** Estimating Labor Supply with Random Coefficient Regression - Econometric Theory and Applications to Labor Supply Disequilibrium and Model Specification. **AU** Kniesner, Thomas J.; Smith, Karen Marie. **AA** Kniesner: Indiana University. Smith: University of New Hampshire. **SR** Australian National University Working Paper in Economics and Econometrics: 181; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 34. **PR** no charge. **JE** 821, 824. **KW** Random Coefficients. Labor Supply. Panel Data.

**AB** Long-term contracting or disequilibrium due to adjustment costs or efficiency wages can cause an individual to work less (or more) than desired at the current period's values in the economic opportunity set (Kniesner and Goldsmith 1985, 1987). Our research develops a theoretically well grounded econometric model permitting us to infer labor supply (dis)equilibrium of the worker with an eye on improving how economists interpret estimated labor supply parameters. In particular, we use a random coefficient regression model with cross-correlated components to allow for labor supply suboptimization and to produce some new estimates of the severity of a worker's labor supply disequilibrium.

### **Koo, Anthony YC**

**TI** On the Product Mix within Import-Restricted Commodity

Categories. **AU** Dinopoulos, Elias; Koo, Anthony YC.

### **Kopits, George**

**PD** March 1989. **TI** Fiscal Policy and External Performance: The Turkish Experience. **AU** Kopits, George; Robinson, David. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/20; International Monetary Fund, Washington, DC 20431. **PG** 23. **PR** No charge. **JE** 121, 226, 321, 431. **KW** Developing Countries. Turkey. Fiscal Policy. Stabilization Theory. Exports. Economic Growth. Current Account.

**AB** In 1980 Turkey embarked on a far-reaching stabilization and liberalization program, which contributed to export-led growth and a significant movement toward both domestic and external equilibrium. Later, as fiscal policy was partly reoriented from a restrictive to an expansionary stance while adhering to a flexible exchange rate policy, inflationary pressures intensified but the external current account did not deteriorate. Counterfactual simulations, performed with a computational general equilibrium model, suggest that Turkey would have experienced a significantly lower inflation rate, with only a small reduction in growth, if it had adopted a less expansionary fiscal stance.

### **Korenman, Sanders D.**

**PD** April 1989. **TI** Is Superwoman a Myth? Marriage, Children, and Wages. **AU** Korenman, Sanders D.; Neumark, David B. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 94; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 43. **PR** no charge. **JE** 826, 851, 825, 824. **KW** Wages. Marriage. Children. Labor Supply. Labor Force.

**AB** This paper considers the hypothesis that household responsibilities reduce the labor market productivity (and wages) of married women relative to men or single women with comparable labor market human capital. We examine a number of potential biases in cross sectional estimates of the relationship between marriage or motherhood and wages, and conduct what we believe to be the first longitudinal analyses. We find no consistent evidence that marriage or children lower women's labor market productivity, once account is taken of the effects of marriage or children on labor force attachment.

### **Korte, Bernhard**

**PD** April 1989. **TI** Steiner Trees in VLSI-Layout. **AU** Korte, Bernhard; Promel, Hans Jurgen; Steger, Angelika. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89566-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 35. **PR** No charge. **JE** 213. **KW** Steiner Trees. NP-complete. Routing Algorithm. Algorithms.

**AB** Finding Steiner trees in graphs has proven to be one of the most essential tools in attacking the routing problem in VLSI-layout. Roughly speaking, the routing problem can be described as follows: given a graph  $G$  (in most practical applications a subgraph of a grid-graph) and a collection  $N$  of mutually disjoint subsets of the vertex-set of  $G$ . Find pairwise disjoint trees  $\{S(i)\}$  such that  $S(i)$  spans  $N(i)$  for every  $i$ . Such a tree  $S(i)$  is called a Steiner tree for  $N(i)$ . The intended

interpretation is that the vertices in each of the subsets  $N(i)$  form a net which has to be connected by wires. Of course, wirings of different nets have to be disjoint otherwise short circuits would be produced.

**Kotlikoff, Laurence J.**

**TI** Is the Extended Family Altruistically Linked? Direct Tests Using Micro Data. **AU** Altonji, Joseph G.; Hayashi, Fumio; Kotlikoff, Laurence J.

**TI** How Rational is the Purchase of Life Insurance. **AU** Auerbach, Alan J.; Kotlikoff, Laurence J.

**Kreisner, Thomas J.**

**PD** July 1989. **TI** Cross-correlated Random Regression Coefficients; A Refinement and Some Supporting Evidence. **AU** Kreisner, Thomas J.; Smith, Karen Marie. **AA** Smith: University of New Hampshire. Kreisner: Indiana University. **SR** Australian National University Working Paper in Economics and Econometrics: 182; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 22. **PR** no charge. **JE** 211. **KW** Random Coefficients. Panel Data. Labor Supply. PSID.

**AB** Random regression coefficients are often each modeled as the sum of a common mean,  $\beta$ , plus a normally distributed stochastic component,  $e(nt)$ , where  $n$  indexes agents and  $t$  indexes time periods. In the still popular Hildreth and Houck (1968) specification,  $e(nt)$  is uncorrelated across  $n$ , over  $t$ , and with the random components of the other regression coefficients. Later papers explore the feasibility and consequences of weakening these assumptions (Swamy 1971, Rao 1973, Hsiao 1974, Swamy and Mehta 1975, 1977 and Harvey 1978). Our research fleshes out some relatively unnoticed advantages of allowing the random components to be correlated across coefficients and demonstrates an estimation procedure emphasizing these advantages.

**Krelle, Wilhelm**

**PD** 1988. **TI** Lösung einer Klasse von nichtkooperativen Nichtnullsummenspielen. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-103; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 22. **PR** no charge. **JE** 026. **KW** Game theory.

**AB** Paper in German.

**Krueger, Alan B.**

**PD** July 1989. **TI** The Employers' Costs of Workers' Compensation Insurance: Magnitudes, Determinants, and Public Policy. **AU** Krueger, Alan B.; Burton, John F., Jr. **AA** Krueger: Princeton University. Burton: Cornell University. **SR** National Bureau of Economic Research Working Paper: 3029; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 22. **PR** \$2.00. **JE** 822. **KW** Workers' Compensation.

**AB** This paper presents estimates of the average cost of the workers' compensation insurance program for a homogeneous group of employers by state. These estimates are of interest because they reflect the operation, direct nominal costs, and efficiency of workers' compensation. The paper estimates cost equations for a variety of alternative specifications. The main finding is that when cost equations are estimated by ordinary

least squares there is a unit elasticity of costs with respect to benefits, but instrumental variable estimates of the effect of benefits yield a greater than unit elasticity. The results also indicate that the presence of a state insurance fund is associated with higher average costs to employers, all else equal.

**Krutilla, John V.**

**PD** January 1989. **TI** Management of Watersheds for Augmented Water Yields-Plumas National Forest. **AU** Krutilla, John V.; Bowes, Michael D.; Stockton, Thomas B. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR89-02; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 72. **PR** \$5.00 (U.S. funds only). **JE** 721, 722. **KW** National Forests. Watersheds. Water Supply. Forests. Reservoirs.

**AB** We investigate the relation between forest management and the associated increment in water yields for the Northern Sierra forests of California. A small drainage in the Plumas National Forests on the South Fork of the Feather River is considered. To evaluate the outcome of alternative forest management options we use a version of FORPLAN, the linear programming tool used by the Forest Service in its land management planning. To determine the extent to which increments in water flow can be effectively utilized, we simulate the stream flows below the forest and compute optimal operation rules for the reservoir system. Once this is accomplished, the comparative economic benefit of various timber management practices can be analyzed.

**Kumar, Manmohan S.**

**PD** December 1988. **TI** The Stabilizing Role of the Compensatory Financing Facility: Empirical Evidence and Welfare Implications. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/108; International Monetary Fund, Washington, D.C. 20431. **PG** 44. **PR** no charge. **JE** 432, 431, 133. **KW** International Monetary Fund. Exchange Rates. Stabilization Policy. Foreign Exchange.

**AB** Purchases under the compensatory financing facility, the IMF's largest special facility, accounted for more than one quarter of total credit extended by the IMF over the period 1976 to 1985. Given the size of these operations, it is of some interest to determine to what extent the facility served its intended purpose the stabilization of foreign exchange earnings of member countries experiencing temporary export shortfalls. This paper develops a methodology for evaluating the CFF's stabilizing role and provides some quantitative evidence of its effectiveness. This evidence is then used to obtain an indication of the facility's role in stabilizing the demand for international reserves and its contribution to net welfare gain.

**Kupiec, Paul H.**

**PD** February 1989. **TI** Initial Margin Requirements and Stock Returns Volatility: Another Look. **AA** Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 53; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 27. **PR** no charge. **JE** 313, 311. **KW** Stock Returns. GARCH. Volatility. Stock Market.

**AB** This paper investigates the relationship between initial

margin requirements and stock return volatility. Volatility is measured using a GARCH in mean model. We find no evidence of an empirical relationship between margin requirements and the volatility of the S&P 500 index portfolio's excess returns. Evidence from short-sale data, and model sensitivity analysis are presented which support the hypothesis of no margin-volatility relationship. The results are consistent with the intertemporal CAPM model of Merton (1973) with an aggregate relative risk aversion measure of 4.1.

#### **Kwakwa, Victoria**

**TI** The 1988 Canada-United States Free Trade Agreement: A Dynamic General Equilibrium Evaluation of the Transition Effects. **AU** Harris, Richard G.; Kwakwa, Victoria.

#### **Lach, Saul**

**TI** Search Unemployment in an Overlapping Generations Setting. **AU** Galor, Oded; Lach, Saul.

#### **Laidler, David**

**PD** August 1988. **TI** Alfred Marshall and the Development of Monetary Economics. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8809; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 59. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** 031, 311. **KW** Neoclassical Economics. Money. Quantity Theory. Monetary Theory.

**AB** No abstract available.

**TI** Are Perceptions of Inflation Rational? Some Evidence for Sweden. **AU** Jonung, Lars; Laidler, David.

**PD** January 1989. **TI** Dow and Saville's Critique of Monetary Policy - A Review Essay. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8901; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 28. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** 134, 311. **KW** Money. Banks. Financial Intermediaries. Inflation. Interest Rates. Exchange Rates.

**AB** It is argued that the "Keynesian" analysis which underlines this book is logically coherent, provided that inflation is a cost-push phenomenon. If instead inflation is a matter of money supply behavior, then its arguments fail.

#### **Lancaster, Kelvin**

**PD** March 1989. **TI** The 'Product Variety' Case for Protection. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 423; Department of Economics, Columbia University, New York, New York 10027. **PG** 22. **PR** \$5.00. **JE** 422, 411. **KW** Tariffs. Protectionism. Open Economy. Product Differentiation.

**AB** The aim of the paper is to investigate whether there can be a case for tariff protection based on the gain from product variety that occurs when local production supplements the range of models available from imports. The conclusion of the paper is affirmative, based on the analysis of a simple model of a small open economy in a two sector world, where one of the sectors is product differentiated manufacturing.

#### **Lancaster, Tony**

**PD** November 1988. **TI** Choice-Based Sampling of Dynamic Populations. **AU** Lancaster, Tony; Imbens, Guido. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-11; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 29. **PR** No charge. **JE** 932, 931. **KW** Homeless. Discrete States. Public Shelters. Housing Demand.

**AB** The city of New York provides emergency accommodation for homeless people. The effective provision of such accommodation requires an understanding of the demand for it. This means understanding who is likely to ask for such shelter and how often. And it also means understanding how long people who enter shelter are liable to stay there. One way to gain such an understanding is by sampling the population of people who are at risk of needing shelter and trying to determine the factors that dispose individuals to ask for shelter and to cause entrants to stay in shelter for varying lengths of time. This paper is concerned with the statistical analysis of samples of people who move in and out of a set of discrete states, such as the "state" of being in shelter, over a period of time.

#### **Land, Kenneth C.**

**PD** July 1988. **TI** Chance-Constrained Efficiency Analysis. **AU** Land, Kenneth C.; Lovell, C. A. Knox; Thore, Sten. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-10; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 22. **PR** no charge. **JE** 211. **KW** Random Noise. Deterministic. Efficiency.

**AB** The primary recurring objection to deterministic frontiers, both nonparametric and parametric, is that they make no allowance for the random noise that is the inevitable consequence of measurement error and model misspecification. As a consequence, measured efficiency relative to computed deterministic frontiers confounds true efficiency with noise.

#### **Landell, Mills J. M.**

**PD** December 1988. **TI** The Demand for International Reserves and Their Opportunity Cost. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/105; International Monetary Fund, Washington, D.C. 20431. **PG** 26. **PR** no charge. **JE** 443, 432, 431. **KW** Financial Markets. International Trade. Borrowing. Reserves. Government Debt.

**AB** An empirical study that shows that countries' reserve holdings are sensitive to the rates at which they can borrow on international financial markets, this analysis confirms the view that holding major currencies as reserve assets has costs that are frequently unrecognized. Between 1978-82 for 24 sample countries, and between 1978-86 for the same sample less those countries with debt-servicing difficulties, international borrowing costs were found to be a highly significant determinant of reserve holdings-- particularly before 1982 for the group with debt difficulties.

#### **Lane, Timothy**

**PD** January 1989. **TI** Credibility, Capital Controls, and the EMS. **AU** Lane, Timothy; Rojas, Suarez Liliana. **AA** International Monetary Fund. **SR** International

Monetary Fund Working Paper: WP/89/9; International Monetary Fund, Washington, D.C. 20431. PG 24. PR no charge. JE 432, 431, 311. KW Monetary Growth. Exchange Rates. Central Bank. Capital Controls.

European Monetary System.

**AB** A common rationale for EMS membership is that it enhances the credibility of a central bank's commitment to stable monetary growth. In this paper we consider this idea in the light of two features of the system, namely, the existence of exchange rate bands and the prevalence of capital controls. In our model, capital controls themselves affect credibility, reducing it in the absence of exchange-rate bands but enhancing it when there are such bands. We also show that it is difficult to reconcile the non-zero width of the bands with the credibility-based interpretation of the EMS.

**TI** Monetary Policy Interaction within the EMS.

**AU** Gros, Daniel; Lane, Timothy.

### Laroque, Guy

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

### Layard, Richard

**PD** April 1989. **TI** The Thatcher Miracle? **AU** Layard, Richard; Nickell, Stephen John. **AA** Layard: The London School of Economics, Nickell: Institute of Economics and Statistics. **SR** Centre for Economic Policy Research Discussion Paper: 315; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 71. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** 133, 831, 851, 825. **KW** Unemployment. Productivity. Inflation. United Kingdom. Trade Unions.

**AB** Since 1979 productivity growth in Britain has improved markedly compared with Europe. The turnaround in productivity growth has two main causes. The British economy was subjected to a far more severe contraction of demand in 1980-81 than any other country. This led to a new realism, which was sustained by the legal changes in trade union power. Since 1979 there has been a worsening in the trade-off between unemployment and inflation. The poor unemployment/inflation trade-off is due to the neglect of skill training and education (causing skill shortages) and to the build-up of long-term unemployment (which does little to restrain inflation).

**PD** May 1989. **TI** Lay-offs by Seniority and Equilibrium Employment. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 346; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 9. **PR** no charge. **JE** 824, 832. **KW** Layoffs. Bargaining. Median Voter.

**AB** In a bargaining model of wages a median voter will in the neighborhood of the firm's equilibrium (or below it) press for the maximum wage. Given LIFO and finite lives, the resulting bargain will never normally imperil his employment. Above equilibrium, he will normally select the wage which keeps him the median voter.

### Leahy, Michael P.

**PD** February 1989. **TI** The Profitability of U.S.

Intervention. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 343; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 60. **PR** no charge. **JE** 431, 311, 322. **KW** Exchange Rates. Monetary Policy. Government Spending.

**AB** In this paper I address some of the issues associated with measuring the profits and losses from intervention and show that U.S. intervention since the beginning of generalized floating in 1973 has earned positive economic profits for the U.S. monetary authorities. Profitability has been largest during episodes of intervention that have generated large foreign-exchange exposures. Fundamental explanations for the profitability of intervention are difficult to isolate, but I discuss possibilities that are consistent with the data. Finally I consider the effects profitable intervention may have on macroeconomic activity through its effects on the government budget constraint.

### Lee, Tom K.

**PD** December 1988. **TI** The Role of Instalment Payments in Contracts for Services. **AU** Lee, Tom K.; Png, I. P. L. **AA** Lee: California State University, Northridge. Png: University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-5; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 25. **PR** \$2.00; checks payable to U.C. Regents. **JE** 541, 022. **KW** Installment Payments. Services. Contracts. Moral Hazard.

**AB** This paper studies the role of installment payments in relationships characterized by moral hazard and sunk costs. Payments contingent on the product of the contractor are ruled out. Instead, each payment is negotiated as and when made. In such circumstances, an initial down payment serves to redress the weakness of the contractor in ex-post renegotiations. If higher effort by the contractor in one stage increases the marginal product of effort in the second stage, a second installment payment induces the contractor to invest greater effort.

### Leff, Nathaniel H.

**PD** August 1988. **TI** Psychocultural Conditions and Economic Development: Saving and Investment Behavior in East Asia and Latin America. **AU** Leff, Nathaniel H.; Sato, Kazuo. **AA** Leff: Columbia University. Sato: Rutgers University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-32; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 27. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 112, 123. **KW** Savings. Investment. Latin America. Economic Development.

**AB** In recent decades, the East Asian countries have generally experienced more satisfactory economic development than the Latin American countries. One hypothesis proposed to explain this disparity is that psychocultural conditions differ significantly between the two regions, in a manner that favors development the empirical relevance of the psychocultural hypothesis in a specific context: savings and investment behavior.



**PD** September 1988. **TI** Modeling the Demand for Foreign Capital Inflow in Developing Countries: Testing a Hypothesis with Latin American Data. **AU** Leff, Nathaniel H.; Sato, Kazuo. **AA** Leff: Columbia University. Sato: Rutgers University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-33; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 21. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 112, 121, 441. **KW** Capital Inflow. Latin America. Savings. Developing Countries. Foreign Investment.

**AB** This paper considers one approach to modeling the demand for foreign savings in LDC's. If the demand for investment shifts out more buoyantly than does the supply of domestic saving in response to current macroeconomic conditions, persistent demand for foreign savings will be generated as a normal feature of the development process. We test this hypothesis with elasticities computed for a sample of 21 Latin American countries. The empirical results show that in approximately half of the countries in the sample the demand for foreign savings is rooted in the parameters of the investment and domestic saving functions.

#### Levine, Ross

**TI** External Debt and Developing Country Growth. **AU** Kamin, Steven B.; Kahn, Robert B.; Levine, Ross.

#### Levy, A.

**PD** September 1988. **TI** Weighted Coalition Structure Values. **AU** Levy, A.; McLean, R. **AA** Levy: Tel Aviv University. McLean: Rutgers University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 20-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 31. **PR** no charge. **JE** 026. **KW** Game Theory. Coalition Structure Value. Utility Games. Bargaining.

**AB** In this paper we provide several axiomatizations of coalition structure values that result when intercoalitional and/or intracoalitional symmetry are dropped. Mathematically, our results unify and extend the work in Hart and Kurz (1983) and Kalai and Samet (1987). We concentrate almost exclusively on the axiomatic structure and will present applications to coalition formation games in a separate paper.

#### Lichtenberg, Frank R.

**PD** November 1988. **TI** How Elastic is the Government's Demand for Weapons. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-39; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 39. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 114, 322, 621. **KW** Weapons Acquisition. Defense Procurement. Defense Spending. Weapons Systems.

**AB** We attempt to make inferences about the elasticity of government's demand for specific weapons by analyzing the statistical relationship between quantity and cost revisions across the population of major weapon systems, using data contained in the Pentagon's Selected Acquisition Reports. The cost revisions are due in part to the arrival of technological information generated in the course of research and

development. When we standardize the data by program base year, we find that the elasticity of demand is .41, and is significantly different from both zero and unity. Thus, the government's demand for specific weapons is inelastic, but not perfectly inelastic.

**PD** June 1989. **TI** The Effects of Leveraged Buyouts on Productivity and Related Aspects of Firm Behavior. **AU** Lichtenberg, Frank R.; Siegel, Donald. **AA** Lichtenberg: National Bureau of Economic Research and Columbia University. Siegel: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3022; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 53. **PR** \$2.00. **JE** 631, 611, 521, 514. **KW** Buyouts. Manufacturing. Takeovers.

**AB** We investigate the economic effects of leveraged buyouts (LBOs) using large longitudinal establishment and firm-level Census Bureau data sets linked to a list of LBOs compiled from public data sources. About 5 percent, or 1100, of the manufacturing plants in the sample were involved in LBOs during 1981-86. We find that plants involved in LBOs had significantly higher rates of total-factor productivity (TFP) growth than other plants in the same industry. The productivity impact of LBOs is much larger than our previous estimates of the productivity impact of ownership changes in general. Management buyouts appear to have a particularly strong positive effect on TFP.

**PD** July 1989. **TI** How Elastic is the Government's Demand for Weapons? **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 3025; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$2.00. **JE** 114, 322. **KW** Defense Spending. Arms. Weapon Systems.

**AB** We attempt to make inferences about the elasticity of the government's demand for specific weapons by analyzing the statistical relationship between quantity and cost revisions across the population of major weapon systems, using data contained in the Pentagon's Selected Acquisition Reports. When we standardize the data by program base year, we find that the elasticity of demand is .55, and is significantly different from both zero and unity. Thus, the government's demand for specific weapons is inelastic, but not perfectly inelastic. The estimates also imply that weapons acquisition is characterized by increasing returns.

#### Lockwood, Ben

**TI** Trade Unions, Non-Binding Wage Agreements, and Capital Accumulation. **AU** Devereux, Michael B.; Lockwood, Ben.

#### Loungani, Prakash

**PD** January 1989. **TI** Stock Market Dispersion, Unemployment and GNP. **AU** Loungani, Prakash; Rush, Mark; Tave, William. **AA** University of Florida. **SR** University of Florida Working Paper in Economics: 89-2; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 24. **PR** no charge. **JE** 131, 133, 313, 023. **KW** Sectoral Shifts. Stock Markets. Unemployment. Output.

**AB** We conduct an investigation into the impact of dispersion in stock market prices across industries on aggregate

unemployment and output. The sectoral shifts hypothesis, advocated by Lilien (1982) and others, suggests that lagged values of dispersion will lower output and raise unemployment. Our results for the period 1926 to 1987 support this hypothesis: a dispersion index lagged for two and three years had a significant impact on current GNP, while the dispersion index lagged three years affected aggregate unemployment.

**PD** January 1989. **TI** Unemployment and Sectoral Shifts: Evidence from the PSID. **AU** Loungani, Prakash; Rogerson, Richard; Sonn, Yang Hoon. **AA** Rogerson: Stanford University. Sonn and Loungani: University of Florida. **SR** University of Florida Working Paper in Economics: 89-1; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 26. **PR** no charge. **JE** 823, 824, 131, 821. **KW** Sectoral Shifts. Labor Mobility. Unemployment. Human Capital. Business Cycle.

**AB** We analyze the correlation between sectoral mobility and unemployment using PSID data for the years 1974-83. In contrast to Murphy and Topel (1987), our results indicate that the contribution of industry switchers to total unemployment is higher during recessions than during booms. However, the role of those individuals who take as long as two years to locate alternative employment is critical in generating such a cyclical pattern. Hence, any theory that relies on sectoral shifts as an explanation of cyclical unemployment must stress that individuals who switch sectors during recessions experience very large amounts of unemployment.

#### Loute, Etienne

**TI** Solving Arborescent Linear Programs with Nested Decomposition. **AU** Janssens, de Bisthoven Olivier; Loute, Etienne.

#### Lovell, C. A. Knox

**TI** Chance-Constrained Efficiency Analysis. **AU** Land, Kenneth C.; Lovell, C. A. Knox; Thore, Sten.

**PD** August 1988. **TI** Monitoring the Performance of Soviet Cotton Refining Enterprises: Sensitivity of Findings to Estimation Techniques. **AU** Lovell, C. A. Knox; Wood, L. L. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-9; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 14. **PR** no charge. **JE** 631. **KW** Cotton. Manufacturing. Production Function.

**AB** Over the past several years scholars at the Central Economics and Mathematics Institute (TsEMI) of the USSR Academy of Sciences in Moscow have been engaged in a research project of great potential value. The project involves monitoring the performance of various groups of producers in the economy, and consists of three stages. In the first stage data are gathered which describe the production activities of a collection of enterprises in an industry, or of a collection of plants or product lines in an enterprise. In the second stage the data are analyzed, using recently developed statistical techniques, to measure and compare the performance of the enterprises or plants in the sample. In the third stage of the project the results of analysis, typically in the form of an ordinal performance ranking, are shown to managers, who are asked why the analysis revealed their production activities to have been so efficient or inefficient.

**TI** Measuring Cost Efficiency in Banking: Econometric and

Linear Programming Evidence. **AU** Ferrier, Gary D.; Lovell, C. A. Knox.

#### Lyon, Andrew B.

**PD** April 1989. **TI** Did ACRS really cause Stock Prices to Fall? **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 89-7; Department of Economics, University of Maryland, College Park, MD 20742. **PG** 21. **PR** no charge. **JE** 323, 522, 313. **KW** Investment. Tax Capitalization. Depreciation. Capital Stock.

**AB** This paper tests the hypotheses that the introduction of the Accelerated Cost Recovery System in 1981 caused a reduction in stock prices by reducing the value of existing capital. A second hypothesis that these depreciation changes benefited firms by increasing the return from new investment is also examined. Stock returns during the period surrounding enactment of this legislation are evaluated with data on capital stock and investment for over 800 firms. The empirical results suggest that neither hypothesis is an important determinant of cross sectional differences in returns during this period.

#### Lyons, Richard K.

**TI** Internal versus External Economies in European Industry. **AU** Caballero, Ricardo J.; Lyons, Richard K.

**TI** The Role of External Economies in U.S. Manufacturing. **AU** Caballero, Ricardo J.; Lyons, Richard K.

#### Macauley, Molly K.

**PD** February 1989. **TI** Launch Vouchers for Space Science Research. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR89-04; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 71. **PR** \$5.00 (U.S. funds only). **JE** 614, 631. **KW** Transportation. Vouchers. Space Research. Space Shuttle.

**AB** Recent national space policy proposes the use of space transportation vouchers to increase opportunities for space-based science research and to bolster the U.S. space transportation industry. Certificates issued and financially backed by government would be given to researchers for redemption on any mode of space transportation.

This study examines (a) the economic costs and benefits of vouchers; (b) incentive-based strategies for effective program design; and (c) possible alternatives to vouchers that may better meet policy objectives in those areas where the voucher scheme is weak.

#### MacDonald, Glenn M.

**PD** June 1986. **TI** Job Mobility and the Information Content of Equilibrium Wages: Part I. A Finite State Space Economy. **AA** University of Western Ontario. **SR** Economics Research Center/NORC Discussion Paper: 86-8; Economics Research Center/NORC, 1155 E. 60th St., Chicago, IL 60637. **PG** 40. **PR** \$2.00 Send requests to Librarian, Economics Research Center. **JE** 824, 823, 821. **KW** Labor Mobility. Wages. Employment. Migration. **AB** No abstract available.

**TI** Is there Advertising, in Truth? **AU** Horstmann, Ignatius J.; MacDonald, Glenn M.

**Machin, S.**

**PD** August 1989. **TI** The Effects of Unions on Organizational Change, Investment and Employment: Evidence from WIRS. **AU** Machin, S.; Wadhvani, Sushil B. **AA** Machin: University College, London. Wadhvani: London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 355; Centre for Labour Economics, London School of Economics, Houghton Street, London ENGLAND, WC2A 2AE. **PG** 57. **PR** no charge. **JE** 831, 511, 824, 522. **KW** Unions. Investment. Employment. Industrial Organization.

**AB** This paper investigates the association between unionism and organizational change, investment and employment using British data over 1980-1984. It finds that: (i) Union plants were more likely to have experienced organizational change. (ii) Unionism is also positively correlated with investment, though this association disappears once one controls for organizational change and other relevant variables. (iii) The oft-cited negative relationship between unionism and employment growth may well arise from the differential extent to which restrictive practices were removed in union plants.

**Mackenzie, G. A.**

**PD** December 1988. **TI** Are all Summary Indicators of the Stance of Fiscal Policy Misleading? **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/112; International Monetary Fund, Washington, D.C. 20431. **PG** 30. **PR** no charge. **JE** 321, 322, 224. **KW** Public Sector. Government Debt. Fiscal Policy.

**AB** Two recent criticisms of summary fiscal indicators are appraised: first, that they and the conventionally-measured public sector balances from which they are meaningless because they do not reflect changes in the distribution of summary fiscal indicators have been exaggerated. It is not feasible to include all changes in public sector net worth in the deficit, and the existence of liquidity constraints and aversion to indebtedness imply that conventionally-measured public sector deficits are not irrelevant.

**Mackie, Mason Jeffrey K.**

**PD** July 1989. **TI** Do Firms Care who Provides their Financing? **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3039; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$2.00. **JE** 521, 511, 315, 311. **KW** Business Finance. Equity. Debt. Capital.

**AB** Several types of evidence are presented to demonstrate that firms are concerned with who provides their financing, not just with the debt/equity distinction. Aggregate and industry trends and patterns in the incremental sources of financial capital are documented, and a large sample of incremental corporate financial decisions is econometrically analyzed. There are large and persistent differences in the patterns of internal and external financing, both in the aggregate and across industries. Individual firms are shown to have distinct preferences for different providers of funds. Several indicators of potentially costly hidden information problems are important and significant determinants of choices between private and publicly-marketed sources, even after controlling for the type of security (debt or equity).

**Madan, Dilip B.**

**TI** Variations in the Speed of Capital Usage and the Aggregate Supply Curve. **AU** Betancourt, Roger; Madan, Dilip B.

**Madden, Moss**

**TI** The Partition and Decomposition of Extended Input-Output Multipliers. **AU** Trigg, Andrew B.; Madden, Moss.

**Maekawa, Koichi**

**PD** April 1989. **TI** Asymptotic Expansions and Curvature Measures in a Nonlinear Regression Model. **AA** Hiroshima University and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8907; 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** 211. **KW** Asymptotic Theory. Curvature Measures. Likelihood Ratio Test. Maximum Likelihood Estimator. Nonlinear Model.

**AB** This paper derives the asymptotic expansions of the distribution function of the maximum likelihood estimator (MLE) and the log likelihood ratio (LR) test in a nonlinear regression model. We investigate the effects of nonlinearity of our model on the asymptotic expansions by making use of two kinds of curvature measures: intrinsic curvature and parameter effect curvature defined by Bates and Watts (1980). It is shown that, after suitable transformation, the distribution function of the MLE up to  $O(T^{-1/2})$  is shown to be related to only the parameter effect curvature. The intrinsic curvature appears only in a term of  $O(T^{-1})$  in the distribution of LR. Furthermore, we briefly discuss the relationship between the intrinsic curvature and Efron's statistical curvature.

**Magill, Michael J. P.**

**PD** December 1988. **TI** Real Effects of Money in General Equilibrium. **AU** Magill, Michael J. P.; Quinzii, Martine. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8826; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 44. **PR** No charge. **JE** 021, 311. **KW** Monetary Policy. General Equilibrium Model. Money. Equilibrium Allocation. Stochastic Model.

**AB** This paper studies a simple stochastic general equilibrium model with money and nominal assets. We examine the role of money as a medium of exchange and as a store of value and give conditions under which local changes in the money supply lead to local changes in the equilibrium allocation.

**Mahe, Louis**

**TI** The GATT Negotiations and U.S./E.C. Agricultural Policies: Solutions to Noncooperative Games. **AU** Johnson, Martin; Roe, Terry L.; Mahe, Louis.

**Mamer, John W.**

**TI** A Doupoly Model of Pricing for Inventory Liquidation. **AU** Bikhchandani, Sushil; Mamer, John W.

**Mankiw, N. Gregory**

**TI** Optimal Advice for Monetary Policy. **AU** Basu,

Susanto; Kimball, Miles S.; Mankiw, N. Gregory; Weil, David N.

### Mao, cheng Cai

**PD** March 1989. **TI** The Number of Vertices of Degree  $k$  in Minimally  $k$ -edge-connected Graph. **AA** Institute of Systems Science Academia Sinica, China. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89564-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** No charge. **JE** 213. **KW** Connected Graph. **AB** No abstract.

### Marchand, Maurice

**TI** Optimal Public Sector Employment Policy with Endogenous Involuntary Unemployment. **AU** Boadway, Robin W.; Marchand, Maurice; Pestieau, Pierre.

### Marjit, Sugata

**PD** August 1988. **TI** Rationalizing Public-Private Joint Ventures in an Open Economy: A Strategic Approach. **AA** Jadavpur University, India. **SR** University of Florida Working Paper in Economics: 88-1; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 14. **PR** no charge. **JE** 112, 411, 441, 621. **KW** Multinationals. Government. International Investment. Technology.

**AB** This paper analyzes the problem of foreign investment where threat of expropriation leads necessarily to withholding of technological knowledge by the foreign firm. In a dynamic model it is shown that if the political authority of the host country invests in part, in the project, chances are high that the multinational will be willing in such a venture. Sharing of investments by the political authority serves as credible precommitment against future nationalization. Later we bring in the reputational implication of discretionary tax policy and nationalization and analyze the role of joint-ventures in that context.

**PD** October 1988. **TI** Obsolescence in a Specific-Factor Model of Production with Continuum of Capital Goods. **AA** Jadavpur University, India. **SR** University of Florida Working Paper in Economics: 88-7; Department of Economics, University of Florida, Gainesville, FL 32611. **PG** 18. **PR** no charge. **JE** 621, 111. **KW** Technology. Capital Good. Innovation. Obsolete.

**AB** We develop a two sector general equilibrium model with a continuum of sector-specific capital goods in each sector where each capital good represents a particular type of technology. Even without the standard assumptions usually made in the context of specific-factor model, similar results are derived. Later this framework is used to analyze the impact of growth and technological change on the degree of obsolescence in each sector. Innovation of new technologies and growth of capital increase the degree of obsolescence. On the other hand growth of labor and modernization of existing technologies reduce the set of obsolete capitals.

### Marks, Stephen

**TI** The Delivery of Market Timing Services: Newsletters vs. Market Timing Funds. **AU** Kane, Alex; Marks, Stephen.

### Mason, Carl

**PD** May 1989. **TI** Explicit Models of Willingness to Pay: A Monte Carlo Simulation. **AU** Mason, Carl; Quigley, John M. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-109; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 37. **PR** \$3.50. **JE** 132, 022. **KW** Hedonic Models. Qualitative Choice. Compensating Variation. Discrete Choice.

**AB** Explicit estimates of compensating or equivalent variation have replaced measures of consumer surplus in many applied settings. This paper compares two widely used methods of making such estimates: so-called "hedonic price" or implicit markets approaches and discrete choice methods based upon stochastic utility functions. Both techniques are applied to identical data sets in an extensive monte carlo simulation. The results are compared in terms of their accuracy in estimating consumer "willingness to pay" for marginal and nonmarginal changes in consumption.

### Masson, Paul R.

**TI** Model Uncertainty, Learning and the Gains from Coordination. **AU** Ghosh, Atish; Masson, Paul R.

### Mathewson, G. Franklin

**TI** The Effects of Deposit Insurance on Financial Institutions. **AU** Carr, Jack; Mathewson, G. Franklin.

**PD** April 1989. **TI** The Economic Effects of Automobile Dealer Regulation. **AU** Mathewson, G. Franklin; Winter, Ralph. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8907; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 32. **PR** no charge. **JE** 613, 611, 511. **KW** Regulations. Franchises. Efficient Contracts. Automobiles. Manufacturing.

**AB** Since the Dealer Day in Court Legislation of 1956, many U.S. states have altered the nature of existing contracts between automobile manufacturers and their dealers. Restrictions have been placed on the contractual rights of manufacturers to add new dealers to market areas of existing dealers and to terminate dealers. Are these laws efficient in the sense that they complete otherwise incomplete contracts (the public interest hypothesis)? Or are these laws inefficient in that they bestow benefits on existing dealers at the expense of consumers and manufacturers (the private interest hypothesis)? We develop a model of the incentive and effects of this intervention in contracts that encompasses both hypotheses and offers distinguishing empirical implications.

### Matutes, Carmen

**TI** Product Line Rivalry with Brand Differentiation. **AU** Gilbert, Richard J.; Matutes, Carmen.

### Maxwell, Christopher

**PD** April 1988. **TI** Price Discrimination in Hotelling's Duopoly Model: Equilibrium and Efficiency. **AU** Maxwell, Christopher; McCauley, Robert N. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8813; 33 Liberty St., Rm. 901, New York, NY 10045. **PG** 9. **PR** no charge. **JE** 611, 022. **KW** Monopolistic Competition. Price Discrimination. Location Analysis. Nash Equilibrium. Duopoly.

**AB** This paper analyzes discriminatory pricing behavior in Hotelling's (1929) classic model of duopoly. A unique pure strategy equilibrium exists in this game when firms select location prior to setting prices. This equilibrium is efficient. When the two firms simultaneously select location and pricing schedules, no pure strategy equilibrium exists.

#### **Mayer, Thomas**

**PD** September 1989. **TI** The Twilight of the Monetarist Debate. **AA** University of California at Davis. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 64; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 44. **PR** No charge. **JE** 311, 031, 036, 023. **KW** Monetarism. Quantity Theory. Economic Methodology. **AB** Why is the debate about monetarism losing prominence? In reviewing the present status of the debate I suggest four reasons, a shift in methodological preferences, the absorption of many monetarist ideas into neo-Keynesian theory, some weaknesses of monetarism and perhaps some choices monetarist made in presenting their ideas.

#### **McAleer, Michael**

**PD** January 1989. **TI** When are Two Step Estimators Efficient? **AU** McAleer, Michael; McKenzie, CR. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 176; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 9. **PR** no charge. **JE** 211. **KW** Expectations. Shocks. Two Step Estimators. **AB** Kruskal's theorem is used to provide an elegant alternative derivation of the efficiency of some two step estimators for models containing anticipated and unanticipated variables. Some new results are also established.

#### **McCallum, Bennett T.**

**PD** July 1989. **TI** Targets, Indicators, and Instruments of Monetary Policy. **AA** Carnegie Mellon University. **SR** National Bureau of Economic Research Working Paper: 3047; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** \$2.00. **JE** 311, 226, 133. **KW** Monetary Policy. Money Growth. Price Level. **AB** It has become increasingly evident that the Federal Reserve's official strategy of the past decade, involving the adherence to target paths for monetary aggregates, is not currently being utilized to any significant extent. While some commentators welcome and others deplore this development, most would agree that a need exists for a more explicit and coherent strategy for the conduct of monetary policy. The present paper seeks to advance the strategic discussion in several ways. One involves a comparative consideration of targets for nominal GNP and the price level, with emphasis on specification robustness and implications for output variability. A second pertains to various "indicator" variables recently suggested by Fed officials and others.

#### **McCauley, Robert N.**

**TI** Price Discrimination in Hotelling's Duopoly Model: Equilibrium and Efficiency. **AU** Maxwell, Christopher; McCauley, Robert N.

#### **McKee, Michael**

**TI** Voluntary Provision of Public Goods: The Multiple Unit Case. **AU** Bagnoli, Mark; Ben, David Shaul; McKee, Michael.

#### **McKelvey, Richard D.**

**PD** April 1989. **TI** Public and Private Information: An Experimental Study of Information Pooling. **AU** McKelvey, Richard D.; Page, Talbot. **AA** McKelvey: California Institute of Technology. Page: Brown University. **SR** Caltech Social Science Working Paper: 696; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 21. **PR** no charge. **JE** 026. **KW** Common Knowledge. Information Pooling. Bayesian Model.

**AB** This paper reports on an experimental study of the way in which individuals make inferences from publicly available information. We compare the predictions of a theoretical model of a common knowledge inference process with actual behavior. In the theoretical model, "perfect Bayesians", starting with private information, take actions; an aggregate statistic is made publicly available; the individuals do optimal Bayesian updating and take new actions; and the process continues until there is a common knowledge equilibrium with complete information pooling. We find that the theoretical model roughly predicts the observed behavior, but the actual inference process is clearly less efficient than the standard of the theoretical model, and while there is some pooling, it is incomplete.

#### **McKenzie, CR**

**TI** When are Two Step Estimators Efficient? **AU** McAleer, Michael; McKenzie, CR.

#### **McLean, R.**

**TI** Weighted Coalition Structure Values. **AU** Levy, A.; McLean, R.

#### **McLeod, W. Bentley**

**TI** Spatial Competition and the Core. **AU** Hamilton, Jonathan H.; McLeod, W. Bentley; Thisse, Jacques Francois.

#### **McMillan, John**

**PD** July 1989. **TI** Search. **AU** McMillan, John; Rothschild, Michael. **AA** University of California, San Diego. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-250; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 28. **PR** No charge. **JE** 022, 026. **KW** Search Theory. Stopping Rules. Bargaining. Price Dispersion. Information Process.

**AB** Search theory has provided a simple and remarkably robust laboratory which economic theorists have used to examine a wide variety of questions about the acquisition of information. Early work on search, inspired by the seminal work of Stigler (1961), modeled the individual's searching decisions and drew inferences about the value of information and the nature of frictional unemployment. More recent work, building on sequential-bargaining analysis (reviewed by Binmore and Rubinstein (1990)), has focused on the interactions among searching agents and has deepened our understanding of the nature and meaning of competition. This survey analyzes the classical search problem: the optimal

search rule for an individual who can, for a fixed and constant cost, take a random sample from a distribution  $F()$  of economic opportunities.

### Melitz, Jacques

**TI** The Macroeconomic Implications of Financial Deregulation. **AU** Bordes, Christian; Melitz, Jacques.

**TI** Business Debt and Default in France. **AU** Bordes, Christian; Melitz, Jacques.

### Mendoza, Enrique G.

**PD** November 1988. **TI** Real Business Cycles in a Small Open Economy: The Canadian Case. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8902; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 32. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** 133, 411. **KW** Open Economy. Business Cycles. Private Investment.

**AB** This paper investigates an open economy extension of real business cycle theory. The equilibrium stochastic process of an artificial economy is numerically computed in order to calculate measures of volatility, comovement and persistence of the main macro-aggregates. These population moments are compared with actual sample moments from Canadian data. The results show that the open economy model requires smaller and less persistent technological disturbances than the closed economy prototypes. The model matches closely the behavior of most variables, except private investment. An interpretation that accounts for the volatile behavior of investment in the artificial economy is provided.

**PD** May 1989. **TI** Business Cycles, Adjustment Costs and the Theory of Investment in a Small Open Economy. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8906; 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** 131, 431, 411. **KW** Business Cycles. Adjustment Costs. Open Economy. Fluctuations.

**AB** This paper investigates the relevance of capital-adjustment costs in the theory of investment of a small open economy. A dynamic stochastic model is numerically analyzed to compare the neoclassical theory with the adjustment-cost framework. When adjustment costs are introduced, the model mimics closely some of the stylized facts of Canadian investment and other macro-aggregates of interest. These results indicate that small and transitory shocks to productivity or the terms of trade can explain the observed fluctuations in the balance of trade and the correlation between savings and investment.

**PD** June 1989. **TI** A Quantitative Investigation of the Macroeconomic Effects of Capital Controls and the Stabilization of the Balance of Trade. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8908; 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** 431, 411, 422. **KW** Capital Controls. Trade Balance. Stochastic Model. Open Economy.

**AB** A dynamic stochastic model of a small open economy is

employed to numerically evaluate the macroeconomic effects of using capital controls to stabilize the balance of trade at some target level. The quantitative investigation shows that such a policy has small effects on both the equilibrium stochastic process of the economy and the level of welfare. These results are attributed to the relatively small magnitude of actual economic fluctuations. A fiscal strategy that would allow the government to successfully implement the policy is also studied in some detail.

### Mertens, Jean Francois

**PD** October 1988. **TI** Stable Equilibria-A Reformulation. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8838; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 164. **PR** no charge. **JE** 213. **KW** Stable Equilibrium. Backwards Induction.

**AB** A reformulation of stable equilibria is given, yielding a number of additional properties - like backwards induction - while still giving "typically" - i.e. except in "made up" examples - the same solutions.

### Metcalfe, Gilbert E.

**PD** June 1989. **TI** Arbitrage and the Savings Behaviour of State Governments. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 3017; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 22. **PR** \$2.00. **JE** 323, 324. **KW** Taxes. State Governments. Arbitrage. Tax Policy. Government Finance.

**AB** The federal tax code creates strong incentives for tax arbitrage activity on the part of state governments. This arbitrage activity is illegal and previous research has typically assumed that the constraint against arbitrage activity is binding. This paper explicitly tests this proposition by considering whether financial asset holdings increase as the yield spread between taxable and tax exempt securities rises. Using a data set on 40 state governments over a 7 year period, I find that there is a significant response to changes in the yield spread. One implication of these results is that the Tax Reform Act of 1986 which made even greater efforts to curb arbitrage activity is likely to be ineffective.

### Meyer, Jack

**PD** March 1989. **TI** Kolmogorov-Smirnov Tests for Distribution Function Similarity with Applications to Portfolios of Common Stock. **AU** Meyer, Jack; Rasche, Robert. **AA** Michigan State University. **SR** National Bureau of Economic Research Technical Paper: 76; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** Not available. **PR** \$2.00. **JE** 311, 022, 026. **KW** Portfolio. Expected Utility. Choice Set. Decision Theory.

**AB** If the elements of the choice set in a decision model involving randomness are not arbitrary, but restricted appropriately, an expected utility ordering of them can be represented by a mean-standard deviation ranking function. These restrictions can apply to the form of, or can specify relationships among, the distribution functions. A particularly useful restriction is one which requires that elements in the choice set, when normalized to have a zero mean and unit variance, be identically distributed. This research empirically

tests for this and other useful restrictions on the relationships among the elements of a set of random variables.

### Mezzetti, Claudio

**PD** May 1989. **TI** Domestic Unionization and Import Competition. **AU** Mezzetti, Claudio; Dinopoulos, Elias. **AA** Mezzetti: University of California at Davis, Dinopoulos: University of Florida. **SR** University of California at Davis Economics Department Working Paper: 337; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 42. **PR** no charge. **JE** 411, 832, 831, 422. **KW** Duopoly. Unionization. Protectionism. Tariffs. Collective Bargaining.

**AB** The present paper develops a model of a Cournot duopoly in which a unionized domestic firm competes against a foreign firm. The domestic wage and employment are simultaneously determined through a Nash bargaining process between a labor union and the domestic firm. The model examines the impact of the threat to shift production abroad on collective bargaining. We also use the model to analyze the effects of labor union's bargaining power and tariffs on employment, wage, profits and welfare. We find that domestic unionization affects the equilibrium outcomes depending on whether the labor union is wage or employment oriented.

### Mintz, Jack M.

**TI** An Empirical Study of the Impact of Corporate Taxation on the Debt Policy of Canadian Firms. **AU** Bartholdy, Jan; Fisher, Gordon R.; Mintz, Jack M.

**PD** May 1989. **TI** Small Enterprise Tax Policy: Effects on Market Price, Industry Profits and Allocative Efficiency in a Dominant Firm Model. **AU** Mintz, Jack M.; Seade, Jesus. **AA** Mintz: Queen's University. Seade: Government of Mexico. **SR** Queen's University John Deutsch Institute Discussion Paper: 2; 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** 323, 321, 611, 612. **KW** Corporate Taxes. Public Policy. Imperfect Competition. Tax Policy.

**AB** The economic impact of capital tax concessions for small firms on consumer prices, industry profits and allocative efficiency is considered. A market with a dominant firm that has an absolute cost advantage over a competitive fringe is modelled. We find that a revenue-neutral capital tax reduction for small firms have an ambiguous impact on the market price and industry profits. The model suggests that optimal corporate tax policy requires a higher tax on small firms relative to the dominant firm. In fact, the dominant firm should be subsidized.

### Mirakhor, Abbas

**PD** December 1988. **TI** Equilibrium in a Non-Interest Open Economy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/111; International Monetary Fund, Washington, D.C. 20431. **PG** 22. **PR** no charge. **JE** 411, 431, 311. **KW** Open Economy. Exchange Rates. Capital Flows. Equity Shares.

**AB** This paper analyzes an economy in which there are no interest-bearing assets, only equity shares. Equilibrium conditions are derived for the case of a closed economy, an open economy with trade in goods only, and finally one with trade in both goods and equity shares. It is shown that the rate of return to capital equilibrates savings and investment, that the

differential between the domestic and foreign rates of returns to equity determines the direction of capital flows, and that under a fixed exchange rate system, adjustments induced by exchange rate changes are channeled through the asset accounts.

**TI** Islamic Banking: Experiences in the Islamic Republic of Iran and Pakistan. **AU** Khan, Moshin S.; Mirakhor, Abbas.

### Mishkin, Frederic S.

**PD** June 1988. **TI** Understanding Real Interest Rates. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-40; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 21. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 134, 311, 714, 713. **KW** Interest Rates. Inflation. Agriculture. Farming. Monetary Policy.

**AB** This paper outlines an approach to measuring real interest rates and testing hypotheses on their behavior. It then describes what we know about real interest rates in the aggregate economy and provides estimates of real interest rates for the agricultural sector. The evidence presented in this paper indicates that real interest rates for the agricultural economy have been extremely high in the 1980s and that their behavior seems to be linked to that found for real rates in the aggregate economy. What has been the source of these high real rates? The answer seems to be that it was the result of a concerted effort by the monetary authorities to disinflate the economy.

**PD** January 1989. **TI** Can Future Market Data be used to Understand the Behavior of Real Interest Rates? **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-18R; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 42. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 313, 311. **KW** Interest Rates. Futures. Monetary Policy. Bonds. Commodities.

**AB** This paper examines whether futures market data can be used to understand the behavior of real interest rates. The conclusion is a negative one: Futures market data do not appear to be particularly informative about real interest rates. In coming to this conclusion, the paper examines the data in several ways. First, the ex-ante relative price movement embedded in the own-commodity real rates (the noise) is calculated to be on the order of over one hundred times more variable than the aggregate real interest rate (the signal). Second, several widely accepted facts about the behavior of aggregate real interest rates in the 1980s are not at all evident in the own-commodity real rate data. Finally, an econometric analysis of own-commodity real rate behavior fails to find evidence of a shift in the behavior of real interest rates when the monetary policy regime changes in October 1979, a finding that is at odds with previous strong findings in the literature.

### Mizon, Grayham E.

**TI** Costs of Inflation. **AU** Driffill, John; Mizon, Grayham E.; Ulph, Alistair.

### Moffitt, Robert

**TI** Real Wages over the Business Cycle: Estimating the Impact of Heterogeneity with Micro Data. **AU** Keane,

Michael; Moffitt, Robert; Runkle, David.

**TI** An Estimate of a Sectoral Model of Labor Mobility.  
**AU** Jovanovic, Boyan; Moffitt, Robert.

**PD** May 1989. **TI** The Effect of Transfer Programs on Work Effort and Human Capital Formation: Evidence from the U.S. **AU** Moffitt, Robert; Rangarajan, Anuradha. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-14; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 32. **PR** No charge. **JE** 911, 914, 322, 921. **KW** Transfer Payments. Welfare System. Poverty. Human Capital.

**AB** There has been an enormous amount of research in the United States on the effect of transfers on work effort over the past twenty years, research which has coincided with and been heavily influenced by changes in the U.S. welfare system over the same period. Research in the U.S. in the past few years has turned to the study of transfer-program effects on the family, of the effects of "workfare" programs, and of the process of human capital formation, or lack of it, which generates poverty in the first place. This study provides new evidence on whether the transfer programs themselves are partially responsible for the lower levels of human capital among the poor. The results indicate that such effects are present but that they are not long lasting and cannot explain high poverty rates.

**PD** May 1989. **TI** The Distribution of Earnings and the Welfare State. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-16; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 38. **PR** No charge. **JE** 824, 911, 821. **KW** Income Distribution. Wages. Welfare System. Labor Supply.

**AB** It has been well documented in several past studies that the distribution of male earnings in the U.S. has been growing more unequal over the last twenty years. One possible explanation for this trend is that it is the result of work disincentives in the U.S. welfare system for the low-income population. This paper examines this explanation and finds little or no evidence in its support. The evidence indicates that (1) inequality growth has been greater in the 1980s than in the late 1960s and early 1970s, opposite to the time periods of transfer growth; and (2) the growing inequality of annual earnings is a result of growing inequality in hourly wage rates, not annual hours of work.

### **Molho, Lazaros E.**

**PD** May 1989. **TI** European Financial Integration and Revenue from Seigniorage: The Case of Italy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/41; International Monetary Fund, Washington, DC 20431. **PG** 28. **PR** No charge. **JE** 432, 423, 322, 311. **KW** Financial Integration. Italy. Exchange Rates. Government Revenue. Government Debt.

**AB** Financial integration is likely to entail EEC-wide convergence in both inflation rates and bank reserve requirements, thereby lowering some government's seigniorage revenues. These revenue losses, however, may be offset by concomitant effects on exchange rate expectations and on interest rates on publicly held government debt. In Italy, the high stock of such debt in relation to base money implies that, to offset the loss of seigniorage, it will take only about a 1/2-

percentage-point decline in real interest rates. A decline of this magnitude seems feasible, provided that there is credible action to place the public debt on a sustainable path.

### **Monfort, Alain**

**TI** Additive Log-differenced Probability Models for Count Data. **AU** Gourieroux, Christian; Monfort, Alain.

**TI** Econometrics Based on Endogenous Samples.  
**AU** Gourieroux, Christian; Monfort, Alain.

### **Monteiro, P. K.**

**TI** General Equilibrium with Infinitely Many Goods the Case of Separable Utilities. **AU** Araujo, A.; Monteiro, P. K.

### **Montiel, Peter**

**TI** Devaluation Crises and the Macroeconomic Consequences of Postponed Adjustment in Developing Countries. **AU** Edwards, Sebastian; Montiel, Peter.

### **Mookherjee, D.**

**PD** June 1989. **TI** Monitoring versus Investigation in Law Enforcement and Regulation. **AU** Mookherjee, D.; Png, I. P. L. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 89-7; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 30. **PR** \$2.00; checks payable to U.C. Regents. **JE** 916. **KW** Law Enforcement. Regulation. Law. Statutes. Legal System.

**AB** In law enforcement, regulation, and agency relationships in general, one party (the principal) seeks to influence the behavior of another (the agent). Typically, the actions of the agent. In these circumstances, the principal may seek to influence the agents' behavior by expending resources to gather information about the agents' action, and by conditioning transfers on the information obtained. Two important questions then arise: (i) how should the principal gather information, and (ii) how should the principal set the transfers?

### **Morgan, Peter**

**TI** Do People Exploit their Bargaining Power? An Experimental Study. **AU** Binmore, Ken; Morgan, Peter; Shaked, Avner; Sutton, John.

### **Mountain, Dean C.**

**TI** Modelling Ontario Regional Electricity System Demand Using a Mixed Fixed and Random Coefficients Approach. **AU** Hsiao, Cheng; Mountain, Dean C.; Tsui, Kai Y.; Chan, M. W. Luke.

### **Muller, Sigrid**

**TI** ECU Interest Rates and ECU Basket Adjustments: An Arbitrage Pricing Approach. **AU** Klein, Martin; Muller, Sigrid.

### **Murphy, Kevin J.**

**PD** June 1989. **TI** Building Blocks of Market Clearing Business Cycle Models. **AU** Murphy, Kevin J.; Schleifer, Andrei; Vishny, Robert W. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 3004; National Bureau of Economic Research, 1050



Massachusetts Avenue, Cambridge, MA 02138. PG 40. PR \$2.00. JE 133, 131. KW Economic Fluctuations. Business Cycles. Productivity.

**AB** We compare "real business cycle" and increasing returns models of economic fluctuations. In these models, business cycles are driven by productivity changes resulting either from technology shocks or from crucial building blocks that give both types of models hope of fitting the data. These building blocks include durability of goods, specialized labor, imperfect credit and elastic labor supply. We also present new evidence on comovement of both outputs and labor inputs across sectors and on the increasing returns model is easier to reconcile with the data than the real business cycle model.

### Nadiri, Ishaq M.

**PD** July 1989. **TI** Dynamic Factor Demand Models, Productivity Measurement, and Rates of Return: Theory and An Empirical Application to the U.S. Bell System. **AU** Nadiri, Ishaq M.; Prucha, Ingmar R. **AA** Nadiri: National Bureau of Economic Research. Prucha: University of Maryland. **SR** National Bureau of Economic Research Working Paper: 3041; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 48. PR \$2.00. JE 635, 614. KW Factor Demand. Communication. Elasticity. Technological Change.

**AB** Prucha and Nadiri (1982, 1986, 1988) introduced a methodology to estimate systems of dynamic factor demand that allows for considerable flexibility in both the choice of the functional form of the technology and the expectation formation process. This paper applies this methodology to estimate the production structure, and the demand for labor, materials, capital and R&D by the U.S. Bell System. The paper provides estimates for short-, intermediates and long-run price and output elasticities of the inputs, as well as estimates on the rate of return on capital and R&D. The paper also discusses the issue of the measurement of technical change if the firm is in temporary rather than long-run equilibrium and the technology is not assumed to be linear homogeneous.

### Nerlove, Marc L.

**TI** Unit Roots in Economic Time Series: A Selective Survey. **AU** Diebold, Francis X.; Nerlove, Marc L.

### Neumark, David B.

**PD** November 1988. **TI** After-Hours Stock Prices and Post-Crash Hangovers. **AU** Neumark, David B.; Tinsley, PA; Tosini, Suzanne. **AA** Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 50; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 36. PR no charge. JE 441. KW Stock Market. Equity Market. Volatility. Stock Prices. International Investment.

**AB** This paper analyzes international equity market linkages by examining the co-movements of trading day and after-hours price changes of selected U.S. stocks that are listed on the New York Stock Exchange and either the London or Tokyo exchanges. The principal empirical finding of this paper is that the predictive efficiency of after-hours pricing in foreign equity markets appeared to be quite strong in the weeks immediately following the October 1987 crash, but fell sharply in succeeding months. The paper considers two alternative interpretations of time-varying linkages among international

equity exchanges: (i) a filtering conjecture, based on King and Wadhvani [1988], where traders apply a signal extraction model to after-hours pricing, and (ii) a transaction cost conjecture based on the nonlinear impact of investor transaction costs on the effective transmission of relevant price information.

**PD** January 1989. **TI** Market Structure and the Nature of Price Rigidity: Evidence from the Market for Consumer Deposits. **AU** Neumark, David B.; Sharpe, Steven. **AA** Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 52; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 40. PR no charge. JE 312, 131. KW Prices. Market Power. Banking. Commercial Banks. Interest Rates.

**AB** This paper studies the impact of market concentration on the adjustment of prices. First, it studies price adjustment in a heretofore unexamined industry the market for consumer bank deposits. More importantly, it utilizes a panel data set that, when coupled with a nonlinear switching regression model, is rich enough to uncover any asymmetry in the effect of market concentration on price adjustment. Banks in concentrated markets tend to be slower to increase interest rates on deposits in response to rising open market rates; on the other hand, these same banks are faster to lower interest rates on deposits in response to falling market interest rates.

**TI** Is Superwoman a Myth? Marriage, Children, and Wages. **AU** Korenman, Sanders D.; Neumark, David B.

**PD** April 1989. **TI** Declining Union Strength and Wage Inflation in the 1980s. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economy Activity Section Working Paper Series: 96; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 29. PR no charge. JE 831, 134, 824. KW Phillips Curve. Unions. Wages. Inflation.

**AB** Overprediction of wage inflation in the 1980s by standard Phillips curve equations suggests a structural shift in the Phillips curve relationship. This paper explores the hypothesis that the decline in the strength of labor unions, which accelerated considerably in the 1980s, lies behind this structural shift. Incorporating data on union membership, union certifications and decertifications, and work stoppages into standard Phillips curve equations, little evidence is found in support of the declining union strength hypothesis.

**PD** May 1989. **TI** Can we Improve upon Preliminary Estimates of Payroll Employment Growth? **AU** Neumark, David B.; Wascher, William L. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 97; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 26. PR no charge. JE 132, 813, 226. KW Measurement Error. Forecasting. Employment. Payroll.

**AB** We explore the feasibility of improving upon the Bureau of Labor Statistics' preliminary estimates of payroll employment growth by predicting subsequent revisions to these estimates, using the preliminary estimates themselves and other information available concurrently. Results of statistical tests suggest that the preliminary estimates can be improved upon; that is, they are not "efficient forecasts" of the revised estimates.

The improvement of preliminary estimates as indicators of estimates of employment growth following annual benchmarks is particularly large; the unanticipated component of the revision based on the annual benchmarks is reduced by nearly 30 percent.

### Neville, Doreen

**TI** General Deterrence of Drunk Driving: Evaluation of Recent American Policies. **AU** Evans, William N.; Neville, Doreen; Graham, John D.

### Newell, Andrew

**PD** June 1989. **TI** The Passing of the Golden Age. **AU** Newell, Andrew; Symons, James S. V. **AA** Newell: University of Sussex and Centre for Labour Economics. Symons: University College, London and Centre for Labour Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 347; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 37. **PR** no charge. **JE** 824, 821. **KW** Unemployment. Risk Aversion. Labor Force. Preferences.

**AB** The paper argues that the reason unemployment was low in the industrialized countries for twenty years after the War is simply that the labor force had a low taste for it. We associate this taste factor with risk aversion which, we argue, was created by the experience of the War and the Great Depression. We show how risk aversion over the period was manifested in stock market behavior, in social policy, in popular literature, and in the labor market. We develop a small model of the post-War British labor market incorporating conventional demand and supply side factors demonstrate the rise of unemployment as the immediate post-War cohort of workers exited from labor force.

### Newhouse, Joseph P.

**PD** May 1988. **TI** Measuring Medical Prices and Understanding their Effects. **AA** Rand Corporation. **SR** Rand Paper: P-7448; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 11. **PR** no charge. **JE** 913. **KW** Health Care. Medical Costs. Health Services. Medical Care.

**AB** The author cites various examples from health service studies, first to prove that prices affect medical care use and then to support his argument that there is still much that researchers do not understand about how prices affect care. He continues with a discussion of price measurement, underscoring the need for greater knowledge by pointing out that the source of medical price increases cannot even be determined because of flaws in the Consumer Price Index. Urging further research in health services, the author presents trends in federal spending on health services research and concludes that this research is seriously underfunded.

**PD** August 1988. **TI** Has the Erosion of the Medical Marketplace Stopped? **AA** Rand Corporation. **SR** Rand Note: N-2646; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 21. **PR** no charge. **JE** 913. **KW** Health Care. Medical Costs. Health Insurance.

**AB** This note updates tests of the validity of three models of medical price inflation: a standard model, in which changes in demand press against inelastic supply; a dynamic version of the standard model, in which high levels of insurance induce high

rates of product innovation and development; and a model of increasing inefficiency because of weak consumer incentives to search out efficient suppliers. Trends in expenditure in other countries and at health maintenance organizations suggest that the most important explanation of medical price inflation is the dynamic version of the standard model, although the other models have some validity as well.

### Nickell, Stephen John

**TI** The Thatcher Miracle? **AU** Layard, Richard; Nickell, Stephen John.

**PD** August 1989. **TI** Unions and Productivity Growth in Britain, 1974-86: Evidence from UK Company Accounts Data. **AU** Nickell, Stephen John; Wadhvani, Sushil B.; Wall, Martin. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 353; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 47. **PR** no charge. **JE** 825, 831. **KW** Unions. Productivity Growth. Bargaining. Productivity.

**AB** This paper investigates the effect of unions on productivity growth by using a British panel of firms over 1974-86. The analysis is carried out in the context of a model where firms and workers bargain over effort. The results suggest that higher unionization was associated with faster TFP growth during 1980-84, but there was no such relationship in the other years. So, unlike the US evidence, unions do not appear to reduce productivity growth in Britain. These results also do not suggest a significant explanatory role for union legislation, because the 'Pro-union' measures of the 70s do not seem to have had much effect. Finally, firms which experience increases in debt-equity ratios also attain higher TFP growth.

### Noh, Suk Jae

**TI** Proprietary Public Finance, Political Competition, and Reputation. **AU** Grossman, Herschel I.; Noh, Suk Jae.

### Nordquist, Gerald L.

**TI** A More General Measure of Risk Aversion When Utility is State-Dependent. **AU** Kelsey, David; Nordquist, Gerald L.

### Nowak, Eugen

**PD** March 1989. **TI** Identifiability in Multivariate Dynamic Linear Errors-in-Variables Models. **AA** University of Munich. **SR** University of Southern California Modelling Research Group Working Paper: M8905; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 20. **PR** No charge. **JE** 211. **KW** Multivariate Transfer Function. ARMA Processes. Linear Models. Identification.

**AB** The paper investigates the identifiability of casual multivariate transfer function systems with inputs and outputs being latent due to observational errors. Considered are two model classes of systems with rational transfer function and variables following (vector) ARMA processes. Both model classes are divided into subclasses of systems with given order parameters. Derived are conditions specifying identifiable subclasses. Accordingly, the identifiability of a system is based on certain forms of inherent time series structure described by specific order relations affecting its order parameters.

**Nugent, Jeffrey B.**

**PD** February 1988. **TI** Collective Action in Tunisia's Producer Organizations: Some Variations on the Olsonian Theme. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8901; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 45. **PR** no charge. **JE** 121, 112. **KW** Collective Action. Economic Development. Interest Groups. Tunisia.

**AB** In comparison to other regions and countries North Africa in general and Tunisia in particular are characterized by relatively weak producer organizations. This paper describes the origin and evolution of these organizations and then draws upon collective action theory to explain both the overall weakness of Tunisia's producer organizations and variations in relative strength from one organization to another. The results of the analysis support many of Olson's hypotheses but also indicate the need for some modification. They also provide some useful implications for policy.

**Nussbaum, Michael**

**TI** Kernel Estimation: The Equivalent Spline Smoothing Method. **AU** Hardle, Wolfgang; Nussbaum, Michael.

**O'Flaherty, Brendan**

**PD** February 1989. **TI** On the Job Screening, Up or Out Rules, and Firm Growth. **AU** O'Flaherty, Brendan; Siow, Aloysius. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 421; Department of Economics, Columbia University, New York, New York 10027. **PG** 40. **PR** \$5.00. **JE** 824, 833, 851, 821. **KW** Screening. Hiring. Promotion. Employment. Human Capital. Layoffs.

**AB** This paper uses on the job screening to derive a stochastic and dynamic model of hiring, promotion and dismissal policies, and their impact on total firm employment and output. The model provides an explanation of the up or out rule observed in many organizations. It also provides an explanation for a cost of adjustment mechanism for the stock of human capital in a firm. The model predicts that the rate of growth of employment and output of the firm is independent of the size of the firm (Gibrat's Law), and positively related with per period profitability. The incidence of layoffs is negatively related with per period profitability.

**PD** May 1989. **TI** Deliberate Ambiguity in Labor Contracts. **AU** O'Flaherty, Brendan; Siow, Aloysius. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 429; Department of Economics, Columbia University, New York, New York 10027. **PG** 24. **PR** \$5.00. **JE** 823, 821, 022. **KW** Labor Contracts. Labor Mobility. Wage Differentials. Compensating Differentials.

**AB** Deliberate ambiguity in labor contracts acts as a lottery to convexify the set of feasible outcomes when agents have nonconvex (indivisible) job choices. These lotteries Pareto dominate compensating wage differentials even when workers have heterogeneous tastes and abilities. These lotteries are usually feasible only with indentured servitude or moving costs. A class that is also feasible without restrictions on mobility is promotion lotteries, where the resolution of the lottery is after labor is supplied.

**PD** June 1989. **TI** Why are there Democracies? A Principal Agent Answer. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 434; Department of Economics, Columbia University, New York, New York 10027. **PG** 32. **PR** \$5.00. **JE** 025. **KW** Principal-Agent Theory. Majority Rule.

**AB** Many organizations operate by majority rule. Why? I consider elections as ways to aggregate information rather than ways to reconcile preferences. This is a principal-agent problem with many principals. A mechanism is sincere if principals "vote yes" iff their private information about the agent's action is "good news". It is persuasive if principals reward the agent iff the public messages they send are collectively good news about the agent's action. Mechanisms that are not persuasive may not be implementable ex post. Majority rule is the only incentive compatible mechanism that is sincere and persuasive, and meets several other requirements, including a weak efficiency criterion.

**PD** August 1989. **TI** Land Assembly, Urban Renewal, and Beyond: A Subgame Perfect Approach. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 439; Department of Economics, Columbia University, New York, New York 10027. **PG** 61. **PR** \$5.00. **JE** 931, 024. **KW** Externalities. Land Development. Urban Economics. Urban Renewal.

**AB** When a developer who wants to assemble several parcels of land to undertake a project with positive externalities cannot make a credible all-or-nothing offer, the optimal acquisition is unlikely to take place. Urban renewal is the traditional way to deal with this problem. A better way to deal with it is to create an environment where developers can make credible all-or-nothing offers.

**O'Higgins, Michael**

**TI** Inequality Measurement using 'Norm Incomes': Were Garvey and Paglin onto Something After All? **AU** Jenkins, Stephen; O'Higgins, Michael.

**Obstfeld, Maurice**

**TI** Stochastic Process Switching: Some Simple Solutions. **AU** Froot, Kenneth A.; Obstfeld, Maurice.

**TI** Commodity Trade and International Risk Sharing: How Much Do Financial Markets Matter? **AU** Cole, Harold L.; Obstfeld, Maurice.

**Oi, Walter Y.**

**PD** April 1989. **TI** Corner Equilibria with a Homothetic Utility Function: A Curiosity. **AA** Australian National University and University of Rochester. **SR** Australian National University Working Paper in Economics and Econometrics: 179; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 15. **PR** No charge. **JE** 021, 213. **KW** Utility Functions. Equilibrium. Homotheticity.

**AB** No one demands positive quantities of all goods that could have appeared in a utility function. Equilibrium is almost always attained at an edge where the optimum demands for some goods are determined by binding non-negativity constraints. The commodity space of  $N$  potential goods is partitioned into two parts; a set of  $I$  inside goods that are demanded in positive quantities, and a set of  $J = N - I$  outside goods whose utility-maximizing demands are determined by

binding non-negativity constraints at  $q(i) = 0$ . A good  $q(i)$  will belong to the outside consumption set if the LaGrangean multiplier applicable to its non-negativity constraint is strictly positive, or equivalently, its virtual or shadow price is less than its market price.

#### Ornstein, Stanley I.

PD 1987. TI Exclusive Dealing and Antitrust. AA University of California, Los Angeles. SR University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-9; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. PG 36. PR \$2.00; checks payable to U.C. Regents. JE 611, 612, 631. KW Antitrust. Collusion. Market Power. Manufacturing. Cartels.

AB This paper argues that the traditional standard for liability in exclusive dealing cases, the extent of market share foreclosed, is empty of economic content and that the likelihood of anticompetitive retailer foreclosure is so remote in most cases as to be all but absent. Lower courts have moved strongly in recent years in the direction dictated by Sylvania, weighing the benefits of exclusive dealing against the potential anticompetitive harm. However, their analysis remains incomplete, since great credence is still given to the potential for anticompetitive potential of exclusive dealing to exclude rivals has been grossly overstated.

#### Osborne, Martin J.

TI Noncooperative Models of Bargaining. AU Binmore, Ken; Osborne, Martin J.; Rubinstein, Ariel.

#### Osler, C. L.

PD August 1989. TI Interest Rate Term Premiums and the Failure of the Speculative Efficiency Hypothesis: A Theoretical Investigation. AA Tuck School of Business Administration and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 3060; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 25. PR \$2.00. JE 431, 441, 432, 411. KW Exchange Rates. Interest Rates. Financial Markets. International Markets.

AB This paper develops a new parity condition for international financial markets which relates differences between the forward exchange rate and the expected future exchange rate to interest term premiums. It begins with the general proposition that UIP cannot hold for all maturity horizons if interest rate term premiums are imperfectly correlated across countries and expectations are rational. The conditions under which UIP could hold for multiple horizons, under these two assumptions. Are found to be very restrictive. It is argued that if UIP holds at all under these circumstances, it is only likely to hold at a very short time horizon. Finally, it is shown that under these assumptions, if UIP holds at the shortest time horizon then the difference between forward exchange rates and expected future spot rates at all other horizons will be the difference in expected term premiums at each maturity.

#### Oswald, Andrew J.

TI Wages and House Prices: Cross-Section Evidence. AU Blanchflower, D.; Oswald, Andrew J.

TI An Empirical Study of Union Preferences. AU Clark,

Andrew; Oswald, Andrew J.

#### Otani, Ichiro

PD November 1988. TI Determinants of Long-Term Growth Performance in Developing Countries. AU Otani, Ichiro; Villanueva, Delano. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/88/97; International Monetary Fund, Washington, DC 20431. PG 18. PR no charge. JE 121, 226, 111. KW Economic Growth. Developing Countries. Growth Theory.

AB This paper provides empirical evidence on the determinants of long term growth performance in a sample of 55 developing countries grouped by income levels. The evidence indicates that a model incorporating the savings rate, export performance, expenditures on human capital development, the growth of population, and the real interest rate on external debt, explains the growth performance of these countries remarkably well. The model also suggest policies that would lead to higher long-run rates of growth.

#### Pagan, Adrian R.

PD February 1989. TI Alternative Models for Conditional Stock Volatility. AU Pagan, Adrian R.; Schwert, G. William. AA University of Rochester. SR University of Rochester Bradley Policy Research Center Working Paper: 89-02; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 22. PR No charge. JE 042, 131, 132, 313. KW Volatility. Heteroskedasticity. Stock Market. ARCH. Nonparametric. Kernel. Fourier.

AB This paper compares several statistical models for monthly stock return volatility. The focus is on U.S. data from 1834-1925 because the post-1926 data have been analyzed in more detail by others. Also, the Great Depression had levels of stock volatility that are inconsistent with stationary models for conditional heteroskedasticity. We show the importance of nonlinearities in stock return behavior that are not captured by conventional ARCH or GARCH models. We also show the nonstationarity of stock volatility, even over the 1834-1925 period.

#### Pagano, Marco

PD May 1989. TI Imperfect Competition, Underemployment Equilibria and Fiscal Policy. AA Centre for Economic Policy Research. SR Centre for Economic Policy Research Discussion Paper: 280; 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 023, 024, 321. KW Externalities. Fiscal Policy. Underemployment. Employment. Imperfect Competition.

AB It is often claimed that the demand externality created by imperfectly competitive markets can provide an analytical basis for Keynesian fiscal policy prescriptions. Here this demand externality is embedded in a model where saving and employment are determined by optimizing choices in an imperfectly competitive setting. It turns out that underemployment equilibria do exist, that there is scope for fiscal intervention, but that Keynesian fiscal prescriptions are turned on their head. Demand externalities among imperfectly competitive firms do not in general provide a theoretical basis for these prescriptions, unless supplemented by other deviations

from the Walrasian standard in the labor or capital market.

**TI** Confidence Crises and Public Debt Management.  
**AU** Giavazzi, Francesco; Pagano, Marco.

### Page, Talbot

**TI** Public and Private Information: An Experimental Study of Information Pooling. **AU** McKelvey, Richard D.; Page, Talbot.

### Palfrey, Thomas R.

**PD** January 1989. **TI** Efficient Trading Mechanism with Pre-Play Communication. **AU** Palfrey, Thomas R.; Srivastava, Sanjay. **AA** Palfrey: California Institute of Technology. **Srivastava:** Carnegie Mellon University. **SR** Caltech Social Science Working Paper: 693; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 33. **PR** no charge. **JE** 025, 026. **KW** Communication. Mechanism Design. Trading. Efficient Allocation.

**AB** This paper studies the problem of designing efficient trading mechanisms when players may engage in pre-play communication. It is well known that equilibrium behavior can be affected, sometimes drastically, if players have the opportunity to exchange messages prior to playing some particular game. We investigate the relationship between efficiency, pre-play communication, and unique implementation. We identify a class of simple mechanisms which are immune to pre-play communication and show that any incentive efficient allocation can be uniquely implemented by such a mechanism.

### Peek, Joe

**TI** Interest Rates in the Reagan Years. **AU** Hendershott, Patric H.; Peek, Joe.

**TI** Treasury Bill Rates in the 1970s and 1980s.  
**AU** Hendershott, Patric H.; Peek, Joe.

### Pencavel, John

**PD** July 1989. **TI** Employment, Wages, and Unionism in a Model of the Aggregate Labor Market in Britain. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 3030; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** \$2.00. **JE** 824, 831, 821. **KW** Labor Demand. Employment. Trade Unions.

**AB** Two propositions figure prominently in explanations for Britain's comparatively low growth in employment: first, the wage-setting mechanism is insufficiently responsive to the growth of unemployment and second, there exists a well-defined negative causal relationship from wages to employment with the features of a conventional labor demand function. Using aggregate annual observations from 1953 to 1979, I find the evidence for a conventional labor demand curve to be fragile and I find little support for the notion that trade union objectives are unaffected by unemployment as some versions of the "insider-outsider" hypothesis would maintain. In general, the empirical results in this paper emphasize that confident inferences about Britain's employment record cannot be drawn from aggregate data.

### Pestieau, Pierre

**TI** Optimal Public Sector Employment Policy with

Endogenous Involuntary Unemployment. **AU** Boadway, Robin W.; Marchand, Maurice; Pestieau, Pierre.

### Phillips, Peter C. B.

**PD** April 1989. **TI** Statistical Inference in Instrumental Variables Regression with I(1) Processes. **AU** Phillips, Peter C. B.; Hansen, Bruce E. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 869-R; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125, Yale Station, New Haven, CT 06520. **PG** 59. **PR** No charge. **JE** 211. **KW** Instrumental Variables. Co-integration. Unit Roots. Identification. Asymptotic Theory. **AB** This paper studies the asymptotic properties of instrumental variable (IV) estimates of multivariate cointegrating regressions. The framework of study is based on earlier work by Phillips and Durlauf (1986) and Park and Phillips (1988, 1989). In particular, the results in these papers are extended to allow for IV regressions that accommodate deterministic and stochastic regressors as well as quite general deterministic processes in the data generating mechanism. Problems of inference are also addressed and some promising new theoretical results are reported. Some simulation results are reported which seek to explore the sampling behavior of our suggested procedures.

### Pines, David

**PD** May 1989. **TI** Land Scarcity, Economies of Scale in Transportation, and the Utility-Size Relationship in an Urban Setting. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 19-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 17. **PR** no charge. **JE** 933, 941. **KW** Transportation. Urban Economics. Land. Economies of Scale.

**AB** The effect of population size on utility in an urban setting depends on the scale effects in production and consumption, as well as on land scarcity. Accordingly, the role of the transportation system in affecting the utility-size relationship is studied by analyzing the economies of scale in the transportation sector. In particular, the effects of size on utility is explicitly related to the degrees of return to scale in the production of the inputs used in urban transportation, the production of the sector's output, and the consumption of the urban transportation services, on the one hand, and to land scarcity, on the other.

### Pitt, Mark M.

**PD** February 1989. **TI** Productivity, Health and Inequality in the Intrahousehold Distribution of Food in Low-Income Countries. **AU** Pitt, Mark M.; Rosenzweig, Mark R.; Hassan, Md Nazmul. **AA** Pitt and Rosenzweig: University of Minnesota. Hassan: University of Dhaka. **SR** University of Minnesota Economic Development Center Bulletin: 89-1; Dept. of Economics, 1035 Mgmt & Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 43. **PR** free. **JE** 825, 913, 921. **KW** Health. Food Distribution. Households. Productivity.

**AB** We examine the determinants of calorie consumption and activity choices from the perspective of a model of intrahousehold allocation that incorporates the effects of differences in exogenous healthiness, health technology and labor market returns to health and effort on the allocation of resources to members. The empirical analysis is applied to

unique individual and household-level data from Bangladesh, a country that exhibits large differences in calorie consumption and the energy-intensity of activity by age and gender. Our results, reveal that energy-intensive effort tends to reduce health as measured by weight-for-height, that there activity by age our results reveal that energy-intensive is a pecuniary return to health and effort, and that there is substantial calorie reinforcement for those classes of individuals best able to alter the energy-intensity of effort.

#### **Plosser, Charles I.**

**PD** March 1989. **TI** Understanding Real Business Cycles. **AA** University of Rochester. **SR** University of Rochester Bradley Policy Research Center Working Paper: 89-03; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 42. **PR** No charge. **JE** 133, 131, 111, 023. **KW** Business Cycles. Growth Models. Economic Fluctuations. Dynamic Equilibrium.

**AB** The paper provides an introduction to the important and growing literature on real business cycles. It is argued that these models must be at the core of our understanding of economic fluctuations since they seek to understand the dynamic equilibrium of market economics. They also provide the benchmark from which to judge the importance of other characteristics that are frequently thought important for fluctuations. While much more work remains to be done, simple real business cycle models have demonstrated that equilibrium models are not as inconsistent with important features of the business cycle as previously thought.

#### **Plott, Charles R.**

**TI** An Experimental Examination of the Simultaneous Determination of Input Prices and Output Prices. **AU** Goodfellow, Jessica; Plott, Charles R.

#### **Png, I. P. L.**

**PD** March 1988. **TI** Pricing Capacity without Precommitment by Likelihood of Availability. **AA** National University of Singapore. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-4; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 27. **PR** \$2.00; checks payable to U.C. Regents. **JE** 641, 022. **KW** Capacity. Salvage Value. Heterogeneity.

**AB** In this paper, a seller of capacity that has no salvage value after production begins, e.g., hotel rooms, faces a heterogeneous population of customers. The valuation of each customer is private information. Sales take place over two periods. The optimal strategy for the seller is to set a price for advance sales that leave high-valuation customers indifferent between buying in advance and waiting. In the event of excess capacity in the final period, the seller will cut price. The seller can raise the price for advance sales by offering a most favored customer provision. This, however, will result in unsold capacity with positive probability and lower expected total surplus.

**TI** The Role of Instalment Payments in Contracts for Services. **AU** Lee, Tom K.; Png, I. P. L.

**TI** Facilitation of Competing Bids and the Price of a Takeover Target. **AU** Hirshleifer, David; Png, I. P. L.

**TI** Monitoring versus Investigation in Law Enforcement and Regulation. **AU** Mookherjee, D.; Png, I. P. L.

#### **Polemarchakis, Heraklis**

**TI** The Relevance of Financial Policy. **AU** Detemple, Jerome Gottardi P.; Polemarchakis, Heraklis.

#### **Pope, Clayne L.**

**TI** Economic and Geographic on the Farming Frontier: Evidence from Appanoose County, Iowa, 1850-1870. **AU** Galenson, David W.; Pope, Clayne L.

#### **Portes, Richard**

**TI** Dealing with Debt: The 1930s and the 1980s. **AU** Eichengreen, Barry; Portes, Richard.

#### **Poterba, James M.**

**PD** 1988. **TI** Lifetime Incidence and the Distributional Burden of Excise Taxes. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 510; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 12. **PR** No charge. **JE** 921, 323, 324. **KW** Excise Taxes. Consumption. Regressive Taxes. Taxes.

**AB** Lifetime income is less variable than annual household income, since the latter reflects transitory shocks to wages, family status, and employment. This implies that low-income households in one year have some chance of being higher-income households in other years, and significantly affects the estimated distributional burden of excise taxes. This paper shows that household expenditures on gasoline, alcohol, and tobacco as a share of total consumption (a proxy for lifetime income) are much more equally distributed than expenditures as a share of annual income. From a longer-horizon perspective, excise taxes on these goods are much less regressive than standard analyses suggest.

**PD** February 1989. **TI** Tax Reform and the Market for Tax-Exempt Debt. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 514; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 37. **PR** No charge. **JE** 323, 311, 324. **KW** Tax Rates. Bond Prices. Interest Rates. Investment. Capital.

**AB** This paper provides clear evidence that the yield spread between long-term taxable and tax-exempt bonds responds to changes in expected individual tax rates, a finding that refutes theories of municipal bond pricing that focus exclusively on commercial banks or other financial intermediaries. The results support the conclusion that in the two decades prior to 1986, the municipal bond market was segmented, with different investor clienteles at short and long maturities. The Tax Reform Act of 1986 is likely to affect this market, however, since it has restricted tax benefits from tax-exempt bond investment by commercial banks. Individual investors are increasingly important suppliers of capital to states and localities, and their tax rates are likely to be the primary determinant of the yield spread between taxable and tax-exempt interest rates in the future.

**PD** April 1989. **TI** Dividends, Capital Gains, and the Corporate Veil: Evidence from Britain, Canada, and the United States. **AA** Massachusetts Institute of Technology.

**SR** Queen's University John Deutsch Institute Discussion Paper: 3; c/o Department of Economics, Queen's University, Kingston, Ontario, Canada K7L 3N6. **PG** 36. **PR** \$3.00 Canada and U.S.; \$3.50. Foreign. **JE** 323, 521, 921. **KW** Dividends. Capital Gains. Consumption. Corporate Saving. Taxes. Tax Policy. Takeovers.

**AB** This paper investigates the effects of increased cash dividend payout, and of "forced realizations" of the capital gains in corporate control transactions, on the level of aggregate consumption. The results support the proposition that investors respond differently to cash receipts from firms and to accruing capital gains. Consistent but weak evidence for the United States, Great Britain, and Canada suggests that higher dividend tax rates lower consumption. This is consistent with such tax rates increasing corporate saving, while households fail to completely pierce the corporate veil and therefore reduce their consumption. Time series evidence from the U.S. and the U.K. also suggests that "forced realizations" of capital gains in takeovers may spur consumption, indicating a relatively unexplored link between corporate financial decisions and aggregate consumption.

#### **Powell, Andrew**

**PD** May 1989. **TI** A General Method of Moments for Estimating the Parameters of Stochastic Processes for Asset Prices: An Application to the Jump-Diffusion Process of Oil Futures. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 76; Institute of Economics and Statistics, St Cross Building Manor Road, OXFORD OX1 3UL. **PG** 22. **PR** no charge. **JE** 211. **KW** Stochastic Processes. Jump Diffusion Model. Asset Prices. Method of Moments.

**AB** The valuation of financial assets including options contracts has increased the importance of finding effective means to estimate and test simple stochastic processes for asset prices. Previous work has centered on estimation of a particular process, often employing strong distributional assumptions within the estimation methodology rather than testing between different interpretations of the data. In this paper a general method of moments is developed as a simple, coherent framework for testing alternative specifications for stochastic processes. Tests of the jump diffusion model for oil futures prices is included to illustrate the method in practice.

#### **Promel, Hans Jurgen**

**PD** 1989. **TI** Das Steiner Problem in Graphen. **AU** Promel, Hans Jurgen; Steger, Angelika. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89577-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 107. **PR** No charge. **JE** 213. **KW** Steiner Problem. Algorithms. **AB** Paper in German.

**TI** Steiner Trees in VLSI-Layout. **AU** Korte, Bernhard; Promel, Hans Jurgen; Steger, Angelika.

#### **Prucha, Ingmar R.**

**TI** Dynamic Factor Demand Models, Productivity Measurement, and Rates of Return: Theory and An Empirical Application to the U.S. Bell System. **AU** Nadiri, Ishaq M.; Prucha, Ingmar R.

#### **Putterman, Louis**

**PD** May 1987. **TI** Productivity and Material Incentives in a Chinese People's Commune, 1970-1979. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 87-13; Department of Economics, Brown University, Providence, RI 02912. **PG** 37. **PR** No charge. **JE** 931, 941, 716, 715. **KW** Farming. Agriculture. Cooperatives. Income Distribution.

**AB** A 1970's panel data set from a commune in Hebei province, China, is used to test hypotheses regarding the impacts of production team income distribution practices upon team production levels in the collective farming era. Based on the theory of incentives in producers' cooperatives and collective farms, which assumes self-interested behavior by individual peasants, it is hypothesized that team members worked harder the more of the revenue generated they expected to be distributed to them as income, and (because grain distribution was largely egalitarian) the more of that income they expected to be distributed.

**TI** Incentives and Monitoring in Cooperatives under Labor-Proportionate Sharing Schemes. **AU** Bonin, John P.; Putterman, Louis.

#### **Qi, Liqun**

**PD** January 1989. **TI** Bisubmodular Functions. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8901; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 21. **PR** no charge. **JE** 213. **KW** Rank Function. Finite Set. Bases.

**AB** A set function defined on ordered pairs of disjoint subset of a finite set with a submodularity-like property is called a bisubmodular function. There are two main classes of bisubmodular functions: the directed bisubmodular and the Fujishige bisubmodular functions. The rank function of a pseudomatroid or delta matroid or metroid is a directed bisubmodular function. A ditroid is formed by a family of ordered pairs of subsets of a finite set such that its rank function is also a directed bisubmodular function. There is one-to-one correspondence between the pseudomatroid and the perfect ditroid-a subclass of the ditroid. A perfect ditroid can be characterized by its rank function and bases. Examples of other ditroids are given.

#### **Quandt, Richard E.**

**PD** January 1989. **TI** Endogenous Output in an Aggregate Model of the Labor Market. **AU** Quandt, Richard E.; Rosen, Harvey S. **AA** Princeton University. **SR** National Bureau of Economic Research Technical Paper: 74; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** Not available. **PR** \$2.00. **JE** 824, 825, 023, 821. **KW** Output. Labor Market. Productivity. Exogeneity.

**AB** A common feature to most aggregative studies of the labor market is a marginal productivity expression in which the quantity of labor appears on the left hand side of the equation, and the right hand side includes the real wage and output. A number of researchers have cautioned that if the output variable is treated as exogenous, serious econometric difficulties may result. However, the assumption that output is exogenous has not been tested. In this paper, we estimate an equilibrium model of the labor market, and use it to test the assumption of output exogeneity. We find that the assumption that output is

exogenous cannot be rejected by the data.

### Quigley, John M.

**TI** Explicit Models of Willingness to Pay: A Monte Carlo Simulation. **AU** Mason, Carl; Quigley, John M.

### Quinzii, Martine

**TI** Real Effects of Money in General Equilibrium. **AU** Magill, Michael J. P.; Quinzii, Martine.

### Quirnbach, Herman C.

**PD** December 1988. **TI** Sequential Vertical Integration. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8825; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 13. **PR** no charge. **JE** 022, 611. **KW** Vertical Integration. Monopoly. Cost Function.

**AB** When an intermediate good monopolist acquires a sequence of subsidiaries in a competitive final good industry, the final good price rises with each acquisition, and the monopolist's existing subsidiaries, already larger than efficient scale, expand further. Sometimes each surviving independent downstream firm is smaller than efficient scale and shrinks with each acquisition, but in other cases each independent is inefficiently large, grows with each acquisition, and may even be larger than the monopolist's subsidiaries. If and when the independents disappear, the monopolist builds still more plants, shrinks each of his existing subsidiaries, and lowers the price of the final good.

### Ramanujam, Prathap

**PD** June 1989. **TI** Commodity Prices, Financial Markets and World Income: A Structural Rational Expectations Model. **AU** Ramanujam, Prathap; Vines, David A. **AA** University of Glasgow. **SR** Centre for Economic Policy Research Discussion Paper: 319; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, United Kingdom. **PG** 35. **PR** \$4.00. **JE** 711, 313, 122, 227. **KW** Commodities. Stock Prices. Speculation. Developed Countries.

**AB** In this we specify and jointly estimate supply, demand and price equations for four aggregate commodity groups: food, beverages, agricultural raw materials and metals. This simple structural model allows us, for each group of commodities, to incorporate stock data for the first time, and to include forward-looking expectations. Estimates of this new model reveal that industrial production in developed countries has large and significant short-run effects on the demand for primary commodities. The estimates also suggest (but cannot definitely confirm) that industrial production in developed countries has large permanent effects: these effects differ across the commodity groups for plausible reasons.

### Rangarajan, Anuradha

**TI** The Effect of Transfer Programs on Work Effort and Human Capital Formation: Evidence from the U.S. **AU** Moffitt, Robert; Rangarajan, Anuradha.

### Ransom, Roger L.

**PD** November 1988. **TI** The Trend in the Rate of Labor Force Participation of Older Men, 1870-1930: A Review of the Evidence. **AU** Ransom, Roger L.; Sutch, Richard.

**AA** Ransom: University of California, Riverside. Sutch: University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 8898; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 39. **PR** \$3.50. **JE** 042. **KW** Retirement. Labor Supply. Elderly. Unemployment. Census Methods. Economic History.

**AB** We present new evidence to support our earlier finding that there was no appreciable trend in the rate of retirement for American men between 1870 and 1930. The data suggest that Jon Moen's claim that retirement increased appreciably during this period is mistaken. Moen's critique of our earlier paper in This Journal is also examined point by point. We demonstrate that his doubts about our procedures are unnecessary.

**PD** May 1989. **TI** The Trend in the Rate of Labor Force Participation of Older Men, 1870-1930: A Review of the Evidence. **AU** Ransom, Roger L.; Sutch, Richard. **AA** University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper Series on Historical Factors and Long-Run Growth: 3; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** Not available. **PR** \$2.00. **JE** 042, 824, 826. **KW** Retirement. Employment. Elderly.

**AB** See additional entry under this author.

### Rasche, Robert

**TI** Kolmogorov-Smirnov Tests for Distribution Function Similarity with Applications to Portfolios of Common Stock. **AU** Meyer, Jack; Rasche, Robert.

### Rasmusen, Eric

**PD** 1988. **TI** A Theory of Rivalry: Does Number Two Try Harder? **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-1; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 31. **PR** \$2.00; checks payable to U.C. Regents. **JE** 026, 213. **KW** Rivalry. Game Theory.

**AB** Rivalry occurs when one player exerts effort to improve or maintain his standing relative to another player. In the model of this paper, a player can be either behind, even with, or ahead of his rival, and effort stochastically improves his position. In a one-period game, both players exert the same effort, exerting more if they are even than otherwise. In all but the last period of a T-period game, the player that is ahead exerts more effort, and in any period both players exert more if they are even than if one is ahead. Applications to innovation, elections, wars, arms races, and advertising are suggested.

**TI** Cooperation in a Repeated Prisoners' Dilemma with Ostracism. **AU** Hirshleifer, David; Rasmusen, Eric.

**PD** August 1988. **TI** Folk Theorems for Applied Modelling with Repeated Games. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-6; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Ca 90024-1481. **PG** 23. **PR** \$2.00; checks payable to U.C. Regents. **JE** 026, 213. **KW** Folk Theorem. Game Theory. Prisoner's Dilemma. Repeated Game.

**AB** The fact that infinitely repeated games have many different equilibrium outcomes is known as the Folk Theorem.



Previous versions of the Folk Theorem have characterized only the payoffs of the game. This paper shows that over a finite portion of an infinitely repeated game, the concept of perfect equilibrium imposes virtually no restrictions on observable behavior. The Prisoner's Dilemma is presented as an example and discussed extensively.

**PD** December 1988. **TI** Estimates of the Present Value of Intergenerational Transfers. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-6; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 18. **PR** \$2.00; checks payable to U.C. Regents. **JE** 322, 911, 323. **KW** Government. Transfer Payments. Welfare Programs. Taxes.

**AB** The United States government transfers large amounts from the middle-aged to the young and the elderly in its population. Using reasonable assumptions on parameter values, the lifetime value of such transfers to a representative individual is \$95,540. It has been argued that this positive value indicates the efficiency of the system of transfers. Looked at more carefully, however, the system is not efficient. The gains in welfare are due to the timing effect of transfers to the young, not to the old, and to improvements in the credit market for education that could be made without transfers. Separating out the credit market effect, the remaining value of lifetime transfers is \$1,364, or, taking account of the loss from tax distortions, -\$22,590.

**PD** January 1989. **TI** Extending the Economics Theory of Regulation to the Form of Policy. **AU** Rasmusen, Eric; Zupan, Mark. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 89-2; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 33. **PR** \$2.00; checks payable to U.C. Regents. **JE** 022, 612, 611. **KW** Regulation. Entry Barriers. Price Floors. Subsidies.

**AB** That an industry's producers often seek government help is the subject of a large literature following Stigler (1971). What has not been studied is how firms choose their desired policies from the set including entry barriers, price floors, subsidies, and demand stimulation. We take as given that government and incumbents form the supply and demand for regulation and explore the choice of political product.

**PD** February 1989. **TI** Firm Size and Agent Effort. **AU** Rasmusen, Eric; Zenger, Todd. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-13; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 34. **PR** \$2.00; checks payable to U.C. Regents. **JE** 512, 514, 824, 022. **KW** Firm Size. Contracts. Incentives. Managers. Economies of Scale.

**AB** We find that small teams can write more efficient incentive contracts than large teams when agents choose individual effort levels but the principal observes only the joint output. Under competitive conditions, large teams would only survive if fixed-wage contracts and low effort or monitoring were as efficient as incentive contracts. This result is helpful in understanding managerial diseconomies of scale and is consistent with both existing evidence and our own analysis of

data from the Current Population Survey. Our modelling approach, based on classical hypothesis testing, is of interest because it does not need to derive the optimal contract to show the advantage of small teams.

**TI** Perfectly Contestable Monopoly and Adverse Selection. **AU** Fernandez, Luis; Rasmusen, Eric.

**PD** March 1989. **TI** Using Mandated Fringe Benefits to Capture Quasi-Rents. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-14; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90049-1481. **PG** 25. **PR** \$2.00; checks payable to U.C. Regents. **JE** 833, 822, 824, 821. **KW** Fringe Benefits. Wages. Regulation. Public Policy.

**AB** Regulation requiring employers to provide floor levels of fringe benefits would be opposed by homogeneous and well-informed workers if wages were completely flexible. If wages are sticky in the short run, however, regulation gives workers short-run gains in the form of quasi-rents captured from employers. Workers would support regulation if their discount rates were high enough, even though in the long run the wage falls and the gains disappear. Once that happened, workers would prefer an instant return to the pre-regulation regime, but they would oppose deregulation because it would initiate a second transition period, during which workers would suffer instead of employers. Other explanations for worker support of mandatory fringe benefits are also given.

#### **Rausser, Gordon C.**

**TI** Farmer Behavior under Risk of Failure. **AU** Foster, William E.; Rausser, Gordon C.

**TI** Endogenizing U.S. Milk Price Supports. **AU** de Gorter, Harry; Rausser, Gordon C.

#### **Recski, Andras**

**PD** January 1989. **TI** 2-Layer Routing of Dense Bipartite Specifications with Vertex Disjoint Paths and via Holes. **AA** University of Budapest. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88550-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 10. **PR** No charge. **JE** 213. **KW** Disjoint Paths. VLSI Design.

**AB** Motivated by VLSI design we study the routing on both sides of a grid, using vertex disjoint paths and via holes. We consider only the special case when the nodes (pins) are on two opposite sides of a rectangular board (channel routing), these sides have no free vertex (density) and each node should be interconnected with exactly one node from the opposite side (bipartiteness). We show that the problem is easy if the width of the board is 2 or 3, and present some results if this width is 4. Finally we give a linear time solution for the general case (without the requirements of density and bipartiteness); however, the resulting width is usually not minimum.

#### **Redekop, James M.**

**PD** October 1988. **TI** The Kannai, Closed-Convergence, and Questionnaire Topologies on Some Spaces of Economic Preferences. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8810; Department of Economics, Social

Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 19. PR \$5.00 Canada; \$7.00 Elsewhere. JE 213. KW Preferences. Set Theory. Topology.

**AB** In this note we define and characterize two well-known topologies on spaces of preferences, namely the Kannai and closed-convergence topologies. We show that on spaces of economic preferences (e.g. continuous and monotonic preferences, both topologies coincide and have a simple and appealing characterization. Namely, they agree with the questionnaire topology, which takes as a base the set of questionnaire sets  $Q((x(1),y(1))\dots(x(n),y(n)))=\text{intersection from } i=1 \text{ to } n \text{ of } \{p \text{ such that } x(i) \hat{p} y(i)\}$  where  $\hat{p}$  denotes strict preference.

### Regev, Haim

**TI** High Tech and Productivity: Evidence from Israeli Industrial Firms. **AU** Bregman, Arie; Fuss, Melvyn A.; Regev, Haim.

### Reinhart, Carmen

**PD** December 1988. **TI** Commodity Markets and the International Transmission of Fiscal Shocks. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/104; International Monetary Fund, Washington, D.C. 20431. **PG** 23. **PR** no charge. **JE** 121, 431, 422, 411, 321. **KW** Developing Countries. Commodity Markets. Exports.

**AB** The "engine of growth" argument holds that an economic expansion in a large country increases the growth of its trading partners. Growth in developing countries is routinely linked to growth patterns in the industrial economies. This paper examines the role of commodity markets in transmitting disturbances internationally and finds that contrary to the implications of the "engine of growth" argument, a fiscal-induced expansion in a large commodity-importing country could either increase or decrease growth in the developing commodity-exporting country, and unambiguously reduces output in the second commodity-importing country.

### Revenga, Ana L.

**TI** Changes in the Structure of Wages: The U.S. versus Japan. **AU** Katz, Lawrence F.; Revenga, Ana L.

### Riley, John G.

**TI** A Characterization of Equilibria in Common Value Second-Price and Open-Exit Auctions. **AU** Bikhchandani, Sushil; Riley, John G.

### Rivers, R. Douglas

**TI** Alternative Policies for Unemployment Insurance. **AU** Dubin, Jeffrey A.; Rivers, R. Douglas.

**TI** Selection Bias in Linear Regression, Logit and Probit Models. **AU** Dubin, Jeffrey A.; Rivers, R. Douglas.

### Roberts, John M.

**PD** May 1989. **TI** Does Overtime use Affect Marginal Cost? **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 95; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 20. **PR** no charge.

**JE** 824, 821, 131, 631. **KW** Overtime. Marginal Cost. Inflation. Labor Supply.

**AB** Overtime is both the most volatile and the most costly dimension of labor input; it is therefore a likely indicator of marginal cost. However, overtime use will only affect marginal cost to the extent that the firm views the overtime premium as a current cost, and when there are long-term relationships between firms and workers, this need not be the case. In this paper, I show that the work week need not be an indicator of the effective overtime premium, and that overtime hours themselves are a more unambiguous indicator. In my empirical work, I find that overtime hours do not have additional explanatory power for employment adjustment once the work week is accounted for, and therefore, that the effective overtime premium is not significantly different from zero. Hence, overtime hours are not an indicator of marginal cost.

### Robinson, David

**TI** Fiscal Policy and External Performance: The Turkish Experience. **AU** Kopits, George; Robinson, David.

### Rodrigues, Anthony

**PD** September 1988. **TI** A Test of International CAPM. **AU** Rodrigues, Anthony; Engel, Charles M. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8822; 33 Liberty St., Rm. 901, New York, NY 10045. **PG** 20. **PR** no charge. **JE** 441, 431, 423. **KW** Asset Pricing Model. CAPM. Wald Test.

**AB** We propose and implement a Wald test of the international capital asset pricing model (CAPM). Ex-post asset returns are regressed on asset supplies. CAPM requires that the matrix of coefficients from a regression of rates of return on asset supply shares be proportional to the covariance matrix of the residuals from those regressions. We test this restriction in the context of a model that aggregates all outside financial assets for each of ten countries. We do not find strong support for the restrictions of CAPM.

### Rodrik, Dani

**PD** March 1989. **TI** Liberalization, Sustainability and the Design of Structural Adjustment Programs. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Discussion Paper: 177D; J.F. Kennedy School of Government, 79 J.F.K. Street, Cambridge, MA 02138. **PG** 52. **PR** no charge. **JE** 121, 112, 133. **KW** Economic Reform. Structural Adjustment. Liberalization. Debt Crisis.

**AB** More than six years have now elapsed since the onset of the generalized debt crisis of 1982, yet the affected countries have still not managed to stabilize their economies. The reality now is that these countries have to attempt structural adjustment in the midst of pervasive macroeconomic instability. This paper argues that structural adjustment programs should target sustainability, rather than economic liberalization turns out to be weak in relation to the high hopes placed on it, especially under the circumstances in which it is carried out. Illiberal policies which do not damage overall macro stability are to be preferred to liberal ones which are likely to either prove unsustainable or engender macro instability.

**PD** June 1989. **TI** Policy Uncertainty and Private Investment in Developing Countries. **AA** Harvard University. **SR** National Bureau of Economic Research

Working Paper: 2999; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 24. PR \$2.00. JE 121, 133, 131. KW Developing Countries. Investment. Policy Analysis. Uncertainty.

AB A resurgence in private investment is a necessary ingredient of a sustainable recovery in heavily-indebted developing countries. Policy reforms in these countries involve a serious dilemma, especially when they include structural and microeconomic features. On the one hand, rational behavior by the private sector calls for withholding investment until much of the residual uncertainty regarding the eventual success of the reform is eliminated. This paper shows that even moderate amounts of policy uncertainty can act as a hefty tax on investment, and that otherwise sensible reforms may prove damaging if they induce doubts as to their permanence.

### Roe, Terry L.

TI The GATT Negotiations and U.S./E.C. Agricultural Policies: Solutions to Noncooperative Games. AU Johnson, Martin; Roe, Terry L.; Mahe, Louis.

### Roemer, John E.

PD February 1989. TI Decentralization, Duplicity, and Minimal Equity. AA University of California at Davis. SR University of California at Davis Economics Department Working Paper: 335; Department of Economics, University of California at Davis, Davis, CA 95616. PG 25. PR no charge. JE 024, 025, 026. KW Nash Implementation. Revelation Principle. Social Welfare Function. Political Economy.

AB It is argued that the theory of Nash implementation is politically unrealistic for a number of reasons, including its fragility in the presence of irrational behavior by a few agents. We investigate mechanisms with inspections, to implement social welfare functions in the presence of incomplete information about the population. The planner knows the statistical distribution of the relevant trait in the population, and designs a direct mechanism. He can perform perfect but costly inspections after agents' announcements, and disassembling agents receive a penalty allocation. With a minimal equity condition, it is shown that the revelation principle does not, in general, hold, if more than one good is being allocated. A sufficient condition is provided under which it does hold.

PD June 1989. TI Some Remarks on Homo Economicus. AA University of California at Davis. SR University of California at Davis Economics Department Working Paper: 338; Department of Economics, University of California at Davis, Davis, CA 95616. PG 24. PR no charge. JE 022, 036. KW Bounded Rationality. Backward Induction. Utility Maximization. Rationality.

AB Five challenges to the assumption that people are utility maximizing actors are reviewed, under the headings of bounded rationality, non-traditional arguments in utility functions, the impossibility of rational behavior, 'beyond optimization', and the social formation of preferences. None of the points made are original with the author.

PD June 1989. TI Incentives and Agency in Socialist Economies. AA University of California at Davis. SR University of California at Davis Economics Department Working Paper: 339; Department of Economics, University of California at Davis, Davis, CA 95616. PG 29. PR no charge. JE 027, 052, 053. KW Principal-Agent Theory.

Public Ownership. Socialism. Economic Systems.

AB Twentieth century socialism has encountered the principal-agent problem with a vengeance. Workers are not perfect agents of enterprise managers, managers are not perfect agents of planners, and planners are not perfect agents of the public. It is argued that, in capitalist economies, the first problem exists as well, the second becomes transformed into 'the managers are not perfect agents of the stockholders,' while the third ('the stockholders are not perfect agents of the public') is, according to the lore, solved by the invisible hand. Capitalism does not solve the first two problems by giving the agents in question property rights in the firm, and it is argued that privatization is not necessary to solve these problems in socialist economies either. It is, instead, proposed that the introduction of various kinds of incentives and markets will suffice.

### Rogerson, Richard

TI Unemployment and Sectoral Shifts: Evidence from the PSID. AU Loungani, Prakash; Rogerson, Richard; Sonn, Yang Hoon.

### Rojas, Suarez Liliana

TI Credibility, Capital Controls, and the EMS. AU Lane, Timothy; Rojas, Suarez Liliana.

### Romer, Christina D.

PD April 1989. TI Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz. AU Romer, Christina D.; Romer, David H. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 89-107; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 60. PR \$3.50. JE 042, 131, 133, 023. KW Monetary Policy. Monetary History. Inflation. Economic Fluctuations.

AB This paper uses the historical record to isolate episodes in which there were large monetary disturbances not caused by output fluctuations. It then tests whether these monetary changes have important real effects. The central part of the paper is a study of postwar U.S. monetary history. We identify six episodes in which the Federal Reserve in effect decided to attempt to create a recession to reduce inflation. We reach three major conclusions. First, the real effects of these monetary disturbances are highly persistent. Second, the six shocks that we identify account for a considerable fraction of postwar economic fluctuations. And third, evidence from the interwar era also suggests that monetary disturbances have large real effects.

### Romer, David H.

TI Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz. AU Romer, Christina D.; Romer, David H.

### Rosen, Harvey S.

TI Endogenous Output in an Aggregate Model of the Labor Market. AU Quandt, Richard E.; Rosen, Harvey S.

TI Recent Trends in Housing Conditions among the Urban Poor. AU Blank, Rebecca M.; Rosen, Harvey S.

TI Copycatting: Fiscal Policies of States and their Neighbors. AU Case, Anne C.; Hines, James R., Jr.; Rosen,

Harvey S.

**TI** Municipal Labor Demand in the Presence of Uncertainty: An Economic Approach. **AU** Holtz, Eakin Douglas; Rosen, Harvey S.

### Rosenthal, Howard

**TI** Moderating Elections. **AU** Alesina, Alberto; Rosenthal, Howard.

### Rosenzweig, Mark R.

**TI** Productivity, Health and Inequality in the Intrahousehold Distribution of Food in Low-Income Countries. **AU** Pitt, Mark M.; Rosenzweig, Mark R.; Hassan, Md Nazmul.

### Rothenberg, Thomas J.

**PD** April 1989. **TI** Simultaneous Equations with Covariance Restrictions. **AU** Rothenberg, Thomas J.; Ruud, Paul A. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-106; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 19. **PR** \$3.50. **JE** 211. **KW** Instrumental Variables. Maximum Likelihood. Simultaneous Equations Model.

**AB** Full information maximum likelihood and minimum distance estimators are derived for the simultaneous equations model with covariance restrictions. Linearization yields estimators that are easy to compute and have an instrumental variables interpretation. The efficient three-stage least squares estimator in the presence of covariance restrictions is shown to be a special case. Modified estimators which take into account possible nonnormality in the errors are also discussed.

### Rothschild, Michael

**TI** Search. **AU** McMillan, John; Rothschild, Michael.

### Roubini, Nouriel

**PD** July 1989. **TI** Leadership and Cooperation in the European Monetary System: A Simulation Approach. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 3044; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$2.00. **JE** 432, 423, 431, 411. **KW** Policy Coordination. Simulation Model. Capital Controls. General Equilibrium Model. European Monetary System.

**AB** To assess the importance of economic interdependence and the potential gains from policy coordination in the European area, this paper analyzes the international transmission of policies and disturbances in a rational expectation dynamic general equilibrium simulation model of the work economy, and applies the analysis to the study of the European Monetary system. International spillover effects and potential gains from coordination appear to be small under the assumption of flexible exchange rates in the European area. The implications of a fixed rate EMS with German leadership are compared with those of a cooperative fixed exchange rate regime. Finally, capital controls under fixed rates fails to insure policy autonomy and insulation from external disturbances for the countries restricting the capital movements.

### Rubinstein, Ariel

**TI** Noncooperative Models of Bargaining. **AU** Binmore, Ken; Osborne, Martin J.; Rubinstein, Ariel.

### Runkle, David

**TI** Real Wages over the Business Cycle: Estimating the Impact of Heterogeneity with Micro Data. **AU** Keane, Michael; Moffitt, Robert; Runkle, David.

### Rush, Mark

**TI** Stock Market Dispersion, Unemployment and GNP. **AU** Loungani, Prakash; Rush, Mark; Tave, William.

### Ruud, Paul A.

**TI** Simultaneous Equations with Covariance Restrictions. **AU** Rothenberg, Thomas J.; Ruud, Paul A.

### Ryder, Harl E.

**TI** Existence, Uniqueness, and Stability of Equilibrium in an Overlapping Generations Model with Productive Capital. **AU** Galor, Oded; Ryder, Harl E.

### Saffer, Henry

**PD** July 1989. **TI** Alcohol Advertising Bans and Alcohol Abuse: An International Perspective. **AA** Kean College. **SR** National Bureau of Economic Research Working Paper: 3052; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** 531, 931, 921. **KW** Advertising. Alcohol. Health.

**AB** The purpose of this paper is to empirically examine the effect on alcohol abuse of banning broadcast advertising of alcoholic beverages. The effect of a ban cannot be studied using data from one country because the adoption of new advertising bans is an infrequent event and requires many years for adjustment. However, an international data set can be used since there is considerable variation in the use of advertising bans across countries. The data used in this study are a pooled time series from 17 countries for the period 1970 to 1983. The empirical measures of alcohol abuse are alcohol consumption, liver cirrhosis mortality rates, and highway fatality rates. The cultural factors which influence alcohol use are measured by sets of country dummy variables.

### Salant, Stephen

**TI** Towards a Theory of Horizontal Mergers. **AU** Gaudet, Gerard; Salant, Stephen.

### Samii, Massood V.

**PD** June 1989. **TI** Determinants of Crude Oil Prices: OPEC versus Speculators. **AU** Samii, Massood V.; Weiner, Robert J.; Wirl, Franz. **AA** Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-05; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 29. **PR** \$7.50. **JE** 721, 723, 441, 227. **KW** Oil. Natural Resources. Spot Markets. OPEC.

**AB** In recent years a number of structural changes in the international oil market have taken place, including the increasing importance of the spot market vis-a-vis OPEC in determining oil prices. The purpose of this paper is to look into the determinants of OPEC official crude prices. The paper first tests the causality hypothesis of spot crude prices and the official crude prices. It then looks into the behavior of traders and how their actions are being influenced by OPEC

conferences. The mathematical background of this paper is mainly confined to the Appendix.

#### **Samuelson, William**

TI Labor Supply Flexibility and Portfolio Choice. AU Bodie, Zvi; Samuelson, William.

#### **Sato, Kazuo**

TI Psychocultural Conditions and Economic Development: Saving and Investment Behavior in East Asia and Latin America. AU Leff, Nathaniel H.; Sato, Kazuo.

TI Modeling the Demand for Foreign Capital Inflow in Developing Countries: Testing a Hypothesis with Latin American Data. AU Leff, Nathaniel H.; Sato, Kazuo.

#### **Schleicher, Heinz**

PD May 1989. TI A Fair Division Process as a Generalization of the Shapley Value for a Class of Convex Cost Games. AA University of Paris - Val de Marne. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-237; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 16. PR No charge. JE 024. KW Convex Game. Cost Game. Shapley Value.

AB A fair division process is characterized which is based on a particular definition of coalitional economies of cost. Then a class of convex cost games is defined. It is shown that the fair division value and the Shapley value coincide for the class.

#### **Schleifer, Andrei**

TI Building Blocks of Market Clearing Business Cycle Models. AU Murphy, Kevin J.; Schleifer, Andrei; Vishny, Robert W.

#### **Schmidt, Heike**

PD April 1989. TI Family Expenditure Survey - Methodology, and Data Used in Microeconomic Demand Analysis. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-231; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 41. PR no charge. JE 229, 921. KW Family Expenditure Survey. Households. Families. Consumer Demand. AB The purpose of this paper is to give the methodological background of the Family Expenditure Survey as well as explanations and definitions of those items that have been or reasonably could be utilized in microeconomic demand analysis.

#### **Schwartz, Abba**

PD June 1989. TI Efficiency Wage Models, Persistent Unemployment and Natural Rate of Unemployment. AA Tel Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 23-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 25. PR no charge. JE 821, 022. KW Turnover. Efficiency Wages. Unemployment.

AB The paper considers the role of unemployment in a turnover cost model. It is shown that the model is characterized by a built-in mechanism which works against unemployment as it develops. This mechanism does not necessarily wipe out unemployment completely. The rate of unemployment does

not have to be strictly positive in long-run equilibrium. Indeed the turnover cost imposes only an upper bound on the rate of unemployment in equilibrium. However, an economy with a fixed number of firms and a given perception regarding the turnover cost function may lock into a positive rate of unemployment in equilibrium. Unemployment, once developed, tends to be persistent since adjustment of perceptions regarding the turnover cost function may be a slow process.

#### **Schwert, G. William**

PD January 1989. TI Stock Volatility and the Crash of '87. AA University of Rochester. SR University of Rochester Bradley Policy Research Center Working Paper: 89-01; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 32. PR No charge. JE 131, 132, 313. KW Volatility. Stock Market. Stock Prices. Option Prices. Futures.

AB This paper analyzes the behavior of stock return volatility using daily data from 1885 through 1987. The October 1987 stock market crash was unusual in many ways relative to prior history. In particular, stock volatility jumped dramatically during and after the crash, but it returned to lower, more normal levels quickly. I use data on implied volatilities from call option prices and estimates of volatility from futures contracts on stock indexes to confirm this result.

TI Alternative Models for Conditional Stock Volatility. AU Pagan, Adrian R.; Schwert, G. William.

#### **Seade, Jesus**

TI Small Enterprise Tax Policy: Effects on Market Price, Industry Profits and Allocative Efficiency in a Dominant Firm Model. AU Mintz, Jack M.; Seade, Jesus.

#### **Sebo, Andras**

PD 1988. TI Unbounded General Factors of Graphs. AA University of Grenoble. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88537-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 12. PR No charge. JE 213. KW General Factorization Problem. Polyhedral Questions. Cutting-plane Proofs. Polynomial Time.

AB In a superstitious company everybody has numbers that he thinks to be unlucky for himself. When they meet, everybody wants to shake hands with some of his acquaintances (not any two members of the company know each other), but nobody wants to shake hands with an unlucky number of acquaintances. When can this be successful? This problem appears in Lovasz, where he answers it in the case when everyone has one unlucky number. In this paper we are giving a "Tutte-type good characterization", (and an easy algorithm) for the case when no one has two neighboring unlucky numbers. This problem is a special case of the general factorization problem Cornuejols solved recently in polynomial time. On the other hand the related polyhedral questions are still open. The present paper wishes to make a first step, by giving a Tutte type good characterization that will be explained to be a cutting-plane proof for the non-existence of a feasible set of handshake.

**Seidmann, Daniel J.**

**PD** June 1989. **TI** Inefficiency and Renegotiation in Multilateral Bargaining. **AA** Trinity College, Dublin and Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 21-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 32. **PR** no charge. **JE** 026, 024. **KW** Collusion. Noncooperative Games. Sequential Bargaining. Renegotiations. Coalitions. Enforceable Contracts. **AB** Noncooperative sequential bargaining between three or more symmetrically informed negotiators may result in inefficient agreements between strict subsets of players or in renegotiated agreements if subsets of players cannot commit to collude during bargaining, but can agree to divide surpluses which exclude the remaining players. This account of inefficient and renegotiated agreements contrasts with the existing literatures, which attribute these phenomena to incomplete information and/or exogenous costs of enforcing divisions of the surplus available to the universal coalition.

**PD** June 1989. **TI** Unique Equilibria in Cheap Talk Games. **AA** Trinity College, Dublin and Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 22-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 14. **PR** no charge. **JE** 026. **KW** Bayesian Game. Sequential Equilibrium. Cheap Talk. Full Revelation.

**AB** We demonstrate by example that there may be a unique equilibrium in which cheap talk is persuasive if the underlying Bayesian game has no solution; and that this equilibrium may involve either full or partial revelation. Thus, contrary to the existing literature, equilibrium selection arguments are not required in order to focus on persuasive cheap talk.

**TI** Strikes and Deadline Effects in Bargaining with Endogenous Commitment. **AU** Fershtman, Chaim; Seidmann, Daniel J.

**Shaffer, Sherrill**

**TI** The Impact of Capital Requirements on the Securitization Decision. **AU** Donahoo, Kathleen K.; Shaffer, Sherrill.

**Shaked, Avner**

**TI** Do People Exploit their Bargaining Power? An Experimental Study. **AU** Binmore, Ken; Morgan, Peter; Shaked, Avner; Sutton, John.

**Shapiro, Carl**

**TI** Optimal Patent Length and Breadth. **AU** Gilbert, Richard J.; Shapiro, Carl.

**Sharpe, Steven**

**TI** Market Structure and the Nature of Price Rigidity: Evidence from the Market for Consumer Deposits. **AU** Neumark, David B.; Sharpe, Steven.

**Shavell, Steven**

**TI** Legal Advice about Acts Already Committed. **AU** Kaplow, Louis; Shavell, Steven.

**PD** August 1989. **TI** A Note on Optimal Deterrence when Individuals Choose among Harmful Acts. **AA** Harvard Law School. **SR** National Bureau of Economic Research

Working Paper: 3061; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$2.00. **JE** 916. **KW** Law. Crime. Deterrence. Punishment.

**AB** The theory of deterrence has been concerned primarily with situations in which individuals consider whether to commit a single harmful act (whether to discharge a pollutant into a lake, whether to steal a car) rather than with situations in which individuals decide which of several harmful acts to commit (whether to discharge one pollutant or another pollutant into a lake, whether to engage in car theft or in burglary). In the later situations, the threat of sanctions plays a role in addition to the usual one of deterring individuals from committing harmful acts: it influences which harmful acts undeterred individuals choose to commit (it accomplishes "marginal deterrence"). It is shown in the present note that sanctions may increase more with harm when individuals choose among harmful acts than when individuals choose only whether to commit single harmful acts. The reason is that a higher gradation of sanctions encourages the undeterred to commit less harmful acts.

**Sheshinski, Eytan**

**PD** July 1989. **TI** An Explanation of the Behavior of Personal Savings in the United States in Recent Years. **AU** Sheshinski, Eytan; Tanzi, Vito. **AA** Sheshinski: The Hebrew University, Jerusalem. Tanzi: International Monetary Fund. **SR** National Bureau of Economic Research Working Paper: 3040; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 17. **PR** \$2.00. **JE** 921, 131, 133. **KW** Savings. Interest Rates. Wealth.

**AB** A sharp increase in the real interest rates in the U.S. in the 1980s was expected to induce a higher personal saving rates. Actually between 1981 and 1983 the personal saving rate fell from 7.5 percent to 5.4 percent. We argue that one possible explanation for this negative relation between interest rates and the personal saving rate is the large fraction of wealth, especially financial wealth, held by persons over 65 years old (this group has received more than 50 percent of all interest income in the U.S. during this period). Life cycle theory suggests, as we demonstrate, that the wealth effect created by an increase in the rate of interest reduces the savings of old persons and raises savings of the young and hence the effect on aggregate savings depends on the age distribution in the population.

**Shilling, James D.**

**TI** Reforming Conforming Loan Limits: The Impact on Thrift Earnings and Taxpayer Outlays. **AU** Hendershott, Patric H.; Shilling, James D.

**Shubik, Martin**

**TI** The Capital Asset Pricing Model as a General Equilibrium with Incomplete Markets. **AU** Geanakoplos, John D.; Shubik, Martin.

**PD** June 1989. **TI** The Reconciliation of Micro and Macro Economics. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 915; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven CT 06520. **PG** 30. **PR** \$2.00. **JE** 022, 023. **KW** Government. Overlapping Generations Model. Infinite Horizon.

**AB** It is suggested that the appropriate structure for the

reconciliation of micro and macroeconomics is an infinite horizon overlapping generations (OLG) model with many finitely lived natural persons and one infinitely lived strategic player without preferences whose choice rule is determined by the periodic political choice of the finitely lived players who are alive and politically strategically active at the time of choice. This player may be interpreted as government. In the steps from the finite horizon general equilibrium (GE) model to the overlapping generations model to a government guided overlapping generations model (GGOLG) it is suggested that even without exogenous uncertainty, if economic efficiency is to be attained it is logically and technologically necessary to introduce government, government money, credit, bankruptcy and inheritance conditions.

**Sichel, Daniel E.**

**PD** April 1989. **TI** Business Cycle Asymmetry: A Deeper Look. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 93; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 28. **PR** no charge. **JE** 131, 133. **KW** Business Cycles. Time Series. Detrending.

**AB** This paper defines a new type of asymmetry in business cycles: "deepness." Deepness is defined as the characteristic that troughs are further below trend than peaks are above. A test for deepness is proposed and applied to U.S. post-war quarterly unemployment, real GNP, and industrial production. Evidence of deepness is found for all three variables. This result does not depend on the use of a particular detrending procedure because any trend removal procedure which has a linear filter representation cannot induce spurious asymmetry. Further, the evidence of asymmetry is found using a detrending procedure that induces stationarity whether the time series is difference or trend stationary.

**PD** May 1989. **TI** Business Cycle Duration Dependence: A Parametric Approach. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 98; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 24. **PR** no charge. **JE** 131, 132, 133, 226. **KW** Business Cycles. Duration Dependence. Hazard Models. Fluctuations. Recessions.

**AB** This paper uses a parametric hazard model approach often used in labor econometrics to reexamine the question of duration dependence in business cycles. A finding of positive duration dependence would indicate that periods of expansion or contraction in economic activity are more likely to end as they become "older." Monte Carlo power simulations are used to demonstrate that the hazard approach has higher statistical power than some nonparametric techniques. For the U.S., the switch in positive duration dependence from pre-war expansions to post-war contractions suggests a difference in cyclic behavior in these periods.

**Sicherman, Nachum**

**TI** A Theory of Career Mobility. **AU** Galor, Oded; Sicherman, Nachum.

**Siegel, Donald**

**TI** The Effects of Leveraged Buyouts on Productivity and

Related Aspects of Firm Behavior. **AU** Lichtenberg, Frank R.; Siegel, Donald. **AU** Lichtenberg: National Bureau of Economic Research and Columbia University. Siegel: National Bureau of Economic Research.

**Siklos, Pierre**

**PD** May 1989. **TI** Velocity and Institutional Change: Evidence from Canada, the UK, and the US, 1870-1986. **AA** Wilfred Laurier University. **SR** Oxford Applied Economics Discussion Paper: 77; Institute of Economics and Statistics, St Cross Building Manor Road, OXFORD OX1 3UL. **PG** 54. **PR** no charge. **JE** 132, 133, 023. **KW** Velocity, Co-integration. Institutional Factors. Error Correction Model.

**AB** Empirical research on the behavior of velocity continues to focus on the success, or lack thereof, of conventional models in which, generally, income and opportunity cost variables determine velocity movements. This paper applies the concepts of co-integration and error correction to assess whether institutional factors, in addition to conventional ones, can add to our understanding of velocity. The encompassing principle is then used to test the superiority of the empirical model incorporating institutional factors over a model of the conventional type. Over a century of annual data from Canada, the UK and the US are used.

**Siow, Aloysius**

**TI** On the Job Screening, Up or Out Rules, and Firm Growth. **AU** O'Flaherty, Brendan; Siow, Aloysius.

**TI** Deliberate Ambiguity in Labor Contracts. **AU** O'Flaherty, Brendan; Siow, Aloysius.

**Skeels, Christopher L.**

**PD** March 1989. **TI** The Exact Distribution of Exogenous Variable Coefficient Estimators. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 178; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 35. **PR** no charge. **JE** 211. **KW** Invariant Polynomial. Exact Distribution. Instrumental Variable Estimators.

**AB** Phillips (1984) has examined the exact sampling properties of the IV estimator of the coefficients on the exogenous variables in a single structural equation. The expressions obtained made use of a Taylor series expansion to simplify the algebra of invariant polynomials with multiple matrix arguments. However, in other than leading cases, these expressions reduce to functions involving the invariant polynomials with multiple matrix arguments. This paper provides the appropriate functions and examines their structure for information about the sampling behavior of the IV estimator.

**Skillman, Gil, Jr**

**PD** November 1988. **TI** Sequential Bargaining in Capitalist Firms. **AA** Brown University and Wesleyan University. **SR** Brown University Department of Economics Working Paper: 88-28; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 15. **PR** No charge. **JE** 833, 832. **KW** Bargaining. Collective Bargaining. Labor. Management. Unions.

**AB** In this paper I study a bargaining relationship between

the owner of a firm and the labor team it employs in which the former possesses the unique but costly power to replace one or more members of the latter. In particular, I explore the impact on bargaining outcomes of the level of replacement costs and the institutional rules governing replacement.

**PD** March 1989. **TI** Sequential Multilateral Bargaining with Costly Exit. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-9; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 24. **PR** No charge. **JE** 026, 833, 832. **KW** Bargaining. Game Theory. Bargaining Theory. Collective Bargaining. Unions.

**AB** A sequential bargaining game between a firm owner and a 2-person labor team is studied in which the former possesses the costly power to replace one member of the latter. A collective bargaining rule is shown to increase the effective bargaining power of workers by increasing the marginal cost and decreasing the marginal benefit of replacement to the firm. Implications for the theory of union and firm behavior are discussed.

#### Skoller, Deborah

**TI** Specialization Agreements: An Effective CMEA Policy Tool? **AU** Crane, Keith; Skoller, Deborah.

#### Slemrod, Joel

**PD** July 1989. **TI** Optimal Taxation and Optimal Tax Systems. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3038; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** \$2.00. **JE** 323, 321. **KW** Tax Policy. Taxes. Taxation. Tax System.

**AB** The theory of optimal taxation has, for the past two decades, been the reigning normative approach to taxation. The paper first presents the three cornerstone propositions of optimal tax theory, and then it discusses the influence of these propositions on recent tax policy developments. It concludes by sketching an alternative to optimal taxation, called the theory of optimal tax systems, which embraces the insights of optimal taxation but also considers the technology of raising taxes and the constraints placed upon tax policy by that technology. The optimal tax systems perspective is shown to shed light on the choice of tax instruments, the problem of tax evasion, and the appropriate tax treatment of capital income.

**PD** July 1989. **TI** Tax Effects on Foreign Direct Investment in the U.S.: Evidence from a Cross-Country Comparison. **AA** University of Michigan, Ann Arbor. **SR** National Bureau of Economic Research Working Paper: 3042; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 52. **PR** \$2.00. **JE** 441, 323, 411. **KW** Foreign Investment. Tax Policy. Taxes.

**AB** This paper investigates how the tax system of the U.S. and the capital exporting country combine to affect the flow of foreign direct investment (FDI) into the U.S.. First, using aggregate data, it corroborates earlier work suggesting that the U.S. effective tax rate does influence the amount of FDI financed by transfer of funds, but not the amount financed by retained earnings. The data are then disaggregated by major capital-exporting countries to see if, as theory would suggest, FDI from countries which exempt foreign-source income from taxation is more sensitive to U.S. tax rates than FDI from

countries which attempt to tax foreign-source income.

#### Slutsky, Steven M.

**TI** Endogenous Timing in Doupoly Games: Stackelberg or Cournot Equilibria. **AU** Hamilton, Jonathan H.; Slutsky, Steven M.

**TI** Endogenizing the Order of Moves in Matrix Games. **AU** Hamilton, Jonathan H.; Slutsky, Steven M.

#### Smith, Karen Marie

**TI** Cross-correlated Random Regression Coefficients; A Refinement and Some Supporting Evidence. **AU** Kreisner, Thomas J.; Smith, Karen Marie.

**TI** Estimating Labor Supply with Random Coefficient Regression - Econometric Theory and Applications to Labor Supply Disequilibrium and Model Specification. **AU** Kniesner, Thomas J.; Smith, Karen Marie.

#### Smith, Ron

**TI** The Phillips Curve and the Lucas Critique: Some Historical Evidence. **AU** Alogoskoufis, George S.; Smith, Ron.

#### Sobel, Joel

**PD** April 1989. **TI** Fixed-Equilibrium Rationalizability in Signaling Games. **AU** Sobel, Joel; Stole, Lars; Zapater, Inigo. **AA** Sobel: University of California, San Diego. Stole and Zapater: Brown University. **SR** Brown University Department of Economics Working Paper: 89-12; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 25. **PR** No charge. **JE** 026, 213. **KW** Signalling Games. Game Theory. Cooperative Games.

**AB** In this paper we attempt to unify some recent work on equilibrium refinements in signaling games by examining procedures which delete strategies that are dominated relative to some reference payoffs. We present three techniques, all of which are variations of rationalizability, and relate them to equilibrium dominance and divinity. These techniques take the original game and an equilibrium for that game, and derive a new signaling game. In the new game we replace the equilibrium path with a sure outcome that yields the equilibrium payoff of the original game to all players. The informed player may choose the sure payoff or may send a signal that was not used in the equilibrium of the original game. We then ask whether the strategy of choosing the sure payoff survives iterative deletion of dominated strategies.

#### Sobol, Dorothy M.

**TI** Prospects for LDC Debt Management: Debt Reduction versus Debt Forgiveness. **AU** Frydl, Edward J.; Sobol, Dorothy M.

#### Sofianos, George

**PD** September 1988. **TI** A Comparison of Market Making Structures. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8821; 33 Liberty St., Rm. 901, New York, NY 10045. **PG** 29. **PR** no charge. **JE** 313. **KW** Stock Exchange. Stock Markets.

**AB** After last October's stock market crash much attention has focused on the market-making structures of various stock markets. At issue was whether better designed markets could



have reduced the magnitude of the crash. This paper compares and contrasts the main market-making features of four stock markets. Three features are examined: market-making obligations, market-making capital, and order flow arrangements. A framework is provided for evaluating these features.

**PD** October 1988. **TI** Description of Margin Requirements. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8823; 33 Liberty Street, Rm. Liberty Street, Rm. 901, New York, NY 10045. **PG** 72. **PR** no charge. **JE** 313. **KW** Margin Requirements. Stock Markets. Options. Futures. **AB** Different margin systems have developed for different markets, and even within individual markets, the rules may vary depending on the type of investor and transaction. This paper first discusses margin requirements in general and then examines the margin rules in the market for stocks, stock index futures, stock options, stock index options, and stock index futures options. For each market the paper identifies the appropriate margin setting authorities, sorts out which rules apply to whom and when, and describes each set of rules. Examples are used to illustrate the application of the various rules.

#### **Sonn, Yang Hoon**

**TI** Unemployment and Sectoral Shifts: Evidence from the PSID. **AU** Loungani, Prakash; Rogerson, Richard; Sonn, Yang Hoon.

#### **Spencer, Barbara J.**

**PD** June 1989. **TI** Trade and Protection in Vertically Related Markets. **AU** Spencer, Barbara J.; Jones, Ronald W. **AA** Spencer: University of British Columbia. Jones: University of Rochester. **SR** National Bureau of Economic Research Working Paper: 3023; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** 411, 422, 421, 423. **KW** International Trade. Commercial Policy. Tariffs. Vertical Integration.

**AB** A domestic firm is partially dependent on a foreign vertically integrated supplier for a key intermediate product when both firms are Cournot competitors in the market for the final product. The foreign supplier generally charges its domestic rival a price of the input that exceeds the independent monopoly level and vertical foreclosure may occur. Domestic policies applied to the vertically related products can increase domestic welfare by reducing the price and increasing the availability of imported supplies of the input. Vertical integration in the foreign supplier has significant implications for all three domestic policies considered: a tariff or subsidy on imports of both products and a domestic production subsidy.

#### **Spiegel, Mark**

**PD** February 1989. **TI** Risk Aversion, Deposit Insurance, and Collective Action Problems among Banks. **AA** New York University. **SR** New York University Economic Research Reports: 89-03; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 33. **PR** none. **JE** 312, 443, 311. **KW** Deposit Insurance. Risk Aversion. Collective Action. Banking. Commercial Banks. Loans.

**AB** Collective action problems are likely to arise in concerted lending situations. The sources of lending structures

which hinder collective actions are therefore of policy concern. This paper introduces a monopolistically-competitive model in which bank risk aversion and Federal deposit insurance policy combine to induce banks to choose a level of concentration ex-ante which hinders their collective action ex-post. Decreases in loan concentration result in an increase in the degree of credit contraction in bad states, an increase in the probability of default, and an increase in the expected burden on FDIC funds.

#### **Srivastave, Sanjay**

**TI** Efficient Trading Mechanism with Pre-Play Communication. **AU** Palfrey, Thomas R.; Srivastave, Sanjay.

#### **Stavins, Robert N.**

**PD** July 1989. **TI** Alternative Renewable Resource Strategies: A Simulation of Optimal Use. **AA** Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-10; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 40. **PR** \$7.50. **JE** 721, 722, 717. **KW** Wetlands. Land Use. Natural Resources. Environment. Conservation.

**AB** The depletion of forested wetlands constitutes one of the world's most pressing land use problems. Has wetland depletion in the United States been excessive? Specifically, how has the rate of depletion during the past forty years compared with what would have been optimal from a socioeconomic perspective? Also, what wetland-use patterns can be expected to emerge from now through the end of the century, and how do these patterns compare with those which may be socially optimal? Answering these questions requires a dynamic analysis of natural resource exploitation in the presence of negative environmental consequences.

#### **Steen, Todd P.**

**TI** The Labor Force Implications of Expanding the Child Care Industry. **AU** Bloom, David E.; Steen, Todd P.

#### **Stegeman, Mark**

**PD** September 1988. **TI** Advertising in Competitive Markets. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 88-13; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 30. **PR** No charge. **JE** 531, 022, 511. **KW** Advertising. Homogeneous Product. Decision Theory.

**AB** This paper investigates markets in which infinitesimal firms sell a homogeneous product to infinitesimal consumers under conditions of free entry, but consumers receive price information only from firm's advertising. It is shown that, in equilibrium, every firm buys less advertising than is socially optimal. The result is quite robust, except that firms having a choice of media may advertise too much in media not used by the highest-priced firms.

#### **Steger, Angelika**

**TI** Das Steiner Problem in Graphen. **AU** Promel, Hans Jurgen; Steger, Angelika.

**TI** Steiner Trees in VLSI-Layout. **AU** Korte, Bernhard; Promel, Hans Jurgen; Steger, Angelika.

**Stein, Jerome L.**

**PD** February 1987. **TI** Keynes, Asset Price Fluctuations and Rational Expectations: An Application to Foreign Exchange Rates. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 87-4; Department of Economics, Brown University, Providence, RI 02912. **PG** 31. **PR** No charge. **JE** 131, 132, 311. **KW** Asset Prices. Finance. Forecasting. Efficient Markets.

**AB** A central issue in the finance literature is the rationality of the pricing of assets. Do asset prices fluctuate too much? Are expectations Muth Rational, in the sense that forecast errors are orthogonal to information that is knowable at the time that forecasts are made? What is the price variance that characterizes an efficient market (i.e., where expectations are Muth Rational)? These are theoretical questions whose answers serve as the basis for a comparison between the market experience and the ideal.

**PD** January 1988. **TI** Speculation and Welfare. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-2; Department of Economics, Brown University, Providence, RI 02912. **PG** 21. **PR** No charge. **JE** 313, 522, 024. **KW** Investment. Savings. Futures. Capital Markets. Social Welfare.

**AB** Savings-investment decisions are made in an uncertain environment. Two main types of investment are considered in this paper: (1) foreign investment; (2) investment in inventories. In each case, current consumption is foregone in favor of expected future consumption.

**TI** Saving, Investment and Capital Market Integration. **AU** Allen, Polly Reynolds; Stein, Jerome L.

**PD** April 1988. **TI** Rational Expectations and Welfare in Financial Futures Markets. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 88-11; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 25. **PR** No charge. **JE** 313, 314. **KW** Futures. Capital Market. Bonds. Treasury Bonds.

**AB** Futures trading in traditional commodities has been carried on for over a century. Their economic effects have been studied both theoretically and empirically. In recent years, the major growth and volume have been in financial futures: Treasury bonds, bills and S&P 500 index futures. Their economic roles in the economy are less well understood. This paper develops a model of the effects of financial futures markets upon the rate of real investment and level of social welfare.

**PD** April 1989. **TI** Price Volatility and Speculation. **AU** Stein, Jerome L.; Hong, Beom Gyo. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-10; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 19. **PR** No charge. **JE** 134, 131, 313. **KW** Economic Fluctuations. Prices. Speculation. Capital Market.

**AB** The relation between speculation and price volatility has been studied at both the theoretical and the empirical level. It is desirable to focus directly upon the relation between speculation and price variability. We know that a certain amount of speculation must exist, in an efficient market, to offset the net hedging pressure. The questions are whether there is too much speculation, and whether the speculation is rational or based upon noise trading.

**Stekler, Lois E.**

**PD** July 1989. **TI** Implications for Future U.S. Net Investment Payments of Growing U.S. Net International Indebtedness. **AU** Stekler, Lois E.; Helkie, William L. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 358; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 28. **PR** no charge. **JE** 431, 441. **KW** Investment Income. Current Account. External Adjustments. Trade Deficits.

**AB** In the 1980s, the United States developed a large and persistent current account deficit, financed by borrowing from abroad. The purpose of this paper is to explore the sustainability of these large deficits from one of several possible perspectives. Simulations of a model of the U.S. current account are used to examine the future servicing burden implied by the accumulating U.S. indebtedness to foreigners (or more precisely by the negative net international investment position).

**Stella, Peter**

**PD** May 1989. **TI** An Economic Analysis of Tax Amnesties. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/42; International Monetary Fund, Washington, DC 20431. **PG** 32. **PR** No charge. **JE** 323, 321. **KW** Taxes. Tax Collection.

**AB** Tax amnesties have frequently been justified as politically popular ways to generate increases in government revenue. This paper examines the circumstances under which amnesties are likely to have a beneficial impact on revenue collections. It concludes that, while in general it may be correct to impose a reduced penalty on individuals who voluntarily disclose tax evasion, short-lived amnesties of the type most frequently observed in practice are unlikely to generate significant revenue when judged against the potential danger of reducing future tax compliance.

**Stock, James H.**

**PD** April 1989. **TI** New Indexes of Coincident and Leading Economic Indicators. **AU** Stock, James H.; Watson, Mark W. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Discussion Paper: 178D; 79 J.F.K. Street, Cambridge, MA 02138. **PG** 47. **PR** no charge. **JE** 132, 133, 211, 226. **KW** Business Cycles. Forecasting. Recession. Economic Indicators.

**AB** The system of Leading and Coincident Economic Indicators currently maintained by the U.S. Department of Commerce (DOC) was developed as part of the NBER research program on business cycles over fifty years ago. This paper uses recent developments in econometric methodology and computing technology to take a new look at this system. The result is three experimental indexes. The first, constructed using a dynamic factor model, is numerically similar to the current index of coincident indicators maintained by the DOC. The second, an alternative index of leading indicators, is designed to forecast the growth in the DOC index over a six month horizon. The third estimates the probability that the economy will be in a recession six months hence.

**Stockton, Thomas B.**

**TI** Management of Watersheds for Augmented Water

Yields-Plumas National Forest. AU Krutilla, John V.; Bowes, Michael D.; Stockton, Thomas B.

**Stole, Lars**

TI Fixed-Equilibrium Rationalizability in Signaling Games. AU Sobel, Joel; Stole, Lars; Zapater, Inigo.

**Stone, Mark**

TI Market Work, Wages and Men's Health. AU Haveman, Robert; Stone, Mark; Wolfe, Barbara L.

**Stoughton, Neal N.**

PD August 1988. TI Transfer Pricing in a Multinational Enterprise under Asymmetric Information. AU Stoughton, Neal N.; Talmor, Eli. AA Stoughton: University of California, Irvine. Talmor: Tel Aviv University. SR University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 88-9; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. PG 31. PR \$2.00; checks payable to U.C. Regents. JE 442, 521, 514, 022. KW Pricing. Multinational Firms. Asymmetric Information. Taxes. Bargaining.

AB Previous literature on transfer pricing in multinational firms has mostly focused on the implications of tax differentials and other distortions for the misallocation of real resources. This paper takes a different approach by recasting the problem in a world of asymmetric information and unequal taxes. The foreign subsidiary is assumed to possess information about its own cost function that is not known to the parent. The problem is modelled using a direct revelation mechanism between the parent and the subsidiary in a manner similar to the literature on social regulation. We examine the interaction between ownership structure and taxes. Transfer prices are shown to induce underproduction compared to the full-information case with equal tax rates when the parent has the bargaining ability. When bargaining is controlled by the subsidiary, overproduction obtains.

**Suarez, C. Juan Jose**

PD October 1987. TI Debt, Defaults and Reputation on a Competitive Market under Asymmetric Information. SR Brown University Department of Economics Working Paper: 87-20; Department of Economics, Brown University, Providence, RI 02912. PG 72. PR No charge. JE 916, 443, 433, 411. KW Legal System. Commitments. Contracts. Contract Theory.

AB A central feature of any contract is the ability of the parties involved to commit to their future behavior, their inability to do so will typically result in lower levels of utility. This problem is more acute in an international context where the sovereignty of the countries severely restrict the sanctions available. Sovereign countries can ultimately decide whether or not to use its legal system to prosecute a domestic debtor for any breach of contract. In this paper we are interested in studying how debt contracts are affected by the potential of defaults produced by the limited possibilities of enforcing such agreements.

PD October 1988. TI On Debt, Defaults and Reputation. AA Brown University. SR Brown University Department of Economics Working Paper: 88-23; Department of

Economics, Brown University, Providence, Rhode Island 02912. PG 76. PR No charge. JE 433, 441, 411. KW Credit Markets. Contracts. International Lending.

AB A distinctive characteristic of international credit markets is the absence of an effective mechanism to enforce contractual agreements. To shed light on this issue this paper studies the consequences of limited enforceability on optimal credit arrangements ("contracts"). I study an environment where agents are rational and behave as price-takers, and where borrowers are better informed about their own endowments than creditors are.

**Subrahmanyam, Avaniidhar**

TI Futures versus Share Contracting as Means of Diversifying Output Risk. AU Hirshleifer, David; Subrahmanyam, Avaniidhar.

**Sullivan, Daniel**

PD July 1989. TI Monopsony Power in the Market for Nurses. AA Northwestern University. SR National Bureau of Economic Research Working Paper: 3031; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 31. PR \$2.00. JE 812, 913. KW Market Power. Hospitals. Health Care.

AB Estimates are presented of the inverse elasticity of supply of nursing services to the individual hospital, a quantity which is a natural measure of employer market power. The estimates corresponding to employment changes taking place over one year quite high (in the neighborhood of 0.79) and even for changes taking place over three years are substantial (in the neighborhood of 0.26). The estimates do not significantly differ for hospitals in major metropolitan areas and do not depend very sensitively on the assumed form of the oligopsony equilibrium.

**Sutch, Richard**

TI The Trend in the Rate of Labor Force Participation of Older Men, 1870-1930: A Review of the Evidence. AU Ransom, Roger L.; Sutch, Richard.

**Sutton, John**

TI Do People Exploit their Bargaining Power? An Experimental Study. AU Binmore, Ken; Morgan, Peter; Shaked, Avner; Sutton, John.

**Sveikauskas, Leo**

TI Judging Factor Abundance. AU Bowen, Harry P.; Sveikauskas, Leo.

**Symons, James S. V.**

TI The Passing of the Golden Age. AU Newell, Andrew; Symons, James S. V.

**Tabellini, Guido**

PD August 1989. TI The Politics of International Redistribution. AA University of California, Los Angeles. SR National Bureau of Economic Research Working Paper: 3058; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 32. PR \$2.88. JE 322, 025, 024. KW Debt. Public Debt. Intertemporal Model. Majority Rule. Overlapping Generations Model. Altruism. Social Choice.

**AB** This paper studies the political-economical equilibrium of a two-period model with overlapping generations. In each period the policy is chosen under majority rule by the generations currently alive. The paper identifies a "sustainable set" of values for public debt. Any amount of debt within this set is fully repaid in equilibrium, even in the absence of commitments. By issuing debt within this set, the first generation of voters redistributes revenue in its favor and away from the second generation. The paper characterizes the determinants of the equilibrium intergenerational redistribution carried out in this way, and points to a difference between debt policy and social security legislation as instruments of redistribution. The key features of the model are heterogeneity within each generation and altruism across generations.

### Taggart, Robert A.

**PD** August 1989. **TI** Consistent Valuation and Cost of Capital Expressions with Corporate and Personal Taxes. **AA** Boston College. **SR** National Bureau of Economic Research Working Paper: 3074; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** 521, 522. **KW** Taxes. Capital. Assets. Valuation Methods.

**AB** This paper examines three valuation methods, each of which should lead to the same value for a given asset. These are the Adjusted Present Value, Adjusted Discount Rate and Flows to Equity. To achieve identical valuations, however, the different methods must be implemented with cost of capital expressions that embody a consistent set of assumptions about (1) the tax regime and (2) the time pattern and riskiness of debt tax shields. Valuation and cost of capital expressions that have been proposed in the literature are grouped and contrasted according to these assumptions. It is also shown what the familiar weighted average cost of capital can be consistent with any such set of assumptions, as long as the correct expression is used to estimate the relationship between the levered and unlevered cost of equity.

### Talmor, Eli

**TI** Transfer Pricing in a Multinational Enterprise under Asymmetric Information. **AU** Stoughton, Neal N.; Talmor, Eli.

### Tanzi, Vito

**TI** An Explanation of the Behavior of Personal Savings in the United States in Recent Years. **AU** Sheshinski, Eytan; Tanzi, Vito.

### Tave, William

**TI** Stock Market Dispersion, Unemployment and GNP. **AU** Loungani, Prakash; Rush, Mark; Tave, William.

### Taylor, J. Edward

**TI** Is Structural Adjustment with a Human Face Possible? The Case of Mexico. **AU** Adelman, Irma; Taylor, J. Edward.

### Taylor, Larry W.

**PD** April 1989. **TI** Significance Tests for a Mis-specified Tobit Model. **AA** Lehigh University and Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 180; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 33. **PR** no

charge. **JE** 211. **KW** Lagrange Multiplier Test. Specification Error. Tobit Model.

**AB** The power and size properties of two versions of the Lagrange multiplier (LM) test are investigated under departures from the standard assumptions of the Tobit model. It is found that the small sample performance of the Hessian-form of the LM test is quite good for minor departures. Nelson's (1981) diagnostic check for the Tobit model is also investigated. The test is found to be sensitive to measurement error on the dependent variable and to functional form error.

### Taylor, M. P.

**TI** Abolishing Exchange Control: the UK Experience. **AU** Artis, M. J.; Taylor, M. P.

### Templeton, Scott

**TI** The San Francisco Bay/Delta Striped Bass Fishery: Anatomy of a Decline. **AU** Callahan, Joseph; Fisher, Anthony C.; Templeton, Scott.

### Teoh, Siew Hong

**PD** March 1989. **TI** Non-Disclosure and Adverse Disclosure as Signals of Firm Value. **AU** Teoh, Siew Hong; Hwang, Chuan Yang. **AA** Teoh: University of California, Los Angeles. Hwang: University of Pittsburgh. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 89-5; 6249C Anderson Graduate School of Management, University of California, Los Angeles, CA 90024-1481. **PG** 27. **PR** \$2.00; checks payable to U.C. Regents. **JE** 513, 514, 026, 022. **KW** Firm Value. Public Information.

**AB** This paper presents a model in which some firms may voluntarily withhold good news and disclose bad news. Firms that have received good news and expect further good news at a later date can indicate their confidence by waiting until the later date to disclose their first piece of news. Furthermore, confident firms with current bad news that they expect to be counteracted by later good news can prove their machismo by disclosing the bad news in the earlier period. In contrast, firms that currently have good news but are pessimistic about future prospects will prefer to disclose the earlier good news to prove that at least they are not the worst firms. These worst firms have current bad news and have little hope of being mistaken initially for the confident withholding firms.

### Terrones, Marco E.

**PD** April 1989. **TI** Macroeconomic Policy Cycles under Alternative Electoral Structures. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8905; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 38. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** 023, 321, 025. **KW** Macroeconomic Policy. Elections. Electoral Timing. Political Cycles.

**AB** This paper generalizes earlier work on political budget cycles to allow for the endogenous timing of elections by incumbents. In particular, it is shown that macroeconomic policy cycles are more pronounced in an electoral system with fixed-term elections than in one with endogenous elections. These findings are consistent with empirical evidence for some Parliamentary Democracies in the period after the Second World War. Moreover, these results show the sensitivity of

economic performance to different political arrangements.

### Tesfatsion, Leigh

**TI** A Multicriteria Approach to Dynamic Estimation.  
**AU** Kalaba, Robert; Tesfatsion, Leigh.

### Thiry, Bernard

**PD** December 1988. **TI** Allowing for Technical Inefficiency in Parametric Estimates of Production Functions. **AU** Thiry, Bernard; Tulkens, Henry. **AA** Thiry: Universite de Liege. Tulkens: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8841; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 26. **PR** no charge. **JE** 615, 621, 933. **KW** Production Frontier. Technology. Transportation. Urban Economics.

**AB** Departing from prevailing approaches used for estimating parametric production frontiers from statistical data, this paper proposes to separately deal with the issues of identifying the technically efficient vs. inefficient observations on the one hand, and of estimating the parameters of the frontier function on the other. Specifically, we perform the first task by constructing from the data the boundary of the production set, using an existing nonparametric method that rests on free disposal assumptions only, and we compute the resulting (in)efficiency degrees for all observations. For the second task, we estimate the parameters of a functional form for the frontier by means of ordinary least squares, computed from the subset of efficient observations only. We then compare these estimates with those obtained from a standard nonfrontier estimation.

### Thisse, Jacques Francois

**TI** Spatial Competition and the Core. **AU** Hamilton, Jonathan H.; McLeod, W. Bentley; Thisse, Jacques Francois.

**TI** Equilibria in Multi-Party Competition under Uncertainty. **AU** de Palma, Andre; Hong, Chew Soo; Thisse, Jacques Francois.

**TI** Spatial Oligopolies with Uniform Delivered Pricing. **AU** Kats, Amoz; Thisse, Jacques Francois.

### Thomas, Jacob K.

**PD** April 1988. **TI** Economic Consequences of Accounting Standards: The Lease Disclosure Rule Change. **AU** Thomas, Jacob K.; Imhoff, Eugene A. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-36; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 34. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 541, 521. **KW** Accounting Theory. Capital Leases. Financing.

**AB** We examine capital structure changes to investigate the impact of SFAS No. 13 on lessees. While this accounting standard essentially rearranged capital lease disclosures (from footnotes to the balance sheet), mandated capitalization substantially altered key accounting ratios. Our results document a systematic substitution from capital leases to operating leases and nonlease sources of financing. In addition, lessees appear to reduce book leverage by increasing equity and reducing conventional debt. The magnitude of these

responses are cross sectionally related to preadoption levels of footnoted capital leases.

**PD** May 1988. **TI** Unusual Patterns in Reported Earnings. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-34; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 16. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 541, 229. **KW** Earnings. Microdata. Accounting. **AB** Carlsaw [1988] provides evidence of New Zealand firms rounding up earnings when they are just below reference points. He observes more 0's and less 9's than expected by change in the second-from-left digit for a sample of reported earnings. This study examines Compustat firms to determine if reported earnings for U.S. firms follow similar unusual patterns. Firms reporting losses exhibit the opposite patterns with less 0's and more 9's being observed. Large and systematic deviations are observed for per share earnings (EPS). Interestingly, quarterly earnings data exhibit the same patterns observed for annual earnings.

**PD** September 1988. **TI** Why Do Firms Terminate Overfunded Pension Plans? **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-88-35; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 39. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** 512, 541, 611, 521. **KW** Pensions. Retirement. Pension Plans. Shareholders.

**AB** Terminations of overfunded pension plans resulting excess assets reverting to sponsoring firms. Such reversions increase income and funds available to sponsors. They could also represent wealth transfers to stockholders from worker, debtholders and the PBGC. Competing explanations are examined to determine why only a subset of overfunded firms terminate, how the year of termination is selected, and why other methods of withdrawing excess assets were not used. The results do not support the wealth transfer arguments, and suggest that large unexpected declines in funds from operations of financial restructuring subsequent to hostile takeover attempts cause sponsoring firms to liquidate overfunded pension plans.

### Thore, Sten

**TI** Chance-Constrained Efficiency Analysis. **AU** Land, Kenneth C.; Lovell, C. A. Knox; Thore, Sten.

### Tinsley, PA

**TI** After-Hours Stock Prices and Post-Crash Hangovers. **AU** Neumark, David B.; Tinsley, PA; Tosini, Suzanne.

### Toman, Michael A.

**PD** December 1988. **TI** Improving Performance of Wholesale Electric Generation Markets. **AU** Toman, Michael A.; Darmstadter, Joel. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR88-03; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 58. **PR** \$5.00 (U.S. funds only). **JE** 613, 723, 641. **KW** Utility Regulation. Electricity. Energy. Economic Capacity.

**AB** This study examines regulatory reforms in wholesale electric generation markets that operate through introducing more competition and more market-like regulatory procedures. The research is motivated in part by technical evolution in electricity generation that increases the feasibility of wholesale market competition, and by difficulties in capacity planning and investment that electricity markets have faced since the early 1970s which competition might help ameliorate. It is also motivated specifically by recent reform proposals by the Federal Energy Regulatory Commission (FERC).

**TI** Changes in Electricity Markets and Implications for Generation Technologies. **AU** Dowlatabodi, Hadi; Toman, Michael A.

### Tornell, Aaron

**PD** April 1989. **TI** Differences in the Insulating Properties of Uniform and Dual Exchange Rates. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 425; Department of Economics, Columbia University, New York, New York 10027. **PG** 31. **PR** \$5.00. **JE** 432, 431, 411. **KW** Exchange Rates. Financial Mobility. International Trade. International Finance.

**AB** Previous work has shown that dual and fixed exchange rates have the same insulating properties. This is because in these models insulation comes through the fixing of domestic prices. In this paper we focus, instead, on the property dual rates have of limiting international financial mobility, and we show that, in the short-run, dual rates insulate domestic production from an external shock better than uniform exchange rates. The other results of the paper are: 1) that although the impact of a shock is lower under dual rates, persistence is higher, 2) that reunification of rates after the shock, and finally 3) that a policy of maintaining a dual exchange rate system in the future is time inconsistent.

### Tosini, Suzanne

**TI** After-Hours Stock Prices and Post-Crash Hangovers. **AU** Neumark, David B.; Tinsley, PA; Tosini, Suzanne.

### Towe, Christopher M.

**PD** December 1988. **TI** Exchange Rate "Fundamentals" versus Speculation: The Case of Lebanon. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/109; International Monetary Fund, Washington, D.C. 20431. **PG** 31. **PR** no charge. **JE** 431, 121. **KW** Exchange Rates. Speculation. Time Series Model. Lebanon.

**AB** The exchange rate for the Lebanese pound experienced a protracted period of depreciation from end-1982 to November 1987, followed by a marked appreciation over the following six months. This paper investigates the competing hypotheses that the exchange rate over these two periods was driven by a speculative bubble versus "fundamental" economic variables. Reduced form and time series models for the exchange rate are estimated and tested for nonstationarity. The results of these tests suggest that the pound's volatility in recent years was consistent with an excessive growth in domestic versus foreign currency denominated liquidity rather than speculation.

### Trajtenberg, Manuel

**PD** July 1989. **TI** Product Innovations, Price Indices and the (Mis)Measurement of Economic Performance. **AA** Tel

Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 26-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 34. **PR** no charge. **JE** 621, 226, 227. **KW** Economic Growth. Technology. Growth Rates. Innovations. Hedonic Prices. Price Indices.

**AB** The purpose of this paper is to address the problem of product innovations' in the construction of price indices and, by extension, in the measurement of economic growth. The premise is that a great deal of technological progress takes indeed the form of product innovations, but conventional economic statistics of two stages: first, the benefits from product innovations are estimated with the aid of discrete choice models, and second, those benefits are used to construct 'real' (or quality adjusted) price indices. Following a discussion of the merits of such approach vis a vis the use of hedonic price indices, I apply it to the study of a specific innovation, namely CT (Computed Tomography) Scanners.

### Trigg, Andrew B.

**PD** February 1989. **TI** The Partition and Decomposition of Extended Input-Output Multipliers. **AU** Trigg, Andrew B.; Madden, Moss. **AA** Trigg: University College London. Madden: University of Liverpool. **SR** University College London Discussion Paper: 89-08; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 16. **PR** 2.00 pounds. **JE** 225, 222. **KW** Input-Output Model. Multipliers. Social Accounting.

**AB** Since the conception of the input-output model (Leontief 1936) a large body of work has focused on its application in a regional context. As a consequence its development and extension have been heavily influenced by the field of regional science. One specific development has been the conceptualization of various types of input-output models through the examination of relationships between their respective multipliers. In this paper we suggest an alternative to the partition method which involves the multiplicative decomposition of an extended multiplier into its core components. This approach has been developed by Pyatt and Round (1979), and by Round (1985), for the decomposition of multipliers used in the modelling of social accounting matrices (SAMs). Its adaptation here originates from the work of Trigg (1987) in which a link between SAMs and extended input-output models is formulated via the adoption of a one-equation version of the latter.

### Trude, Sally

**TI** Insurance Aspects of DRG Outlier Payments. **AU** Keeler, Emmett B.; Carter, Grace M.; Trude, Sally.

### Truman, Edwin M.

**PD** July 1989. **TI** U.S. Policy on the Problems of International Debt. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 357; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 23. **PR** no charge. **JE** 441, 433, 121, 113. **KW** International Debt. Developing Countries. Baker Plan. Brady Proposals. Debt Crisis.

**AB** This paper discusses the problems of international debt from the point of view of the evolution of U.S. policy. The first section presents a brief historical review of the international

debt problems of the 1980s. The next section examines the situation as of early 1989: progress as well as continuing concerns are discussed. In the final section, some thoughts on the prospects for the debt problems are presented.

**PD** July 1989. **TI** International Economic Policy: The Role of Exchange Rates. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 356; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, DC 20551. **PG** 11. **PR** no charge. **JE** 431. **KW** Exchange Rates. International Adjustment. Economic Adjustment.

**AB** This paper examines the role of exchange rate changes in the international economic adjustment and policy process. The pre-1973 academic literature on flexible exchange rates is examined in light of the experience since 1973. Some thoughts on the efficacy and appropriate role of exchange rate changes in the international economy are then presented.

#### **Tsui, Kai Y.**

**TI** Modelling Ontario Regional Electricity System Demand Using a Mixed Fixed and Random Coefficients Approach. **AU** Hsiao, Cheng; Mountain, Dean C.; Tsui, Kai Y.; Chan, M. W. Luke.

#### **Tulkens, Henry**

**TI** Allowing for Technical Inefficiency in Parametric Estimates of Production Functions. **AU** Thiry, Bernard; Tulkens, Henry.

#### **Udell, Gregory**

**TI** Collateral, Loan Quality, and Bank Risk. **AU** Berger, Allen N.; Udell, Gregory.

#### **Ullah, Aman**

**TI** Nonparametric Estimation of the Pth Derivative of a Regression Function: Stochastic Regressors Case. **AU** Ahman, I. A.; Ullah, Aman.

**TI** Confidence Sets Centered at James-Stein Estimators - A Surprise Concerning the Unknown Variance Case. **AU** Hwang, Jiunn T.; Ullah, Aman.

#### **Ulph, Alistair**

**TI** Costs of Inflation. **AU** Driffill, John; Mizon, Grayham E.; Ulph, Alistair.

#### **Vegh, Carlos A.**

**PD** November 1988. **TI** Government Spending and Inflationary Finance: A Public Finance Approach. **AA** International Monetary Fund. **SR** International Monetary Fund: WP/88/98; International Monetary Fund, Washington, DC 20431. **PG** 24. **PR** no charge. **JE** 322, 323. **KW** Public Finance. Government Spending. Inflation. Taxes. Taxation.

**AB** This paper analyzes the relationship between inflation tax and the level of government spending in a public finance context. The key feature of the model developed is that it recognizes the possibility that conventional taxes, such as the consumption tax, may carry increasing marginal collection costs. As a result, and unlike previous findings in the literature, the inflation tax becomes an increasing function of government

spending. Furthermore, the more inefficient the tax collection system, the larger the increase in the inflation tax for a given increase in government spending. A numerical analysis of the model provides additional insights into these relationships.

**PD** May 1989. **TI** Optimal Taxation Policies in the EMS: A Two-Country Model of Public Finance. **AU** Vegh, Carlos A.; Guidotti, Pablo E. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/40; International Monetary Fund, Washington, DC 20431. **PG** 25. **PR** No charge. **JE** 323, 423, 432, 431. **KW** Public Finance. Tax Policy. Exchange Rates. Financial Integration.

**AB** This paper analyzes, in a public finance context, how the optimal use of the inflation and the consumption tax is affected by incorporating into the model constraints on policy decisions that are likely to develop in the context of the EMS by 1992. Two main questions are addressed: first, how the constraint of having to share a common inflation tax, in order to preserve fixed-exchange rates, influences the optimal policy decisions concerning the inflation tax; secondly, how the harmonization of consumption taxes affects the spread between national inflation rates, and hence the probability of having to resort to realignments.

#### **Villanueva, Delano**

**TI** Determinants of Long-Term Growth Performance in Developing Countries. **AU** Otani, Ichiro; Villanueva, Delano.

#### **Villar, Antonio**

**PD** 1988. **TI** Two Theorems on Variational Inequalities for Set-Valued Mappings, with Applications to Equilibrium Model. **AA** University of Alicante. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8840; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 10. **PR** no charge. **JE** 213. **KW** Inequalities. Equilibrium Models. Mappings. Set Theory.

**AB** We present in this paper two theorems that extend some classical results on the solvability of variational inequalities problems for several classes of set-value mappings (either upper-hemicontinuous correspondences with compact and convex values, or correspondences which allow for continuous selections). Two economic applications (dealing with equilibrium models) are provided in order to illustrate the usefulness of these results.

#### **Vincent, Daniel R.**

**PD** May 1989. **TI** Bilateral Monopoly, Nondurable Goods and Dynamic Trading Relationships. **AA** Northwestern University. **SR** Northwestern Center of Mathematical Studies in Economics and Management Science Working Paper: 832; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 33. **PR** no charge. **JE** 022, 026, 611. **KW** Signalling Games. Monopoly. Bargaining.

**AB** A dynamic signalling game is examined in which a monopolist seller of a nondurable good faces a buyer who is privately informed about the position of his demand curve. The seller names a price in each period and is committed to supply whatever quantity is demanded at that price. The buyer chooses the quantity in the awareness that the seller will use the quantity sold to infer information about the seller. The paper

exploits the literature on the refinement of equilibria in signalling games to focus on a unique equilibrium which is characterized by complete separation in each period.

#### Vines, David A.

TI Commodity Prices, Financial Markets and World Income: A Structural Rational Expectations Model. AU Ramanujam, Prathap; Vines, David A.

#### Vishny, Robert W.

TI Building Blocks of Market Clearing Business Cycle Models. AU Murphy, Kevin J.; Schleifer, Andrei; Vishny, Robert W.

#### Vohra, Rajiv

PD January 1987. TI On Scarf's Theorem on the Non-emptiness of the Core: A Direct Proof Through Kakutani's Fixed Point Theorem. AA Brown University. SR Brown University Department of Economics Working Paper: 87-2; Department of Economics, Brown University, Providence, RI 02912. PG 5. PR No charge. JE 021, 022, 213. KW Core. Fixed Point.

AB We provide an alternative proof of Scarf's (1967) theorem on the non-emptiness of the Core. The proof is based on a relatively straightforward application of Kakutani's fixed point theorem.

PD October 1988. TI On the Inefficiency of Two Part Tariffs. AA Brown University. SR Brown University Department of Economics Working Paper: 88-25; Department of Economics, Brown University, Providence, Rhode Island 02912. PG 25. PR No charge. JE 024, 022. KW Tariffs. Returns to Scale. Marginal Cost. Prices.

AB A comparison of the efficiency properties of two part tariffs and marginal cost pricing under fixed rules for income distribution does not yield simple answers. Our main results are as follows: (i) there may exist an efficient equilibrium with uniform two part tariffs but no efficient marginal cost pricing equilibrium. (ii) there may exist an efficient marginal cost pricing equilibrium but no efficient equilibrium with two part tariffs. (iii) there may exist no efficient equilibrium either with two part tariffs or with marginal cost pricing for any distribution of shares in the increasing returns firm.

#### Voigt, Bernd

PD December 1988. TI A Remark on Minimal Polynomials of Boolean Functions. AU Voigt, Bernd; Wegener, Ingo. AA Voigt: University of Bonn. Wegener: University of Dortmund. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88539-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 12. PR No charge. JE 213. KW Boolean Functions, Polynomials.

AB We consider two problems in connection with minimal polynomials of Boolean functions. We first discuss the Disjoint Computation Scheme Hypothesis. Then we show how to compute efficiently minimal polynomials for symmetric Boolean functions.

#### Von Weizsacker, Robert K.

PD April 1989. TI Bevölkerungsentwicklung, Soziale Sicherung und Staatsfinanzen: Politisch-Ökonomische Aspekte

der Rentenfinanzierung. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-226; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 26. PR No charge. JE 322, 321. KW Population Development. Public Finance. Pension Financing. Pensions. AB Paper in German.

#### Vuong, Quang H.

TI Interpretation and Use of Generalized Chow Tests. AU Cantrell, R. Stephen; Burrows, Peter M.; Vuong, Quang H.

TI An Econometric Analysis of Some Duopolistic Games in Prices and Advertising. AU Gasmi, Farid; Vuong, Quang H.

#### Wadhvani, Sushil B.

PD August 1989. TI The Effects of Unions on Corporate Investment: Evidence from Accounts Data, 1972-86. AU Wadhvani, Sushil B.; Wall, Martin. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 354; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. PG 36. PR no charge. JE 522, 831. KW Unions. Investment.

AB This paper investigates the effects of unions on investment using a British panel dataset. It finds no evidence for the view that union rent seeking inhibits investment because: (i) increases in unionization have no direct effect on investment and (ii) wages in nonunion firms are just as responsive to changes in the capital-labor ratio as those in union firms. It is also argued that it is unlikely that industrial relations legislation has had any effect on investment, for although there is a rise in investment in union firms in the 80s, there was no corresponding relative decline in the 70s.

TI Unions and Productivity Growth in Britain, 1974-86: Evidence from UK Company Accounts Data. AU Nickell, Stephen John; Wadhvani, Sushil B.; Wall, Martin.

PD August 1989. TI The Effect of Unions on Productivity Growth, Investment and Employment: A Report on Some Recent Work. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 356; Centre for Labour Economics, London School of Economics, Houghton Street, London ENGLAND, WC2A 2AE. PG 25. PR no charge. JE 831, 825, 522, 824, 832. KW Unions. Productivity. Investment. Employment. Bargaining.

AB Using two British microeconomic data sets, this paper reports that: 1.) union firms experienced faster productivity growth during 1980-84, but there was no difference in performance in 1975-79 or 1985-86. So, unions do not necessarily reduce productivity growth. 2.) Unionism appears to have no significant effect on investment, once one allows for the effects of differential productivity growth. 3.) Wages in union and nonunion firms are equally responsive to changes in the capital-labor ratio. 4.) Contrary to what is often alleged, unionism per se does not reduce employment growth. Instead, the negative correlation observed in 1980-84 probably arises from a significant reform of working practices in unionized firms during 1980-84.



**TI** The Effects of Unions on Organizational Change, Investment and Employment: Evidence from WIRS. **AU** Machin, S.; Wadhvani, Sushil B.

**TI** The Determinants of Wage Flexibility in Japan: Some Lessons from a Comparison with the UK using Micro-Data. **AU** Brunello, G.; Wadhvani, Sushil B.

#### **Wall, Martin**

**TI** The Effects of Unions on Corporate Investment: Evidence from Accounts Data, 1972-86. **AU** Wadhvani, Sushil B.; Wall, Martin.

**TI** Unions and Productivity Growth in Britain, 1974-86: Evidence from UK Company Accounts Data. **AU** Nickell, Stephen John; Wadhvani, Sushil B.; Wall, Martin.

#### **Walls, Margaret A.**

**PD** December 1988. **TI** Analyzing U.S. Oil and Gas Exploration: A Joint-Products Rational Expectations Framework. **AA** Resources for the Future. **SR** Resources for the Future Energy and Materials Division Discussion Paper: ENR88-04; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW., Washington, DC 20036, USA. **PG** 34. **PR** \$5.00 (U.S. funds only). **JE** 721, 723, 632. **KW** Petroleum Supply. Rational Expectations. Energy. Oil. Natural Resources. Natural Gas.

**AB** Until recently, most exploration in the U.S. was undertaken with the intention of finding oil; natural gas was a secondary objective because the relative economics were not in its favor. This is changing, however, since gas prices are closer to oil prices in today's market. This paper extends to natural gas earlier work by the author on rational expectations econometric modeling of the U.S. oil market. A representative competitive firm is assumed to choose an exploratory drilling plan to maximize the expected discounted net present value of oil and gas discoveries. The firm has a stochastic quadratic exploration cost function with costs that rise as cumulative exploratory drilling rises.

#### **Warshawsky, Mark J.**

**PD** September 1989. **TI** The Adequacy and Consistency of Margin Requirements in the Markets for Stocks and Derivative Products. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Staff Studies Paper: 158; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, DC 20551. **PG** 23. **PR** No charge. **JE** 313, 311. **KW** Margin Requirements. Stock Market. Financial Crisis.

**AB** The present study is the first to assess the adequacy and consistency of margin requirements in all segments of the equities market - cash, future, and options - and the first to combine a broad institutional description of margin arrangements with a detailed statistical analysis of margins and actual prices before and after the crash.

#### **Wascher, William L.**

**TI** Can we Improve upon Preliminary Estimates of Payroll Employment Growth? **AU** Neumark, David B.; Wascher, William L.

#### **Watson, Mark W.**

**TI** New Indexes of Coincident and Leading Economic

Indicators. **AU** Stock, James H.; Watson, Mark W.

#### **Weber, Guillermo**

**TI** Consumption, Productivity Growth and the Interest Rate. **AU** Attanasio, Orazio P.; Weber, Guillermo.

#### **Wegener, Ingo**

**TI** A Remark on Minimal Polynomials of Boolean Functions. **AU** Voigt, Bernd; Wegener, Ingo.

#### **Weil, David N.**

**TI** Optimal Advice for Monetary Policy. **AU** Basu, Susanto; Kimball, Miles S.; Mankiw, N. Gregory; Weil, David N.

#### **Weiner, Robert J.**

**TI** Determinants of Crude Oil Prices: OPEC versus Speculators. **AU** Samii, Massood V.; Weiner, Robert J.; Wirl, Franz.

**TI** Multinational Corporations, Transfer Prices, and Taxes: Evidence from the U.S. Petroleum Industry. **AU** Bernard, Jean Thomas; Weiner, Robert J.

#### **Weiss, Yoram**

**PD** April 1989. **TI** An Economic Analysis of Divorce Settlements. **AU** Weiss, Yoram; Willis, Robert J. **AA** Weiss: Tel Aviv University, University of Chicago and the Economics Research Center/NORC. Willis: University of Chicago and the Economics Research Center/NORC. **SR** Economics Research Center/NORC Discussion Paper: 89-5; Economics Research Center/NORC, 1155 E.60th St., Chicago, Illinois 60637. **PG** 66. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 921, 916. **KW** National Longitudinal Study. Permanent Income. Divorce. Family. Legal System.

**AB** This paper analyzes divorce settlements in a cohort of whites from the time they graduated from high school in 1972 until 1985 at which time they were about 32 years of age using data from the National Longitudinal Study of the High School Class of 1972. We examine the role of current and permanent income, legal regimes, and children on divorce transfers. We find that the transfer from husband to wife upon divorce, which includes child support payments, alimony payments and transfer of property, is quite sensitive to the economic circumstances of the two spouses at the time of divorce. We find no significant effect of initial differences in spouses' bargaining power at the time of marriage on the final divorce settlement. However, initial investments do matter; wives who helped finance their family's accumulation of human capital obtain a compensation upon divorce.

#### **Whalley, John**

**TI** Taxes and Capital Formation: How Important is Human Capital? **AU** Davies, James; Whalley, John.

#### **Whinston, Michael D.**

**PD** June 1989. **TI** Tying, Foreclosure, and Exclusion. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 2995; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** \$2.00. **JE** 611, 612, 511, 514. **KW** Antitrust. Market Structure. Monopoly. Market Power.

**AB** The primary basis for the condemnation of tied sales has been the court's belief in what has come to be known as the "leverage theory" of tying: that is, that tying provides a mechanism whereby a firm with monopoly power in one market can use the leverage provided by this power to foreclose sales in, and thereby monopolize, a second market. In this paper, I reconsider the leverage hypothesis. I argue that, in an important sense, the models used by the critics of the leverage theory are incapable of addressing the central concern of the leverage theory, that tying can be profitably used to change the market structure of the tied good market. I then demonstrate that when the tied good market has an oligopolistic structure, tying can indeed serve as a mechanism for leveraging market power through the foreclosure of tied market rivals' sales.

#### **White, Kenneth J.**

**TI** Evaluating Prior Beliefs in a Demand System: The Case of Meats Demand in Canada. **AU** Chalfant, James A.; Gray, Richard S.; White, Kenneth J.

#### **Wial, Howard**

**PD** July 1989. **TI** Getting a Good Job: A Case Study of Mobility in a Segmented Labor Market. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 89-22; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 43. **PR** No charge. **JE** 823, 821. **KW** Labor Market. Labor Mobility. Primary Sector.

**AB** This study examines the process by which men in three ethnic neighborhoods of Boston make the transition from secondary to primary employment in a segmented labor market. Workers who succeed in making the transition belong to neighborhood-based social groups that have customary linkages to particular primary jobs. Members of such groups costlessly learn how to perceive and act in the labor market in ways that facilitate their entry into the primary sector. Workers' labor market perceptions reflect objective characteristics of the particular primary jobs to which their social groups are linked.

#### **Willis, Robert J.**

**TI** An Economic Analysis of Divorce Settlements. **AU** Weiss, Yoram; Willis, Robert J.

#### **Winter, Ralph**

**TI** The Economic Effects of Automobile Dealer Regulation. **AU** Mathewson, G. Franklin; Winter, Ralph.

#### **Wirl, Franz**

**TI** Determinants of Crude Oil Prices: OPEC versus Speculators. **AU** Samii, Massood V.; Weiner, Robert J.; Wirl, Franz.

#### **Wolfe, Barbara L.**

**TI** Market Work, Wages and Men's Health. **AU** Haveman, Robert; Stone, Mark; Wolfe, Barbara L.

#### **Wolff, Edward N.**

**TI** The Decline of Sex Segregation and the Wage Gap, 1970-80. **AU** Fields, Judith; Wolff, Edward N.

#### **Wolsey, Laurence A.**

**PD** September 1988. **TI** Submodularity and Valid Inequalities in Capacitated Fixed Charge Networks. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8835; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 10. **PR** no charge. **JE** 213. **KW** Networks. Production. Network Design.

**AB** Using a generalized submodular inequality, and the observation that the flow values in capacitated fixed charge networks are often submodular, we derive a general family of valid inequalities for such networks that includes many of the inequalities derived recently. Potentially these results can be used to obtain stronger formulations for a variety of capacitated production planning and network design problems.

#### **Wood, L. L.**

**TI** Monitoring the Performance of Soviet Cotton Refining Enterprises: Sensitivity of Findings to Estimation Techniques. **AU** Lovell, C. A. Knox; Wood, L. L.

#### **Wooders, Myrna Holtz**

**PD** November 1988. **TI** Large Games are Market Games: 1. Large Finite Games. **AA** Universite Catholique de Louvain and University of Toronto. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8842; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve BELGIUM. **PG** 42. **PR** no charge. **JE** 026, 213, 022. **KW** Finite Games. Market Games. Game Theory.

**AB** We show that large finite games (ones with "many", but a finite number, of players) are approximately market games. To model large games we use the notion of a pregame, which enables us to describe the worth of any group of players as a function of the attributes (or types) of the members of the group. From the pregame, which is required to satisfy only very mild conditions, we construct a premarket—a space of characteristics of goods and a continuous, concave, 1-homogeneous utility function. We show that the worth of any sufficiently large coalition in any game derived from the pregame is close to the worth of the corresponding coalition (with the same player set) in the corresponding market game derived from the premarket.

#### **Wooldridge, Jeffrey M.**

**PD** February 1989. **TI** An Encompassing Approach to Conditional Mean Tests with Applications to Testing Nonnested Hypothesis. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 511; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 28. **PR** No charge. **JE** 211. **KW** Misspecification. Encompassing Tests.

**AB** A general class of tests designed to detect conditional mean misspecification for cross section or time series applications is proposed. The tests are derived from a particular application of the encompassing principle. The resulting conditional mean encompassing (CME) tests contain as special cases a version of the Lagrange Multiplier test for nested models, a new test in the presence of nonnested alternatives, and a version of the Durbin-Wu-Hausman test that compares two weighted nonlinear least squares estimators. The

tests are valid without any assumption on the conditional variance of the dependent variable and can be computed using any Square Root of T-consistent estimators. Moreover, CME tests for nonlinear, dynamic models are computable from linear least squares regressions.

#### **Wren, Lewis Simon**

**TI** Fundamental Equilibrium Exchange Rates for the G7.  
**AU** Barrell, Ray; Wren, Lewis Simon.

#### **Wright, Robert E.**

**TI** Employment Dynamics among British Lone Mothers.  
**AU** Ermisch, John F.; Wright, Robert E.

**TI** The Duration of Lone Parenthood in Britain.  
**AU** Ermisch, John F.; Wright, Robert E.

#### **Ying, John S.**

**PD** January 1989. **TI** Pricing in a Deregulated Environment: The Motor Carrier Experience. **AU** Ying, John S.; Keeler, Theodore E. **AA** Ying: University of Delaware. Keeler: University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-101; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 26. **PR** \$3.50. **JE** 615, 612, 613. **KW** Trucking. Freight. Transportation. Regulatory Policy. Regulation.

**AB** A major policy goal of the Motor Carrier Act of 1980 was to provide the shipping public with more efficient truck freight rates. Unlike previous studies which have focused on intrastate reforms, this paper analyzes dynamically the effects of the Act on the freight rates of Class I and II common carriers of general freight. The estimated rate equation explicitly includes marginal cost, along with variables expected to affect market power and demand elasticity. Simulations indicate that deregulation has reduced rates from the very beginning, and that the effect has grown over time. By 1983, prices are nearly 22 percent lower. Besides this direct effect, indirect effects occurring through other variables seem to go in the opposite direction, but are so small as to hardly offset the direct effects. Overall, the effects of deregulation become more pronounced with time and rates have fallen 18 percent by 1983.

#### **Zaman, Asad**

**TI** What do tests for Heteroskedasticity Detect?  
**AU** Dutta, Jayasri; Zaman, Asad.

#### **Zapater, Inigo**

**TI** Fixed-Equilibrium Rationalizability in Signaling Games.  
**AU** Sobel, Joel; Stole, Lars; Zapater, Inigo.

#### **Zee, Howell**

**PD** December 1988. **TI** Optimal Intertemporal Taxation on Consumption and the Term Structure of Government Debt. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/115; International Monetary Fund, Washington, D.C. 20431. **PG** 18. **PR** no charge. **JE** 321, 322, 323, 024. **KW** Intertemporal Model. Open Economy. Government Debt. Taxes. Consumption.

**AB** This paper addresses the time-consistency problem of optimal policy when intertemporal prices are inflexible. For small, open economies facing given world interest rates, it shows that a consumption tax, rather than a tax on wage

income, is time-consistent under a variety of circumstances, even including some cases where the optimal tax rate is not constant over time. This result, when it applies, restores the neutrality of the term structure of government debt, and reaffirms the tax-smoothing theory of debt determination.

#### **Zenger, Todd**

**TI** Firm Size and Agent Effort. **AU** Rasmusen, Eric; Zenger, Todd.

#### **Zupan, Mark**

**TI** Extending the Economics Theory of Regulation to the Form of Policy. **AU** Rasmusen, Eric; Zupan, Mark.