

## ABSTRACTS OF WORKING PAPERS IN ECONOMICS

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

### **Abowd, John M.**

**PD** April 1992. **TI** A Test of Negotiation and Incentive Compensation Models Using Longitudinal French Enterprise Data. **AU** Abowd, John M.; Kramarz, F. **AA** Abowd: INSEE, Cornell University, and National Bureau of Economic Research. Kramarz: INSEE. **SR** National Bureau of Economic Research Working Paper: 4044; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$5.00. **JE** J23, J31, J33. **KW** Contracting Regimes. Incentive Contracts.

**AB** In this paper we model the determinants of firm level wages and employment explicitly allowing for firm and worker heterogeneity. Our firms have three types of workers (cadres, skilled, and unskilled) and may explicitly choose from among three distinct contracting regimes (strong form efficiency, labor demand/right to manage, and incentive contracting). We apply the model to a representative sample of 1,097 French enterprises for the period 1978 to 1987. We find that firms with enterprise level agreements appear to implement incentive contracts. On the other hand, firms without accords appear to operate on their labor demand curves. Efficient contracts are dominated by the other two contractual possibilities. External wage rates, which we estimate for each group of workers within each firm, appear not to influence employment decisions in the manner predicted by efficient contracts regardless of the accord status of the firm.

### **Abreu, Dilip**

**PD** October 1991. **TI** The Folk Theorem for Discounted Repeated Games: A New Condition. **AU** Abreu, Dilip; Dutta, Prajit K. **AA** Abreu: Princeton University. Dutta: Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 566; Department of Economics, Columbia University, New York, New York 10027. **PG** 8. **PR** \$5.00. **JE** C73. **KW** Dynamic Models. Folk Theorem.

**AB** The Fudenberg and Maskin folk theorem for discounted repeated games assumes that the set of feasible payoffs is full dimensional. We obtain the same conclusion using a weaker condition which we term payoff asymmetry. This condition is natural, and also almost necessary.

### **Adelman, Irma**

**PD** April 1992. **TI** Institutions and Economic Linkages at the Village Level in West Java, Indonesia. **AU** Adelman, Irma; Ralston, Katherine. **AA** University of California, Berkeley. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 623; Department of Agricultural and Resource Economics, 207 Giannini Hall, UC Berkeley,

Berkeley, CA 94720. **PG** 38. **PR** \$9.50. **JE** O17, O19, O12. **KW** Economic Development. Villages.

**AB** This study uses a Social Accounting Matrix for a village in West Java to compare the implications for growth and distribution of market-oriented changes and targeted government programs. We simulate the effects of growth in the surrounding economy, increases in prices for crops exported from the village, increased hiring for public works projects, loans for small enterprises and increases in use of high yielding varieties for rice. The results suggest that, on average, the market oriented policies produce higher levels of growth in village value added and total household income, but increase the gap between incomes of low calorie households and the other groups.

### **Ahmed, Shaghil**

**PD** January 1992. **TI** The Marginal Cost of Funds with Nonseparable Public Spending. **AU** Ahmed, Shaghil; Croushore, Dean. **AA** Ahmed: Pennsylvania State University. Croushore: Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 92-2; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 23. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D60, H41. **KW** Welfare Effects. Public Goods.

**AB** This paper provides new calculations of the welfare effects of fiscal changes when the public good is nonseparable in utility and production. Our results show that previous studies that ignore the effects on agents' marginal decisions arising from these nonseparabilities are likely to have underestimated the marginal cost of funds (MCF). We also develop and report estimates of a useful measure of the nonseparable marginal benefits (NSMB) associated with aggregate government purchases.

### **Ahn, Namkee**

**PD** November 1991. **TI** Measuring the Value of Children by Sex and Age Using a Life Cycle Model of Fertility. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 648; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 34. **PR** \$2.00 + postage. **JE** J13. **KW** Life Cycle Optimization. Fertility.

**AB** One of the important determinants of fertility is the value of children as perceived by parents. This paper estimates gender and age specific value of children using a dynamic programming model. The underlying hypothesis is that the observed fertility outcomes for any couple are the solutions to

their life cycle optimization problem. Findings from Korean data indicate that, compared to daughters, sons impose higher costs at young ages but yield greater benefits at mature ages. Both the early costs and later benefits increase with parental education. Also, using the estimated parameters, simulations are performed to show the effect of the screening test of fetal gender on fertility, gender-specific abortion, and the sex ratio.

#### Albaek, Svend

**PD** December 1991. **TI** Upstream Pricing and Advertising Signal Downstream Demand. **AU** Albaek, Svend; Overgaard, Per Baltzer. **AA** Albaek: Tilburg University. Overgaard: University of Aarhus. **SR** Aarhus Institute of Economics Memo: 1992-2; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. **PG** 11. **PR** no charge. **JE** C72, D82, L12. **KW** Demand Uncertainty, Equilibrium Refinements.

**AB** This paper considers a vertical manufacturer-retailer interaction in a context of asymmetric information. The monopolist manufacturer is privately informed about the intensity of consumer demand which may be high or low. In addition to the state of nature, consumer demand responds to the retail price and advertising by the manufacturer. The vertical interaction is modelled as a signalling game, in which the manufacturer initially sets a wholesale price and a level of advertising. The retailer infers information from the observable choices of the manufacturer and responds by setting a retail price. By refining retailer inferences, we prove that the game has a unique equilibrium outcome where all information is revealed by the manufacturer's information pair of wholesale-price and advertising.

#### Aldrich, John

**PD** May 1992. **TI** Haavelmo's Identification Theory. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9218; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 35. **PR** no charge. **JE** C10. **KW** Identification, Multicollinearity.

**AB** This paper treats the theory of identification presented in Haavelmo's *The Probability Approach in Econometrics*. It examines the development of Haavelmo's theory from Frisch's analysis of multicollinearity. It also considers the relationship between Haavelmo's analysis and i) the contemporary analysis of Koopmans and ii) the modern analysis of Rothenberg.

**TI** Distinguishability and Identifiability. **AU** Rayner, Jannic; Aldrich, John.

#### Alford, Helen

**TI** Acquisition as Long Term Venture: Cases from High Technology Industry. **AU** Gamsey, Elizabeth W.; Alford, Helen; Roberts, John.

#### Allen, Beth

**PD** December 1991. **TI** Incentives in Market Games with Asymmetric Information: The Core. **AA** University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 91-38; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-

6297. **PG** 23. **PR** no charge. **JE** D82, C71. **KW** Incentive Compatibility, Partial Commitment.

**AB** This paper examines the core of a pure exchange economy with asymmetric information in which state-dependent allocations are required to satisfy incentive compatibility. This restriction on players' strategies in the cooperative game can be interpreted as incomplete contracts or partial commitment. An example is provided in which the incentive compatible core with nontransferable utility is empty; the game fails to be balanced because convex combinations of incentive compatible net trades can violate incentive compatibility. However, randomization of such strategies leads to ex post allocations which satisfy incentive compatibility and are feasible on average. Hence, convexity is preserved in such a model and the resulting cooperative games are balanced. In this framework, an incentive compatible core concept is defined for NTU games derived from economies with asymmetric information. The main result is nonemptiness of the incentive compatible core.

**PD** April 1992. **TI** Incentives in Market Games with Asymmetric Information: The Value. **AA** University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-11; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 20. **PR** no charge. **JE** D82, C71, D51. **KW** Exchange Economy, Incentive Compatibility.

**AB** The value allocations for exchange economies with incentive compatibility constraints are examined. With transferable utility, there is a unique value. For the more interesting case of nontransferable utility, almost surely resource feasible randomizations guarantee that the correspondence defining the cooperative game in coalitional form is convex valued. This implies that the value exists in the extended game.

**PD** May 1992. **TI** Market Games with Asymmetric Information: The Private Information Core. **AA** University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-04; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 14. **PR** no charge. **JE** D82, C71. **KW** Transferable Utility, Exchange Economy, Private Information.

**AB** For cooperative games without transferable utility generated by finite exchange economies with asymmetric information about common payoff-relevant states of the world, private information use leads to balanced games which therefore have nonempty cores.

**PD** May 1992. **TI** Market Games with Asymmetric Information: The Core with Finitely Many States of the World. **AA** University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-15; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 26. **PR** no charge. **JE** C71, D51. **KW** Exchange Economy, Cooperative Games, Information Sharing.

**AB** For the simplified case in which the set of states of the world is finite, cooperative games (with and without transferable utility) based on exchange economies with asymmetric information are examined. The information that

coalitions can use is specified by exogenously given information sharing rules. Players' strategies consist of state-dependent net trades that are resource feasible and measurable with respect to information. Conditions on coalitions' information sharing rules are provided that are equivalent to the (total) balancedness of all resulting market games. This leads to nonempty cores in which blocking occurs *ex ante*.

#### Allen, Franklin

**PD** April 1992. **TI** Finite Bubbles with Short Sale Constraints and Asymmetric Information. **AU** Allen, Franklin; Morris, Stephen; Postlewaite, Andrew. **AA** University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-13; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 25. **PR** no charge. **JE** D82, D84. **KW** Asymmetric Information. Rational Expectations.

**AB** We present a finite period general equilibrium model of an exchange economy with asymmetric information. We say that a rational expectations equilibrium exhibits an expected bubble if the price of an asset in one period is higher than any agent's marginal valuation of holding the asset to maturity. We say the equilibrium exhibits a strong bubble if the price is higher than the dividend with probability one. We show that a necessary condition for an expected bubble to exist is that each agent must be short sale constrained at some period in the future with positive probability. We show that necessary conditions for a strong bubble to occur are that (1) each agent must have private information in the period and state in which the bubble occurs and (2) agents' trades are not common knowledge. We also present an example of a rational expectations equilibrium that exhibits a bubble when the necessary conditions are satisfied.

#### Alogoskoufis, George S.

**PD** February 1991. **TI** Testing for Non-Linear Dynamics in Historical Unemployment Series. **AU** Alogoskoufis, George S.; Stengos, Thanassis. **AA** Alogoskoufis: Birbeck College and CEPR. Stengos: University of Guelph and European University Institute. **SR** Birbeck College Discussion Paper in Economics: 3/91; Department of Economics, University of London, London, W1P 1PA, ENGLAND. **PG** 18. **PR** no charge. **JE** J64, C50. **KW** Unemployment Rate. Non-Linearities. Chaos.

**AB** In this paper we use historical unemployment series for the U.K. and the U.S.A. to test for the adequacy of the linear unemployment dynamics implied by log-linear models of wage and employment determination. In addition to the usual diagnostics, we use the test proposed by Brock, Dechert, and Scheinkman (1987), that has power against non-linear alternatives, including chaotic deterministic ones. The findings suggest that whereas the dynamics of the U.S. unemployment rate are adequately described by a simple AR(2) model with ARCH errors, a specification consistent with log-linear models, the dynamics of the U.K. unemployment rate are not. However, the non-linearities identified are not of the chaotic variety.

**PD** June 1991. **TI** Debts, Deficits and Growth in Interdependent Economies. **AU** Alogoskoufis, George S.; Van der Ploeg, Frederick. **AA** Alogoskoufis: Birbeck College and CEPR. Van der Ploeg: Tilburg University and CEPR.

**SR** Birbeck College Discussion Paper in Economics: 4/91; Department of Economics, University of London, London, W1P 1PA, ENGLAND. **PG** 33. **PR** no charge. **JE** H60, F41, O41. **KW** Open Economies. Public Debt. Endogenous Growth.

**AB** We investigate the effects of budgetary policies on growth rates, external debt, real interest rates, and the stock market valuation of capital in a two-country, overlapping-generations model of endogenous growth. A worldwide rise in the public debt to GDP ratio, or the share of government consumption, reduces savings and growth. With adjustment costs for investment they also increase real interest rates and depress the stock market. A relative rise in one country's debt to GDP ratio or its GDP share of government consumption results in a reduction in its ratio of external assets to GDP. Growth rates are equalized unless there are differences in investment adjustment costs or depreciation rates.

**PD** October 1991. **TI** Political Parties, Elections and Exchange Rate Regimes: On the Deeper Determinants of Inflation in Greece. **AU** Alogoskoufis, George S.; Philippopoulos, Apostolis. **AA** Alogoskoufis: Birbeck College and CEPR. Philippopoulos: University of Essex. **SR** Birbeck College Discussion Paper in Economics: 5/91; Department of Economics, University of London, London, W1P 1PA, ENGLAND. **PG** 21. **PR** no charge. **JE** E31, F33. **KW** Inflation. Unemployment. Political Parties.

**AB** We investigate the applicability of the "rational partisan" and "exchange rate regime" models of inflation to the case of Greece. Greece has fully participated in the Bretton Woods system of fixed exchange rates until 1972, but has since followed an independent "crawling peg" policy. It has had a polarised political system and a problem of persistently high inflation in the last two decades. Outside fixed exchange rate regimes, persistently high inflation can be attributed to the failure of political parties to precommit to price stability. The higher aversion of "socialists" to unemployment results in an inflation rate which is higher by ten percentage points than under the more anti-inflationary "conservatives". Unemployment is independent of elections.

#### Altman, Edward I.

**PD** February 1992. **TI** Revisiting the High Yield Bond Market. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-10; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 43. **PR** \$5.00. **JE** G30, G32. **KW** Junk Bonds. High Yield Debt.

**AB** When I wrote the original version of the high yield debt "anatomy" study (Altman, 1987), this low-grade debt market, better known as "junk bonds", had grown from an insignificant \$7 billion total in the early and mid-1970's to a dynamic, continuously increasing force in corporate finance of about \$125 billion outstanding, as of April 1987. The outlook was extremely bullish as the normal investment needs of corporations for growth and refinancing that fueled the earlier new issue market growth continued but was beginning to be dwarfed by the enormous increase in highly leverage restructuring, e.g., LBOs. Indeed, in the succeeding three years, the size of the high yield debt market grew to about \$190 billion in 1989 and if you include defaulted debt, to well over \$200 billion.



**PD** May 1992. **TI** Evaluating the Chapter 11 Bankruptcy-Reorganization Process. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-22; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 29. **PR** \$5.00. **JE** G33, K20. **KW** Bankruptcy Law.

**AB** This paper reviews many of the relevant conceptual and empirical issues in an assessment of the Chapter 11 system and finds that while the current system possibly needs revision, there is no convincing evidence for eliminating it completely. It specifically critiques the Bradley and Rosenzweig (1992) proposal to scuttle the present system and while I find their ideas provocative, their proposal has significant conceptual and empirical flaws.

### Altshuler, Rosanne

**PD** November 1991. **TI** The Effects of U.S. Tax Policy on the Income Repatriation Patterns of U.S. Multinational Corporations. **AU** Altshuler, Rosanne; Newlon, T. Scott. **AA** Altshuler: Columbia University and National Bureau of Economic Research. Newlon: U.S. Department of the Treasury. **SR** Columbia University Department of Economics Discussion Paper: 571.; Department of Economics, Columbia University, New York, New York 10027. **PG** 34. **PR** \$5.00. **JE** H25, H32, F23. **KW** Income Remittances. Tax Avoidance.

**AB** U.S. corporations owe taxes to the U.S. Treasury on income earned both inside and outside American borders. This paper examines the incentives created by the U.S. tax system for the legal avoidance of taxes on foreign source income. Using data from 1986 corporate tax returns, we investigate the extent to which U.S. corporations structure and coordinate remittances of income from their foreign subsidiaries to reduce their U.S. and foreign tax liabilities. In contrast to previous work in this area, our estimates of the tax consequences of income remittances from foreign subsidiaries to parent corporations explicitly take into account the ability to use foreign credits generated from one source of foreign income to offset the U.S. tax liability generated by other sources of foreign income.

**PD** December 1991. **TI** The Effects of Tax Planning on the Foreign Income Flow of U.S. Multinational Corporations. **AU** Altshuler, Rosanne; Newlon, T. Scott. **AA** Altshuler: Columbia University and National Bureau of Economic Research. Newlon: U.S. Department of the Treasury. **SR** Columbia University Department of Economics Discussion Paper: 579; Department of Economics, Columbia University, New York, New York 10027. **PG** 10. **PR** \$5.00. **JE** H25, F23. **KW** Foreign Tax Credit. International Income.

**AB** Although the U.S. taxes both the domestic and the foreign income of U.S. resident multinationals, relatively little tax revenue is collected from the foreign income of these corporations. In an earlier paper (Altshuler and Newlon (1991), hereafter A&N), we found that the average U.S. tax rate on the foreign source income of a large sample of U.S. multinationals was only 3.4% in 1986. Why is the average U.S. tax rate on foreign source income so low? This paper reviews results contained in A&N and presents further evidence of the extent to which U.S. multinationals plan their international income flows to avoid taxes on foreign source income.

### Andrade, Isabel C.

**PD** February 1992. **TI** The Relationship Between Inflation and Relative Price Variability: A Multivariate Approach. **AA** University of Southampton and ISEG/Universidade Tecnica de Lisboa. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9203; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 31. **PR** no charge. **JE** C52, E31. **KW** Unit Roots. Cointegration. Johansen Procedure. VAR.

**AB** This paper studies the relationship between inflation and relative price variability for the UK in a multivariate context using the Hendry and Mizon Methodology. We estimate a structural econometric model for I(0) variables, including the ECM's estimated using the Johansen cointegration procedure. We find that there is a negative relationship between the two variables, unlike other empirical studies.

### Andrews, Donald W. K.

**PD** April 1992. **TI** Optimal Tests When a Nuisance Parameter is Present Only Under the Alternative. **AU** Andrews, Donald W. K.; Ploberger, Werner. **AA** Andrews: Yale University. Ploberger: Yale University and Technical University of Vienna. **SR** Yale Cowles Foundation Discussion Paper: 1015; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven CT 06520. **PG** 39. **PR** \$2.00. **JE** C12. **KW** Asymptotics. Change-point. Nonstandard Testing Problem.

**AB** This paper derives asymptotically optimal tests for testing problems in which a nuisance parameter exists under the alternative hypothesis but not under the null. The results of the paper are of interest, because the testing problem considered in non-standard and the classical asymptotic optimality results for the Wald, Lagrange multiplier (LM), and likelihood ratio (LR) tests do not apply. In the non-standard cases of main interest, new optimal tests are obtained and the LR test is not found to be an optimal test.

**PD** April 1992. **TI** Optimal Change-point Tests for Normal Linear Regression. **AU** Andrews, Donald W. K.; Lee, Inpyo; Ploberger, Werner. **AA** Andrews and Lee: Yale University. Ploberger: Yale University and Technical University of Vienna. **SR** Yale Cowles Foundation Discussion Paper: 1016; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 19. **PR** \$2.00. **JE** C12. **KW** Optimal Test. Multiple Change-points. Structural Change Test.

**AB** This paper determines a class of finite sample optimal tests for the existence of a change-point at an unknown time in a normal linear multiple regression model with known variance. Optimal tests for multiple change-points are also derived. Power comparisons of several tests are provided based on simulations.

### Angehrn, Albert

**PD** October 1991. **TI** Stimulus Agents: An Alternative Framework for Computer-Aided Decision Making. **AA** INSEAD. **SR** INSEAD Working Paper : 91/54/TM; INSEAD, INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 14. **PR** not available. **JE** C88, D70. **KW** Decision Making. Agents. Human-Computer Interaction.

**AB** Today's Decision Support Systems (DSS), Expert Systems, Executive Information Systems, Group DSS, and similar computer-based tools are based on conceptual



frameworks developed in the early 80s. New frameworks capturing the latest research tendencies in the DSS field are needed as a basis for the next generation of decision support tools. The alternative DSS framework illustrated in this paper is rooted in the metaphor of a "Decision Making Arena" in which decision makers define and explore their problems interactively under the continuous stimulus (help, guidance and criticism) of dynamic "Agents".

### **Ardeni, Pier Giorgio**

**PD** March 1992. **TI** Interactions Among Money, Exchange Rates, and Commodity Prices. **AU** Ardeni, Pier Giorgio; Rausser, Gordon C. **AA** Ardeni: University of Urbino. Rausser: University of California, Berkeley. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 621; Department of Agricultural and Resource Economics, 207 Giannini Hall, UC Berkeley, Berkeley, CA 94720. **PG** 38. **PR** \$9.50. **JE** C32, Q10. **KW** Macroeconomics. Finance. Exchange Rates.

**AB** A cursory examination of the literature on the effects of macroeconomic variables on agriculture reveals much speculation and confusion. Empirical results range from a significant relationship between the size of the money supply and real commodity prices (Chambers and Just, 1982) to no relationship (Battern and Belongia 1984). The conflicting inferences that exist in the agricultural economics literature on the role of macroeconomic phenomenon are often based on vector autoregressive (VAR) or multivariate time-series models. A VEC model is a VAR model in the first differences of the series where lagged deviations from the stationary long-run equilibrium among the variables (captured by the cointegrating relationship) affect the dynamics of the system. In this paper, these issues are analyzed for U.S. agriculture using a four-variable reduced-form model of the dynamic interactions among money (m), the exchange rate (z), manufacturing Prices (P sub B) and agricultural prices (P sub A). It will be shown that the empirical results are very sensitive to the treatment of the time series properties of the data, casting doubt on many conclusions previously drawn in the literature. In particular, since the four endogenous variables will appear to be nonstationary and cointegrated, a VEC model (as opposed to VAR model in the differences) will be the most appropriate dynamic representation of the system.

### **Ashenfelter, Orley**

**PD** March 1992. **TI** Testing for Price Anomalies in Real Estate Auctions. **AU** Ashenfelter, Orley; Genesove, David. **AA** Ashenfelter: Princeton University and National Bureau of Economic Research. Genesove: Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 4036; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 9. **PR** \$5.00. **JE** D44, D46. **KW** Common Value Auctions. Winners Curse.

**AB** This paper reports on the results of an auction sale of 83 condominium apartment units in New Jersey. At the auction every unit was hammered down, but, unknown to the 2,348 registered bidders, 40% of the sales fell through. Prices in the subsequent sale of condominium units in face to face negotiations resulted in identical units selling for 13% less than they fetched at auction and the discount was largest for those units hammered down early in the auction. These results are

inconsistent with the usual predictions from the theory of common value auctions and suggest that uninformed bidders in this auction may have been the subject of a "winner's curse" which generated considerable profit for the seller.

### **Attfield, C. L. F.**

**PD** January 1992. **TI** A Generalised Method of Moments Estimation Procedure for a Class of Rational Expectations Models. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/316; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 10. **PR** no charge. **JE** C32, C13. **KW** Maximum Likelihood. Method of Moments.

**AB** A common class of Rational Expectations models can be written in a form such that a simple iterative procedure results in maximum likelihood estimates for the case of white noise, normal, equation errors. It is shown that the procedure can easily be extended to produce generalized method of moment estimators for the more general case where error cannot be assumed white noise or normal.

**PD** March 1992. **TI** A Model of Job Matching and Job Competition. **AU** Attfield, C. L. F.; Burgess, Simon. **AA** Attfield: University of Bristol. Burgess: Dartmouth College, University of Bristol, and CEP. **SR** University of Bristol Discussion Paper: 92/325; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 19. **PR** no charge. **JE** J64, J60, C32. **KW** Job Search. Job Transition.

**AB** This paper jointly estimates a model of job competition and job matching. The matching model includes the influence of employed job searchers, and we show that in this case the standard matching function can only be interpreted as a reduced form rather than a structural equation. Endogenous job competition arises from the fact that more of the employed will choose to engage in job search when the labor market is buoyant. The data suggest this factor to be important in explaining the transition of unemployed and employed into new jobs. To estimate the model we employ the Generalized Method of Moments procedure which ensures that the estimator of the covariance matrix of the estimators is consistent even when equation errors are heteroskedastic and/or serially correlated.

### **Bagwell, Kyle**

**PD** January 1992. **TI** Coordination Economies, Advertising and Search Behavior in Retail Markets. **AU** Bagwell, Kyle; Ramey, Garey. **AA** Bagwell: Northwestern University and Hoover Institution. Ramey: University of California, San Diego. **SR** Hoover Institute Working Papers in Economics: E-92-1; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 53. **PR** not available. **JE** L13, L15. **KW** Search Strategies. Welfare. Entry. Advertising. Coordination Economies.

**AB** We introduce a model of the retail firm in which consumers and active firms benefit collectively from coordination of sales at fewer firms. Using this model, we show that ostensibly uninformative advertising plays a key role in bringing about coordination economies, by directing consumer search toward firms that offer the best deals. Optimal consumer search takes the form of a simple rule of thumb that uses observed advertising information to guide search. Both industry concentration and social surplus are higher in the presence of

advertising, relative to a no-advertising benchmark.

### **Baker, Paul**

**PD** December 1991. **TI** A Model of Household Gas and Electricity Expenditures for the U.K.: The IFS Simulation Program for Energy Demand (SPEND). **AA** Institute for Fiscal Studies. **SR** Institute for Fiscal Studies (IFS) Working Paper: W92/5; Institute for Fiscal Studies, 7 Ridgmount St., London WC1E 7AE, ENGLAND. **PG** 36. **PR** 3 pounds. **JE** D12, Q41. **KW** Households. Energy Demand. Micro Simulation.

**AB** Analysis of U.K. domestic sector energy demands has been conducted almost exclusively at an aggregate level and as a consequence discussion of energy policy issues has suffered from a lack of microeconomic evidence. Such evidence may be important not only in the analysis of the distributional impact of energy policy but also as an aid to aggregate-level forecasting of energy demand. This paper documents some progress that has been made towards the development of a microeconomic model of household energy demands, the results of which have been incorporated within the IFS Simulation Program for Energy Demand. Both the estimation and simulation program itself make use of an extensive database of individual household-level data taken from 18 years of U.K. Family Expenditure Survey data.

### **Balduzzi, Pierluigi**

**PD** May 1992. **TI** Nonlinearities in Asset Prices and Infrequent Noise Trading. **AU** Balduzzi, Pierluigi; Bertola, Giuseppe; Foresi, Silerio. **AA** Balduzzi and Foresi: New York University. Bertola: Princeton University, National Bureau of Economic Research, and Centre for Economic Policy Research. **SR** Princeton Financial Research Center Memorandum: 131; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 23. **PR** \$3.00 for U.S. mailings. \$6.00 for foreign mailings. **JE** G12. **KW** Heterogeneous Agents. Bubbles. Noise Trade.

**AB** We model a two-asset economy populated by two types of agents: speculators, who are always present in the market; and noise traders, who infrequently reallocate their portfolios in a discrete fashion. Noise traders' market orders are filled at prices which support the speculators' equilibrium consumption path, which in turn depends on the proportion of stocks and bonds in their portfolio and hence on the size and likelihood of noise trade events. Equilibrium asset prices deviate from the value of future cash flows in the absence of trade by an option-like component, which reflects the relevance of future trade to the pricing of cash flows. We construct explicit solutions for the case of CRRA preferences, and we discuss examples where trade takes place at prespecified prices.

### **Baldwin, Richard E.**

**PD** April 1992. **TI** On the Growth Effects of Import Competition. **AA** Columbia University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4045; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$5.00. **JE** L44, F13. **KW** Domestic Innovators. Market Power.

**AB** This paper shows that the market structure of an economy's research sector is an important determinant of the aggregate growth rate, even though it has hereto been ignored

in the new growth literature. To make this point in a concrete context, a simple model is used to show that import competition may stimulate growth by reducing the market power of domestic innovators. Specifically, import competition forces domestic innovators to choose between either quickening their pace of innovation or being displaced by foreign innovators. The pro-growth effect of import competition is shown to be welfare-increasing. The paper studies a number of policy implications including the growth effects of anti-trust policy, partial liberalization, and trade in intellectual property rights.

### **Barro, Robert J.**

**PD** December 1991. **TI** Regional Growth and Migration: A Japan - U.S. Comparison. **AU** Barro, Robert J.; Sala-i-Martin, Xavier. **AA** Barro: Harvard University. Sala-i-Martin: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 650; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 55. **PR** \$2.00 + postage. **JE** R23, O40. **KW** Convergence. Economic Growth. Regional Migration.

**AB** Do poor economies grow faster than rich ones? This important economic question (which we call beta-convergence) is analyzed in this paper using two regional data sets: 47 Prefectures in Japan and 48 States of the U.S. We find clear evidence of convergence in both countries: poor prefectures and states grow faster. We also find that there is intra-regional as well as interregional convergence. We analyze the cross sectional standard deviation across prefectures and states. We find that in both countries there has been a long term decline (a phenomenon that we call sigma-convergence). Finally we study the determinants of the rates of regional in-migration and, again, find striking similarities. We find little evidence in favor of the argument that population movements are the reason why we find convergence across economies.

**PD** March 1992. **TI** Capital Mobility in Neoclassical Models of Growth. **AU** Barro, Robert J.; Mankiw, N. Gregory; Sala-i-Martin, Xavier. **AA** Barro and Mankiw: Harvard University. Sala-i-Martin: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 655; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 34. **PR** \$2.00 + postage. **JE** F20. **KW** Convergence. Partial Capital Mobility.

**AB** The main purpose of this paper is to construct a model of economic growth that is consistent with the growing body of evidence on convergence. We want, in particular, to explain gradual convergence in output and income per person while allowing for an international credit market that equates the real interest rates across economies. The key to our model is that capital is only partially mobile: borrowing is possible to finance accumulation of physical capital but not accumulation of human capital. We show that the assumption of partial capital mobility, embedded in an open-economy version of the neoclassical growth model, can explain the evidence on convergence.

**PD** March 1992. **TI** Regional Growth and Migration: A Japan - U.S. Comparison. **AU** Barro, Robert J.; Sala-i-Martin, Xavier. **AA** Barro: Harvard University and National Bureau of Economic Research. Sala-i-Martin: Yale University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4038; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$5.00. **JE** O40.

**KW** Convergence.

**AB** See other entry.

### **Barsky, Robert B.**

**PD** January 1992. **TI** Why Does the Stock Market Fluctuate? **AU** Barsky, Robert B.; De Long, J. Bradford. **AA** Barsky: University of Michigan and National Bureau of Economic Research. De Long: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3995; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 22. **PR** \$5.00. **JE** G12, G35, E27. **KW** Dividend Growth Rates. Forecasting.

**AB** Large long-run swings in the United States stock market over the past century correspond to swings in estimates of fundamental values calculated by using a long moving average of past dividend growth to forecast future growth rates. Such a procedure would have been reasonable if investors were uncertain of the structure of the economy, and had to make forecasts of unknown and possibly changing long-run dividend growth rates. The parameters of the stochastic process followed by dividends over the twentieth century cannot be precisely estimated even today at the century's end. Investors in the past had even less information about the dividend process. In such a context, it is difficult to see how investors can be faulted for implicitly forecasting future dividends by extrapolating past dividend growth.

### **Bartel, Ann P.**

**PD** March 1992. **TI** Training, Wage Growth and Job Performance: Evidence from a Company Database. **AA** Columbia University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4027; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 17. **PR** \$5.00. **JE** J31, J24. **KW** Human Capital. On-the-Job Training.

**AB** This paper studies the relationships between on-the-job training, wages and job performance by using the personnel records of a large manufacturing firm. The main findings presented in this paper are: (1) Controlling for information on days spent in formal training programs reduces the returns to tenure by 18%; (2) First-difference models of wage growth which eliminate heterogeneity bias in wage levels show that training has a positive and significant effect on wage growth; (3) Fixed-effects models that control for heterogeneity bias in wage growth still find a positive and significant effect of training on wage growth; and (4) Training leads to an improvement in job performance, as measured by performance rating scores.

### **Bartelsman, Eric J.**

**PD** September 1991. **TI** Productivity Dynamics: U.S. Manufacturing Plants, 1972-1986. **AU** Bartelsman, Eric J.; Dhrymes, Phoebus J. **AA** Bartelsman: Federal Reserve Board. Dhrymes: Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 584; Department of Economics, Columbia University, New York, New York 10027. **PG** 25. **PR** \$5.00. **JE** D24, L60. **KW** Factor Productivity. Transition Dynamics.

**AB** This paper presents an analysis of the dynamics of total factor productivity measures for large plants in SICs 35, 36, and 38, over the period 1972-1986. Several TFP measures, derived

from production functions and Solow type residuals, are computed and their behavior over time is compared, using various non-parametric tools. Aggregate TFP, which has grown substantially over the period, is compared with average plant level TFP, which has declined or remained flat. Using transition matrices, the persistence of plant productivity is examined, and it is shown how the transition probabilities vary by industry, plant age, size of establishment and other characteristics.

### **Bear, Larry**

**TI** The Invisible Hand and Health Care: Diagnosing and Treating Market Inadequacies. **AU** Maldonado-Bear, Rita; Bear, Larry.

**TI** Legal and Financial Agency, Ethics and the Fiduciary Relationship. **AU** Maldonado-Bear, Rita; Bear, Larry.

### **Beaulieu, J. Joseph**

**PD** August 1990. **TI** The Seasonal Cycle in U.S. Manufacturing. **AU** Beaulieu, J. Joseph; Miron, Jeffrey A. **AA** Beaulieu: Massachusetts Institute of Technology. Miron: Boston University and National Bureau of Economic Research. **SR** Boston University Industry Studies Program Discussion Paper Series: 12; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 14. **PR** no charge. **JE** E32, L60. **KW** Business Cycles. Seasonal Cycles.

**AB** This paper examines the seasonal cycle in the manufacturing sector of the U.S. economy. We present estimates of the seasonal patterns in monthly data for 2-digit industries, and we demonstrate the similarity of the seasonal cycle and the business cycle in manufacturing with respect to several key stylized facts about business cycles. The results are an important addition to those in Barsky and Miron (1989) because the monthly data for manufacturing display interesting seasonal fluctuations that are hidden in the quarterly data examined by Barsky and Miron. The most significant is a sharp slowdown in July followed by a significant rebound in August. We argue that this event is not easily explained by technology or preference shifts but instead results from synergies across economic agents.

**PD** May 1991. **TI** A Cross Country Comparison of Seasonal Cycles and Business Cycles. **AU** Beaulieu, J. Joseph; Miron, Jeffrey A. **AA** Beaulieu: Massachusetts Institute of Technology. Miron: Boston University and National Bureau of Economic Research. **SR** Boston University Industry Studies Program Discussion Paper Series: 11; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 11. **PR** no charge. **JE** E32. **KW** Seasonal Cycles. Business Cycles.

**AB** In a recent paper, Barsky and Miron (1989) examine the seasonal cycle in the United States economy. They show that the key stylized facts about the business cycle characterize the seasonal cycle as well, and they suggest that interpretation of many of these stylized facts over the seasonal cycle is easier than interpretation over the business cycle. In this paper we use the cross country variation in seasonal patterns to provide a more complete characterization of the ultimate sources of seasonal cycles. We suggest that a Christmas shift in preferences and synergies across agents are key determinants of the seasonal patterns around the world. We also establish that, across developed countries, the key stylized facts about the business cycle also characterize the seasonal cycle.



**Becht, Marco**

**TI** "Excess Volatility" and the German Stock Market, 1876-1990. **AU** De Long, J. Bradford; Becht, Marco.

**Becker, Gary S.**

**PD** November 1991. **TI** The Division of Labor, Coordination Costs, and Knowledge. **AU** Becker, Gary S.; Murphy, Kevin M. **AA** University of Chicago. **SR** Economics Research Center/NORC Discussion Paper: 92-5; Economics Research Center/NORC, 1155 E. 60th St., Chicago, Illinois 60637. **PG** 39. **PR** \$2.00; send requests to Librarian, Economics Research Center. **JE** J24, J21. **KW** Coordination.

**AB** This paper considers specialization and the division of labor. A more extensive division of labor raises productivity because returns to the time spent on tasks are usually greater to workers who concentrate on a narrower range of skills. The traditional discussion of the division of labor emphasizes the limitations to specialization imposed by the extent of the market. We claim that the degree of specialization is more often determined by other considerations. Especially emphasized are various costs of "coordinating" specialized workers who perform complementary tasks, and the amount of general knowledge available.

**Berger, Allen N.**

**PD** March 1992. **TI** and Tests of the Standard Distributional Assumptions. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 188; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 40. **PR** no charge. **JE** G21, G28, C33. **KW** Bank. Efficiency. Merger. Scale.

**AB** Studies of efficiency in banking and elsewhere often impose arbitrary assumptions on the distributions of efficiency and random error in order to separate one from the other. In this study, we impose much less structure on these distributions by simply assuming that efficiencies are stable over time while random error tends to average out. Using data on U.S. banks from 1980 to 1989, we find results similar to the literature -- X-efficiencies or managerial differences in banking are important while scale efficiency differences are not. However, we also find that the distributional assumptions usually imposed in the literature are not consistent with these data.

**Berndt, Ernst R.**

**PD** March 1992. **TI** Auditing the Producer Price Index: Micro Evidence From Prescription Pharmaceutical Preparations. **AU** Berndt, Ernst R.; Griliches, Zvi; Rosett, Joshua G. **AA** Berndt: National Bureau of Economic Research and Massachusetts Institute. **SR** National Bureau of Economic Research Working Paper: 4009; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$5.00. **JE** E31, L65. **KW** Producer Price Index. Divisia Price Index.

**AB** In this paper we focus on a mystery we uncovered while undertaking a detailed audit of the US Bureau of Labor Statistics producer price index (PPI). From January 1984 through December 1989, the BLS price index for SIC 28341 (prescription pharmaceutical preparations) grew at an annual rate of 9.09%. For purposes of comparison, we have obtained monthly price and quantity sales data on all prescription pharmaceutical preparation products sold by four major US

pharmaceutical manufacturers, accounting for about 24% of total industry domestic sales in 1989. Using Laspeyres price index construction procedures on these data that mimic BLS methods, we find that over the same time period, the four-company price index increased at only 6.68% per year. Finally, when we employ a Divisia price index procedure with smoothed weights that incorporates new goods immediately, the aggregate price index for these four firms grows at a rate of only 6.03% per year. Why is it that the official BLS price index grows approximately 50% more rapidly (9.09% vs. 6.03%) than the Divisia price index? That mystery is the focal point of our paper.

**PD** March 1992. **TI** High-Tech Capital Formation and Labor Composition in U.S. Manufacturing Industries: An Exploratory Analysis. **AU** Berndt, Ernst R.; Morrison, Catherine J.; Rosenblum, Larry S. **AA** Berndt: Massachusetts Institute of Technology and National Bureau of Economic Research. Morrison: Tufts University. Rosenblum: U.S. Department of Labor. **SR** National Bureau of Economic Research Working Paper: 4010; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$5.00. **JE** J44, J24, E22. **KW** Distribution of Employment. Productivity.

**AB** In this paper we report results of an exploratory empirical effort examining relationships between investments in high-tech information technology capital and the distribution of employment, both by occupation and by level of educational attainment. Our data cover the two-digit U.S. manufacturing industries, annually, 1968-86. We find that increases in the high-tech composition of capital (OF/K) are positively related to growth in white collar, non-production worker hours, and that increases in white collar hours account for most of the reduction in aggregate labor productivity associated with increases in high-tech capital. In terms of educational attainment, within the blue collar occupations we find clear evidence in support of skill upgrading toward more educated workers occurring along with increases in OF/K.

**Bernstein, Jeffrey I.**

**PD** May 1992. **TI** Exports, Margins, and Productivity Growth: With an Application to the Canadian Softwood Lumber Industry. **AA** Carleton University and National Bureau of Economic Research. **SR** New York University Economic Research Report: 92-23; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 26. **PR** no charge. **JE** D24, L73. **KW** Productivity Growth. Exports. Lumber.

**AB** The softwood lumber industry is a major source of trade between Canada and the U.S.. This industry accounts for about 2% of Canadian manufacturing shipments and 80% of the output is exported to the United States. The purpose of this paper is to evaluate the allocative and dynamic efficiency of the Canadian softwood lumber industry by testing for the existence of price-cost margins and decomposing rates of total factor productivity (TFP) growth. A dynamic model of multiple output production and investment is developed in which output is sold domestically and exported. Price-cost margins are parameterized through shadow prices that affect variable profit and thereby output supply and input demand functions.

**Bertola, Giuseppe**

**TI** Nonlinearities in Asset Prices and Infrequent Noise

Trading. **AU** Balduzzi, Pierluigi; Bertola, Giuseppe; Foresi, Silerio.

### Besley, Timothy

**PD** March 1992. **TI** Incumbent Behavior: Vote Seeking, Tax Setting and Yardstick Competition. **AU** Besley, Timothy; Case, Anne. **AA** Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4041; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$5.00. **JE** E62, D72. **KW** Tax Policy. Incumbent Reelection.

**AB** This paper presents a theoretical and empirical investigation of tax competition when voters use the tax policy of neighboring jurisdictions as information to evaluate the performance of their incumbent politicians. We show that this has implications both for voter tolerance of high taxes and for the process of tax setting itself. Our empirical results, which use two different tax data sets, confirm the importance of neighbors' taxes both on the probability of incumbent reelection and on tax setting behavior.

### Betancourt, Roger R.

**PD** August 1991. **TI** The New Institutional Economics and the Study of the Cuban Economy. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 91-23; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 34. **PR** no charge. **JE** O10, O20, P27, D23. **KW** Transaction Costs. Distribution Costs. Institutional Change.

**AB** Our starting point is that Cuba was and is a developing country. A critical question in view of the changes in Eastern Europe and the Soviet Union is whether or not the ensuing changes in the Cuban economy will shift it onto a path that generates long term economic growth. Understanding this process requires the use of advances in the analysis of transaction costs, property rights and public choice; these three areas have been referred to as comprising the new institutional economics. After introducing and illustrating the main concepts, these ideas are applied to the analysis of development in a historical context, to the analysis of nonmarket settings, to the analysis of the distribution sector in market settings and, finally, to the analysis of institutional changes associated with transitions from a centrally planned economy to a market economy.

### Blackburn, Keith

**PD** April 1992. **TI** Endogenous Growth and Trade Liberalization. **AU** Blackburn, Keith; Hung, Victor T. Y. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9207; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 19. **PR** no charge. **JE** F12, F15, F43, O41. **KW** Product Variety. Fixed Cost. Trade Liberalization.

**AB** We develop an endogenous growth model in which trade liberalization has a positive effect on growth. This effect does not depend on marginal re-allocations nor on knowledge-spillovers. Rather, it is due solely to the increase in market size following the integration of product markets. Our result contradicts a widely-held view that trade in physical goods per se has no consequences for long-run growth.

**PD** April 1992. **TI** Market Fundamentals versus Speculative Bubbles: A New Test Applied to the German Hyperinflation. **AU** Blackburn, Keith; Sola, Martin. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9208; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 41. **PR** no charge. **JE** C13, C22, C32, E31. **KW** Switching Regime.

**AB** We develop and apply a new method of testing for speculative bubbles. The method is designed to overcome two well-known problems in the identification of bubble phenomena - the problem of distinguishing any type of bubble from an expected future change in market fundamentals and the problem of detecting a periodically-collapsing bubble when the residuals of the fundamentals regression are integrated. We propose the strategy of estimating an endogenous switching regime model of market prices, partialling out expected changes in fundamentals and carefully analyzing the properties of the residuals. We apply this strategy to the study of German hyperinflation in the 1920s. We find that we cannot reject the existence of a collapsing bubble during that hyperinflation.

### Blackburn, McKinley L.

**PD** July 1990. **TI** Fertility Timing, Wages, and Human Capital. **AU** Blackburn, McKinley L.; Bloom, David E.; Neumark, David. **AA** Blackburn: University of South Carolina. Bloom: Columbia University. Neumark: University of Pennsylvania. **SR** Columbia University Department of Economics Discussion Paper: 553; Department of Economics, Columbia University, New York, New York 10027. **PG** 25. **PR** \$5.00. **JE** D91, J13, J16, J24. **KW** Life-Cycle Model. Human Capital Investment. Childbearing.

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

**PD** August 1991. **TI** Changes in Earnings Differentials in the 1980's: Concordance, Convergence, Causes, and Consequences. **AU** Blackburn, McKinley L.; Bloom, David E.; Freeman, Richard B. **AA** Blackburn: University of South Carolina. Bloom: Columbia University. Freeman: Harvard University. **SR** Columbia University Department of Economics Discussion Paper: 554; Department of Economics, Columbia University, New York, New York 10027. **PG** 20. **PR** \$5.00. **JE** I20, J15, J16, J31. **KW** Education. Structure of Employment.

**AB** This paper analyzes changes in U.S. earnings differentials in the 1980s between race, gender, age, and schooling groups. There are four main sets of results to report. First, the economic position of less-educated workers declined relative to the more-educated among almost all demographic groups. Second, much of the change in education-earnings differentials for specific groups is attributable to measurable economic factors. Third, the earnings and employment position of white females, and to a lesser extent of black females, converged to that of white males in the 1980s, across education groups. Fourth, there has been a sizable college-enrollment response to the

rising relative wages of college graduates.

### **Blanchard, Olivier Jean**

**PD** February 1992. **TI** Dynamic Efficiency, the Riskless Rate, and Debt Ponzi Games under Uncertainty. **AU** Blanchard, Olivier Jean; Weil, Philippe. **AA** Blanchard: Massachusetts Institute of Technology and National Bureau of Economic Research. Weil: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3992; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$5.00. **JE** E62, D90, H62. **KW** Public Debt. Bonds. **AB** Can governments roll their debt over forever in dynamically efficient economies, and thus avoid the need to raise taxes? While the answer is a clear no under certainty, it depends, under uncertainty, on whether public debt provides intergenerational insurance. When it does not, rollover is not possible, even if the rate of return on one-period bonds is below the growth rate. When it does, debt rollover may be possible, even if the return on one-period bonds is above the growth rate.

### **Blanchflower, David**

**PD** March 1992. **TI** Training at Work: A Comparison of U.S. and British Youths. **AU** Blanchflower, David; Lynch, Lisa M. **AA** Blanchflower: Dartmouth College and National Bureau of Economic Research. Lynch: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4037; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** \$5.00. **JE** J24, I20. **KW** Wages. Job Training. Skill Development.

**AB** This paper compares and contrasts the structure of post school training for young non-university graduates in Britain and the United States. We utilize two unique longitudinal surveys in these countries on young people to examine four issues: the extent of post school training in Britain and the U.S. and the wage gains associated with it; the link between formal training and further qualifications in Britain and the return to this on wages; differentials in the training experience by gender in the two countries; and the possible implications for skill development in Britain of dismantling significant elements of the traditional apprenticeship system. Our principal findings are that non-college graduates in Britain receive much more post school training than similar youths in the United States.

### **Bloch, Francis**

**PD** January 1992. **TI** Endogenous Structures of Association if Oligopolies. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 92-2; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 39. **PR** no charge. **JE** D43, L13. **KW** Corporation. Oligopoly. R&D. Joint Ventures.

**AB** The formation of associations of firms in an oligopoly with linear demand is analyzed as two-stage noncooperative game. Firms form associations in order to decrease their costs in the first stage and compete on the market in the second stage. Examples of associations include R&D joint ventures and groups of firms adopting common standards. When costs decrease regularly as the size of the association increases, in equilibrium firms form two asymmetric associations

independently of the type of competition on the market. The dominant association comprises three quarters of the members when the products are substitutes, and its size increases as products become more differentiated. Different specifications of the cost function yield structures comprising a single association or a multiplicity of small associations.

**PD** January 1992. **TI** Nondictatorial Social Welfare Functions With Different Discrimination Structures. **AA** Brown University and University of Pennsylvania. **SR** Brown University Department of Economics Working Paper: 92-3; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 13. **PR** no charge. **JE** D71. **KW** Arrow's Theorem. Restricted Domain. Imperfect Discrimination.

**AB** In societies where agents distinguish imperfectly among the alternatives, a necessary and sufficient conditions for the existence of an Arrowian Social Welfare Function is the presence of an agent who only distinguishes two groups of alternatives or of two agents with complementary discrimination patterns. This results is based on the observation that differences in discrimination structures may lead to the absence of free triples, thus providing a way to escape Arrow's impossibility result.

### **Bloom, David E.**

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

**PD** July 1991. **TI** Economic Perspectives on Language: The Relative Value of Bilingualism in Canada and United States. **AU** Bloom, David E.; Grenier, Gilles. **AA** Bloom: Columbia University. Grenier: University of Ottawa. **SR** Columbia University Department of Economics Discussion Paper: 562; Department of Economics, Columbia University, New York, New York 10027. **PG** 13. **PR** \$5.00. **JE** A14, A12, Z10. **KW** Language. Communication. Pecuniary Considerations.

**AB** We begin this article by reviewing the conceptual branch of the literature, then proceed to its empirical applications, with particular attention to the relative value of language skills in Canada and the United States, and conclude with some implications for language policy in both countries.

**TI** Changes in Earnings Differentials in the 1980's: Concordance, Convergence, Causes, and Consequences. **AU** Blackburn, McKinley L.; Bloom, David E.; Freeman, Richard B.

**PD** January 1992. **TI** The Fall in Private Pension Coverage in the U.S. **AU** Bloom, David E.; Freeman, Richard B. **AA** Bloom: Columbia University and National Bureau of Economic Research. Freeman: Harvard University, National Bureau of Economic Research, and London School of Economics. **SR** Columbia University Department of Economics Discussion Paper: 576; Department of Economics, Columbia University, New York, New York 10027. **PG** 10. **PR** \$5.00. **JE** J33. **KW** Deunionization. Real Earnings. Pensions.

**AB** This study documents the 1980s fall in pension coverage and shows that it was concentrated most heavily on men, especially on the young and less educated. We find evidence that changes in real earnings and deunionization account for a sizeable portion of the fall in pension coverage. By contrast, we



find little evidence that pension coverage fell because of a twist away from pensions in the tradeoff between pensions and other forms of compensation. With the possible exception of changes in the tax deductibility of contributions to individual retirement accounts, we also find little evidence that pension coverage declined because of institutional changes that reduced the attractiveness of pensions to employees or employers.

### Blough, Stephen R.

**PD** March 1992. **TI** Spurious Regressions With AR(1) Correction and Unit Root Pretest. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 279; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 22. **PR** no charge. **JE** C12, C22, C52. **KW** Generalized Least Squares. Specification Tests.

**AB** This paper considers the choice between regression in differences, and regression in levels with AR(1) correction for serially correlated errors, for testing the null of no association among time series processes. When the data have unit roots, the two procedures are shown to be asymptotically equivalent. Finite sample distributions are then investigated using Monte Carlo methods, with particular attention to the value of unit root pretests.

### Blundell, Richard

**PD** October 1991. **TI** Unemployment, Discouraged Workers, and Female Labour Supply. **AU** Blundell, Richard; Ham, John; Meghir, Costas. **AA** Blundell and Meghir: University College London and Institute for Fiscal Studies. Ham: University of Pittsburgh and University of Toronto. **SR** Institute for Fiscal Studies (IFS) Working Paper: W92/4; Institute for Fiscal Studies, 7 Ridgmount St., London WC1E 7AE, ENGLAND. **PG** 40. **PR** 3 pounds. **JE** J22, J64, D91. **KW** Limited Dependent Variables. Search Models. Cross-Section Data.

**AB** We develop and implement a model of female participation, labour supply and employment which incorporates both search unemployment and discouraged workers. We show that in an intertemporal environment with fixed costs, search costs, permanent lay-offs, and infrequent job arrivals, an adaptation of the standard (two-stage budgeting) approach to modeling hours for the employed remains appropriate. Moreover, this model indicates a clear-cut role for business cycle variables in a participation equation that controls for expected market wages. Our empirical results indicate that business cycle variables do indeed play a statistically significant role in such an equation. Our approach also provides a straightforward means of calculating the separate effect of fixed costs and search costs on the participation decision.

### Bohi, Douglas R.

**PD** January 1991. **TI** Utility Investment Behavior and the Emission Trading Market. **AU** Bohi, Douglas R.; Burtraw, Dallas. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-04; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 30. **PR** \$5.00 prepaid (U.S. funds only). **JE** L43, L94, Q25, L51. **KW** Pollution. Tradeable Permits. Utility Regulation.

**AB** The Clean Air Act Amendments of 1990 require electric

utilities to reduce sulfur dioxide emissions and establishes a system of tradeable emission allowances to achieve this objective. This paper develops a model of utility investment decisionmaking that shows how regulatory rules will affect the utility's incentive to choose among different compliance strategies. The results of the model are extended to the overall market for emission allowances to show how the benefits from trading can be affected by regulatory rules. The analysis provides guidance for public utility regulation that will help achieve the social objective of minimizing the cost of pollution control.

### Bonanno, Giacomo

**PD** June 1992. **TI** A Definition of Perfect Bayesian Equilibrium. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 400; Department of Economics, University of California at Davis, Davis, CA 95616-8578. **PG** 17. **PR** \$3.00 U.S. and Canada. \$4.00 International. **JE** C72. **KW** Subgame-Perfect Equilibrium. Sequential Equilibrium.

**AB** Given an extensive game, from an assessment  $(\sigma, \mu)$  (as defined by Kreps and Wilson, 1982) we obtain a belief for each player, defined as a map from the set of all nodes into the set of subsets of the set of terminal nodes. An assessment is defined to be a perfect Bayesian equilibrium if, for each player, the associated belief satisfies three natural consistency properties. The two main results are that the notion of perfect Bayesian equilibrium strictly refines that of subgame-perfect equilibrium and that sequential equilibria are a proper subset of the set of perfect Bayesian equilibria.

### Booth, Alison L.

**PD** October 1991. **TI** The Hazards of Doing a PhD: An Analysis of Competition and Withdrawal Rates of British PhD's in the 1980's. **AU** Booth, Alison L.; Satchell, Stephen E.. **AA** Birbeck College. **SR** Birbeck College Discussion Paper in Economics: 6/91; Department of Economics, University of London, London, W1P 1PA, ENGLAND. **PG** 23. **PR** no charge. **JE** C34, I21, J16. **KW** Higher Education. Hazard Rates. Competing Risks.

**AB** The paper examines British PhD completion and withdrawal rates, in a competing risks framework, using the 1986 National Survey of 1980 Graduates. We argue that our results suggest that there are problems with the use of PhD completion rates as performance indicators for academic departments. The principal results of the analysis are as follows. First, research council funding significantly increases only the male completion rate. Secondly, male and female completion rates are highest where the subject area of research is in the sciences or engineering. Thirdly, ability increases the completion probability for men, but for women increases both the withdrawal and completion probabilities.

### Bordo, Michael D.

**PD** March 1992. **TI** Maximizing Seigniorage Revenue During Temporary Suspensions of Convertibility: A Note. **AU** Bordo, Michael D.; Redish, Angela. **AA** Bordo: Rutgers University and National Bureau of Economic Research. Redish: University of British Columbia. **SR** National Bureau of Economic Research Working Paper: 4024; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 13. **PR** \$5.00. **JE** E42, E52, E65. **KW** Seigniorage.

Inflation, Monetary Growth.

**AB** This note extends the theory of the revenue maximizing rate of monetary growth to the case of a temporary suspension of convertibility. It also suggests a methodology for the interpretation of monetary behavior during historical periods of inconvertibility. First we analyze the case of a government with a monopoly over currency issue. The government maximizes seigniorage revenue by generating an inflation, but the terminal condition of a return to convertibility implies that the price level must drop at the point of suspension of convertibility, so that there is no discontinuity at the date of resumption. We then consider the behavior of a private banking system whose monetary liabilities are temporarily inconvertible. The model is then used to interpret monetary behavior during the suspension of convertibility by U.S. banks in 1837/8.

**PD** March 1992. **TI** The Bretton Woods International Monetary System: An Historical Overview. **AA** Rutgers University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4033; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$5.00. **JE** N20, F33. **KW** Bretton Woods. International Monetary Regimes.

**AB** This paper presents an overview of the Bretton Woods experience. From an historical perspective, I analyze its performance relative to other international monetary regimes, its origins, its operation, its problems and its demise. In the survey I emphasize both issues deemed important at the time and raise questions which may be of interest for the concerns of the present.

### Borjas, George J.

**PD** February 1992. **TI** Self-Selection and Internal Migration in the United States. **AU** Borjas, George J.; Bronars, Stephen G.; Trejo, Stephen J. **AA** Borjas: University of California, San Diego and National Bureau of Economic Research. Bronars and Trejo: University of California, Santa Barbara. **SR** National Bureau of Economic Research Working Paper: 4002; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$5.00. **JE** J11, J31, J61. **KW** Returns to Skill. Internal Migration Flow.

**AB** Within the conceptual framework of the Roy model, this paper provides an empirical analysis of internal migration flows using data from the National Longitudinal Surveys of Youth. The theoretical approach highlights regional differences in the return to skills: regions that pay higher returns to skills attract more skilled workers than regions that pay lower returns. Our empirical results suggest that interstate differences in the returns to skills are a major determinant of both the size and skill composition of internal migration flows. Persons whose skills are most mismatched with the reward structure offered by their current state of residence are the persons most likely to leave that state, and these persons tend to relocate in states which offer higher rewards for their particular skills.

**PD** March 1992. **TI** National Origin and Immigrant Welfare Reciprocity. **AU** Borjas, George J.; Trejo, Stephen J. **AA** Borjas: University of California, San Diego and National Bureau of Economic Research. Trejo: University of California, Santa Barbara. **SR** National Bureau of Economic Research Working Paper: 4029; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20.

**PR** \$5.00. **JE** I38, F22. **KW** Immigrant Welfare Use. Immigration.

**AB** This paper explores national origin differences in the welfare reciprocity of immigrants to the United States. We develop an economic model of immigration which generates implications about how welfare utilization should vary according to characteristics of the country of origin. The empirical analysis reveals that a few source country characteristics explain over two-thirds of the variance of welfare reciprocity rates across national origin groups, and changes in the average source country characteristics of the foreign-born population between 1970 and 1980 can account for most of the rise in immigrant welfare use that occurred over the decade.

### Bresson, G.

**PD** October 1991. **TI** Labor Demand for Heterogeneous Workers with Non Linear Asymmetric Adjustment Costs. **AU** Bresson, G.; Kramarz, F.; Sevestre, P. **AA** Bresson: ERUDITE-Universite de Paris XII and Universite des Antilles-Guyane. Kramarz: INSEE. Sevestre: ERUDITE-Universite de Paris XII. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9124; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 35. **PR** no charge. **JE** C33, J23. **KW** Labor Demand. Panel Data.

**AB** We estimate a model of labor demand for three skill-levels with nonlinear asymmetric adjustment costs on a micro data set of French firms. Results where costs depend on absolute changes in employment are compared to those where costs vary according to relative changes.

### Brewer, Anthony

**PD** March 1992. **TI** Is There a Future for Marxist Economics? **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/319; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 9. **PR** no charge. **JE** B14, B24, P30. **KW** Market Economics. Economic Thought.

**AB** Marxist economics is quite unlike any other current brand of economics, because of its attachment to the ideas of a particular, long dead, writer. This poses special problems for those who call themselves Marxist economists, when it comes to dealing with new ideas. Any body of ideas must be able to adapt to criticism and to new challenges, if it is to remain alive, but any change in the corpus of Marxist economics threatens the umbilical link to Marx's work. I will first discuss Marx's own economics, on the grounds that there can hardly be a 'Marxist' economics that is not rooted in Marx's own writings. I will then argue that the well known difficulties with Marx's theories, in particular with the labor theory of value, are too fundamental to be patched up or ignored.

### Bronars, Stephen G.

**TI** Self-Selection and Internal Migration in the United States. **AU** Borjas, George J.; Bronars, Stephen G.; Trejo, Stephen J.

### Broome, John

**PD** July 1991. **TI** Economic Analysis and the Structure of Good. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 91/302; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 15. **PR** no charge. **JE** A13, D11.

**KW** Ethics. Preferences. Utility Theory.

**AB** This is a lecture given at a workshop on Ethics and Economics at Siena in July 1991. It describes one way in which I think the methods of economics can contribute to our understanding of ethics. Specifically, utility theory can contribute to analyzing the structure of good. The lecture explains why, before it can be much use in ethics, utility theory has to be removed from its home territory where it represents the structure of preferences, and reinterpreted to represent the structure of good.

**PD** December 1991. **TI** Causes of Preference are not Objects of Preference. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/314.; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 15. **PR** no charge. **JE** D11, D10. **KW** Welfare Economics. Extended Preferences. Endogenous Preferences.

**AB** Welfare economists sometimes treat causes of preference as objects of preference. This paper explains that this is an error. It explains that causes of preference and objects of preference behave differently when utility functions are transformed. It examines two examples, one from the theory of extended preferences and the other from the theory of endogenous preferences.

**PD** February 1992. **TI** The Value of Living. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/322; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 10. **PR** no charge. **JE** A13, F01, J17. **KW** Population Growth. Value of Life.

**AB** This paper is an introduction to the problem of the value of living. It brings together the traditional problem of the value of life - the value of extending the lives of existing people - and the traditional problem of the value of population growth - the value of creating new lives. It discusses a few partial solutions that have been offered to the problem, and explains why they are unsuccessful.

**PD** March 1992. **TI** The Mutual Determination of Wants and Benefits. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/320; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 4. **PR** no charge. **JE** D11. **KW** Decision Theory. Utility.

**AB** This paper is a response to "The utility of pleasure is a pain for decision theory", by Anna Kusser and Wolfgang Spohn, *Journal of Philosophy*, 89 (1992) 10-29. Kusser and Spohn point out that there is often a mutual determination between how much a person wants something and how much benefit she will derive from that thing. They claim this causes decision theory to fail. My own paper argues that it does no damage to decision theory.

### Bryson, John

**PD** November 1991. **TI** Entrepreneurship and Flexibility in Business Services: The Rise of Small Management Consultancy and Market Research Firms in the U.K. **AU** Bryson, John; Keeble, David; Wood, Peter. **AA** Bryson and Keeble: Cambridge University. Wood: University College. **SR** University of Cambridge Small Business Research Centre Working Paper: 13; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 21. **PR** \$10.00 (£5.00),

checks payable to University of Cambridge. **JE** G34, G38. **KW** Entrepreneurship. Business Services. Small Firms.

**AB** This paper argues that increasing business environment complexity, competition, internationalization and technological change have all contributed to the rapid recent growth in demand for consultancy and research services. These changes have created numerous market niches for professionals and specialized small firms to exploit. Specialization is shown to be the key to employment growth, while small firm flexibility is further enhanced by widespread use of associate consultants and networking agreements with other small firms. Client organizations are primarily large "blue-chip" companies, in manufacturing, finance and business services. Small business service firms in these sectors also engage to a significant degree in interregional - and even international - trade, suggesting that their growth is also very important for regional and national economic performance.

**TI** Regional Patterns of Small Firm Development in the Business Services: Preliminary Evidence from the UK. **AU** Wood, Peter; Bryson, John; Keeble, David.

### Bufman, Gil

**PD** March 1992. **TI** Currency Substitution under Non-Expected Utility - Some Empirical Evidence. **AU** Bufman, Gil; Leiderman, Leonardo. **AA** Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 6/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 16. **PR** no charge. **JE** E21, E41, E47. **KW** Liquidity. Intertemporal Substitution. Risk Aversion.

**AB** This paper derives and tests the restrictions implied by an optimizing model of currency substitution under nonexpected utility using quarterly data for Israel from 1978 to 1988. We find that the elasticity of intertemporal substitution is less than one, the elasticity of currency substitution is greater than one, relative risk aversion is about seven, and the elasticity of currency substitution is greater than the intratemporal elasticity of substitution between consumption and liquidity services. In most cases the evidence supports the hypothesis of nonexpected utility as well as the inclusion of liquidity services in the representative agent's objective function. The methodology of this paper can be applied to other interesting cases of currency substitution.

**PD** April 1992. **TI** Simulating an Optimizing Model of Currency Substitution. **AU** Bufman, Gil; Leiderman, Leonardo. **AA** Bufman: Tel Aviv University and Bank Hapoalim. Leiderman: Tel Aviv University and World Bank. **SR** Tel Aviv Sackler Institute of Economic Studies: 6/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 17. **PR** no charge. **JE** E21, E41, E47. **KW** Intertemporal Substitution. Nonexpected Utility. Seigniorage.

**AB** This paper reports simulations based on the parameter estimates of an intertemporal model of currency substitution under nonexpected utility obtained by Bufman and Leiderman (1981). Here we first study the quantitative impact of changes in the degree of dollarization and in the elasticity of currency substitution on government seigniorage. Then, we examine whether the model can account for the comovement of consumption growth and assets' returns after the 1985 stabilization program, and in particular for the consumption boom of 1986-88. The results are generally encouraging for



future applications of optimizing models of currency substitution to policy and practical issues.

#### **Buiter, Willem H.**

**PD** March 1992. **TI** Should We Worry About the Fiscal Numerology of Maastricht? **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 654; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 29. **PR** \$2.00 + postage. **JE** F02, F33. **KW** EMU. Public Debt and Deficits. Coordination.

**AB** The paper reviews and evaluates in a non-technical manner the economic and political arguments for and against the two fiscal convergence criteria written into the Treaty of Maastricht and its Protocols. In order to qualify for full membership in Economic and Monetary Union (EMU) net general government borrowing may not exceed three percent of GDP and general government gross debt may not exceed sixty percent of GDP. The paper concludes that the adoption of the two universal fiscal reference values is arbitrary, that is without theoretical or practical foundation. It reflects the triumph of central bank (especially Bundesbank) fiscal-political dogma over economic reasoning and common sense.

**PD** April 1992. **TI** Government Solvency, Ponzi Finance and the Redundancy and Usefulness of Public Debt. **AU** Buiter, Willem H.; Kletzer, Kenneth M. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 659; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 44. **PR** \$2.00 + postage. **JE** H60, E62. **KW** Public Debt. Government Solvency. Capacity to Tax.

**AB** We investigate how the ability of the government to depart from budget balance and issue debt expands the set of equilibria that can be supported using lump-sum tax-transfer instruments. We show how this depends on the restrictions on the capacity to tax and make transfer payments, and what this implies for the government's ability to issue debt. Central to our The paper establishes a number of results that demonstrate how the ability to issue debt allows restricted tax-transfer schemes to support all equilibria attainable using unrestricted taxes and transfers.

#### **Burda, Michael**

**PD** July 1991. **TI** Some New Insights on the Interindustry Wage Structure from the German Socioeconomic Panel. **AA** INSEAD. **SR** INSEAD Working Paper: 91/63/EP; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 19. **PR** not available. **JE** J31, O52. **KW** Job Characteristics. Work Conditions. Wage Differentials.

**AB** This paper investigates the interindustry wage structure in the 1985 wave of the German Socioeconomic Panel. In addition to the usual controls, this survey contains detailed information on job characteristics and work conditions. Interaction of industry affiliation is significant with several individual attributes, especially job tenure; homogeneity of earnings equations across these attributes is decisively rejected. The industry wage structure is insignificant for workers with low job tenure. These results are consistent with the interpretation of interindustry wage differentials as shared rents from industry or firm-specific human capital.

**PD** September 1991. **TI** Human Capital, Investment and

Migration in an Integrated Europe. **AU** Burda, Michael; Wyplosz, Charles. **AA** Burda: INSEAD and CEPR. Wyplosz: DELTA, INSEAD, and CEPR. **SR** INSEAD Working Paper : 91/52/EP; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 9. **PR** not available. **JE** F22, F15, F42. **KW** Aggregate Supply. Human Capital. Migration.

**AB** The short and longer term regional consequences of migration for European aggregate supply are examined in a simple model in which human capital enters the production function externally. The planner chooses a reallocation of population across East and West that cannot be replicated by the market without taxes or subsidies. The market solution in this model with free migration is always associated with an efficiency loss, and might lead to the "Mezzogiomo syndrome" in the East.

#### **Burgess, James F., Jr**

**TI** Regulation, Quality Competition, and Price in the Hospital Industry. **AU** Ma, Ching-to Albert; Burgess, James F., Jr.

**TI** Quality Competition, Welfare, and Regulation. **AU** Ma, Ching-to Albert; Burgess, James F., Jr.

#### **Burgess, Simon**

**TI** A Model of Job Matching and Job Competition. **AU** Attfield, C. L. F.; Burgess, Simon.

#### **Burtraw, Dallas**

**TI** Utility Investment Behavior and the Emission Trading Market. **AU** Bohi, Douglas R.; Burtraw, Dallas.

**PD** April 1991. **TI** Equity and International Agreements for CO2 Containment. **AU** Burtraw, Dallas; Toman, Michael A. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-07; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 27. **PR** \$5.00 prepaid (U.S. funds only). **JE** D74, C78, D63, Q25. **KW** Climate Change. International Agreement. Equity.

**AB** It is almost axiomatic that an effective international agreement to limit CO2 (or other greenhouse gas emissions) will not be undertaken unless the agreement is seen by participants as fair. In this paper our aim is to elucidate some basic concepts regarding equity and burden-sharing in CO2 limitation agreements. We first examine the consequences of different a priori sharing rules which have some claim to credibility as "focal points" for greenhouse gas negotiations. We find the case for a focal point solution to be limited because plausible alternatives for focal points lead to widely divergent cost allocations. We offer a synthesis of focal point equity theory and strategic bargaining theory in a "principal-agent" framework for international negotiations. We also examine the question of linking CO2 agreement to other international policy issues.

#### **Buschena, David E.**

**PD** April 1992. **TI** Risk Attitudes Over Wealth Under Discrete Status Levels. **AU** Buschena, David E.; Zilberman, David. **AA** University of California, Berkeley. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working

Paper: 622; Department of Agricultural and Resource Economics, 207 Giannini Hall, UC Berkeley, Berkeley, CA 94720. **PG** 16. **PR** \$5.00. **JE** D81. **KW** Wealth. Risk. Multivariate Analysis.

**AB** This paper gives a rigorous development of Friedman and Savage's explanation for individuals' simultaneous gambling and insurance purchases. Preferences for risky wealth distributions are considered in light of a stochastic and discrete factor, where the probability of this discrete factor depends on the wealth level.

### **Caballero, Ricardo J.**

**PD** October 1991. **TI** The Cleansing Effect of Recessions. **AU** Caballero, Ricardo J.; Hammour, Mohamad L. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 572; Department of Economics, Columbia University, New York, New York 10027. **PG** 19. **PR** \$5.00. **JE** E32, E37, E22. **KW** Creative Destruction. Demand Fluctuations. Adjustment Costs.

**AB** This paper investigates the response of industries to cyclical variations in demand in the context of a vintage model of "creative destruction." Due to process and product innovation, production units that embody the newest techniques are continuously being created, and outdated units are being destroyed. We investigate the extent to which changes in demand are accommodated on the creation or destruction margins. Although outdated production units are the most likely to turn unprofitable and be scrapped in a recession, they can be "insulated" from the fall in demand if it is accompanied by a reduction in the creation rate. The model's implications are broadly consistent with observed variations in manufacturing gross job flows.

**PD** March 1992. **TI** Near-Rationality, Heterogeneity, and Aggregate Consumption. **AA** National Bureau of Economic Research and Columbia University. **SR** National Bureau of Economic Research Working Paper: 4035; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** \$5.00. **JE** E20, E21. **KW** Excess Smoothness. Excess Sensitivity.

**AB** The simple permanent income model provides a good description of the medium-long run behavior of aggregate non-durables consumption, while it fails in describing its short run behavior. In this paper I present a non-representative agent model with near-rational microeconomic units that simultaneously explains the observed excess smoothness of consumption to wealth innovations, the excess sensitivity of consumption to lagged income changes, as well as small conditional asymmetries found in the data. In spite of the presence of large non-diversifiable idiosyncratic uncertainty, the estimated dollar equivalent utility cost of the microeconomic near-rational strategy required to explain the aggregate facts is only 0.26( $\gamma$ ) percent of consumption per year, where  $\gamma$  is the coefficient of relative risk aversion.

### **Cabral, Luis M. B.**

**PD** August 1991. **TI** Learning to Compete and Vice Versa. **AU** Cabral, Luis M. B.; Riordan, Michael H. **AA** Cabral: Universidade Nova de Lisboa. Riordan: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 17; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 38. **PR** no

charge. **JE** D43, L13. **KW** Learning Curve. Predatory Pricing. Dynamic Oligopoly.

**AB** The strategic implications of the learning curve hypothesis are analyzed in the context of a price-setting, differentiated duopoly selling to a sequence of heterogeneous buyers with uncertain demands. A unique Symmetric Markov Perfect Equilibrium is characterized, and sufficient conditions are provided for market dominance to be increasingly self-reinforcing. Learning economies have potential social benefits, but industry profits would be higher if no learning were possible. Furthermore, equilibrium learning by a leader is too slow from society's standpoint. Finally, introducing avoidable fixed costs and possible exit into the model yields a new theory of predatory pricing based on the learning curve hypothesis.

### **Cagan, Phillip**

**PD** November 1991. **TI** Does Endogeneity of the Money Supply Disprove Monetary Effects on Economic Activity?. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 569; Department of Economics, Columbia University, New York, New York 10027. **PG** 7. **PR** \$5.00. **JE** E51, E52, E50. **KW** Aggregate Output. Causality.

**AB** An effect of monetary growth on economic activity has long been inferred from their comovements over the business cycle. Yet the endogenous response of money to business fluctuations has raised doubts about monetary effects. Insofar as the correlation between money and business activity can be attributed to endogenous responses of the money supply, the existence of monetary effects on activity can be questioned. The historical analysis of Friedman and Schwartz supported a two-way influence, but the only formal statistical tests have been based on the Granger-Sims methodology, which has given mixed results. Despite the weight of evidence supporting a two-way influence and because of the lack of unequivocal statistical tests, a renewed interest has developed in the endogeneity of the money supply and the possible lack of a monetary influence in the business cycle.

### **Cahuc, P.**

**PD** June 1991. **TI** Exit, Voice and the Dual Labor Market. **AU** Cahuc, P.; Kramarz, F. **AA** Cahuc: Universite des Antilles. Kramarz: INSEE. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9110; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 41. **PR** no charge. **JE** J31, J53, J41. **KW** Loyalty. Contracts. Unions. Turnover.

**AB** In this article, we give foundations to labor market duality within a firm in a strategic framework taking into account the two faces of unions (voice and monopoly power). The main determinants of duality are the turnover cost, the employees' search costs and the set of outside opportunities. We compare the case of one union versus two when both categories of workers choose the voice contract proposed by the firm. We prove that an encompassing union is preferred by both sides if and only if the different types of labor are gross complements. Moreover, complementarity between workers increases the probability that the firm proposes exit contracts.

### **Calem, Paul S.**

**PD** February 1992. **TI** The Delaware Valley Mortgage Plan: An Analysis Using HMDA Data. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of

Philadelphia Research Working Paper: 92-3; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 23. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** G21. **KW** Mortgage Activity. Lending.

**AB** The Delaware Valley Mortgage Plan (DVMP) is a lending program undertaken by Philadelphia's largest banks with the goal of widening the availability of mortgages to low- and moderate-income households. The present study evaluated the impact of the DVMP institutions to the aggregate of all other HMDA reporters with respect to mortgage activity in Philadelphia's low- and moderate-income neighborhoods. The study finds that the DVMP group is considerably more active than the non-DVMP group in census tracts where overall mortgage activity is low. Moreover, neighborhood economic and demographic variables that influence the aggregate mortgage activity of the non-DVMP group have little relationship to the mortgage activity of DVMP institutions.

**PD** March 1992. **TI** The Location and Quality Effects of Mergers. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 92-5; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 21. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C71, D42, D43. **KW** Monopoly. Duopoly. Hotelling Model. Quality Competition.

**AB** We develop a variant of the well-known Hotelling location model and apply it to analyze the effect of mergers in markets characterized by nonprice competition. Firms in the model make strategic location and quality decisions, with prices exogenous and identical across firms. To analyze the impact of a merger, we compare duopoly equilibrium to two-plant monopoly. We find that, although competition between firms raises product quality, a merger of competitors may yield a net social benefit. Monopoly locations minimize total transport costs, whereas duopoly locations generally do not. For some parameter values, the locational efficiency of monopoly more than compensates for lower quality. Alternatively, under duopoly, quality competition can be excessive, with costs to firms exceeding benefits to consumers. Moreover, competition may prove ruinous, in that only a monopolist can serve the market profitably.

### Cameron, Trudy Ann

**PD** March 1992. **TI** Estimation Using Contingent Valuation Data From a "Dichotomous Choice with Follow-Up" Questionnaire. **AU** Cameron, Trudy Ann; Quiggin, John. **AA** Cameron: University of California, Los Angeles. Quiggin: Australian National University. **SR** University of California at Los Angeles Department of Economics Working Paper: 653; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 24. **PR** \$2.50; checks payable to U.C. Regents. **JE** Q26, C81. **KW** Contingent Valuation. Non-Market Resource Values.

**AB** Dichotomous choice contingent valuation questions have gained popularity over the last several years due to their purported advantages for avoiding many of the biases known to be inherent in other value elicitation formats. However, this

type of valuation question is highly inefficient in that a vastly larger number of observations is required to identify the distribution of values with any degree of accuracy. An alternative questioning strategy introduces a second value threshold which elicits a second discrete response. The size of the second offer depends on the answer to the first question. In analyzing data from this type of questionnaire, it is imperative to acknowledge the endogeneity of the second offered amount. This paper demonstrates when this endogeneity is ignored or when inappropriate restrictions are placed upon the stochastic structure of the model.

### Campbell, John Y.

**PD** February 1992. **TI** Intertemporal Asset Pricing without Consumption Data. **AA** Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3989; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 5. **PR** \$5.00. **JE** G12, D81. **KW** Risk Premium. Asset Pricing Theory. Asset Market. **AB** This paper proposes a new way to generalize the insights of static asset pricing theory to a multi-period setting. The paper uses a loglinear approximation to the budget constraint to substitute out consumption from a standard intertemporal asset pricing model. In a homoskedastic lognormal setting, the consumption-wealth ratio is shown to depend on the elasticity of intertemporal substitution in consumption, while asset risk premia are determined by the coefficient of relative risk aversion. Risk premia are related to the covariances of asset returns with the market return and with news about the discounted value of all future market returns.

### Card, David

**PD** March 1992. **TI** Unemployment Insurance Taxes and the Cyclical and Seasonal Properties of Unemployment. **AU** Card, David; Levine, Phillip B. **AA** Card: Princeton University and National Bureau of Economic Research. Levine: Wellesley College. **SR** National Bureau of Economic Research Working Paper: 4030; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$5.00. **JE** J65, J64. **KW** Temporary Layoffs. Unemployment Insurance.

**AB** We combine Current Population Survey microdata for 1979-1987 with a newly assembled database of tax rates for the Unemployment Insurance system to measure the effects of imperfect experience-rating on temporary layoffs and other types of unemployment. We find a strong negative association between the degree of experience-rating and the rate of temporary layoff unemployment, with the largest effect in recessionary years and the smallest effect in expansionary years. Increases in the degree of experience-rating are also associated with dampened seasonal fluctuations in temporary layoffs, particularly in construction and durable manufacturing.

**PD** April 1992. **TI** Using Regional Variation in Wages to Measure the Effects of the Federal Minimum Wage. **AA** Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4058; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** \$5.00. **JE** J38, I20, J31. **KW** Minimum Wage. Teenage Wages. Teenage Employment.

**AB** The imposition of a national wage standard sets up a useful natural experiment in which the "treatment effect" varies



across states depending on the fraction of workers earning less than the new minimum. I use this idea to evaluate the effect of the April 1990 increase in the Federal minimum wage on teenage wages, employment, and school enrollment. Interstate variation in teenage wages was high at the end of the 1980s, in part because 16 states had enacted state-specific minimums above the prevailing Federal rate. Comparisons of grouped and individual state data confirm that the rise in the minimum wage significantly increased teenage wages. There is no evidence of corresponding losses in teenage employment, or changes in teenage school enrollment.

### Cardoso, Eliana

**PD** March 1992. **TI** Inflation and Poverty. **AA** Tufts University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4006; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** \$5.00. **JE** E31, I32. **KW** Inflation Tax. Real Wages. Latin America.

**AB** This paper discusses the regressive nature of the inflation tax and the limited extent of its impact on those individuals below the poverty line. It also argues that inflation affects poverty mainly through its impact on real wages: the empirical evidence shows that wages increase more slowly than prices during episodes of rising inflation in Latin America. Finally the paper discusses whether some stabilization programs are less costly in terms of increased poverty than others. Both orthodox programs and attempts to reduce inflation by the implementation of incomes policy have not helped the poor in Latin America.

### Carroll, Christopher D.

**PD** March 1992. **TI** The Nature and Magnitude of Precautionary Wealth. **AU** Carroll, Christopher D.; Samwick, Andrew A. **AA** Carroll: Board of Governors of the Federal Reserve System. Samwick: Massachusetts Institute of Technology. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 124; Board of Governors of the Federal Reserve System. Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 29. **PR** no charge. **JE** D91, D12, E21, E24. **KW** Life-Cycle Model. Permanent Income Hypothesis. Income Uncertainty.

**AB** This paper uses the Panel Study of Income Dynamics to provide some of the first direct evidence that wealth is systematically higher for consumers with greater income uncertainty. However, the apparent pattern of precautionary saving is not consistent with a simple, unconstrained life-cycle optimization problem with patient consumers: wealth does not seem to be sufficiently sensitive to uncertainty in permanent income. Instead, the results are more consistent with the "buffer stock" models of saving described in Carroll (1991) or Deaton (1991), in which consumers hold wealth to buffer consumption against near term fluctuations in income but are far less responsive to uncertainty in lifetime (or permanent) income than in the standard model.

### Case, Anne

**TI** Incumbent Behavior: Vote Seeking, Tax Setting and Yardstick Competition. **AU** Besley, Timothy; Case, Anne.

### Cass, David

**PD** November 1991. **TI** Individual Risk and Mutual Insurance: A Reformulation. **AU** Cass, David; Chichilnisky, Graciela; Wu, Ho-Mou. **AA** Cass: University of Pennsylvania. Chichilnisky: Columbia University. Wu: Stanford University and Tulane University. **SR** Columbia University Department of Economics Discussion Paper: 580; Department of Economics, Columbia University, New York, New York 10027. **PG** 15. **PR** \$5.00. **JE** D81, D52, G22. **KW** Insurance Contracts. Arrow Securities. Collective Risk.

**AB** We presume that the reader is familiar with the justly well-known studies of individual risk by Malinvaud (1972, 1973). Our reformulation improves on Malinvaud's approximation in two important respects: First, market uncertainty is specified in such a way that both individual risk and collective risk are properly accounted for. Second, pooling of individual risk is accomplished by means of mutual insurance policies, while spreading of collective risk is accomplished by means of pure Arrow securities. But the bottom line is essentially intact: When there is (anonymous) individual risk common to like groups of individuals, pooling that risk by means of (mutual) insurance permits substantial economizing on market transactions - compared to those required if dealing instead with the full complement of pure Arrow securities.

### Cecchetti, Stephen G.

**PD** April 1992. **TI** Sources of Output Fluctuations During the Interwar Period: Further Evidence on the Causes of the Great Depression. **AU** Cecchetti, Stephen G.; Karras, Georgios. **AA** Cecchetti: Ohio State University and National Bureau of Economic Research. Karras: University of Illinois at Chicago. **SR** National Bureau of Economic Research Working Paper: 4049; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$5.00. **JE** E32, N10, E23. **KW** Aggregate Demand Shocks. Aggregate Supply Shocks. Output Fluctuation.

**AB** This paper decomposes output fluctuations during the 1913 to 1940 period into components resulting from aggregate supply and aggregate demand shocks. We estimate a number of different models, all of which yield qualitatively similar results. Our findings support the following three conclusions: (i) there was a large negative aggregate demand shock in November 1929, immediately after the stock market crash; (ii) aggregate demand shocks are mainly responsible for the decline in output through mid to late 1931; (iii) beginning in mid 1931 there is an aggregate supply collapse that coincides with the onset on severe bank panics.

### Chang, Pamela H.

**PD** May 1992. **TI** Finite Sample Bias of Generalized Method of Moments Estimation. **AU** Chang, Pamela H.; Judd, Kenneth L. **AA** Chang: University of Southampton. Judd: Stanford University. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9213; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 29. **PR** no charge. **JE** C13. **KW** Minimum Weighted Residual. Method of Moments.

**AB** This paper examines the finite sample bias of generalized method of moments (GMM) estimation by applying numerical procedures to solve for the decision rule for consumption in a

discrete time stochastic exogenous growth model. We assume a CRRA utility function and estimate the discount factor and the constant relative risk aversion parameter. In the model in which consumption is endogenously determined, we find that there is no finite sample bias in our estimate of the discount factor but estimates of the constant relative risk aversion parameter are severely biased. The magnitude of this bias is directly related to the degree of risk aversion. Furthermore, as the lag length imposed on the instrument set increases, the bias rises while the standard error falls.

### Chesher, Andrew

**PD** March 1992. **TI** Discrete Choice Models Without the IIA Property. **AU** Chesher, Andrew; Santos Silva, Joao. **AA** Chesher: University of Bristol. Santos: University of Bristol and Universidade Tecnica de Lisboa. **SR** University of Bristol Discussion Paper: 92/318; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 34. **PR** no charge. **JE** D11, D81, C35. **KW** Independence Axiom. Logit Model.

**AB** The Independence from Irrelevant Alternatives (IIA) property is plausible when applied to nonstochastic choices made by individual agents but it causes problems and is not obviously desirable when applied to choice probabilities. A model is developed in which, conditioned on a sufficiently large set of characteristics, the IIA property applies to choice probabilities, but only a subset of characteristics are observable when estimation is performed. An approximation to this model is obtained which is independent of the form of the distribution of the unobserved characteristics. The resulting approximation is a restricted and nonlinear version of the universal logit model which has as a special case the conventional multinomial logit model.

### Chew, Soo Hong

**PD** March 1992. **TI** Choquet Expected Utility with Finite State Space: Community and Act-Independence. **AU** Chew, Soo Hong; Kami, Edi. **AA** Chew: University of California at Irvine. Kami: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 280; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 13. **PR** no charge. **JE** D81, D11. **KW** Expected Utility Theory. Commutativity.

**AB** This paper establishes the equivalence between act-independence and commutativity under mild conditions. As a result, using a theorem of Nakamura, we obtain an axiomatization of subjective expected utility and Choquet expected utility with finite state spaces based on act-independence and comonotonic act-independence.

### Chichilnisky, Graciela

**PD** August 1991. **TI** Global Environment and North - South Trade. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 557; Department of Economics, Columbia University, New York, New York 10027. **PG** 19. **PR** \$5.00. **JE** F10, O12, O13. **KW** International Trade. Environmental Resources. Developing Countries.

**AB** Why has the global environment emerged as a North - South issue? Why do developing countries specialize in the production and the export of goods which tend to deplete environmental resources such as rainforests? What is the role of international trade in global environmental issues? The aim of

this paper is to propose answers to these questions. It will do so by studying patterns of North - South trade where the North has better - defined property rights for environmental common property resources than does the South. This difference in property rights will be shown to lead to market induced "comparative abundance" of environmental inputs in the South, in the sense that at each market price, the South supplies more environmental resources as inputs of production than does the North.

**PD** August 1991. **TI** Topology and Economics: The Contribution of Stephen Smale. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 558; Department of Economics, Columbia University, New York, New York 10027. **PG** 19. **PR** \$5.00. **JE** D50, C70, D70, D71, D74. **KW** General Equilibrium Theory. Game Theory. Social Choice Theory. Conflict Resolution.

**AB** This paper aims to show that topology is intrinsically necessary for the understanding of the fundamental problem of conflict resolution in economics in its various forms, and to situate Smale's contribution within this perspective. The study of conflicts of interests between individuals is what makes economics interesting and mathematically complex. Indeed, we now know that the space of all individual preferences, which define the individual optimization problems, is topologically non-trivial, and that its topological complexity is responsible for the impossibility of treating several individual preferences as if they were one, i.e. aggregating them Chichilnisky [1980], Chichilnisky and Heal [1983]. Since it is not possible in general to define a single optimization problem, other solutions are sought. This paper will develop three solutions.

**PD** September 1991. **TI** Intersecting Families of Sets: A Topological Characterization. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 573; Department of Economics, Columbia University, New York, New York 10027. **PG** 6. **PR** \$5.00. **JE** C60, D50. **KW** Set Theory. Existence Theorems.

**AB** This paper gives topological conditions which are necessary and sufficient for the non-empty intersection of families of sets. We consider families consisting of convex and acyclic sets, and also certain families of sets which are neither convex nor acyclic or connected, all of arbitrary finite cardinality. The results have a variety of applications: the existence of solutions in linear economic models (Gale [1960]), the existence of blocking coalitions for the provision of public goods (Guesnerie and Oudiz [1979]), the existence of an equilibrium of financial markets (Chichilnisky [1990-1]), and the equivalence between social aggregation and market equilibrium (Chichilnisky [1980], [1983], [1991]).

**TI** Individual Risk and Mutual Insurance: A Reformulation. **AU** Cass, David; Chichilnisky, Graciela; Wu, Ho-Mou.

**PD** December 1991. **TI** Markets, Arbitrage, and Social Choices. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 586; Department of Economics, Columbia University, New York, New York 10027. **PG** 17. **PR** \$5.00. **JE** D50, D51, D60, D63, D71. **KW** Competitive Equilibrium. General Equilibrium. Topology.

**AB** The existence of a competitive equilibrium is shown to be equivalent to the existence of a social choice rule which is continuous, anonymous, and respects unanimity. The results apply to standard Arrow - Debreu economies, and also to

economies having as consumption sets the whole euclidean space. Theorem 1 proves that limited - arbitrage conditions on the preferences of some individuals in the economy related to those in Chichilnisky and Heal (1984, 1991), are necessary and sufficient for the existence of a competitive equilibrium, and are also necessary and sufficient for a resolution of a version of Arrow's social choice paradox on preferences compatible with the economy (Chichilnisky (1980, 1982), Chichilnisky and Heal (1983)).

**PD** December 1991. **TI** Arbitrage and Equilibrium in Economies with Infinitely Many Securities and Commodities. **AU** Chichilnisky, Graciela; Heal, Geoffrey M. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 590; Department of Economics, Columbia University, New York, New York 10027. **PG** 13. **PR** \$5.00. **JE** D50, D52, G13. **KW** Competitive Equilibrium. Limited Arbitrage.

**AB** The aim of this paper is to define conditions on the primitive parameters of the economy, namely individual preferences and endowments, which are necessary and sufficient for the existence of a competitive equilibrium in economies with infinitely many securities and commodities. We call our conditions limited arbitrage (LA) because they limit the utility which can be derived from zero - cost allocations. We say that an economy satisfies limited arbitrage if there is a price at which nobody can derive unbounded utility from zero cost allocations. Arbitrage - based pricing theories always invoke a non-satiation assumption, so that arbitrage in fact amounts to an opportunity to generate endless increasing utility levels with no risk and no cost. Our concept of limited arbitrage captures this sense.

**PD** not available. **TI** Options & Price Uncertainty. **AU** Chichilnisky, Graciela; Dutta, Jayashri; Heal, Geoffrey M. **AA** Chichilnisky: Columbia University. Dutta: Cambridge University. Heal: Columbia Business School. **SR** Columbia University Department of Economics Discussion Paper: 574; Department of Economics, Columbia University, New York, New York 10027. **PG** 22. **PR** \$5.00. **JE** D80, G10, G13, G22. **KW** Endogenous Uncertainty. Index Options. Contingent Commodities.

**AB** We consider an exchange economy with multiple equilibria and no uncertainty. Uncertainty is introduced when agents are fully informed of the set of possible competitive equilibria, and told that one of these equilibria will be chosen by a known random process. We then introduce the possibility of trading goods contingent on the equilibrium that is selected. The existence of uncertainty about which competitive equilibrium will be selected lowers agents' welfare. We show that the welfare loss due to endogenous uncertainty is completely removed by the introduction of a finite number of combinations of index options and their derivatives, which determine a unique allocation of resources.

### Chirinko, Robert S.

**PD** July 1991. **TI** Delivery Lags, Adjustment Costs, and Econometric Investment Models. **AU** Chirinko, Robert S.; Schiantarelli, Fabio. **AA** Chirinko: University of Chicago. Schiantarelli: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 13; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 20. **PR** no charge. **JE** D21, D92. **KW** Investment. Ordering Costs.

**AB** This paper explores the impact of a delivery lag technology on the specification of econometric investment equations within an explicit optimizing framework. The formal model contains a general delivery lag distributed over many periods and adjustment costs for both new orders and delivered capital. The impact of these technological constraints on the Euler Equation and Q specifications are examined in a general model. We then consider the special case when the delivery lag follows a geometric pattern. Empirical estimates are presented with the new Euler and Q specifications based on geometric and non-geometric delivery lags, and indicate some gains from incorporating delivery lags into the Euler Equation model.

### Choi, Jay Pil

**PD** October 1991. **TI** Network Externality, Compatibility Choice, and Planned Obsolescence. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 564; Department of Economics, Columbia University, New York, New York 10027. **PG** 24. **PR** \$5.00. **JE** D42, L12, L15. **KW** Technology. Monopoly. Quality Distortion.

**AB** The paper attempts to provide a formal theory of planned obsolescence based on incompatible technologies in the presence of network externalities. We explore how the monopolist's ability to make the new product incompatible with the old version of a product constrains the optimal dynamic behavior of the monopolist. The social optimum and the market equilibrium are compared. Finally, the possibility of quality distortion is explored as a commitment mechanism to the future compatibility choice.

### Christopeit, Norbert

**PD** October 1991. **TI** On Minimax Estimation in Linear Regression Models with Ellipsoidal Constraints. **AU** Christopeit, Norbert; Helmes, Kurt. **AA** Christopeit: University of Bonn. Helmes: University of Kentucky. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-205; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 17. **PR** no charge. **JE** C30. **KW** Linear Regression Model. Linear Estimators.

**AB** We consider the simultaneous linear minimax estimation problem in linear models with ellipsoidal constraints imposed on the unknown parameter. Using convex analysis we derive necessary and sufficient optimality conditions for a matrix to define the best linear minimax estimator. For certain regions of the set of characteristics of the linear models and the constraints we exploit these optimality conditions and get explicit formulae for best linear minimax estimators.

### Christou, Costas

**TI** Consumption Smoothing in the European Community: The Picture Before 1992. **AU** Haliassos, Michael; Christou, Costas.

### Cicchetti, Charles J.

**PD** January 1992. **TI** A Micro-Econometric Analysis of Risk-Aversion and the Decision to Self-Insure. **AU** Cicchetti, Charles J.; Dubin, Jeffrey A. **AA** Cicchetti: Putnam, Hayes, and Bartlett, Inc. Dubin: California Institute of Technology. **SR** Caltech Social Science Working Paper: 784; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125.



**PG** 32. **PR** no charge. **JE** D81, G22. **KW** Expected Utility. Insurance. Risk-Aversion.

**AB** This study estimates a von Neumann-Morgenstern utility function using market data and micro-econometric methods. We investigate the decision whether to purchase insurance against the risk of telephone line trouble in the home. Using the choices of approximately 10,000 residential customers, we determine the shape of the utility function and the degree of risk-aversion. We find that risk-aversion varies systematically in the population and varies with the level of income and that the observed choice behavior is consistent with expected utility maximization. We are unable to detect the presence of ambiguity effects or over-weighting of low-probability events.

#### Clare, A. D.

**PD** April 1992. **TI** International Evidence for the Predictability of Bond and Stock Returns. **AU** Clare, A. D.; Thomas, S. H. **AA** Southampton University. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9206; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 9. **PR** no charge. **JE** G15. **KW** Predictability. Bond Returns. Equity Returns.

**AB** A number of authors have identified a small set of economic variables which can predict excess US stock and bond returns. In this paper we extend these results by estimating models for Germany, Japan, the UK, and the US which include both financial and 'technical' variables, and achieve a much higher degree of explanatory power than in earlier studies. In particular we find - a role for the change in the term structure of interest rates in predicting equity returns; that the 'technical' variables have a role in predicting both bond and equity returns; and that there is strong seasonality in both the bond and stock markets of the UK.

#### Clarida, Richard H.

**PD** June 1991. **TI** Endogenous Comparative Advantage, Government, and the Pattern of Trade. **AU** Clarida, Richard H.; Findlay, Ronald. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 555; Department of Economics, Columbia University, New York, New York 10027. **PG** 34. **PR** \$5.00. **JE** F11, F41, E60. **KW** Government Policy. International Trade. Gains from Trade.

**AB** This paper explores the relationship between government policy and comparative advantage in a neoclassical model of international trade. A specification of the Ricardo-Viner model with public goods and public inputs is presented that is used to study the role that government policy can play in the determination and promotion of comparative advantage and in the maximization of the gains that may be obtained from international trade. The model is also used to study the influence that international trade can exert on the scale and scope of government activity. The paper endeavors to reconcile a positive theory of trade and government with the apparent shift in measured productivity that often follows an opening to trade.

**PD** June 1991. **TI** A Model of Liquidity Overhang for the Soviet Economy. **AU** Clarida, Richard H.; Desai, Padma. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 559; Department of Economics, Columbia University, New York, New York 10027. **PG** 14. **PR** \$5.00. **JE** P21, P24, E51.

**KW** Centrally Planned Economy. Decision Making.

**AB** The purpose of this paper is to model the process by which an overhang of liquidity can arise endogenously in a centrally planned economy. Relevant features of the Soviet economy suggest that policymakers generally manage such an economy with several targeted variables involving prices, wages, and allocation of resources (labor in our model) between capital and consumer goods. The (labor) productivity in the economy, subject to random productivity shocks (for example, a harvest failure) is also relevant to the decisionmaking. The emergence of liquidity overhang in the model implies that the money supply has been allowed to expand by a greater amount than the public wants to accumulate it.

#### Cole, Nancy

**TI** Welfare and Child Health: The Link Between AFDC Participation and Birth Weight. **AU** Currie, Janet; Cole, Nancy.

#### Cools, Kees

**TI** Financial Innovation: Self-Tender Offers in the U.K. **AU** Vermaelen, Theo; Cools, Kees.

#### Cooper, Russell

**PD** August 1990. **TI** Macroeconomic Implications of Production Bunching: Factor Demand Linkages. **AU** Cooper, Russell; Haltiwanger, John. **AA** Cooper: University of Iowa and Boston University. Haltiwanger: University of Maryland. **SR** Boston University Industry Studies Program Discussion Paper Series: 1; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 23. **PR** no charge. **JE** D20, D24, E23. **KW** Non-Convex Technology. Production Bunching.

**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 non-convex technologies. In this paper, we investigate some macroeconomic implications of the proposition that at least some firms in the economy produce with non-convex technologies. Overall, it is quite possible for non-convexities at the firm level to generate a pattern of output and sales such that the variance of output exceeds that of sales at an aggregate level. In this way, non-convexities at the individual firm level may have macroeconomic consequences.

**PD** November 1991. **TI** Bank Runs: Liquidity and Incentives. **AU** Cooper, Russell; Ross, Thomas W. **AA** Cooper: Boston University. Ross: Carleton University. **SR** Boston University Industry Studies Program Discussion Paper Series: 22; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 27. **PR** no charge. **JE** G21, G24, D84. **KW** Expectations. Bank Investment.

**AB** Diamond-Dybvig [1983] provide a model of intermediation in which bank runs are driven by pessimistic depositor expectations. In the present paper we extend the Diamond-Dybvig analysis to consider several important questions for evaluating deposit insurance that could not be addressed within their framework. First, we provide conditions for runs when banks can invest in both illiquid and liquid projects. Second, we characterize how banks respond to the possibility of runs in their design of deposit contracts and

investment decisions, particularly through the holding of excess reserves. Finally, we use this framework to evaluate the costs and benefits of deposit insurance and other forms of intervention.

**PD** May 1992. **TI** Automobiles and the National Recovery Act: Evidence on Industry Complementarities. **AU** Cooper, Russell; Haltiwanger, John. **AA** Cooper: Boston University. Haltiwanger: University of Maryland. **SR** Boston University Industry Studies Program Discussion Paper Series: 28; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 41. **PR** no charge. **JE** D43, D62, E29, N12. **KW** Coordination Failure. Strategic Complementarities.

**AB** This paper investigates the motivation for, and implications of, the Automobile Industry code negotiated in 1933 and modified in 1935 under the National Industrial Recovery Act. The amended code contained a provision calling for automobile producers to alter the timing of new model introductions and the annual automobile show as a means of regularizing employment in the industry. After documenting key features of the automobile industry during the 1920s and 1930s and outlining the provisions of the automobile code, we analyze two models of the annual automobile cycle to explain the observations. From the perspective of this model, the NIRA code succeeded in moving the industry from an equilibrium with relatively too little production smoothing to a more efficient equilibrium.

**Cordell, Lawrence R.**

**PD** February 1992. **TI** A Market Evaluation of the Risk-Based Capital Standards for the U.S. Financial System. **AU** Cordell, Lawrence R.; King, Kathleen Kuester. **AA** Cordell: Board of Governors of the Federal Reserve System. King: Office of Thrift Supervision. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 189; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 51. **PR** no charge. **JE** G28, G21. **KW** Deposit Insurance Valuation. Option Pricing.

**AB** This paper evaluates U.S. risk-based capital guidelines by comparing stock market measures of institutions' risk with current regulatory risk-based capital measures. The first part of the evaluation compares overall market and regulatory risk-based capital measures of capital adequacy, asset risk, and default risk. The second part compares regulatory risk weights on individual risk categories with market-determined risk weights. The results suggest that the market and risk-based capital standards agree to some extent on the adequacy of institutions' current capital and default risk, but that their measures of asset risk are not positively correlated.

**Crabbe, Leland**

**PD** May 1992. **TI** Commercial Paper/The Effect of SEC Amendments to Rule 2a-7 on the Commercial Paper Market. **AU** Crabbe, Leland; Post, Mitchell A. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 199; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 28. **PR** no charge. **JE** G10, G38. **KW** Commercial Paper. SEC. Rating Change. Orderly Exit.

**AB** In 1991, the SEC placed limits on investments by money market mutual funds in commercial paper with medium-grade

credit ratings. The results of this study indicate that the amendments raised the average quality of money fund portfolios, as fund holdings of medium-grade paper fell from an estimated \$23 billion before the SEC proposed the amendments to \$14 billion at year-end 1991. The aggregate amount of medium-grade commercial paper also declined, suggesting that other investors did not fill the void left by money funds. The rate spread between medium-grade and high-grade commercial paper increased from 21 basis points in the month before the amendment proposals to 34 basis points in January 1992. The results suggest that the amendments to rule 2a-7 reduced the flow of credit in the commercial paper market to medium-grade firms.

**Crawford, Paul**

**PD** March 1992. **TI** Trade Credit and Credit Rationing: Part I. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/323; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 42. **PR** no charge. **JE** F34, G10, G24, E51. **KW** Trade Credit Rationing. Bank Loans.

**AB** This paper presents a model of trade credit demand and supply where sellers and buyers interests are tied. When some buyers face credit rationing in the market for bank loans as a result of either government controls on bank lending or an increase in buyer risk, the optimal response for the imperfectly competitive seller is to offer tied credit. It is profitable for the seller to take on more risk than a perfectly competitive bank because of the externality imposed by buyer exit: the loss of producer surplus and sunk costs. We then estimate demand and supply of trade credit and net trade credit equations on a panel of company accounts in order to assess the competing predictions of the main alternative models of trade credit as regards this "financial" role for trade credit.

**PD** March 1992. **TI** A Survey of the Trade Credit Literature. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/324; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 28. **PR** no charge. **JE** F34, G10, G24, E51. **KW** Trade Credit. Credit Rationing.

**AB** This paper assesses the main models and empirical results from the trade credit literature. We examine models of both trade credit demand and supply as well as credit period equations, asking whether they can motivate a "financial" role for trade credit. It is frequently hypothesized that credit rationing in the market for commercial bank loans leads to a spillover into parallel credit markets. Do any of the diverse trade credit models provide a sound basis for this story? We find that most of these models are partial and the empirical work flawed, and try to draw theoretical and methodological lessons to clarify the discussions for future work.

**Creedy, John**

**PD** January 1992. **TI** The Earnings-Related State Pension, Indexation and Lifetime Redistribution in the U.K. **AU** Creedy, John; Disney, Richard; Whitehouse, Edward. **AA** Creedy: University of Melbourne and Institute for Fiscal Studies. Disney: University of Kent and Institute for Fiscal Studies. Whitehouse: Institute for Fiscal Studies. **SR** Institute for Fiscal Studies (IFS) Working Paper: W92/1; Institute for Fiscal Studies, 7 Ridgmount St., London WC1E 7AE, ENGLAND. **PG** 40. **PR** 3 pounds. **JE** H55. **KW** Indexation. Redistribution. Pensions.

**AB** This paper examines the redistributive impact of the U.K. state pension scheme under revenue neutrality. Using individual lifetime earnings profiles constructed for a sample of over 30,000 men drawn from the Family Expenditure Survey, benefit-cost ratios are calculated for a particular cohort reaching retirement age in the year 2025. In order to isolate the intragenerational redistributive effects of the pension scheme, the scheme is investigated at maturity and revenue neutrality is imposed. The results suggest that differences in returns to the pension scheme are driven by differential mortality, outweighing even the redistributive effect of the two tier benefit structure. Various widely canvassed reforms of the pension scheme are then simulated, again solved for revenue neutrality, and it is suggested that greater care is needed in formulating such reforms if redistributive objectives are to be achieved.

**PD** February 1992. **TI** Pensions and Compensating Wage Variations. **AA** University of Melbourne and Institute for Fiscal Studies. **SR** Institute for Fiscal Studies (IFS) Working Paper: W92/2; Institute for Fiscal Studies, 7 Ridgmount St., London WC1E 7AE, ENGLAND. **PG** 20. **PR** 3 pounds. **JE** J32. **KW** Pensions. Compensating Variations.

**AB** The paper examines the trade-off between wages and pensions: that is, it considers combinations of wage rates and pensions between which the worker is indifferent. Comparisons are made for flat-rate and earnings-related pensions, and the labor supply response to changes in pension provision are evaluated in a two-period model. It is shown that elasticities of labor supply with respect to alternative pension arrangements can be positive or negative, depending on individual tastes and the wage rate.

### Cromwell, Jerry

**PD** April 1991. **TI** Medicare Payment to Psychiatric Facilities: Unfair and Inefficient? **AU** Cromwell, Jerry; Harrow, Brooke S.; Ellis, Randall P.; McGuire, Thomas G. **AA** Cromwell and Harrow: Health Economics Research, Inc. Ellis and McGuire: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 8; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 11. **PR** no charge. **JE** I10, I11. **KW** Medical Insurance. Discharge Payment. Health Care.

**AB** The Tax Equity and Fiscal Responsibility Act of 1982 created the so-called TEFRA payment system. TEFRA is a per-discharge payment system based on a facility-specific target ceiling, with limits on hospital gains per discharge. Using data from Medicare Cost Reports for the fiscal years 1986 and 1987, this paper assesses the impact of the TEFRA payment system on facility gains and losses and Medicare costs at specialized psychiatric facilities. Even though the average target ceiling approximated average Medicare cost in psychiatric facilities through fiscal year 1987, the asymmetric risk-sharing features of TEFRA have led to large losses per discharge in many facilities.

### Crosson, Pierre

**TI** Economics and "Sustainability": Balancing Tradeoffs and Imperatives. **AU** Toman, Michael A.; Crosson, Pierre.

### Croushore, Dean

**TI** The Marginal Cost of Funds with Nonseparable Public Spending. **AU** Ahmed, Shaghil; Croushore, Dean.

**PD** April 1992. **TI** Ricardian Equivalence Under Income Uncertainty. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 92-6; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 13. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** E62, E63. **KW** Taxation. Ricardian Equivalence.

**AB** Ricardian equivalence fails to hold when agents are uncertain about their future income. This failure occurs because a higher tax rate on future income provides implicit income insurance. However, the magnitude of the effect of taxation as insurance depends on the size of existing taxes. When taxes are set optimally, Ricardian equivalence may still hold.

### Currie, Janet

**PD** March 1992. **TI** Firm-Specific Determinants of the Real Wage. **AU** Currie, Janet; McConnell, Sheena. **AA** Currie: Massachusetts Institute of Technology and National Bureau of Economic Research. McConnell: Mathematica Policy Research. **SR** National Bureau of Economic Research Working Paper: 4023; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 12. **PR** \$5.00. **JE** J31, J41. **KW** Bargaining Models. Firm-Specific Variables.

**AB** Bargaining models suggest that firm-specific variables play an important role in wage determination. Yet previous empirical studies of wage determination have largely ignored these variables. Our analysis of a large panel data set of U.S. wage contracts suggests that firm-specific variables suggested by bargaining models, such as the value of sales, the capital-labor ratio, and the financial liquidity of the firm, are important determinants of negotiated real wages.

**PD** May 1992. **TI** Welfare and Child Health: The Link Between AFDC Participation and Birth Weight. **AU** Currie, Janet; Cole, Nancy. **AA** Currie: M.I.T. Cole: University of California, Los Angeles. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 92-9; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 43. **PR** \$6.00 Domestic. \$8.00 Overseas. \$2.00 Student. **JE** I38. **KW** Welfare. AFDC. Child Health.

**AB** The stated goal of the Aid for Families with Dependent Children program is to improve the well-being of children in poor families. The program has come under considerable attack in recent years from critics who argue that participation in AFDC is associated with maternal behaviors that are bad for children. We investigate this question using birth weight as a measure of child health. While AFDC mothers are indeed more likely to have children at younger ages, to delay obtaining prenatal care, to smoke, and to drink during pregnancy, we find no support for the view that AFDC participation induces these behaviors. Rather, our results suggest that some women are predisposed both to participate in AFDC and to these behaviors. These women ultimately have babies of lower birth weight.

### Damodaran, Aswath

**PD** April 1992. **TI** The Effects of Derivative Securities on the Markets for the Underlying Assets in the United States: A Survey. **AU** Damodaran, Aswath; Subrahmanyam, Marti G. **AA** New York University. **SR** New York University



Salomon Brothers Working Paper: S-92-24; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 17. **PR** \$5.00. **JE** G12, G13. **KW** Asset Markets. Options.

**AB** What effect do markets for derivative securities have on the underlying assets' markets? Do options and futures markets increase or decrease volatility? What are the influences of these markets on market micro-structure? Is the net effect of adding these markets positive? The theoretical literature on these issues is surprisingly sparse and comes to mixed conclusions. The empirical evidence on these questions is vast, but fragmented. This paper attempts to synthesize the theoretical and empirical research and draw some general conclusion about the impact of derivative securities markets.

### Danthine, Jean-Pierre

**PD** September 1991. **TI** Risk Sharing in the Business Cycle. **AU** Danthine, Jean-Pierre; Donaldson, John B. **AA** Danthine: Universite de Lausanne and CEPR. Donaldson: Columbia University. **SR** Universite de Lausanne, Cahiers de Recherches Economiques: 9109; Departement D'econometrie et D'economie Politique, Univerite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 9. **PR** no charge. **JE** E32, E37. **KW** Borrowing Constraints. Employment Variability.

**AB** We show that the institutional and social arrangements by which most developed economies attempt to improve the distribution of income and risks among individuals have consequences for the dynamic time path of macroeconomic variables and that taking such considerations into account permits improving the ability of a real business cycle model to replicate the most important characterizing features of macroeconomic fluctuations.

### Darmstadter, Joel

**TI** Lessons From Other International Agreements for a Global CO2 Accord. **AU** Morrisette, Peter M.; Darmstadter, Joel; Plantinga, Andrew J.; Toman, Michael A.

**PD** January 1991. **TI** The Economic Cost of CO2 Mitigation: A Review of Estimates for Selected World Regions. **AU** Darmstadter, Joel; Plantinga, Andrew J. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-06; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 60. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q25. **KW** Climate Change. Abatement Cost.

**AB** Meaningful pursuit of CO2 controls can occur only within a multi-country context; but the very multi-country dimension of any effective greenhouse strategy -- whether in the form of a carbon tax, emission ceilings, or other policy constraints -- poses inherent and formidable obstacles of administration, equity, and economic efficiency. This paper focuses on one particular question pertinent to the issue of CO2 controls: what are the economic costs, globally and in different regions, of efforts to limit CO2 emissions? The paper surveys a number of attempts to spotlight that issue from different vantage points.

**PD** June 1991. **TI** Prospects for International Agreement on CO2 Containment: A Synopsis of Research Findings. **AA** Resources for the Future. **SR** Resources for the Future

Energy and Natural Resources Division Discussion Paper: ENR91-14; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 78. **PR** \$5.00 prepaid (U.S. funds only). **JE** D74, Q25. **KW** Climate Change. International Agreement.

**AB** This report distills key findings from a research project conducted by Resources for the Future (RFF), Washington, and the Japan Institute of Energy Economics (JIEE), Tokyo. The paper focuses on several key themes pertinent to the issue of CO2 controls: trends in CO2 emissions and the principal factors explaining those trends; the cost of meeting specified CO2-reduction targets -- particularly by steps taken within the energy sector; the extent to which pursuit of such targets are conditioned by public attitudes of the greenhouse problem and by considerations of equity; and applicable lessons from other international agreements.

### Dasgupta, Partha

**PD** February 1992. **TI** Poverty, Resources and Fertility: The Household as a Reproductive Partnership. **AA** Stanford University and University of Cambridge. **SR** LSE Development Economics Research Programme: DEP No.37; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 45. **PR** no charge. **JE** J13, D19, I38. **KW** Intra-Household Economics. Poverty. Fertility.

**AB** This article applies the theory of resource allocation to rural households in poor countries to see what one may mean by a "population problem". It is argued by an appeal to evidence that there is a serious population problem in these parts, and that it is related synergistically to poverty, and possibly also to an erosion of the local environmental-resource base. The "problem" lies in that very high fertility rates are experienced by women bearing risks of death that should now be unacceptable. An argument is sketched to show how the cycle of poverty and high fertility rates can perpetuate within a dynasty.

### Dassios, A.

**PD** August 1990. **TI** Some Econometric Tests on Real Time Forex Market Data. **AU** Dassios, A.; Demos, A. **AA** Birbeck College. **SR** Birbeck College Discussion Paper in Financial Economics: FE-5/91; Department of Economics, University of London, London, W1P 1PA, ENGLAND. **PG** 35. **PR** no charge. **JE** F31, C50. **KW** Exchange Rates. Wiener Process. Specification.

**AB** In this paper we test the hypothesis that the ultra high frequency DEM/\$ exchange rate follows a Wiener process by deriving and applying a modification of the Hausman specification test to second by second DEM/\$ exchange rate data. Furthermore, we prove a Central Limit Theorem for the squared moving average of infinite order and use it to derive a second Hausman type test. Finally we identify and estimate the ARMA process that the rate follows as well as the heteroskedastic structure of the variance of the exchange rate.

### de Bartolome, Charles A. M.

**PD** March 1992. **TI** Economic Analysis of the Treatment of Malaria: A Case Study. **AU** de Bartolome, Charles A. M.; Vosti, Stephen A. **AA** de Bartolome: New York University. Vosti: International Food Policy Research Institute. **SR** New York University Economic Research Report: 92-14; New York

University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 12. **PR** no charge. **JE** I10, I11. **KW** Malaria. Medical Treatment.

**AB** Malaria is a deadly and widespread disease. Infected individuals may be treated either in the public sector or in a private clinic. Private treatment is better, but is expensive. Using micro-level data from a colony in Brazil, we estimate the factors which determine an individual's choice between the two sectors. Individuals who have suffered many recent infections are most likely to seek private treatment. Private treatment is price inelastic and necessary. Analysis of transportation costs suggests that liquidity is important. Educated and rural households favor private treatment. Policy implications are discussed.

**PD** May 1992. **TI** Fiscal Externality and Compensated Demand in Normative Tax Theory. **AA** New York University. **SR** New York University Economic Research Report: 92-19; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 14. **PR** no charge. **JE** H21. **KW** Excess Burden. Optimal Taxation. Ramsey Equations.

**AB** The excess burden - measuring the utility loss associated with the use of an indirect tax structure - is often represented as the triangular area beneath the compensated demand curve. Similarly, the "Ramsey Equations," which characterize the indirect tax structure which minimizes the utility loss, are often written using changes in compensated demands. Because utility is constant along a compensated demand curve, the use of compensated demands to measure utility changes appears paradoxical. I interpret the distortion as a fiscal externality, and explain the paradox.

**PD** May 1992. **TI** Interpreting the "Many-Person Ramsey Tax Rule" of Optimal Tax Theory. **AA** New York University. **SR** New York University Economic Research Report: 92-20; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 11. **PR** no charge. **JE** H21. **KW** Ramsey Equations. Optimal Taxation.

**AB** "The Ramsey Equations," which characterize the optimal indirect tax structure, are interpreted. The price derivatives of compensated demand are important because they measure the gain from substituting the collection of tax revenue from one tax instrument to others.

### De Groot, Xavier

**PD** November 1991. **TI** Flexibility and Marketing/Manufacturing Coordination. **AA** INSEAD. **SR** INSEAD Working Paper: 91/60/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 22. **PR** not available. **JE** L23, L20, M11, M31. **KW** Manufacturing Processes. Just-in-Time Production. Product Variety.

**AB** This paper explores some economic and strategic aspects of the flexibility of manufacturing processes. Two related problems are formulated: the marketing choice of the breadth of the product line, and the manufacturing choice of the flexibility of the production process. Their analysis leads to the joint problem of marketing/manufacturing coordination. Operating costs provide the key linkage between the two functional decisions: changeover costs and inventory costs critically depend on both product variety and process

flexibility. One of the key results is that due to non-convexities the decentralized solution of the above two problems typically yields a globally suboptimal solution. The analysis sheds light on recent developments in manufacturing such as flexible manufacturing systems and just-in-time production.

**PD** January 1992. **TI** Flexibility and Product Diversity in Lot-Sizing Models. **AA** INSEAD. **SR** INSEAD Working Paper: 92/05/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 15. **PR** not available. **JE** L23, M11. **KW** Product Mix. Process Design. Process Flexibility.

**AB** This paper seeks insight into the role of process flexibility and product variety in the capacitated multiproduct lot-sizing model. The variety of the product line is defined in terms of the number of products, and the relative value of their demand rate, setup time, and unit cost of production. Process flexibility is defined as a property of operating costs. In this context, flexibility is seen to depend not only on commonly understood factors, such as setup time and setup cost, but also on the capacity of the machine. The analysis yields new insights and formulas for the evaluation of product mix, process design, and process improvement decisions.

**PD** January 1992. **TI** The Flexibility of Production Processes: A General Framework. **AA** INSEAD. **SR** INSEAD Working Paper: 92/07/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 21. **PR** not available. **JE** L23, M11. **KW** Queuing Network. Production Flexibility. Production Diversity.

**AB** Various models have been developed over the years to analyze the many facets of the flexibility of production and operation systems. This paper proposes a general framework for the modeling and analysis of flexibility. The argument hinges upon the distinction between flexibility - a property of the technology - and diversity - a property of the environment in which the technology is operated. As illustrated by the different examples that are discussed, many existing models can be naturally interpreted in this context. As an application, the effect of load imbalance on a set of parallel machines is analyzed. The problem sheds light on the role of flexibility in queuing network and lot-sizing models of production.

### De Long, J. Bradford

**TI** Why Does the Stock Market Fluctuate? **AU** Barsky, Robert B.; De Long, J. Bradford.

**PD** April 1992. **TI** "Excess Volatility" and the German Stock Market, 1876-1990. **AU** De Long, J. Bradford; Becht, Marco. **AA** De Long: National Bureau of Economic Research and Harvard University. Becht: European University Institute. **SR** National Bureau of Economic Research Working Paper: 4054; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$5.00. **JE** G12, G11, G21. **KW** German Stock Indices. Excess Volatility.

**AB** This paper uses long-run real price and dividends series to investigate for the German stock market the questions asked of the U.S. market by Shiller (1989). It tries to determine in what periods and to what degree the German stock market has also possessed "excess volatility" in the past century. It finds no evidence of excess volatility in the pre-World War I German stock market. By contrast, there is some evidence of excess volatility in the post-World War II German stock market. The

role played by the German Grabbanken in the pre-World War I stock market might be the cause of the low comparative volatility of German stock indices before 1914.

#### De Souza, C. C.

**PD** October 1991. **TI** Some New Classes of Facets for the Equicut Polytope. **AU** De Souza, C. C.; Laurent, Monique. **AA** De Souza: University of Louvain. Laurent: University of Paris. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 738-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 29. **PR** no charge. **JE** C60. **KW** Graph Theory. Equicut Problem.

**AB** Given a graph  $G=(V,E)$  an equicut is a cut in  $G$  that partitions  $V$  into two sets with particular numbers of nodes. Assigning weights to the edges in  $E$ , the problem of finding a minimum weight equicut in  $G$  is known to be NP-hard. The convex hull of incidence vectors of equicuts in  $G$  is the equicut polytope  $P$  sub-EC ( $G$ ). Here we describe several generalizations of a facet defining inequality introduced by Conforti et al. (1990a,b). Most of our inequalities have the interesting feature that their support graphs are planar but for some of them both planarity and connectivity properties are lost. Finally, we extend our results to obtain several new classes of facets for the cut polytope.

#### Deaton, A.

**PD** November 1991. **TI** Estimating the Commodity Price Model. **AU** Deaton, A.; Laroque, G. **AA** Deaton: Princeton University. Laroque: INSEE. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9131; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 40. **PR** no charge. **JE** C22. **KW** Inventories. Nonlinear Time Series.

**AB** In this article, a model of price formation for primary commodities is confronted with the actual evolution of the prices of thirteen commodities, using annual data from 1900 to 1987. In the version that we estimate, the model assumes that, in the absence of storage, price will be a linear function of an independent and identically distributed shock. The addition of risk-neutral profit maximizing stockholders means that expected future prices cannot be greater than current prices by more than the cost of holding inventories into the future, and this condition, together with the assumption of rational expectations, induces a relationship between prices between periods in which stocks are held. The paper has both a methodological and an economic aim.

#### Delipalla, Sofia

**PD** October 1991. **TI** The Comparison Between Ad Valorem and Specific Taxation under Imperfect Competition. **AU** Delipalla, Sofia; Keen, Michael. **AA** University of Essex. **SR** Institute for Fiscal Studies (IFS) Working Paper: W92/3; Institute for Fiscal Studies, 7 Ridgmount St., London WC1E 7AE, ENGLAND. **PG** 32. **PR** 3 pounds. **JE** H21, H22. **KW** Indirect Taxation. Imperfect Competition. Optimal Taxation.

**AB** This paper compares ad valorem and specific taxation in two models of oligopoly, with and without free entry. Predominantly ad valorem taxation implies a relatively low consumer price, high tax revenue and (when entry is precluded) low profits. Ad valorem taxation dominates specific from the welfare perspective: the set of circumstances under which (with

free entry) specific taxation raises welfare is a strict subset of that in which ad valorem taxation is welfare-improving, and in both models the maximization of consumer welfare subject to a binding revenue constraint requires maximum reliance on ad valorem taxation.

#### Demos, A.

**TI** Some Econometric Tests on Real Time Forex Market Data. **AU** Dassios, A.; Demos, A.

#### Deneckere, Raymond J.

**PD** May 1992. **TI** Competition Over Price and Service Rate When Demand is Stochastic: A Strategic Analysis. **AU** Deneckere, Raymond J.; Peck, James. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 990; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 31. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** L13. **KW** Demand Uncertainty. Price Inflexibility. Rationing.

**AB** We consider a two-stage game in which firms simultaneously select prices and capacities (or equivalently, outputs). Then, a random number of consumers attends the market, and each consumer selects a firm to visit. Consumers know all prices and quantities but not the realization of aggregate demand. The probability of being served at any firm depends on its capacity and the mixed strategy chosen by consumers. Consumers distribute themselves across firms so as to equalize the utility of each price-service pair. We show that there exists at most one equilibrium in which firms choose pure strategies, and characterize the "candidate" equilibrium. Consumers face a probability of being rationed, firms may have excess inventory, and the price remains above marginal cost. When there are many firms, the candidate is shown to be an equilibrium.

#### Dermine, Jean

**PD** December 1991. **TI** Internationalisation of Financial Markets, Efficiency, and Stability. **AA** December 1991. **SR** INSEAD Working Paper: 91/64/FIN; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 19. **PR** not available. **JE** G14, G15, G20. **KW** Financial Services. Financial Markets. Europe.

**AB** The essay provides an economic framework to assess the prudential regulation of European financial services. It addresses the issue of hierarchy of regulations, that is the eventual need for centralized regulations, or competitive (de-)regulation. An analysis of the sources of market failure concludes that competition between national regulators will benefit consumers of financial services and the efficiency of financial markets in most cases. The paper warns against an abusive interpretation of the "public interest" criterion which is used often to restrict competition. Finally, it is argued that more work remains to be done to achieve open and stable financial markets.

#### Desai, Padma

**TI** A Model of Liquidity Overhang for the Soviet Economy. **AU** Clarida, Richard H.; Desai, Padma.



**PD** December 1991. **TI** Reforming the Soviet Grain Economy: Performance, Problems and Solutions. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 581; Department of Economics, Columbia University, New York, New York 10027. **PG** 18. **PR** \$5.00. **JE** P27, Q10, Q18, Q11. **KW** Grain Yield. Agriculture.

**AB** The main argument of this paper is that, despite widespread impressions to the contrary, Soviet grain performance in the 1980s has not deteriorated. Detailed weather-yield models for fourteen provinces (oblasts) of the former Soviet Union are estimated for separating the impact of weather variability on Soviet grain yields and outputs for the purpose at hand. From around 1987, the glasnost reforms seem to have further supplemented these gains in yield by unwittingly providing the farms the freedom and the incentives to choose alternative avenues of grain sales and onfarm retention with higher returns: as a result, while grain yields have accelerated, procurement by the state has declined drastically.

**PD** December 1991. **TI** The Size of the Soviet Economy: Theory and Measures. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 582; Department of Economics, Columbia University, New York, New York 10027. **PG** 29. **PR** \$5.00. **JE** P24. **KW** National Income Accounting. Centrally Planned Economy.

**AB** The purpose of this paper is to assess the size of the Soviet economy from the perspective of the problems of national income accounting in a centrally planned economy further complicated by the paucity and quality of the required information. A related purpose is to evaluate the Central Intelligence Agency estimates of Soviet GNP for the period 1970-1980 in light of such a conceptual framework.

#### Detragiache, Enrica

**PD** March 1992. **TI** Resolving Financial Distress: Does Chapter 11 Help? **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 278; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 24. **PR** no charge. **JE** G33, D82, K22, G32. **KW** Bankruptcy Laws. Liquidation. Reorganization.

**AB** Firms in financial distress should continue operating whenever their going-concern value exceeds their liquidation value. If creditors have imperfect information about future profitability, bargaining over a workout plan may result in a suboptimal outcome. The paper shows that when all debt can be renegotiated the resolution of financial distress is always socially efficient, in spite of private information. In efficient workout plans creditors receive a cash payment and an equity participation in the firm. If firms can reorganize in bankruptcy, as under Chapter 11 of the U.S. bankruptcy code, court intervention is used in some equilibria even if private workouts involve smaller deadweight costs. Hence, the reorganization law worsens welfare. Finally, if "strip financing" is used, an efficient workout plan can give rise to an arbitrary financial structure for the reorganized firm.

#### Devarajan, Shantayanan

**PD** September 1991. **TI** From Stylized to Applied Models: Building Multisector CGE Models for Policy Analysis. **AU** Devarajan, Shantayanan; Lewis, Jeffrey D.; Robinson,

Sherman. **AA** Devarajan: World Bank and Harvard University. Lewis: Harvard University. Robinson: University of California, Berkeley. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 616; Department of Agricultural and Resource Economics, 207 Giannini Hall, UC Berkeley, Berkeley, CA 94720. **PG** 60. **PR** \$15.00. **JE** O21, O22, D58. **KW** Policy Analysis. General Equilibrium. Development.

**AB** This paper describes the steps necessary to build a "standard" multisectoral computable general equilibrium (CGE) model of a developing country. The paper first describes how the model is related to the social accounting matrix (SAM) for the economy, and then presents the model equations in detail. We then show how the model is implemented using the software package GAMS ("General Algebraic Modelling System"), whose algebraic language provides a concise way to describe model equations. Next we discuss how the model is calibrated to a base data set. Finally, we conclude with an application of the model to the analysis of Dutch disease in Cameroon. One appendix lists the equations, variables, and parameters of the model, while a second provides a complete listing of the model's implementation in GAMS.

#### DeWitt, Diane E.

**TI** International Comparisons of Environmental Regulation. **AU** Kopp, Raymond K.; Portney, Paul R.; DeWitt, Diane E.

#### Deza, Michel

**PD** September 1991. **TI** Variety of Hypercube Embeddings of the Equidistant Metric and Designs. **AU** Deza, Michel; Laurent, Monique. **AA** University of Paris. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 720-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 26. **PR** no charge. **JE** C60. **KW** Design Theory. Combinatorial Design.

**AB** Given an integer  $t$  greater than or equal to 1, the equidistant metric  $2t11$  sub- $n$  is the metric on  $n$  points that takes value  $2t$  on every pair of points. We study hypercube embeddings of the equidistant metric  $2t11$  sub- $n$  or, equivalently, realizations of  $2t11$  sub- $n$  as nonnegative integer sum of cut metrics, in particular, in connection with Design Theory. We consider especially the minimum dimension of a hypercube embedding of  $2t11$  sub- $n$ ; we give bounds for the minimum dimension and study the extremal cases when the bounds are attained. We give the full description of all realizations of  $2t11$  sub- $n$  in the cases when the parameters  $n$  or  $t$  are small.

**PD** November 1991. **TI** Extension Operations for Cuts. **AU** Deza, Michel; Laurent, Monique. **AA** University of Paris. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 736- OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 15. **PR** no charge. **JE** C60. **KW** Graph Theory. Cut Lattice.

**AB** We consider two extension operations for the cut cone  $C$  sub  $n$ : the antipodal extension and the  $k$ -extension. Their interesting feature is that they permit us to express questions about the variety of realizations in  $C$  sub  $n$  in terms of questions about the existence of a realization in  $C$  sub  $n+1$ . These operations are described and several applications are presented.

**Dhrymes, Phoebus J.**

**PD** August 1991. **TI** Specification Tests in Simultaneous Equations Systems. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 561; Department of Economics, Columbia University, New York, New York 10027. **PG** 36. **PR** \$5.00. **JE** C12, C51, C30. **KW** Identification Test. Lagrange Multiplier Test. Hausman Test.

**AB** This paper makes two contributions: (a) it provides a new derivation of 2SLS and 3SLS estimators in which they are represented as restricted least squares and restricted generalized least squares, respectively; (b) in the context thus created it provides a perfectly routine and flexible vehicle for carrying out identifiability and specification tests utilizing 2SLS or 3SLS estimators. The tests in question are simple Lagrange multiplier tests (LMT) carried out directly on the prior restrictions, in contrast to the current literature which approaches the problem indirectly through tests on the implications of such prior restrictions on the reduced form.

**TI** Productivity Dynamics: U.S. Manufacturing Plants, 1972-1986. **AU** Bartelsman, Eric J.; Dhrymes, Phoebus J.

**PD** October 1991. **TI** A Note on Identification Test Procedures. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 560; Department of Economics, Columbia University, New York, New York 10027. **PG** 10. **PR** \$5.00. **JE** C12, C51, C30. **KW** Specification Test. Lagrange Multiplier Test. Hausman Test.

**AB** See other entry.

**PD** October 1991. **TI** A Note on Identification Test Procedures. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 588; Department of Economics, Columbia University, New York, New York 10027. **PG** 8. **PR** \$5.00. **JE** C30, C12. **KW** Specification Test. Lagrange Multiplier Test.

**AB** This paper discusses the meaning of identification tests in the context of the General Linear Structural Econometric Model (GLSEM). Its major contribution is to show that, contrary to some implications of the literature, it is not possible to devise (independent) tests for all prior restrictions. This is accomplished by showing that when dealing with a singular distribution only a subset of the underlying parameters can, independently, be subject to test.

**PD** January 1992. **TI** A Note on Testing Overidentifying Restrictions: The Anderson-Rubin Test Revisited. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 587; Department of Economics, Columbia University, New York, New York 10027. **PG** 11. **PR** \$5.00. **JE** C30, C12. **KW** Specification Test. Identification Test.

**AB** This paper discusses the matter of testing the zero restrictions of the classic General Linear Structural Econometric Model (GLSEM), in the context of Kadane (1974), Anderson and Kadane (1976), and their antecedents. Its major contribution is to clarify the various interpretations that have bedevilled the classic Anderson Rubin (AR) identification test. These ambiguities arise from the fact that the early Cowles-centered work on this subject started from the basic premise of a set of general linear models and asked whether it was compatible with, or derivable from, an underlying structural form. Later work, on the other hand, begins with the

basic premise of a GLSEM and tests the validity of the prior restrictions.

**PD** February 1992. **TI** Specification Tests in Simultaneous Equations Systems. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 589; Department of Economics, Columbia University, New York, New York 10027. **PG** 37. **PR** \$5.00. **JE** C30, C12, C13. **KW** Identification Test. Lagrange Multiplier Test. Hausman Test.

**AB** This paper makes three contributions: (a) it provides a new derivation of 2SLS and 3SLS estimators in which they are represented as restricted least squares and restricted generalized least squares, respectively; (b) in the context thus created it provides a perfectly routine and flexible vehicle for carrying out specification tests utilizing 2SLS or 3SLS estimators and clarifies the implications of the results of such tests. The tests in question are simple Lagrange multiplier tests (LMT) carried out directly on the prior restrictions, in contrast to the current literature which approaches the problem indirectly through tests on the implications of such prior restrictions on the reduced form; (c) it provides a limited Monte Carlo study comparing the newly created LMT and the Hausman test.

**PD** not available. **TI** The Pricing Behavior of Interest Rate Swap Contracts. **AU** Dhrymes, Phoebus J.; Lee, Sung R. **AA** Dhrymes: Columbia University. Lee: St. John's University. **SR** Columbia University Department of Economics Discussion Paper: 575; Department of Economics, Columbia University, New York, New York 10027. **PG** 18. **PR** \$5.00. **JE** E43, E40. **KW** Random-Walk. Pricing Process.

**AB** This paper analyses the pricing of interest rate swap contracts, based on a sample containing transactions on 679 contracts of various maturities, provided to us by a swap dealer and covering the period 1987-1989. We first examine the hypothesis that the pricing of such contracts is a random walk process, i.e., that the first difference is a sequence of i.i.d. random variables. The Kolmogorov-Smirnov test, nearly uniformly, rejects the random walk-hypothesis. This leads us to reformulate the pricing process as a linear or loglinear (regression) process, depending, in part, on the movement of the underlying Treasury rates. The results show generally symmetric responses to (up and down) movements of the underlying Treasury rates, although in several instances the response is definitely asymmetric.

**Disney, Richard**

**TI** The Earnings-Related State Pension, Indexation and Lifetime Redistribution in the U.K. **AU** Creedy, John; Disney, Richard; Whitehouse, Edward.

**Dolado, Juan J.**

**TI** The Power of Cointegration Tests. **AU** Kremers, Jeroen J. M.; Ericsson, Neil R.; Dolado, Juan J.

**Dolton, Peter**

**PD** August 1991. **TI** Econometric Modelling of the Use of Computers by Economists in UK Higher Education. **AU** Dolton, Peter; Taylor, Peter. **AA** Dolton: University of Newcastle-Upon-Tyne. Taylor: University of Bristol and Bristol Polytechnic. **SR** University of Bristol Discussion Paper: 91/313; Department of Economics, University of Bristol, 8

Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 19. **PR** no charge. **JE** A20, C88, C25. **KW** Probit Model. Computer Usage. Teaching.

**AB** The choice of computer usage is considered analogous to a capital investment decision regarding an asset producing joint products. A basic probit model is formulated and estimated using data from a survey designed partly with the estimation of a model in mind. Variants based on different definitions of use and expanded sets of regressors are also estimated. It is hypothesized that response to the survey may not be exogenous and so a sample selection bias may exist. The sample was collected by two processes and so this bias can be accommodated. Results indicate that enthusiasm, whether manifested in sample selection or as a latent variable is an important determinant of using computers in teaching.

#### Donaldson, John B.

**TI** Risk Sharing in the Business Cycle. **AU** Danthine, Jean-Pierre; Donaldson, John B.

#### Doz, Yves

**TI** Longevity of Business Firms: A Four-Stage Framework for Analysis. **AU** Hogarth, Robin M.; Michaud, Claude; Doz, Yves; Van Der Heyden, Ludo.

**PD** January 1992. **TI** Regaining Competitiveness: A Process of Organisational Renewal. **AU** Doz, Yves; Thanheiser, Heinz. **AA** INSEAD. **SR** INSEAD Working Paper: 92/10/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 13. **PR** not available. **JE** M10, M11, M14. **KW** Corporate Renewal. Competitive Advantage.

**AB** Based on research and consulting experience in large multinationals, this paper deals with corporate renewal. As innovation increasingly determines competitive advantage, the internal modes of operations, i.e., the "organisational capabilities", of large corporations have to change. To overcome self-generated bureaucratic sluggishness of their companies, top managers need to change their concept of structure, decision, and effectiveness and engage in a process of organisational transformation. Successful processes link cognitive/intellectual and emotional "discovery" at individual level with collective "learning by doing" to achieve lasting "cultural" change.

#### Dreze, Jean

**PD** February 1992. **TI** Economic Mobility and Agricultural Labour in Rural Area: A Case Study. **AU** Dreze, Jean; Lanjouw, Peter; Stern, Nicholas. **AA** London School of Economics. **SR** LSE Development Economics Research Programme: DEP No.35; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 65. **PR** no charge. **JE** J43, J62, J32. **KW** Mobility. Agricultural Labour. Palanpour.

**AB** The detailed examination of economic mobility and agricultural labour using data covering a long period for one village provides a number of insights into the working of economic processes over time, the causes and correlates of poverty and change, and the interpretation of different measures of economic status. First, agricultural labourers are at severe risk of poverty. Second, this risk is generally underestimated by conventional short-run income measures. Third, the diversification of employment opportunities implies that a

decreasing proportion of income comes from this source. Fourth, whilst this diversification of opportunities permits routes out of agricultural labour, particularly across generations, agricultural labourers are not generally well placed to take advantage of them and mobility out of agricultural labour remains low.

#### Driffill, John

**TI** Testing the Term Structure of Interest Rates from a Stationary Switching Regime VAR. **AU** Sola, Martin; Driffill, John.

**PD** June 1992. **TI** Testing the Present Value Hypothesis from a Vector Autoregression with Stochastic Regime Switching. **AU** Driffill, John; Sola, Martin. **AA** Driffill: University of London. Sola: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9216; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 35. **PR** no charge. **JE** C32, G12. **KW** Stochastic Switching VAR. Super Exogeneity. Stock Price Volatility.

**AB** We test the present value model of stock prices using Campbell and Shiller's (1987) data for the US from 1871 to 1986. Non-stationarity in the data for the real stock prices and dividends is allowed for as in Campbell and Shiller by examining a VAR in the first difference of real dividends and real stock prices less a multiple of lagged real dividends. Since there appears to be evidence of regime shifting in this model, combined with excess kurtosis and skewness in the errors, we allow for stochastic switches of regime in the VAR between two unobserved states which affect the means of the variables and their variance-covariance matrix. Whereas Campbell and Shiller found no conclusive evidence against the present value model, the test applied here, in the context of a more flexible model, rejects the hypothesis conclusively.

#### Dubin, Jeffrey A.

**TI** A Micro-Econometric Analysis of Risk-Aversion and the Decision to Self-Insure. **AU** Cicchetti, Charles J.; Dubin, Jeffrey A.

#### Duck, N. W.

**PD** July 1991. **TI** Some International Evidence on the Quantity Theory of Money. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 91/303; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 14. **PR** no charge. **JE** E40, E31, E41. **KW** Money. Interest Rates. Inflation.

**AB** This paper develops a two-equation model of money, interest rates, and inflation based on the simple quantity theory and Fisher's hypothesis about nominal interest rates. The model has both within-equation and cross-equation restrictions which are tested on long-run average cross-country data covering the period 1962-1988. The major finding is that the restrictions cannot be easily rejected and this suggests that the behavior of interest rates and inflation in a major part of the postwar period can be understood in terms of classical, monetary forces.

#### Duffee, Gregory R.

**PD** April 1992. **TI** Reexamining the Relationship



Between Stock Returns and Stock Return Volatility. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 191; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 40. **PR** no charge. **JE** G12. **KW** Leverage. Equity Risk Premium. Stock Return Volatility. **AB** This paper reexamines the empirical relationship between stock returns and stock-return volatility. The most significant findings are: 1) The negative contemporaneous relationship between returns and volatility holds only on an aggregate level. Firm returns and firm return volatility are positively contemporaneously correlated throughout the period 1926-1990. 2) The negative relationship between market volatility and market returns appears to be largely a consequence of the fact that market volatility and changes in aggregate consumption are negatively correlated. This result casts doubt on the view that the volatility - return relationship is the result of a risk premium that varies with predictable return volatility. Instead, it suggests that the marginal utility of consumption is more volatile when consumption is low than when consumption is high.

**PD** April 1992. **TI** Trading Volume and Return Reversals. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 192; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 36. **PR** no charge. **JE** G12. **KW** Mean Reversion. Trading Volume. Noise Traders.

**AB** This paper tests whether the magnitude of the serial correlation of monthly stock returns varies with trading volume. In both the 1915-1945 and 1946-1989 periods, it finds a statistically significant relationship between NYSE volume shocks and return reversals. The point estimates suggest that if month  $t$  has a one-standard-deviation shock to trading volume, an additional 40 to 50 percent of month  $t$ 's stock return is eventually reversed. Additional results indicate that the volume shocks are not just a proxy for previously known predictors of aggregate stock returns such as the dividend/price ratio, the term structure, and the default premium.

### Durlauf, Steven N.

**PD** April 1992. **TI** A Theory of Persistent Income Inequality. **AA** Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4056; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$5.00. **JE** J24, I20, I30, R21. **KW** Human Capital. Education. Neighborhood Choice.

**AB** This paper explores the dynamics of income inequality by studying the evolution of human capital investment and neighborhood choice for a population of families. Parents affect the conditional probability distribution of their children's income through the choice of a neighborhood in which to live. Neighborhood location affects children through two mechanisms. First, the level of education depends on the total income of a neighborhood, as all school funding is determined by majority voting. Second, the conditional probability distribution of individual-specific productivity shocks is affected by the income distribution within a neighborhood. These forces interact to endogenously stratify the economy as families segregate themselves into economically homogeneous neighborhoods. Our model has two important features. First,

starting from identical initial conditions, families can exhibit different long term income levels, leading to persistent income inequality. Second, areas of permanent poverty can emerge endogenously in a growing economy as neighborhood-wide feedback effects transmit poverty across generations.

### Dutta, Jayashri

**TI** Options & Price Uncertainty. **AU** Chichilnisky, Graciela; Dutta, Jayashri; Heal, Geoffrey M.

### Dutta, Prajit K.

**PD** July 1991. **TI** Finite Horizon Optimization: Sensitivity and Continuity in Multi-Sectoral Models. **AA** Columbia University and University of Rochester. **SR** Columbia University Department of Economics Discussion Paper: 552; Department of Economics, Columbia University, New York, New York 10027. **PG** 17. **PR** \$5.00. **JE** D92, E22. **KW** Intertemporal Allocation. Investment. Decision Horizon.

**AB** This paper studies sensitivity and continuity of finite horizon optimal plans in a general multi-sectoral model of intertemporal optimization which admits non-convexities and technological change. Unlike the aggregative model, investment choices are sensitive to the length of the decision horizon. A new concept of value insensitivity is proposed and shown to hold even in the multi-sectoral model. Finally, continuity of investment choices and values, in going from the finite to the infinite horizon problem, is established.

**PD** July 1991. **TI** A Folk Theorem for Stochastic Games. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 565; Department of Economics, Columbia University, New York, New York 10027. **PG** 24. **PR** \$5.00. **JE** C73. **KW** Dynamic Models. Repeated Games. Folk Theorem.

**AB** In many dynamic economic applications, the appropriate game theoretic structure is that of a stochastic game. We present a folk theorem for such games. The result subsumes a variety of results obtained earlier and applies to a wide range of games studied in the economics literature. The result further establishes an underlying unity between stochastic and purely repeated games from the point of view of asymptotic analysis, even though stochastic games offer a much richer set of deviation possibilities.

**TI** The Folk Theorem for Discounted Repeated Games: A New Condition. **AU** Abreu, Dilip; Dutta, Prajit K.

**PD** October 1991. **TI** Optimal Principal Agent Contracts for a Class of Incentive Schemes: A Characterization and the Rate of Approach to Efficiency. **AU** Dutta, Prajit K.; Radner, Roy. **AA** Dutta: Columbia University. Radner: New York University. **SR** Columbia University Department of Economics Discussion Paper: 568; Department of Economics, Columbia University, New York, New York 10027. **PG** 19. **PR** \$5.00. **JE** D82, D80. **KW** Moral Hazard. Incentive Schemes. Optimal Contract.

**AB** In this paper we study a repeated moral hazard problem for the following incentive schemes: an agent is retained on the job and paid a fixed wage provided he has maintained a specified rate of output during his tenure. We characterize the optimal contract for this class and show that the payoffs under such a contract approach the (first-best) efficient outcome and give an estimate of the rate of approach to efficiency as the discount rate goes to zero.

**Edwards, Sebastian**

**PD** April 1992. **TI** Devaluation Controversies in the Developing Countries: Lessons from the Bretton Woods Era. **AU** Edwards, Sebastian; Santaella, Julio A. **AA** Edwards: University of California, Los Angeles and National Bureau of Economic Research. Santaella: University of California, Los Angeles. **SR** National Bureau of Economic Research Working Paper: 4047; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** \$5.00. **JE** F33, N20. **KW** Bretton Woods. IMF.

**AB** This paper uses historical data from the Bretton Woods era to analyze the effectiveness of devaluation-based adjustment programs in the developing countries. Forty eight major devaluations undertaken between 1954 and 1971 are investigated in detail in an effort to understand the circumstances leading to these adjustment programs, as well as their degree of effectiveness. An important aspect of the analysis is the distinction between devaluations undertaken within the context of IMF programs, and devaluations implemented independently. We find out that, in general, countries with lower income per capita and deeper economic problems tended to seek IMF support with greater frequency. With respect to the effectiveness of these devaluation programs, our findings support the notion that devaluations accompanied by restrictive and consistent macroeconomic policies are an efficient and powerful adjustment tool.

**Egginton, Don**

**PD** March 1992. **TI** Executive and Employee Share Options: Taxation, Dilution and Disclosure. **AU** Egginton, Don; Forker, John; Grout, Paul. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/321; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 19. **PR** no charge. **JE** H25, J33. **KW** Share Options. Corporate Tax.

**AB** Share option schemes have grown substantially in the UK in recent years. Disclosure requirements have not kept pace with innovation and fuller disclosure of directors' option rewards has been among the recommendations of institutional shareholders on corporate governance. The current requirements are the result of unhappy historical accident: they are simultaneously complex and incomplete, achieving patchy compliance. This paper develops a comparative analysis of the post-tax cost of options which indicates that purchase is likely to be the cheaper method, and goes on to show that statutory disclosure requirements are less demanding when options are satisfied by the purchase of existing shares.

**Ellis, Randall P.**

**TI** Medicare Payment to Psychiatric Facilities: Unfair and Inefficient? **AU** Cromwell, Jerry; Harrow, Brooke S.; Ellis, Randall P.; McGuire, Thomas G.

**PD** April 1991. **TI** The Demand for Outpatient Medical Care in Rural Kenya. **AU** Ellis, Randall P.; Mwabu, Germano M. **AA** Ellis: Boston University. Mwabu: Kenyatta University. **SR** Boston University Industry Studies Program Discussion Paper Series: 6; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 27. **PR** no charge. **JE** I11, I12. **KW** Medical Treatment.

**AB** This paper develops a new specification of the demand for outpatient medical care and then estimates the model using data from a household survey conducted in rural Kenya in 1989. A four-stage nested logit model is used with a variable

number of choices at several nodes. This study finds that income and wealth variables are negatively related to reporting an illness, but positively related to deciding to seek treatment. Most of the demographic variables seem to influence the probability of reporting an illness rather than the decision to seek treatment.

**TI** Mental Health Provider Response to the Reimbursement System. **AU** Harrow, Brooke S.; Ellis, Randall P.

**Engberg, Holger**

**PD** March 1992. **TI** Index Numbers and International Trade. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-12; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 31. **PR** \$5.00. **JE** F10, F17. **KW** Terms of Trade. International Economics.

**AB** In this paper we explore various types of index numbers as they are used in international economics. The focus is on the measurement of a country's terms of trade. For this purpose we construct a simplified trade balance for a fictitious country, Belgravia, with quantities and prices for exports and imports. We use these numbers to illustrate different ways in which the trade balance can be summarized, including the use of different terms of trade measures. We are not merely interested in the mechanics of index numbers, such as price and volume indexes for exports and imports; more important is to address the problems of interpreting index numbers and to get an understanding of why these problems exist. Specifically, it is important to understand what index numbers cannot tell us.

**Engel, Charles**

**PD** April 1992. **TI** Distribution of Rents and Growth. **AU** Engel, Charles; Kletzer, Kenneth M. **AA** Engel: University of Washington. Kletzer: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 656; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 29. **PR** \$2.00 + postage. **JE** O40, H30, H23. **KW** Growth. Externalities. Rents. Fiscal Policies.

**AB** This paper constructs a very simple model to investigate the effects of the intergenerational distribution of rents on saving, growth, and fiscal policy. The rents in this model are generated from an investment externality. We consider a model in which the population grows at a constant rate, with new generations unrelated to previous ones. The model considered can have sustained growth in output per capita or can converge to a steady-state, depending on parameter values. The distribution of rents between labor and owners of firms affects the rate of growth in both cases.

**Epple, Dennis**

**PD** January 1992. **TI** Equilibrium Among Jurisdictions When Households Differ by Preferences and Income. **AU** Epple, Dennis; Platt, Glenn J. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-08; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, PA 15213-3890. **PG** 46. **PR** no charge. **JE** H71, H73, R20. **KW** State and Local Government. Finance. Urban Economics.

**AB** This paper studies equilibrium in a system of local

jurisdictions when households differ by both preferences and income. Differences in preferences may be either idiosyncratic or associated with differing demographic characteristics. Households are free to move among communities that offer different tax-expenditure packages. Within communities, households vote on the tax-expenditure package the community provides. We characterize the allocation of households across communities and voting outcomes within communities. We show that, in equilibrium, heterogeneity of preferences as well as incomes give rise to an allocation of households across communities in which stratification by income no longer holds. The welfare effects of local tax-expenditure policy on households of differing incomes and preferences are also presented.

#### **Erdos, P.**

**PD** October 1991. **TI** On Some of my Favourite Problems in Various Branches of Combinatorics. **AA** University of Budapest. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 683-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 14. **PR** no charge. **JE** C60. **KW** Combinatorics. Graph Theory. Chromatic Graphs.

**AB** I have published many papers with related titles. In this paper I present, in brief, fifteen problems in combinatorics which are still open.

#### **Ericsson, Neil R.**

**TI** The Power of Cointegration Tests. **AU** Kremers, Jeroen J. M.; Ericsson, Neil R.; Dolado, Juan J.

#### **Evans, Martin D. D.**

**PD** February 1992. **TI** Peso Problems and Heterogeneous Trading: Evidence From Excess Returns in Foreign Exchange and Euromarkets. **AU** Evans, Martin D. D.; Lewis, Karen K. **AA** Evans: New York University. Lewis: University of Pennsylvania and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4003; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$5.00. **JE** F31, G12, G15. **KW** Asset Prices. Risk Premia. Peso Problem.

**AB** Theoretical and empirical studies have treated excess returns as processes with time-varying but temporary disturbances. By contrast, empirical evidence indicates that the behavior of asset price levels can be well-approximated by processes with some permanent disturbances. These two observations restrict the relationship between the levels of asset prices and the excess returns they generate. In this paper, we begin by testing these restrictions for foreign exchange and bond returns. Surprisingly, we reject these restrictions for some returns, implying that excess returns contain some permanent shocks. We then evaluate the possible reasons for these results.

**PD** March 1992. **TI** Expected Returns, Time-Varying Risk and Risk Premia. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-13; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 32. **PR** \$5.00. **JE** G12. **KW** Risk. Capital Asset Pricing Model.

**AB** This paper estimates a new empirical model for the

intertemporal [multiple-beta] capital asset pricing model that allows for both time-varying risk premia and betas where the latter are identified from the dynamics of the conditional covariance matrix of returns. I find that the ICAPM is much more successful in explaining the predictable variations in excess returns when the returns on the stock market and corporate bonds are included as risk factors than when the stock market is the single risk factor. Although changes in the covariance of returns induce significant variations in the betas over the business cycles, the model estimates show that most of the predictable movements in returns can be attributed to changes in the risk premia.

#### **Evans, Paul**

**PD** October 1991. **TI** Management Development as Glue Technology. **AA** INSEAD. **SR** INSEAD Working Paper: 91/59/OB; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 43. **PR** not available. **JE** D23, L20, M10. **KW** Centralization-Decentralization Dilemma. Operational Linkages.

**AB** In the global enterprise, one of the major tasks of management development is providing organizational glue-integrating subsidiaries and other units that need their own autonomy. In this way the firm is able to escape the traditional centralization-decentralization dilemma. The article outlines a hierarchy of tools of glue technology and the pitfalls in their use. It emphasizes the importance of "dosing the glue" so to focus on building strategic and operational linkages, avoiding the traps of "strong culture" firms. Finally, a paradox is discussed: while the human resource function has an important role to play in managing management development, that function is itself often a prisoner of the centralization-decentralization dilemma.

#### **Evans, William N.**

**PD** January 1992. **TI** Structure, Conduct, and Performance in the Deregulated Airline Industry. **AU** Evans, William N.; Kessides, Ioannis. **AA** Evans: University of Maryland. Kessides: The World Bank. **SR** University of Maryland Department of Economics Working Paper: 92-2; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 18. **PR** no charge. **JE** L10, L20, L93. **KW** Airline Industry. Deregulation.

**AB** In this paper, we will review some of the intended and unintended effects of airline deregulation. On balance, we believe the vast majority of evidence indicates that deregulation has been a success. However, the facts will indicate that most of the benefits of deregulation have come at some cost. Although most consumers today have a greater choice of airlines on any given route, the industry has become more concentrated at the national level. As we indicate below, this consolidation may have had a dampening effect on airline competition. Likewise, the hub-and-spoke method of delivery that allows cities to be linked via one-stop or non-stop service also has led to increased concentration at many hub airports, raising prices on flights to and from the hub.

#### **Evenson, Robert E.**

**PD** January 1992. **TI** Two Blades of Grass: Research for U.S. Agriculture. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 653; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 70. **PR** \$2.00 + postage. **JE** Q16, Q10.



**KW** Productivity. Research and Development.

**AB** This paper reports an analysis of determinants of changes in Total Factor Productivity (TFP) in U.S. agriculture over the 1950-1982 period. It reports separate measures of growth for the crop and livestock producing sectors. A statistical analysis relates TFP growth in each sector to past investments in public sector agricultural research and extension programs, private sector R&D, schooling of farmers, geo-climate factors, off farm employment opportunities, and farm policy regimes.

#### Fair, Ray C.

**PD** February 1992. **TI** The Cowles Commission Approach, Real Business Cycle Theories, and New Keynesian Economics. **AA** Cowles Foundation and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3990; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$5.00. **JE** E12, E13, C50. **KW** Structural Macroeconometric Models.

**AB** The Cowles Commission approach is reviewed and compared to the approaches of real business cycle (RBC) theorists and new Keynesian economists. It is argued the RBC models are not tested in a serious enough way and that the new Keynesian literature is not empirical enough for testing even to be a serious possibility. Macroeconomics seems to be moving away from its traditional empirical basis, which is sad. This paper argues for returning to the path that was abandoned by most macroeconomists around 1970, namely the specification and testing of structural macroeconometric models.

#### Feenstra, Robert C.

**PD** June 1992. **TI** Trade With Mexico and Water Use in California Agriculture. **AU** Feenstra, Robert C.; Rose, Andrew K. **AA** Feenstra: University of California, Davis. Rose: University of California, Berkeley. **SR** University of California at Davis Economics Department Working Paper: 399; Department of Economics, University of California at Davis, Davis, CA 95616-8578. **PG** 30. **PR** \$3.00 U.S. and Canada. \$4.00 International. **JE** F15, Q17. **KW** Free Trade Agreement. Water Distribution. Mexico.

**AB** In this paper, we analyze the potential effects of the Mexico-U.S. Free Trade Agreement on American agriculture, focusing on California. We find that the direct effects will be small. The sector most likely to be affected by the FTA is the horticultural sector of fresh fruit and vegetables. While American production will be somewhat adversely affected, the effects should not be that large, and the direct net social gains will likely be substantially less than \$25 million annually. The gains to consumers exceed this amount, of course, and if we extend our results to all horticultural products the consumer gains may be on the order of \$100 million. The FTA may also have large indirect effects on agricultural water consumption, especially if combined with reform of the present system of water distribution. The social gains from introducing a market for the allocation of water in California are on the order of \$150 million annually.

#### Feldstein, Martin

**PD** March 1992. **TI** The Effects of Tax-Based Saving Incentives on Government Revenue and National Saving. **AA** National Bureau of Economic Research and Harvard University. **SR** National Bureau of Economic Research Working Paper: 4021; National Bureau of Economic Research,

1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** \$5.00. **JE** E21, E62, H24. **KW** Individual Retirement Accounts. Tax Revenue.

**AB** This paper shows that previous analyses of IRA-type plans have miscalculated their effect on tax revenue and therefore on national saving by ignoring their impact on corporate tax payments. Recognizing the important effect of IRA plans on corporate tax revenue changes previous conclusions about the revenue effects of IRA plans in fundamental ways. The revenue loss associated with IRAs is either much smaller than has generally been estimated or is actually a revenue gain, depending on the time horizon and key parameter values. In addition to analyzing the effects of traditional tax-deductible IRA plans, the paper presents an alternative nontaxable IRA (in which contributions are not deductible and no subsequent tax is levied on earnings or withdrawals) and shows that, for the most plausible parameter values, the net revenue effect is positive in every year.

**PD** March 1992. **TI** College Scholarship Rules and Private Saving. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4032; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$5.00. **JE** E21, I22. **KW** Education Capital Levies. Education Tax Rates.

**AB** This paper examines the effect of existing college scholarship rules on the incentive to save. The analysis shows that families that are eligible for college scholarships face "education tax rates" on capital income of between 22 percent and 47 percent in addition to regular state and federal income taxes. The scholarship rules also impose an annual tax on previously accumulated assets. Through the combination of the implied tax on capital income and the associated tax on previously accumulated assets, the scholarship rules that apply to a middle-income family reduce the value of an extra dollar of accumulated assets by 30 cents in four years. A similar family with two children who attend college in succession will see an initial dollar of assets reduced to 50 cents. Such capital levies of 30 to 50 percent are a strong incentive not to save for college expenses but to rely instead on financial assistance and even on regular market borrowing. Moreover, since any funds saved for retirement are also subject to these education capital levies, the scholarship rules discourage retirement saving as well as saving for education.

#### Fernandez, Raquel

**PD** February 1992. **TI** Human Capital Accumulation and Income Distribution. **AU** Fernandez, Raquel; Rogerson, Richard. **AA** Fernandez: Boston University and National Bureau of Economic Research. Rogerson: University of Minnesota and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3994; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 22. **PR** \$5.00. **JE** J24, I22. **KW** Subsidies. Education.

**AB** This paper analyzes the extent to which education will be subsidized when the subsidy rate is determined by majority voting. The analysis takes place in a framework where education is a discrete decision and all individuals would like to obtain an education because of its effect on future earnings. Individuals differ in their initial income levels. The non-existence of credit markets implies that initial income is a determinant of who actually obtains an education. We consider

the outcome of a process in which income is taxed to provide subsidies for education, and taxes are chosen by majority voting. We characterize the outcome as a function of both the level and the distribution of income in the economy. In particular we derive conditions under which middle income individuals ally themselves with upper income individuals at the expense of lower income individuals, and vice versa.

### Ferreira, Jose-Luis

**PD** May 1992. **TI** Credible Equilibria in Games with Utilities Changing During the Play. **AU** Ferreira, Jose-Luis; Gilboa, Itzhak; Maschler, Michael. **AA** Ferreira: University of Pennsylvania. Gilboa: Northwestern University. Maschler: Hebrew University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 988; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 44. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** C70, C72, C71, D11. **KW** Changing Preferences. Nash Equilibrium. Coalition Proof Equilibria.

**AB** Whenever one deals with an interactive decision situation of long duration, one has to take into account that priorities of the participants may change during the conflict. In this paper we propose an extensive-form game model to handle such situations and suggest and study a solution concept, called credible equilibrium, which generalizes the concept of Nash equilibrium. We also discuss possible variants to this concept and applications of the model to other types of games.

### Findlay, Ronald

**PD** 1991. **TI** The Roots of Divergence: Western Economic History in Comparative Perspective. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 583; Department of Economics, Columbia University, New York, New York 10027. **PG** 12. **PR** \$5.00. **JE** N01, N63, N64, N65. **KW** Manufacture. Trade.

**AB** Now that Japan has "overtaken and surpassed" the West in the arts of manufacture, it is perhaps possible to look at the familiar old problem of "the rise of the West" in a more sober and less exclusively Eurocentric way. No longer is it possible to imagine some unique set of individual and social characteristics that gave Western society an inherent superiority over others in the realm of economic organization and its associated scientific and technological base.

**TI** Endogenous Comparative Advantage, Government, and the Pattern of Trade. **AU** Clarida, Richard H.; Findlay, Ronald.

**PD** August 1991. **TI** Wage Dispersion, International Trade and the Services Sector. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 556; Department of Economics, Columbia University, New York, New York 10027. **PG** 15. **PR** \$5.00. **JE** F11, O40, J31. **KW** International Trade. Human Capital Formation. Income Distribution.

**AB** The approach used in the early literature in the field of international trade, the comparative statics of simple, stylized general equilibrium models, is still a powerful tool for dealing with the problems of today in the areas of trade and growth. To demonstrate this point, I devote this paper to an attempt to

show how a simple extension of the "workhorse" model of the fifties and sixties can be used to throw light on several notable phenomena in recent economic experience. The model that I propose to use is a 3X3 general equilibrium model, with some special features that will render it particularly tractable. It is a hybrid with both Heckscher-Ohlin and Viner-Ricardo components. The application of the model to issues of human capital formation and international trade follows my earlier work in Findlay and Kierzkowski (1983) but the introduction of a "services" sector is a new feature.

**PD** January 1992. **TI** Natural Resources, "Vent for Surplus" and the Staples Theory: Trade and Growth with an Endogenous Land Frontier. **AU** Findlay, Ronald; Lundahl, Mats. **AA** Findlay: Columbia University. Lundahl: Stockholm School of Economics. **SR** Columbia University Department of Economics Discussion Paper: 585; Department of Economics, Columbia University, New York, New York 10027. **PG** 36. **PR** \$5.00. **JE** O40, O10, F10. **KW** Economic Growth. Comparative Advantage.

**AB** The "vent of surplus" approach to trade and development, that Hla Myint (1956) derived from the writings of Adam Smith, is among the most celebrated of his contributions to economics. The objective of our paper is to unify the "vent for surplus" approach with what Watkins (1963) has called the "staples" theory of economic growth and the factor proportions theory of comparative advantage. The basis for the proposed unification will be the concept of an endogenous land frontier.

### Fishman, Arthur

**PD** March 1992. **TI** Experimentation in a Duopoly. **AU** Fishman, Arthur; Gandal, Neil. **AA** Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 7/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 9. **PR** no charge. **JE** D83, L12, L13. **KW** Learning. Experimentation. Duopoly.

**AB** The existing literature on optimal learning confines attention to the costs and benefits of experimentation when there is a single decision maker. In this paper, we consider equilibrium learning in an imperfectly competitive setting. The novel feature of the competitive setting is that experimentation involves strategic costs that are not present in the monopoly context. Using a simple model, we show that competition can inhibit the scope of learning, relative to a monopoly.

**PD** May 1992. **TI** The Informative Role of Prices in Markets with Endogenously Informed Buyers. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 10/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 22. **PR** no charge. **JE** L15. **KW** Endogenous Information. Quality Signals.

**AB** Sellers are typically better informed about product quality than their customers. Because sellers have an incentive to misrepresent quality, it may not be possible for market prices to effectively convey this information to rational consumers, as was first argued by Akerloff (1970). The purpose of this paper is to argue that even if sellers are initially better informed than buyers, prices may yet be informative if buyers can purchase additional information about quality from an external, reliable source. In this setting, the informative role of prices is shown to depend crucially on the cost of external information to consumers.

**Fleurbaey, Marc**

**PD** June 1992. **TI** Reward Patterns of Fair Division. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 398; Department of Economics, University of California at Davis, Davis, CA 95616-8578. **PG** 31. **PR** \$3.00 U.S. and Canada. \$4.00 International. **JE** D30, D51, D63. **KW** Fair Division. Egalitarian-Equivalence.

**AB** The fair solutions proposed in the literature of fair division are sensitive to the preference profiles of the agents. As a consequence, each of them displays a specific distribution pattern which may be interpreted as rewarding certain kinds of preferences at the expense of others. In the basic models with private goods and decreasing returns, the Equal Income Competitive Equilibrium tends to favor the eccentric preferences, whereas most egalitarian-equivalent solutions tend to reward the agents who like particular resources. The identification of the rewarding pattern of each mechanism sheds light on its ethical content, and may help select the adequate solution in concrete applications. In this analysis, a Preference Monotonicity property, comparable to the Population Monotonicity and Resource Monotonicity properties, turns out to be satisfied by many solutions.

**Foresi, Silerio**

**TI** Nonlinearities in Asset Prices and Infrequent Noise Trading. **AU** Balduzzi, Pierluigi; Bertola, Giuseppe; Foresi, Silerio.

**Forker, John**

**TI** Executive and Employee Share Options: Taxation, Dilution and Disclosure. **AU** Egginton, Don; Forker, John; Grout, Paul.

**Frankel, Jeffrey A.**

**PD** April 1992. **TI** Is Japan Creating a Yen Bloc in East Asia and the Pacific? **AA** University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4050; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$5.00. **JE** F02, F33. **KW** Japanese Yen. Trade Groups. Yen Bloc.

**AB** The paper reaches seven conclusions regarding the Yen Bloc that Japan is reputed to be forming in Pacific Asia. (1) Gravity-model estimates of bilateral trade show that the level of trade in East Asia is biased intra-regionally to a greater extent than can be explained naturally by distance. (2) There is no evidence of a special Japan effect. (3) Once one properly accounts for rapid growth in Asia, the statistics do not bear out a trend toward intra-regional bias of trade flows. (4) The world's strongest trade grouping is the one that includes the U.S. and Canada with the Asian/Pacific countries, i.e., APEC. (5) There is a bit more evidence of rising Japanese influence in East Asia's financial markets. (6) Some of Japan's financial and monetary influence takes place through a growing role for the yen, at the expense of the dollar. (7) But this trend is less the outcome of Japanese policy-makers' wishes, than of pressure from the U.S. government to internationalize the yen.

**Frederick, Kenneth D.**

**PD** April 1991. **TI** Assessing the Impacts of Climate Change on Water Scarcity. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources

Division Discussion Paper: ENR91-12; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 44. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q25. **KW** Climate Change. Water Scarcity.

**AB** This paper illustrates how the framework and data of the Second National Water Assessment can be adapted to undertake an internally coherent analysis of the impacts of alternative climate scenarios on the supply and demand for water within water-resource regions of the United States. The illustration considers the implications for the Missouri River Basin if the climate of the 1931-1940 period were to become the norm and the levels of water use and development were similar to those prevailing in the mid-1980s.

**Freeman, Richard B.**

**TI** Changes in Earnings Differentials in the 1980's: Concordance, Convergence, Causes, and Consequences. **AU** Blackburn, McKinley L.; Bloom, David E.; Freeman, Richard B.

**TI** The Fall in Private Pension Coverage in the U.S. **AU** Bloom, David E.; Freeman, Richard B.

**Fulghieri, P.**

**PD** December 1991. **TI** Financial Contracts As Lasting Commitments: The Case of a Leveraged Oligopoly. **AU** Fulghieri, P.; Nagarajan, S. **AA** Fulghieri: Columbia University. Nagarajan: McGill University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-92-01; Columbia University, Graduate School of Business, First Boston Series, New York, NY 10027. **PG** 26. **PR** \$5.00 academics and non-profit institution; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** D23, L13, L14. **KW** Lasting Contracts. Renegotiation. Asymmetric Information.

**AB** This paper re-examines a relatively ignored problem in the literature dealing with the use of financial contracts as commitment devices: such commitments can be undone in the short-run by renegotiating the contracts away, if it becomes mutually optimal for both parties to do so. When debt contracts are used to commit firms to aggressive output strategies in an oligopoly a la Brander-Lewis, it is shown that while the renegotiation possibility may undermine commitment under symmetric information, it is generally not serious under asymmetric information. We propose the notion of Lasting Contracts, which are contracts that survive the renegotiation process under asymmetric information.

**Gale, Douglas**

**PD** October 1990. **TI** Optimal Risk Sharing Through Renegotiation of Simple Contracts. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 90-3; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 18. **PR** no charge. **JE** D81, C78. **KW** Contingencies. Risk Sharing.

**AB** We frequently observe that contracts do not include all of the contingencies that would seem to be necessary for optimal risk sharing between the parties to the contract. One reason may be that the possibility of renegotiation makes the contract more contingent than it appears. A simple contracting problem is used to show how even a simple contract may achieve optimal risk-sharing if new information arrives slowly relatively to the speed of renegotiation.



**Galeotti, Marzio**

**PD** July 1991. **TI** Variable Markups in a Model with Adjustment Costs: Econometric Evidence for U.S. Industry. **AU** Galeotti, Marzio; Schiantarelli, Fabio. **AA** Galeotti: Università degli Studi di Brescia. Schiantarelli: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 16; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 19. **PR** no charge. **JE** D21, D43, D92. **KW** Markups. Adjustment Costs.

**AB** In this paper we investigate the degree of market power in U.S. manufacturing industries and whether that power is affected by fluctuations in demand. The key feature of our contribution is that it imposes on a model with adjustment costs the minimum structure necessary to recover a measure of the markup of output price over marginal cost. The paper also presents evidence on the degree of returns to scale. We conduct the empirical investigation for U.S. two-digit manufacturing industries using annual data covering 1952 through 1985. Our estimates suggest that markups are smaller than those found in studies that abstract from adjustment costs.

**Gali, Jordi**

**PD** January 1992. **TI** Monopolistic Competition, Business Cycles and the Composition of Aggregate Demand. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-92-03; Columbia University, Graduate School of Business, First Boston Series, New York, NY 10027. **PG** 21. **PR** \$5.00 academics and non-profit institution; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** L13, E32. **KW** Elasticity. Expectations.

**AB** If the elasticity of substitution across goods in consumption is different from that in production, the effective demand elasticity faced by monopolistically competitive firms depends on the composition of aggregate demand. In that case, we show how stationary fluctuations driven by self-fulfilling revisions of expectations (i.e. stationary sunspot equilibria) are possible for plausible parameter values. For a subset of the latter, such fluctuations are characterized by time series properties similar to those observed in business cycles.

**PD** March 1992. **TI** Variability of Durable and Nondurable Consumption: Evidence for Six O.E.C.D. Countries. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-92-06; Columbia University, Graduate School of Business, First Boston Series, New York, NY 10027. **PG** 17. **PR** \$5.00 academics and non-profit institution; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** D12, E21. **KW** Permanent Income Hypothesis. Excess Smoothness. Excess Volatility.

**AB** We estimate consumption variability ratios for both durables and nondurables consumption, using data for six OECD countries. Our methodology, which relies on a long-run restriction implied by the consumer's intertemporal budget constraint, overcomes many of the problems inherent to previous approaches. Some important departures from the permanent income model emerge: (i) nondurables consumption shows mild excess smoothness in the U.S. and Italy, and mild excess volatility in Japan and France, and (ii) durables consumption show extreme excess smoothness in all countries. Alternative factors capable of generating the differences in volatility across types of goods are discussed.

**Gandal, Neil**

**PD** December 1991. **TI** Movie Wars. **AU** Gandal, Neil; Salant, David J. **AA** Gandal: Tel Aviv University. Salant: GTE Laboratories Incorporated. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 36/91; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 19. **PR** no charge. **JE** D43, L13. **KW** Contracts. Entertainment Industry. Oligopoly.

**AB** In many industries, competing firms have market power in two markets at once. In an "upstream" market they compete as oligopsonists for some key input(s) and in a "downstream" market they compete as oligopolists for sales. The outcome of upstream competition affects the position of the firms downstream. Examples of such competition are particularly common in the entertainment industry as are exclusive contracts between program suppliers and distributors. This paper analyzes the effects of such exclusive agreements. We show how exclusive contracts affect the variety of programming purchased upstream, the prices charged downstream, firm profits, and consumer welfare.

**TI** Experimentation in a Duopoly. **AU** Fishman, Arthur; Gandal, Neil.

**Gangzhan, F.**

**PD** March 1992. **TI** Unemployment in Urban China: An Analysis of Survey Data from Shanghai. **AU** Gangzhan, F.; Hussain, A.; Pudney, S.; Wang L. **AA** London School of Economics. **SR** LSE Research Programme on the Chinese Economy: CP/21; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 40. **PR** no charge. **JE** J64, J65, P29. **KW** Unemployment. China.

**AB** We analyze the unemployment problem in the largest Chinese city, Shanghai, based on a survey of the unemployed conducted in late 1989. We find, as expected, that unemployment is particularly serious among school-leavers and contract and temporary workers, but also find a surprisingly high incidence of unemployment amongst permanent state employees and relatively long unemployment durations. The Shanghai unemployed rely heavily on occasional work for support, and only a small proportion receive state benefit. We identify problems of interpretation stemming from the stock-sampling nature of the survey, and use non-parametric methods to reveal an underlying strong downward movement in individual re-employment probabilities.

**Garnsey, Elizabeth W.**

**PD** July 1991. **TI** Acquisition as Long Term Venture; Cases from High Technology Industry. **AU** Garnsey, Elizabeth W.; Alford, Helen; Roberts, John. **AA** Cambridge University. **SR** University of Cambridge Small Business Research Centre Working Papers: 9; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 24. **PR** \$10.00 (L5.00), checks payable to University of Cambridge. **JE** G32, G34, M10. **KW** Small Firms. High Technology. Organizational Change.

**AB** We explore the experience of three U.K. high technology firms acquired by German companies. In each case, acquisition after the failure of the entrepreneurial firm involved a process of post-crisis adjustment followed by recovery and the gradual

emergence of a satisfactory *modus vivendi*, as a basis for the achievement of synergy. Strategic investment was based on a calculation of the longer term potential of acquisition. The parent corporations provided resources to remedy the crisis and invest in the future. All three acquiring corporations independently adopted a policy of placing professional local managers in charge, allowing a certain autonomy but requiring accountability through the introduction of performance indicators.

**PD** July 1991. **TI** Aftermath of Acquisition of High Technology Ventures: A Further Case Comparison. **AU** Gamsey, Elizabeth W.; Roberts, John. **AA** Cambridge University. **SR** University of Cambridge Small Business Research Center Working Paper: 10; Department of Economics, University of Cambridge, Sidgwick Avenue, CB3 9DE Cambridge. **UNITED KINGDOM. PG** 22. **PR** \$10.00 checks payable to University of Cambridge. **JE** L10, L11, G34. **KW** Small Firms. Organizational Change.

**AB** We report here on the experience of two cases from the U.K. of acquisition of information technology ventures by larger corporations. In this follow-up study we identify the phases which are undergone in the merger following acquisition: adjustment, familiarization, and a period of effective co-existence precede the possibility of achieving synergy. Performance may be affected during the first two or three phases. We identify three types of post-acquisition policy. Acquisition of a new product or technology is a short term gain; acquisition of an innovative team capable of R and D or other innovative activity yielding future benefit calls for a different approach.

### Gately, Dermot

**PD** May 1992. **TI** The Imperfect Price-Reversibility of World Oil Demand. **AA** New York University. **SR** New York University Economic Research Report: 92-21; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 20. **PR** no charge. **JE** Q41. **KW** Oil Demand. Hysteresis. Price Reversibility.

**AB** This paper analyzes the imperfect price-reversibility ("hysteresis") of oil demand in the OECD and LDC. The oil demand reductions following the oil price increases of the 1970's will not be completely reversed by the price cuts of the 1980's. The response to price cuts in the 1980's is perhaps only one-fifth that for price increases in the 1970's. This has dramatic implications for projections of oil demand, especially under low-price assumptions. We also consider the demand effects of a price recovery in the 1990's, specifically whether the effects would be as large as for the price increases of the 1970's or only as large as the smaller demand reversals of the 1980's. Finally, we demonstrate the implications of wrongly assuming that demand is perfectly price-reversible.

### Gatignon, Hubert

**TI** Specifying Competitive Effects in Diffusion Models: An Empirical Analysis. **AU** Parker, Philip; Gatignon, Hubert.

### Genesove, David

**TI** Testing for Price Anomalies in Real Estate Auctions. **AU** Ashenfelter, Orley; Genesove, David.

### Gertler, Mark

**PD** February 1992. **TI** Monetary Policy, Business Cycles and the Behavior of Small Manufacturing Firms. **AU** Gertler, Mark; Gilchrist, Simon. **AA** Gertler: New York University. Gilchrist: Federal Reserve Board. **SR** New York University Economic Research Report: 92-08; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 37. **PR** no charge. **JE** E00, E50. **KW** Credit Markets. Small Firms.

**AB** We present evidence on the cyclical behavior of small versus large manufacturing firms, and on the response of the two classes of firms to monetary policy. Our goal is to take a step toward quantifying the role of credit market imperfections in the business cycle and in the monetary transmission mechanism. We find that, following tight money, small firms sales decline at a faster pace than large firm sales for a period of more than two years. Further, bank lending to small firms contracts, while it actually rises for large firms. Monetary policy indicators tied to the performance of banking, such as M2, have relatively greater predictive power for small firms than for large. Finally, small firms are more sensitive than are large to lagged movements in GNP.

### Gilbert, Richard J.

**PD** May 1992. **TI** Regulating Complementary Products: A Problem of Institutional Choice. **AU** Gilbert, Richard J.; Riordan, Michael H. **AA** Gilbert: University of California, Berkeley. Riordan: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 27; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 34. **PR** no charge. **JE** D82, L14, L22 L51. **KW** Regulation. Utilities. Asymmetric Information.

**AB** Optimal regulation, subject to informational constraints, is analyzed for industries where production requires complementary inputs. A regulatory policy issue is whether supply in these industries should be "bundled" or "unbundled". Bundled supply calls for regulation of a vertically integrated industry. Unbundled supply allows regulation to be confined to natural monopoly services with access to essential facilities at regulated prices. A main result is that unbundling supply introduces an information cost that is similar to the problem of "double marginalization" in the pricing of complementary products. Unbundling may be advantageous if it allows competition in non-monopoly services, however the informational cost can exceed the benefits of competition.

### Gilboa, Itzhak

**PD** April 1992. **TI** Additive Representations of Non-Additive Measures and the Choquet Integral. **AU** Gilboa, Itzhak; Schmeidler, David. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 985; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 35. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** D80, D81, D71. **KW** Non-Additive Measures. Choquet Integral.

**AB** This paper studies some new properties of set functions (and, in particular, "non-additive probabilities" or "capacities") and the Choquet integral with respect to such functions, in the

case of a finite domain. We use an isomorphism between non-additive measures on the original space (of states of the world) and additive ones on a larger space (of events), and embed the space of real-valued functions on the former in the corresponding space on the latter. This embedding gives rise to the following results: 1) the Choquet integral with respect to any totally monotone capacity is an average over minima of the integrand; 2) the Choquet integral with respect to any capacity is the difference between minima of regular integrals over sets of additive measures; 3) under fairly general conditions one may define a "Radon-Nikodym derivative" of one capacity with respect to another; 4) the "optimistic" pseudo-Bayesian update of a non-additive measure follows from the Bayesian update of the corresponding additive measure on the larger space.

**PD** April 1992. **TI** Canonical Representation of Set Function. **AU** Gilboa, Itzhak; Schmeidler, David. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 986; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 32. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** D80, D81, D71, C71. **KW** Cooperative Games. Unanimity Games. Non-Additive Measures.

**AB** The representation of a cooperative transferable utility game as a linear combination of unanimity games may be viewed as an isomorphism between not-necessarily additive set functions on the players space and additive ones on the coalitions space. We extend the unanimity-basis representation to general (infinite) spaces of players, study spaces of games which satisfy certain properties and provide some conditions for sigma-additivity of the resulting additive set function (on the space of coalitions). These results also allow us to extend some representations of the Choquet integral from finite to infinite spaces.

**PD** April 1992. **TI** Why the Empty Shells Were Not Fired: A Semi-Bibliographical Note. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 987; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 14. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** C70, D63. **KW** Common Prior Assumption. Bayesian Rationality.

**AB** This note documents Aumann's reason for omitting the "empty shells" argument for the common prior assumption from the final version of "Correlated Equilibrium as an Expression of Bayesian Rationality." It then continues to discuss the argument and concludes that rational entities cannot learn their own identity; if they do not know it a priori, they never will.

**TI** Credible Equilibria in Games with Utilities Changing During the Play. **AU** Ferreira, Jose-Luis; Gilboa, Itzhak; Maschler, Michael.

### Gilchrist, Simon

**TI** Monetary Policy, Business Cycles and the Behavior of Small Manufacturing Firms. **AU** Gertler, Mark; Gilchrist, Simon.

### Glazer, Amihai

**PD** November 1991. **TI** Intertemporal Commitment Problems and Voting on Redistributive Taxation. **AU** Glazer, Amihai; Konrad, Kai A. **AA** Glazer: Carnegie Mellon University and University of California, Irvine. Konrad: University of Munich and University of California, Irvine. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-10; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, PA 15213-3890. **PG** not available. **PR** no charge. **JE** H41, H31, D72. **KW** Taxation. Redistribution. Voting.

**AB** A rich person who fears a loss of income may later favor redistributive taxation and a mix of taxes and public goods that differs from the one he now favors. If mobility is costly, and if government in each period uses majority voting to determine policy, then this person may prefer that in the future the community have poor residents. Voting now for redistribution and other policies favored by the poor can ensure that outcome. Rich persons may therefore favor policies that in the current period benefit the poor.

**PD** January 1992. **TI** The Politics of Delay. **AA** Carnegie Mellon University and University of California, Irvine. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-09; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, PA 15213-3890. **PG** not available. **PR** no charge. **JE** D72, E61. **KW** Voting. Tariffs.

**AB** A particular public policy may be politically unpopular if implemented immediately. The same policy, however, may attract support later if economic agents expect its implementation, adjust their behavior accordingly, and would suffer losses were the policy not implemented. Political leaders may therefore announce an intention to implement a policy later, rather than pushing for its immediate adoption. The idea is illustrated with models of import tariffs and of inflation.

**PD** January 1992. **TI** Integration, Segregation, and Discrimination in Clubs. **AU** Glazer, Amihai; Mumy, Gene E.; Niskanen, Esko. **AA** Glazer: Carnegie Mellon University and University of California, Irvine. Mumy: Ohio State University. Niskanen: Government Institute for Economic Research, Finland. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-11; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, PA 15213-3890. **PG** not available. **PR** no charge. **JE** D71. **KW** Clubs. Discrimination. Segregation.

**AB** Suppose consumers at a club benefit from the presence of consumers of another type. The competitive equilibrium will have at most one type of integrated club. If some type of consumer is sufficiently numerous then some of these will be in segregated clubs, while others will be in integrated clubs. We consider several methods of promoting integration in that case: taxing segregated clubs, requiring all clubs to be integrated, and forbidding a club from charging different consumers different prices. These policies can promote integration. They will usually reduce the utility of that type of consumer who initially used segregated clubs.

### Glazer, Jacob

**PD** February 1992. **TI** Should Physicians be Permitted to "Balance Bill" Patients? **AU** Glazer, Jacob; McGuire, Thomas G. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 5;



Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 33. **PR** no charge. **JE** I11, I18. **KW** Medical Insurance. Billing Practices. Health Care.

**AB** This paper considers the efficiency effects of physician billing practices when the insurer (possibly the government) pays a fee for each procedure, and the doctor may supplement the fee by an extra charge to the patient, a frequently criticized practice known as "balance billing." The paper models profit-maximizing behavior when balance billing is permitted and the monopolistically competitive physician can discriminate among patients on the basis of both price and quality. It then compares this solution to the case in which balance billing is prohibited, and the doctor must sell at the insurer-set fee or not at all. The paper analyzes and recommends a new fee policy, a form of payer "fee discrimination."

**PD** February 1992. **TI** The Economics of Referrals. **AU** Glazer, Jacob; McGuire, Thomas G. **AA** Glazer: Boston University and Tel Aviv University. McGuire: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 20; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 27. **PR** no charge. **JE** I11, D43, D21. **KW** Referrals. Health Care. Physician Substitute.

**AB** This paper considers markets for personal services in which the seller may turn down (refer) buyers because the buyer may not stay long enough for the seller to cover costs. There are two types of sellers, which we call doctors and counselors, and a distribution of buyers (patients) characterized by a probability of success with the lower-cost counselor. We show that if counselors form a cartel, they will serve too many patients and refer too little, relative to the social optimum. If, on the other hand, counselors compete for patients and patients have to bear some starting costs whenever they see a new counselor, then, in equilibrium, counselors set fees too low, take too few patient types, and refer too many relative to the social optimum.

### Glomm, Gerhard

**PD** May 1992. **TI** On the Social Stability of Coalitional Property Rights Regimes. **AU** Glomm, Gerhard; Lagunoff, Roger D. **AA** Glomm: University of Virginia. Lagunoff: University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-12; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 28. **PR** no charge. **JE** D50, D51. **KW** Coalitions. Stability. Core.

**AB** We give a model of coalitional property rights (CPR) regimes - regimes in which ownership of a good is attributable to coalitions of various sizes. Specifically, for each good, we define a legal structure that specifies the legal coalitions of individuals that share a communal claim to that good. We then ask: what types of CPR regimes are socially stable in the sense of having a nonempty core? We give conditions on the legal structure and the primitives of the economy that achieve social stability in this sense. Three successively more general models are studied: (I) Unanimity rules, (II) Pure Exclusion rules, and (III) Partial Exclusion rules.

### Gode, Dhananjay K.

**PD** October 1991. **TI** Allocative Efficiency of Markets with Zero Intelligence (ZI) Traders: Market as a Partial Substitute for Individual Rationality. **AU** Gode, Dhananjay

K.; Sunder, Shyam. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-16; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, Pittsburgh PA 15213-3890. **PG** 27. **PR** no charge. **JE** C90, D44. **KW** Double Auctions. Institutions. Rationality.

**AB** The paper reports the results of double auction and sealed-bid auction experiments in which human traders are replaced by "zero intelligence" programs that submit random bids and offers. We find that imposition of a budget constraint (i.e., not permitting the traders to incur losses by selling below their costs or buying above their redemption values) is sufficient to push the allocative efficiency of these auctions close to one hundred percent. The results suggest that allocative efficiency of markets is, in large part, a consequence of their structure and is independent of motivation, intelligence, or learning by individuals who participate in them. Adam Smith's invisible hand may be more powerful than some may have thought: when embodied in the double auction mechanism, it may generate aggregate rationality not only from individual rationality but also from individual irrationality.

**PD** February 1992. **TI** Lower Bounds for Efficiency of Surplus Extraction in Double Auctions. **AU** Gode, Dhananjay K.; Sunder, Shyam. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-17; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, Pittsburgh PA 15213-3890. **PG** 33. **PR** no charge. **JE** D44. **KW** Institutional Efficiency. Double Auctions. Minimum Efficiency.

**AB** The assumption of utility maximizing traders in economic theory is often criticized because it ignores the well-documented cognitive limitations of human beings. However, the implications of this discrepancy between facts and assumptions about human behavior for the predictions of economic theory have remained controversial. Zero-intelligence (ZI) traders serve as a lower benchmark of intelligence. The results obtained here demonstrate the robustness of certain theoretical predictions when the assumption of individual rationality is relaxed in the extreme.

### Goldberg, Linda S.

**PD** March 1992. **TI** Moscow Black Markets and Official Markets for Foreign Exchange: How Much Flexibility in Flexible Rates. **AA** New York University. **SR** New York University Economic Research Report: 92-11; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 33. **PR** no charge. **JE** F00, F31. **KW** Foreign Exchange. Flexible Rates. Black Markets.

**AB** Flexible exchange-rate systems often are not recommended for countries undergoing economic transition. In late 1989, the former Soviet Union instituted exchange-rate flexibility on the limited share of enterprise international transactions channelled through the auction and, later, interbank markets for foreign-currency trade. This paper details the regulatory evolution of this system and analyses the impact of announced and implemented policy initiatives on two sets of flexible exchange rates observed in Moscow: i) the exchange-rates instituted through foreign-currency auctions and interbank markets; and ii) black-market exchange rates on dollar-ruble trade. We ask whether the flexible-rate system, as implemented,

was associated with the negative or positive features of flexible exchange-rate systems.

### Goldfeld, Stephen M.

**PD** April 1992. **TI** Uncertainty, Bailouts, and the Kornai Effect. **AU** Goldfeld, Stephen M.; Quandt, Richard E. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 130; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 12. **PR** \$3.00 for U.S. mailings. \$6.00 for foreign mailings. **JE** D80, D21. **KW** Profit Maximization, Input Demand.

**AB** The paper investigates the conditions under which bailouts, received by the firm when it experiences negative operating profits, induce it to demand more inputs than in the standard competitive model, a phenomenon we label as the Kornai Effect. We posit a simple model in which the firm has a Cobb-Douglas production function and is subject to both revenue and cost uncertainty. This simple structure leads to a surprisingly complex set of outcomes and the expected-profit function can have several interior maxima. It turns out that the Kornai Effect's presence depends crucially on the productivity of the technology (the exponent in the Cobb-Douglas production function), the variances of the random variables that represent the two forms of uncertainty, and the correlation between them.

### Goodman, John L., Jr

**PD** March 1992. **TI** Market Power and the Pricing of Mortgage Securitization. **AU** Goodman, John L., Jr.; Passmore, S. Wayne. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 187; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 32. **PR** no charge. **JE** D40, G21. **KW** Mortgage Securities, Fannie Mae, Freddie Mac.

**AB** Fannie Mae and Freddie Mac face no effective competition in the market for their largest product line--"swaps" securitization of conforming single-family mortgages. In this paper we develop and estimate alternative duopoly models of pricing in this market. Our empirical tests provide evidence that Fannie Mae and Freddie Mac are not competitive duopolists of the Bertrand type. In addition, neither Fannie Mae or Freddie Mac appear to be a price leader for the duopoly. Our tests do not provide a definitive description of the type of collusion present in this industry. But a model that seems consistent with the structure of the market, a fluctuating demand model with tacit collusion, is also consistent with the high profits, changing market shares, and the pattern of movements in joint share.

### Gordon, Roger H.

**PD** November 1991. **TI** Taxes and the Form of Ownership of Foreign Corporate Equity. **AU** Gordon, Roger H.; Jun, Joosung. **AA** Gordon: University of Michigan. Jun: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 652; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 37. **PR** \$2.00 + postage. **JE** G15, F21, F23. **KW** International Direct Investment, International Portfolio Investment.

**AB** Taxes have complicated effects on the relative

attractiveness of foreign direct investments by multinational corporations vs. international portfolio investments by individual investors. The paper first examines the relative tax treatment of these two alternative means by which foreign equity can be purchased, then examines time-series and cross-section evidence to see to what degree ownership patterns respond to tax distortions. While some tax effects do show up in the data, estimated coefficients are small. Nontax factors seem to dominate in the choice of form of ownership of foreign corporate equity.

### Gourieroux, C.

**PD** September 1991. **TI** Pseudo-Likelihood Methods. **AU** Gourieroux, C.; Monfort, A. **AA** Gourieroux: CREST-ENSAE, Monfort: INSEE. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9120; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 44. **PR** no charge. **JE** C13, C12. **KW** Estimation, Misspecification, Pseudo-Likelihood Linear Exponential.

**AB** In this paper we propose a general presentation of the pseudo-likelihood methods. More precisely we are interested in various topics: the pseudo-maximum likelihood estimators which are adapted for the first order and the second order moments, the tests based pseudo-maximum likelihood estimators, the simulated pseudo-maximum likelihood estimators, the use of the pseudo-likelihood methods for the tests of non-nested hypotheses and for the selection of models.

**PD** September 1991. **TI** Two Stage Generalized Moment Method with Applications to Regressions with Heteroskedasticity of Unknown Form. **AU** Gourieroux, C.; Monfort, A.; Renault, E. **AA** Gourieroux: CREST and CEPREMAP, Monfort: INSEE, Renault: GREMAQ and IDEI. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9128; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 40. **PR** no charge. **JE** C10. **KW** Method of Moments, Heteroskedasticity.

**AB** We describe in a general framework a two stage generalized moment method. More precisely we explain how to partition the set of estimating constraints and to unfold the set of parameters in order to derive a two stage approach which is asymptotically equivalent to GMM. Then we consider a linear model and the GMM estimator based on constraints. We explain how to find an asymptotically equivalent estimator by replacing some of the errors by their corresponding OLS residuals. Finally we focus on constraints based on first and third conditional moments. The estimator thus obtained is asymptotically more efficient than the OLS estimator. The efficiency gain is linked with a marginal kurtosis of the distribution of errors or with the conditional heteroskedasticity.

### Gregoir, S.

**PD** November 1991. **TI** Multivariate Time Series. **AU** Gregoir, S.; Laroque, G. **AA** INSEE. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9126; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 29. **PR** no charge. **JE** C32. **KW** Error-Correction, Cointegration.

**AB** We consider the class of multivariate processes which give after enough differentiation covariance stationary processes whose determinants of the Wold representation have 1 as their only root on the unit circle. A representation theorem

is proved for this class of processes that generalizes the Granger representation theorem.

### Grenier, Gilles

**TI** Economic Perspectives on Language: The Relative Value of Bilingualism in Canada and United States. **AU** Bloom, David E.; Grenier, Gilles.

### Griffin, Clifford E.

**PD** March 1992. **TI** Power Relations and Conflict Neutralization in Latin America. **AA** North Carolina State University and Stanford University. **SR** Stanford Hoover Institute International Studies Working Paper: I-92-2; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 25. **PR** not available. **JE** F02. **KW** Dominant Powers. State Relations. Peace.

**AB** The primary objective of this paper is to test the proposition that the overwhelming preponderance of US power represents both a necessary and sufficient condition for maintaining peace and neutralizing otherwise irreconcilable conflicts of interest in Latin America. The null hypothesis is that other factors besides US power contribute to peace promotion and conflict neutralization in this region. US power preponderance over Latin America, therefore, represents only a sufficient condition for conflict neutralization.

**PD** March 1992. **TI** Interamerican Cooperation: Reassessment and Reevaluation. **AA** North Carolina State University and Stanford University. **SR** Stanford Hoover Institute International Working Paper: I-92-3; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 23. **PR** not available. **JE** F02, N46. **KW** Trade Policy. Latin America.

**AB** This paper argues that notwithstanding the change in global politics, optimism about greater multilateral cooperation under the aegis of the OAS must be tempered by the fact that there is nothing in the history of inter-American relations, the changing configuration of world power, nor changes in the distribution of power or coalition of forces within the region that is suggestive of any fundamental alteration of intra-hemispheric relations. Expectations must also be tempered by the fact that at the inter-American system level, multilateralism has been the exception rather than the rule. At best, multilateralism under the OAS will be very issue specific. Instead of greater multilateral cooperation under the OAS umbrella, the trend in inter-American relations will be toward the development of a U.S. directed, bilaterally based, hemisphere-wide, liberal-capitalist political economy under the domination of the U.S.

### Griliches, Zvi

**TI** Auditing the Producer Price Index: Micro Evidence From Prescription Pharmaceutical Preparations. **AU** Berndt, Ernst R.; Griliches, Zvi; Rosett, Joshua G.

**TI** The Inconsistency of Common Scale Estimators when Output Prices are Unobserved and Endogenous. **AU** Klette, Tor Jakob; Griliches, Zvi.

**PD** April 1992. **TI** Productivity and Firm Turnover in Israeli Industry: 1979-1988. **AU** Griliches, Zvi; Regev, Haim. **AA** Griliches: National Bureau of Economic Research and Harvard University. Regev: Central Statistical Bureau, Israel. **SR** National Bureau of Economic Research Working

Paper: 4059; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$5.00. **JE** E23, L11, N15, O53. **KW** Aggregate Productivity Growth. Industry Exit.

**AB** An analysis of a large panel data set on Israeli industrial firms finds that most of the growth in aggregate productivity comes from productivity changes within firms rather than from entry, exit, or differential growth; that firms which will exit in the future have lower productivity performance several years earlier (the "shadow of death" effect); and that, overall, there was little total factor productivity growth in Israeli industry during 1979-1988 (another "lost decade").

### Grossman, Gene M.

**TI** Asset Bubbles and Endogenous Growth. **AU** Yanagawa, Noriyuki; Grossman, Gene M.

### Grossman, Herschel I.

**PD** January 1992. **TI** Robin Hood and the Welfare State. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 92-1; Department of Economics, Brown University, Providence, Rhode Island 02912. **PG** 9. **PR** no charge. **JE** D74, D31. **KW** Resource Allocation. Production. Appropriation.

**AB** Can the redistribution of property income to the working class be the optimal response of the propertied class to the threat of extralegal appropriations, like the activities of Robin Hood's band, that would contravene the established system of property rights? This paper develops a theoretical model in which, if the competitively determined share of wages in total product is sufficiently small relative to the effectiveness of time allocated to extralegal appropriative activities, then a tax-financed wage subsidy that reduces the net income of the capitalists below what would be their competitively determined share could be consistent with maximizing the net income of the capitalists. In this model, the equilibrium share of wages is equal either to the competitively determined wage share or to a parameter that measures the effectiveness of time allocated to extralegal appropriative activities, whichever is larger. The redistribution of income causes the workers to refrain from extralegal appropriative activities. In effect, it induces them to acquiesce in the existing property ownership and it increases the net income of both the workers and the capitalists.

### Grout, Paul

**TI** Executive and Employee Share Options: Taxation, Dilution and Disclosure. **AU** Egginton, Don; Forker, John; Grout, Paul.

### Haliassos, Michael

**PD** October 1991. **TI** Consumption Smoothing in the European Community: The Picture Before 1992. **AU** Haliassos, Michael; Christou, Costas. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 91-21; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 31. **PR** no charge. **JE** E21, E44, F36. **KW** Financial Integration. Consumption Smoothing.

**AB** The benefits from financial integration, scheduled for 1992, have been analyzed in terms of increases in consumer surplus resulting from an assumed reduction in and harmonization of the costs of financial services across countries. It is not clear, however, that cost harmonization will



occur, nor that the proportion of the population qualified to borrow is 100% or even the same across countries. The gains from integration are overstated by mere consideration of cost reductions, and their distributional impact across countries is ignored. This paper asks two questions: (i) Are EC country data consistent with the existence of households who do not smooth consumption intertemporally through credit markets, and with international differences in their proportions? and (ii) Can the observed differences in the incidence of consumption smoothing be expected to narrow significantly as a result of financial integration?.

### Haltiwanger, John

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

**TI** Automobiles and the National Recovery Act: Evidence on Industry Complementarities. **AU** Cooper, Russell; Haltiwanger, John.

### Ham, John

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

### Hamermesh, Daniel S.

**PD** April 1992. **TI** Spatial and Temporal Aggregation in the Dynamics of Labor Demand. **AA** Michigan State University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4055; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 16. **PR** \$5.00. **JE** J23, C81. **KW** Adjustment Costs. Labor Demand. Industry Data.

**AB** The paper demonstrates the general difficulty of inferring the structure of adjustment costs from aggregated, including industry data, except in the unlikely case that costs are symmetric and quadratic at the micro level. The implications of this difficulty for cross-national comparisons of adjustment costs, and for attempts to infer the structure of these costs without micro data, are examined. In the voluminous literature on dynamic labor demand studies based on annual data generally find longer lags than those that use quarterly data, which in turn produce longer lags than models estimated using monthly data. However, when a consistent set of U.S. industry time series is used, and quadratic symmetric costs are assumed, the estimated length of the lag is independent of the frequency of observation. This conclusion is clearly not general: If we assume the costs of adjusting labor demand are lumpy, inferences about their structure differ greatly depending on how often the data are observed.

### Hammour, Mohamad L.

**TI** The Cleansing Effect of Recessions. **AU** Caballero, Ricardo J.; Hammour, Mohamad L.

### Hanke, Steve H.

**TI** Currency Boards. **AU** Walters, Alan; Hanke, Steve H.

### Hara, Chiaki

**PD** October 1991. **TI** Existence of Equilibria in Nonconvex Economies Without Ordered Preferences.

**AA** Harvard University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-352; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 27. **PR** no charge. **JE** D51, D50. **KW** Quasi Equilibria. Nonconvex Economy.

**AB** In this paper, we prove the existence of quasi equilibria in economies with nonconvex production possibilities and non-ordered preferences. Our existence theorem is a generalization of the existence theorem for general pricing rules in Bonnisseau and Comet (1989). We also argue about one drawback of the Generalized Second Fundamental Theorem of Welfare Economics: Unlike for the classical Second Fundamental Theorem, for some Pareto efficient allocation, there may be no wealth distribution rule for which the Pareto efficient allocation is a unique marginal cost pricing equilibrium. We give simple sufficient conditions under which the uniqueness of this sense is obtained.

### Harrow, Brooke S.

**TI** Medicare Payment to Psychiatric Facilities: Unfair and Inefficient? **AU** Cromwell, Jerry; Harrow, Brooke S.; Ellis, Randall P.; McGuire, Thomas G.

**PD** May 1991. **TI** Mental Health Provider Response to the Reimbursement System. **AU** Harrow, Brooke S.; Ellis, Randall P. **AA** Harrow: Health Economics Research Inc. and Brandeis University. Ellis: Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 9; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 33. **PR** no charge. **JE** 110,118. **KW** Medical Insurance. Reimbursement. Health Care.

**AB** This paper examines the literature on supply response by providers of mental health services to the manner in which they are reimbursed. This topic has been the focus of considerable recent policy and research interest in light of changes in federal, state and private reimbursement of providers of mental health. The paper first provides an overview of analytical models of the characteristics of this supply response, and then reviews empirical studies of the magnitude and form of supply response. Both inpatient and outpatient supply response are examined. The paper concludes with a discussion of areas deserving of further research.

### Haspeslagh, Philippe

**PD** November 1991. **TI** Making Acquisitions Work. **AU** Haspeslagh, Philippe; Jemison, David. **AA** Haspeslagh: INSEAD. Jemison: University of Texas. **SR** INSEAD Working Paper: 92/04/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 15. **PR** not available. **JE** L10, L22. **KW** Strategic Acquisitions. Restructuring.

**AB** Financial engineering is dead and not a day too soon. While the public's attention has been turned to raiders, hostile takeovers, and financial acquisitions, the great preponderance of acquisitions in the United States, the United Kingdom, and almost all the activity in Continental Europe and Japan continues to be strategic in nature, generally amicable, and among firms and management groups who neither seek publicity nor encourage it. The primary message from our research is that success with acquisitions depends foremost on a company's ability to handle the decision making and even more so the integration process. Strategic fit considerations may

determine the potential value of an acquisition and organization fit considerations may determine the difficulty of realizing those benefits.

#### Hassett, Kevin A.

**PD** March 1992. **TI** Energy Tax Credits and Residential Conservation Investment. **AU** Hassett, Kevin A.; Metcalf, Gilbert E. **AA** Hassett: Columbia University. Metcalf: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4020; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$5.00. **JE** Q48. **KW** Energy Conservation Capital. **AB** We model the decision to invest in residential energy conservation capital as an irreversible investment in the face of price uncertainty. The irreversible nature of this investment means that there is a value to waiting to invest (an option value) which helps explain the low rate of conservation investment as a result of the residential energy tax credit. Simulations suggest that a tax credit of the type implemented from 1978 through 1985 will not increase conservation investment significantly. We investigate the empirical evidence on the effectiveness of credits using data from a panel data set of roughly 38,000 individual tax returns followed over a three year period from 1979-1981. Unlike previous work, we find that the energy tax credit is statistically significant in explaining the probability of investing.

#### Hawawini, Gabriel

**PD** December 1991. **TI** Valuation of Cross-Border Mergers and Acquisitions. **AA** INSEAD. **SR** INSEAD Working Paper: 92/12/FIN; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 44. **PR** not available. **JE** L10, D92, G34. **KW** Mergers. Acquisitions. Adjusted Present Value.

**AB** International alliances and acquisitions are increasingly being used as an entry into new markets or access to lower cost inputs. These cross-border deals, however, are usually complex to evaluate. An alternative approach to the valuation of mergers and acquisitions (M&As) is presented in this paper. Known as the adjusted present value (APV), it separately evaluates each component of a cross-border deal. It is shown to offer a higher degree of transparency, accuracy, and flexibility in the valuation process, particularly in the context where the price of the acquisition is negotiated around a number of changing deal parameters. In what follows, we review the recent activity in cross-border M&A and then report the results of our survey of the current valuation approaches used by M&A professionals and we conclude with a presentation of the adjusted present value method together with an example of this approach.

#### Heal, Geoffrey M.

**TI** Arbitrage and Equilibrium in Economies with Infinitely Many Securities and Commodities. **AU** Chichilnisky, Graciela; Heal, Geoffrey M.

**TI** Options & Price Uncertainty. **AU** Chichilnisky, Graciela; Dutta, Jayashri; Heal, Geoffrey M.

#### Helmes, Kurt

**TI** On Minimax Estimation in Linear Regression Models with Ellipsoidal Constraints. **AU** Christopheit, Norbert; Helmes, Kurt.

#### Henderson, Rebecca

**TI** Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations. **AU** Jaffe, Adam B.; Trajtenberg, Manuel; Henderson, Rebecca.

#### Hibon, Michele

**TI** The M-2 Competition: A Budget Related Empirical Forecasting Study. **AU** Makridakis, Spyros; Hibon, Michele.

#### Hiemstra, Craig

**PD** April 1992. **TI** A Small Sample Issue Relating to Tests for Normality. **AU** Hiemstra, Craig; Kelejian, Harry H. **AA** Hiemstra: Loyola College. Kelejian: University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 92-5; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 11. **PR** no charge. **JE** C12. **KW** Normality Tests.

**AB** The purpose of this paper is primarily to suggest further research. We do this in two ways. First, we give Monte Carlo results which support the suggestion that the normality hypothesis is rejected with a frequency that is considerably larger than that suggested by the Type I error even when the small sample CDF is "reasonably close" to that of the normal in cases in which the small sample distribution does not have finite moments. Second, we note that in many cases researchers only use certain critical points of an assumed distribution when making inferences.

#### Hinojosa-Ojeda, Raul

**PD** April 1992. **TI** Hungary, Austria, and the European Community: A CGE Model of Economic Reform and Integration. **AU** Hinojosa-Ojeda, Raul; Robinson, Sherman; Tesche, Jean. **AA** Hinojosa-Ojeda: University of California, Los Angeles. Robinson: University of California, Berkeley. Tesche: Emory University. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 624; Department of Agricultural and Resource Economics, 207 Giannini Hall, UC Berkeley, Berkeley, CA 94720. **PG** 50. **PR** \$12.50. **JE** D58, F15, F10. **KW** Economic Conditions. Economic Reform. Economic Integration.

**AB** The countries of Eastern Europe are currently facing both major systemic changes and major shifts in their trade patterns as they seek increased integration with Western economies. The impact of these structural changes on Hungary is analyzed using a four-country, seven-sector, computable general equilibrium (CGE) model of Hungary, Austria, the European Community (EC), and the rest of the world. By simulating a variety of scenarios, the model is used to examine the effects of Hungary's domestic restructuring, change in trade orientation, and increased integration with Austria and the EC. The impact on Hungary of increased integration with Austria and the EC is less than that from domestic restructuring and the loss of Ruble-area trade, but should significantly facilitate Hungary's adjustment process. The impact on the EC of integration with Austria and Hungary is very small.

#### Hirschleifer, Jack

**PD** March 1992. **TI** The Affections and the Passions: Their Economic Logic. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 652; Department of Economics, University of California at Los Angeles, 2263

Bunche, Los Angeles, CA 90024. **PG** 19. **PR** \$2.50; checks payable to U.C. Regents. **JE** D74. **KW** Emotions. Conflict. Silver Rule.

**AB** Two types of emotions can be distinguished: the affections (stable patterns of malevolence or benevolence toward particular others) and the passions (action-dependent responses to friendly/unfriendly acts). Either type may serve to induce cooperation from a self-interested party, subject to several limitations. To meet the necessary condition for evolutionary survival, in competition with rational self-interested players, the emotional party must benefit not only in "feel good" utility terms but in actual material payoff. **SILVER RULE**, as an instance of reactive passionate behavior, is shown to lose out in evolutionary competition against **RATIONAL** play unless the **SILVER RULE** player, whenever he has the first move, acts as a **RATIONAL** player would.

### Ho, Teng Suan

**PD** August 1991. **TI** The Valuation of American Options in Stochastic Interest Rate Economies. **AU** Ho, Teng Suan; Stapleton, Richard C.; Subrahmanyam, Marti G. **AA** Ho and Stapleton: Lancaster University. Subrahmanyam: New York University. **SR** New York University Salomon Brothers Working Paper: S-92-19; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 21. **PR** \$5.00. **JE** G12, G13. **KW** Bond Options.

**AB** We value American options on bonds using European and twice-exercisable options and a modified Geske-Johnson technique. Simulations show that penny accuracy is achieved with this computationally efficient method. A risk neutral valuation relationship (RNVR) is established for the valuation of the twice-exercisable option.

**PD** March 1992. **TI** Multivariate Binomial Approximation for Variables with Arbitrary Variance and Covariance Characteristics. **AU** Ho, Teng Suan; Stapleton, Richard C.; Subrahmanyam, Marti G. **AA** Ho and Stapleton: Lancaster University. Subrahmanyam: New York University. **SR** New York University Salomon Brothers Working Paper: S-92-20; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 21. **PR** \$5.00. **JE** G12, G13. **KW** Options. Asset Prices.

**AB** Geske and Johnson (1984) suggest that an American put can be valued, to a good approximation, using a series of multiple exercisable options that are exercised once, twice, ...,  $m$  times. The valuation of one of these multiple exercisable options requires a multivariate distribution over the asset price at each of the exercise dates. Geske and Johnson used a multivariate lognormal distribution. In this paper, we show that a binomial distribution with a changing probability parameter can be constructed to approximate the joint distribution of the asset price at the various dates. This allows the number of exercise dates to be increased beyond the three and four in Geske and Johnson. It also leads to a rapid computational method for American style option prices.

### Ho, Thomas S. Y.

**PD** April 1992. **TI** Managing Illiquid Bonds and the Linear Path Space. **AA** Global Advanced Technology Corporation. **SR** New York University Salomon Brothers

Working Paper: S-92-16; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 31. **PR** \$5.00. **JE** G10, G20. **KW** Embedded Options. Cash Flow Matching.

**AB** This paper first shows that pathwise valuation is consistent with relative valuation. As a result, the paper shows that scenarios simulations with rate paths taken from an arbitrage free rate model are consistent with market valuation. The paper then proposes a model of the path space, called the linear path space. The linear path space provides a systematic procedure in selecting a set of interest rates scenarios. Further, the path space is partitioned into equivalent classes where each of the scenarios is a representative. The number of paths in each equivalent class provides a way of linearly ordering these scenarios.

### Hoang, Chinh T.

**PD** May 1991. **TI** Some Properties of Minimal Imperfect Graphs. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 703-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** no charge. **JE** C60. **KW** Graph Theory. Minimal Imperfect Graphs.

**AB** The Even Pair Lemma, proved by Meyniel, states that no minimal imperfect graph contains a pair of vertices such that all chordless paths joining them have even lengths. The Odd Pair Conjecture, with "even" replaced by "odd", is the natural analogue of the Even Pair Lemma. We prove a partial result for this conjecture, namely: no minimal imperfect graph  $G$  contains a three-pair, i.e. two nonadjacent vertices  $u, v$  such that all chordless paths of  $G$  joining  $u$  to  $v$  contain precisely three edges. As a by-product, we obtain short proofs of two previously known theorems: the first one is a well known theorem of Meyniel, the second one is a theorem of Olariu. Finally, we shall present a new class of perfect graphs which generalizes diamond-free perfect graphs.

### Hogarth, Robin M.

**PD** October 1991. **TI** Longevity of Business Firms: A Four-Stage Framework for Analysis. **AU** Hogarth, Robin M.; Michaud, Claude; Doz, Yves; Van Der Heyden, Ludo. **AA** Hogarth: University of Chicago. Michaud: CEDEP and INSEAD. Doz and Van Der Heyden: INSEAD. **SR** INSEAD Working Paper : 91/55/EP/SM ; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 41. **PR** not available. **JE** D23, L20. **KW** Firm Activity. Organizational Structure.

**AB** A four-stage framework is presented for analyzing the activities of business firms with a view to understanding how these impact long-term viability. Stage 1 activities result from privileged access to primary resources and /or markets. At stage 2, firms transform resources into products. At stage 3, firms are able to change processes and can generate excess returns over longer periods of time. Stage 4 activities permit the generation of new stage 3 activities across time. Three key features of firms with significant stage 4 activities are identified. Issues related to features of organizational structures and competitive strategies are also examined. Finally, we select seven issues which firms should address attention in order to acquire stage 4 activities.



**Holler, Manfred**

**PD** December 1991. **TI** Measuring Strategic Decision Behaviour. **AU** Holler, Manfred; Host, Viggo; Kristensen, Kai. **AA** Holler: University of Hamburg. Host and Kristensen: University of Aarhus. **SR** Aarhus Institute of Economics Memo: 1991-35; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. **PG** 16. **PR** no charge. **JE** C72, C91, M13. **KW** Game Theory. Rational Choice. Entrepreneurship. **AB** This paper analyses potential decision behaviour of managers in strategic markets. The managers of a big Danish telecommunication company were asked to choose strategies in four different 2-by-2 games. Their answers are submitted to logit model test and the results are compared to the decision characteristics of the managers of the average (big) Danish companies which have been derived in earlier works. The results from this comparison are: (1) managers of the Danish telecommunication company prefer more "conservative" strategies than the managers of the average big Danish firms; (2) educational background is an important determinant of entrepreneurial behavior; (3) the developed analytical tools are helpful in order to gain insights into decision making when the decision problems are strategic.

**Host, Viggo**

**TI** Measuring Strategic Decision Behaviour. **AU** Holler, Manfred; Host, Viggo; Kristensen, Kai.

**Hotz, V. Joseph**

**PD** December 1991. **TI** The Demand for Child Care and Child Care Costs: Should We Ignore Families with Non-Working Mothers? **AU** Hotz, V. Joseph; Kilburn, M. Rebecca. **AA** Hotz: University of Chicago and University of Wisconsin-Madison. Kilburn: University of Chicago. **SR** Economics Research Center/NORC Population Research Center Discussion Paper: 91-11; Librarian, Economics Research Center/NORC, 1155 E. 60th St., Chicago, IL 60637. **PG** 68. **PR** \$2.00. **JE** J13. **KW** Child Care. Non-Working Mothers.

**AB** This paper investigates the patterns and determinants of how families care for their pre-school age children. In contrast to almost all existing studies, we analyze the child care decisions of households with non-working mothers or mothers in job training or educational programs. In the first part of the paper, we present a statistical portrait of the utilization of non-parental forms of child care, as well as the parental expenditures on and costs associated with such care. In the second half of the paper, we examine the sensitivity of the inferences drawn for estimates of parental demand functions for child care, of models of child care mode choice, and of equations characterizing the determination of the hourly cost (or price) of non-parental child care to the sample restrictions present in previous studies.

**PD** December 1991. **TI** A Simulation Estimator for Dynamic Models of Discrete Choice. **AU** Hotz, V. Joseph; Miller, Robert A.; Sanders, Seth; Smith, Jeffrey. **AA** Hotz and Smith: University of Chicago. Miller and Sanders: Carnegie Mellon University. **SR** Economics Research Center/NORC Discussion Paper: 92-1; Librarian, Economics Research Center/NORC, 1155 E. 60th St., Chicago, Illinois 60637. **PG** 24. **PR** \$2.00; send requests to Librarian, NORC. **JE** C35, C14, C15. **KW** Simulation Estimator. Simulated Path Estimator.

**AB** This paper extends the recent work of Hotz and Miller (1991) on the use of conditional choice probabilities to represent the valuation functions in the estimation of dynamic, discrete choice models. They derive a consistent and asymptotically normal estimator of the structural parameters of agents' optimal decision rules that relies on nonparametric estimates of the conditional choice probabilities of future choices. This paper extends their work by deriving a related estimator that does not require the estimation of the conditional choice probabilities of all future paths associated with a current action, but rather only those associated with a simulated path or paths.

**Howes, S.**

**PD** January 1992. **TI** Purchasing Power, Infant Mortality and Literacy in China and India: A Provincial Analysis. **AA** London School of Economics. **SR** LSE Research Programme on the Chinese Economy: CP/19; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 29. **PR** no charge. **JE** O53, I31. **KW** China. India. Standard of Living.

**AB** This paper compares the relationship between purchasing power (PP) variables (such as income and consumption) and 'quality-of-life' (QL) variables (such as literacy and infant mortality rate) in China and India, by making use of provincial data for both countries from the eighties. The clearest conclusion to emerge from the comparative analysis is the simple but somewhat surprising one that there is less 'noise' in the PP-QL relationship in China than in India. Hence, at least at the provincial level, purchasing power is a better measure of welfare in China than in India. However, in neither country is the relationship watertight. Regression analysis establishes that, if variation in purchasing power is a determinant of the provincial distribution of quality-of-life variables in either China or India, it is far from being the only such determinant.

**Hughes, Alan**

**PD** January 1992. **TI** Competition Policy and the Competitive Process: Europe in the 1990's. **AA** University of Cambridge. **SR** University of Cambridge Small Business Research Centre Working Paper: 12; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 48. **PR** \$10.00 (L5.00), checks payable to University of Cambridge. **JE** G34, G38. **KW** Competitive Policy. Mergers. Economic Integration.

**AB** This paper analyzes the role of mergers in the growth and survival of small firms. It discusses first the role of competition policies in the regulation of such merger activity and second the appropriate balance between national and European wide regulation of it. The paper provides an analysis of recent trends in the share of large and small firms in economic activity in the European Community and of the internationalization of merger activity. The paper discusses the reasons for small firm involvement in merger activity, and the circumstances under which capital and managerial market failures may lead to the sell out of otherwise viable businesses to larger concerns.

**Hung, Victor T. Y.**

**TI** Endogenous Growth and Trade Liberalization. **AU** Blackburn, Keith; Hung, Victor T. Y.

**Hussain, A.**

**TI** Unemployment in Urban China: An Analysis of Survey Data from Shanghai. **AU** Gangzhan, F.; Hussain, A.; Pudney, S.; Wang L.

**Jacobson, Sheldon**

**TI** On the Intractability of Verifying Structural Properties of Discrete Event Simulation Models. **AU** Yucesan, Enver; Jacobson, Sheldon.

**Jacques, J. F.**

**PD** November 1991. **TI** La courbe de Beveridge: une comparaison internationale. **AU** Jacques, J. F.; Langot, F. **AA** Jacques: ENSAE/CREST et M.A.D. and Universite Paris I. Langot: M.A.D. Universite Paris I. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9129; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 48. **PR** no charge. **JE** C32, J64. **KW** Vector Autoregression.

**AB** The V.A.R. methodology, with logistic transforms of unemployment and vacancies rates, is applied in order to determine the relative influence of reallocation and conjonctural shocks on the labor market. We examine the case of United States of America, France, R.F.A., and the United Kingdom. The identification is in the lines of the matching model proposed by Blanchard and Diamond [1989]. It appears that the conjonctural shock seems leading the unemployment fluctuations. This paper is written in French.

**Jaffe, Adam B.**

**PD** February 1992. **TI** Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations. **AU** Jaffe, Adam B.; Trajtenberg, Manuel; Henderson, Rebecca. **AA** Jaffe: Harvard University and National Bureau of Economic Research. Trajtenberg: Tel Aviv University and National Bureau of Economic Research. Henderson: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3993; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$5.00. **JE** R30, D23. **KW** Technological Change. Research and Development. Knowledge Flow.

**AB** We compare the geographic location of patent citations to those of the cited patents, as evidence of the extent to which knowledge spillovers are geographically localized. We find that citations to U.S. patents are more likely to come from the U.S., and more likely to come from the same state and SMSA as the cited patents than one would expect based only on the preexisting concentration of related research activity. These effects are particularly significant at the local (SMSA) level, and are particularly apparent in early citations.

**James, Patrick**

**PD** March 1992. **TI** Neorealism as a Research Enterprise: Toward Elaborated Structural Realism. **AA** Florida State University and Stanford University. **SR** Stanford Hoover Institute International Studies Working Paper: I-92-5; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 38. **PR** not available. **JE** A12, F01. **KW** International Politics. International Conflict.

**AB** Neorealism, also known as structural realism, holds a central place among students of international politics. While

admired for its elegance, the approach also has attracted considerable criticism, ranging from assertions that it no longer accurately describes international relations to charges of moral bankruptcy. Given the ongoing controversy about conventional wisdom on the subject of world politics, the purpose of this investigation is to evaluate the status of structural realism as a research enterprise. This objective is achieved in four stages. First, in order to reveal priorities for further concept formation, patterns in previous thinking about structure as an explanation of international politics will be identified. The second task is to describe the axiomatic basis of structural realism as a specific manifestation of systemic theory. Third, the performance of structural realism and related approaches in accounting for international conflict is evaluated. The fourth and final stage is an argument -- in preliminary form -- that favors a more elaborate version of structural realism.

**Jaramillo, Fidel**

**PD** September 1991. **TI** Are Adjustment Costs for Labor Asymmetric? An Econometric Test on Panel Data for Italy. **AU** Jaramillo, Fidel; Schiantarelli, Fabio; Sembenelli, Alessandro. **AA** Jaramillo and Schiantarelli: Boston University. Sembenelli: Ceris-CNR. **SR** Boston University Industry Studies Program Discussion Paper Series: 21; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 15. **PR** no charge. **JE** J23, J30. **KW** Labor Adjustment Costs.

**AB** In this paper we analyze the structure of adjustment costs for labor. In particular the question whether hiring and firing costs are asymmetric is addressed. We maintain the standard assumption of quadratic adjustment costs, but allow the multiplicative coefficient to differ for the firing and hiring regime. The Euler equations for this problem can be combined into a general model that nests the one with symmetric adjustment costs. The general conclusion from the econometric testing is that the hypothesis of symmetric adjustment costs is rejected by the data. There is also evidence suggesting that the adjustment costs parameters are not constant over time.

**Jefferson, Philip N.**

**PD** March 1991. **TI** Nominal Debt, Default Costs, and Output. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 578; Department of Economics, Columbia University, New York, New York 10027. **PG** 23. **PR** \$5.00. **JE** E44, E31, E51. **KW** Nominal Contracts. Bankruptcy Costs. Debt-Deflation.

**AB** This essay analyzes how nominal debt commitments and default incidence interact in the determination of output. It specifies an environment in which concern about the deflationary impact of recessions is well-founded. It is shown that feedback exists between real and monetary shocks, microeconomic outcomes, and macroeconomic performance. The mechanisms for this feedback are the contractual relationships between agents, the state of bankruptcy, and financial intermediaries who disseminate deadweight default costs to the macroeconomy.

**PD** December 1991. **TI** Sectoral Net Worth, Credit Crunches, and the Business Cycle: Direct Evidence and Theory. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 577; Department of Economics, Columbia University, New York, New York 10027. **PG** 28. **PR** \$5.00. **JE** E32.

**KW** GNP. Business Cycle Dynamics.

**AB** Many theories assign to sectoral net worth an important role in business cycle dynamics. Yet, evidence on the actual dynamic relationship between the two is scarce. We present a mini catalogue of facts on the dynamic relationship between sectoral net worth and GNP. Our evidence is derived using elementary correlations, linear reduced forms, and nonlinear methods. We find that while household, financial institution, farm, and proprietor net worth growth contain information about real GNP growth in a linear framework, only household, financial institution, and farm net worth shocks generate the hump shaped movements in GNP that are thought to characterize business cycles.

### Jemison, David

**TI** Making Acquisitions Work. **AU** Haspeslagh, Philippe; Jemison, David.

### John, Kose

**PD** November 1991. **TI** The Micro-Structure of Options Markets: Informed Trading, Liquidity, Volatility and Efficiency. **AU** John, Kose; Koticha, Apoorva; Subrahmanyam, Marti G. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-21; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 15. **PR** \$5.00. **JE** G12, G13. **KW** Stock Market. Options. Asset Prices.

**AB** In this paper, we study the effect of trading in options on the microstructure of the markets for the underlying security and the option. With concurrent trading in the stock and the option markets, the optimal trading choices of an informed trader reflect a trade-off between the leverage effect of options and the higher bid-ask spreads in the options markets. We characterize the equilibrium trading activity of an informed trader in both stock and options markets, the bid and ask prices in both the markets, and the spreads in the two markets. We also characterize the effect of options trading on the dynamics of the stock price. It is shown that the liquidity of the stock market increases in the presence of concurrent options trading and the volatility of the stock price decreases.

### Judd, Kenneth L.

**PD** April 1992. **TI** Projection Methods for Solving Aggregate Growth Models. **AA** Stanford University. **SR** Hoover Institute Working Papers in Economics: E-92-7; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 48. **PR** not available. **JE** C68. **KW** Computation. Rational Expectations. Growth.

**AB** We present a projection method for solving dynamic economic models, and apply it to simple growth models. We develop a bounded rationality interpretation of the approximation error. We show that the projection method can yield high-quality approximations of growth models with little effort. We show that all methods used to solve such models are projection methods, and point out why previous methods were much less efficient.

**TI** Finite Sample Bias of Generalized Method of Moments Estimation. **AU** Chang, Pamela H.; Judd, Kenneth L.

### Jun, Joosung

**TI** Taxes and the Form of Ownership of Foreign Corporate Equity. **AU** Gordon, Roger H.; Jun, Joosung.

### Kalai, Ehud

**PD** March 1992. **TI** Subjective Equilibrium in Repeated Games. **AU** Kalai, Ehud; Lehrer, Ehud. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 981; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 28. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** C11, C72, D80. **KW** Nash Equilibrium. Bayesian Learning. Repeated Games. **AB** A player's strategy, for an n-person infinitely repeated game with discounting, is subjectively rational if it is a best response to his individual beliefs regarding opponents' strategies. A vector of such strategies is a subjective equilibrium if the play induced by it is realization equivalent to the play induced by each player's beliefs. Thus, any statistical updating can only reinforce the beliefs. It is shown that if the game is played with perfect monitoring, then the joint behavior induced by any subjective equilibrium approximates a behavior induced by a Nash equilibrium even when perturbations are allowed.

**PD** April 1992. **TI** Weak and Strong Merging of Opinions. **AU** Kalai, Ehud; Lehrer, Ehud. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 983; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 19. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** C11, D83. **KW** Learning. Bayesian Statistics. **AB** We study merging, in a few senses, of two measures when an increasing sequence of information is observed. Motivating this extension of Blackwell and Dubins' (1962) work, are studies of convergence to equilibrium in infinite games and in dynamic economies.

### Karni, Edi

**TI** Choquet Expected Utility with Finite State Space: Community and Act-Independence. **AU** Chew, Soo Hong; Karni, Edi.

### Karp, Larry

**PD** April 1992. **TI** Monopoly Power Can be Disadvantageous in the Extraction of a Durable Nonrenewable Resource. **AA** University of California, Berkeley and University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9209; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 30. **PR** no charge. **JE** D42, L12, Q39. **KW** Disadvantageous Market Power. Durable Good. Coase Conjecture.

**AB** We solve for a strong Markov equilibrium for the case where a monopolist extracts a nonrenewable resource which is converted to a durable good, which then depreciates at a constant rate. We show that in a stationary, continuous time model (infinite horizon, infinitesimal period of commitment)



monopoly power can be disadvantageous. Numerical experiments confirm that this can also occur in a finite horizon, discrete model. This result is compared to previous examples of disadvantageous market power, obtained using two-period models.

**PD** April 1992. **TI** Depreciation Erodes the Coase Conjecture. **AA** University of California, Berkeley and University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9210; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 16. **PR** no charge. **JE** D42, L12, Q39. **KW** Multiple Markov Equilibria. Coase Conjecture. Depreciation.

**AB** We show that if a durable good monopolist produces at constant marginal costs and the good depreciates, then there exists a family of Markov Perfect Equilibrium (MPE) with an infinitesimal period of commitment. One member of this family entails instantaneous production of the level of stock produced in a competitive equilibrium; this is consistent with the Coase Conjecture. Every other MPE in the family entails slower production to a stock level lower than in the competitive equilibrium. Monopoly profits are positive in these equilibria, and the Coase Conjecture fails. This result turns critically on a positive depreciation rate.

### Karras, Georgios

**TI** Sources of Output Fluctuations During the Interwar Period: Further Evidence on the Causes of the Great Depression. **AU** Cecchetti, Stephen G.; Karras, Georgios.

### Kashyap, Anil K.

**PD** March 1992. **TI** Monetary Policy and Credit Conditions: Evidence from the Composition of External Finance. **AU** Kashyap, Anil K.; Stein, Jeremy C.; Wilcox, David W. **AA** Kashyap: University of Chicago. Stein: Massachusetts Institute of Technology and National Bureau of Economic Research. Wilcox: Federal Reserve Board. **SR** National Bureau of Economic Research Working Paper: 4015; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$5.00. **JE** E51, G21. **KW** Monetary Policy Transmission. Loan Supply.

**AB** In this paper we use the relative movements in bank loans and commercial paper to provide evidence on the existence of a loan supply channel of monetary policy transmission. A first necessary condition for monetary policy to work through a lending channel is that banks must view loans and securities as imperfect substitutes, so that monetary tightening does affect the availability of bank loans. We find that tighter monetary policy leads to a shift in firms' mix of external financing -- commercial paper issuance rises while bank loans fall, suggesting that loan supply has indeed been reduced. Furthermore, these shifts in the financing mix seem to affect investment (even controlling for interest rates).

### Katz, Lawrence F.

**PD** February 1992. **TI** The Effect of the Minimum Wage on the Fast Food Industry. **AU** Katz, Lawrence F.; Krueger, Alan B. **AA** Katz: Harvard University and National Bureau of Economic Research. Krueger: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3997; National Bureau of Economic Research, 1050 Massachusetts Avenue,

Cambridge, MA 02138. **PG** 25. **PR** \$5.00. **JE** J31, J38. **KW** Minimum Wage. Low-Wage Markets.

**AB** Using data from a longitudinal survey of fast food restaurants in Texas, the authors examine the impact of recent changes in the federal minimum wage on a low-wage market. The authors draw four main conclusions. First, the survey results indicate that less than 5 percent of fast food restaurants use the new youth subminimum wage even though the vast majority paid a starting wage below the new hourly minimum wage immediately before the new minimum went into effect. Second, although some restaurants increased wages by an amount exceeding that necessary to comply with higher minimum wages in both 1990 and 1991, recent increases in the federal minimum wage have greatly compressed the distribution of starting wages in the Texas fast food industry. Third, employment increased relatively in those firms likely to have been most affected by the 1991 minimum wage increase. Fourth, changes in the prices of meals appear to be unrelated to mandated wage changes.

### Keeble, David

**TI** Entrepreneurship and Flexibility in Business Services: The Rise of Small Management Consultancy and Market Research Firms in the U.K. **AU** Bryson, John; Keeble, David; Wood, Peter.

**TI** Regional Patterns of Small Firm Development in the Business Services: Preliminary Evidence from the UK. **AU** Wood, Peter; Bryson, John; Keeble, David.

### Keen, Michael

**TI** The Comparison Between Ad Valorem and Specific Taxation under Imperfect Competition. **AU** Delipalla, Sofia; Keen, Michael.

### Kelejjan, Harry H.

**PD** October 1991. **TI** Spatial Correlation: Comments on the Cliff and Ord Model and a Suggested Alternative. **AU** Kelejjan, Harry H.; Robinson, Dennis P. **AA** Kelejjan: University of Maryland. Robinson: U.S. Army Corps of Engineers, Fort Belvoir. **SR** University of Maryland Department of Economics Working Paper: 91-20; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 14. **PR** no charge. **JE** C50, R15. **KW** Spatial Correlation. Cliff and Ord Model.

**AB** The Cliff and Ord model of spatial correlation is critically examined. We show that the model, as it is typically specified, is inconsistent at its critical points which depend on the sample size, the weighting matrix, and which need not be symmetric about zero. We discuss associated large sample problems which arise because of certain difficulties involved in defining the parameter space. We also demonstrate that recent Monte Carlo results relating to spatial correlation tests based on the Cliff and Ord model can be explained in terms of the asymmetries involved in the critical points. Finally, we suggest a variety of an error component model as an alternative to the Cliff and Ord model. We argue for its usefulness.

**PD** March 1992. **TI** The Logit Model and Panel Data Via Repeated Observations: A Clarification and Extension of the Literature. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 92-3; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 10. **PR** no charge. **JE** B23.

**KW** Large Sample Results. Logit Model.

**AB** Large sample results are given for a GLS estimator which is based on a panel data logit model involving repeated observations. The model is such that the sample has two dimensions, say  $N$  and  $T$ . Our large sample results correspond to the case in which both  $N$  and  $T$  increase beyond limit. A conjecture relating to a more general case is offered for purposes of stimulating further research.

**PD** April 1992. **TI** Spatial Patterns in Household Demand: A Note Concerning Asymmetry of the Model. **AU** Kelejian, Harry H.; Robinson, Dennis P. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 92-4; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 7. **PR** no charge. **JE** C10, C21. **KW** Spatial Correlation. Cliff and Ord Model.

**AB** We show that spatial correlation models of the Cliff and Ord variety are highly asymmetric. This has not been recognized in the literature. The asymmetry is such that typical parameter specifications limit the model's usefulness as a tool for capturing strong negative spatial interactions.

**TI** A Small Sample Issue Relating to Tests for Normality. **AU** Hiemstra, Craig; Kelejian, Harry H.

### Kessides, Ioannis

**TI** Structure, Conduct, and Performance in the Deregulated Airline Industry. **AU** Evans, William N.; Kessides, Ioannis.

### Kets de Vries, Manfred F. R.

**PD** November 1991. **TI** Leaders Who Go Crazy. **AA** INSEAD. **SR** INSEAD Working Paper : 91/58/OB ; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 22. **PR** not available. **JE** A12, H10. **KW** Narcissism. Grandiosity.

**AB** This paper has a look at the various forces which may drive a leader "crazy". The development of narcissism is reviewed. Attention is paid to the dangers of excessive narcissism. In addition, some of the psychological pressures which affect leaders are discussed. It is argued that leaders are susceptible to a cycle of grandiosity, group think, paranoid thinking, identification with the aggressor, scapegoating, and ruin. As an illustration, the case of Saddam Hussein is presented.

**PD** January 1992. **TI** The Family Firm: An Owners Manual. **AA** INSEAD. **SR** INSEAD Working Paper: 92/03/OB; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 28. **PR** not available. **JE** L10, L11, M13. **KW** Family Owned Firms. Small Business.

**AB** This paper is based on research with family firms including over three hundred interviews with owners, owner-managers, and managers working for family enterprises. It examines the problems experienced by family firms, paying particular attention to the psychological dimension. The advantages and disadvantages of operating a family firm are reviewed. The subject of succession is given special consideration. The final section of the paper deals with managing for survival.

### Kilburn, M. Rebecca

**TI** The Demand for Child Care and Child Care Costs: Should We Ignore Families with Non-Working Mothers?

**AU** Hotz, V. Joseph; Kilburn, M. Rebecca.

### Kim, Sunwoong

**PD** January 1992. **TI** Education, Job Signaling, and Dual Labor Markets in Developing Countries. **AU** Kim, Sunwoong; Mohtadi, Hamid. **AA** Kim: University of Wisconsin-Milwaukee. Mohtadi: University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 92-1; Department of Agricultural and Applied Economics, 352 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 27. **PR** no charge. **JE** J40,O10,I28. **KW** Job Signaling. Labor Market Development.

**AB** An overlapping generations model of educational investment in dual labor markets is presented in which education serves both as a screening device and as investment in human capital. Labor market dualism arises not only via the conventional technology (productivity) differential between a primary and a secondary sector, but also by a higher than a labor market clearing wage in the primary sector, to insure no shirking by the workers. The important determinants of the workers' educational investment decision are the degree of discipline in the labor market and the cost of education. The three most commonly discussed educational policies in this setting are maximizing the number of the educated, maximizing the primary sector employment and maximizing social welfare. The last one leads to a lower level of education subsidy.

**TI** Labor Specialization and Endogenous Growth. **AU** Mohtadi, Hamid; Kim, Sunwoong.

### King, Kathleen Kuester

**TI** A Market Evaluation of the Risk-Based Capital Standards for the U.S. Financial System. **AU** Cordell, Lawrence R.; King, Kathleen Kuester.

### Kiviet, Jan F.

**PD** July 1991. **TI** The Bias of OLS, GLS and Sure Estimators in Dynamic Seemingly Unrelated Regression Models. **AU** Kiviet, Jan F.; Phillips, Garry D. A. **AA** Kiviet: University of Amsterdam. Phillips: University of Exeter and University of Bristol. **SR** University of Bristol Discussion Paper: 91/300; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 15. **PR** no charge. **JE** C13, C32. **KW** Asymptotic Expansions. Estimation Bias. Covariance Matrix.

**AB** Asymptotic expansions are employed to derive and compare  $O(1/T)$  approximations to the biases of the OLS, systems GLS and SURE estimators for a system of seemingly unrelated dynamic regression equations. The main finding of the paper is that the  $O(1/T)$  biases of the systems GLS and SURE estimators are the same so that employing an estimated rather than a known covariance matrix does not affect estimation bias to first order.

**PD** August 1991. **TI** Exact Similar Tests for Unit Roots and Cointegration. **AU** Kiviet, Jan F.; Phillips, Garry D. A. **AA** Kiviet: University of Amsterdam. Phillips: University of Exeter and University of Bristol. **SR** University of Bristol Discussion Paper: 91/308; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 24. **PR** no charge. **JE** C32, C12. **KW** Autoregressive Models. Non-Stationarity. Dynamic

Specification.

**AB** Augmenting a first-order dynamic regression model by adding particular redundant regressors can have remarkable effects on the least-squares estimator of the lagged-dependent variable coefficient. We show that this estimator, and also its *t*-type test statistic, can easily be made independent of nuisance parameters under a null hypothesis. This null-distribution - which differs considerably from Student's - can be determined by Monte Carlo methods. Thus in finite samples exact inference on dynamics (including tests for unit roots or for cointegration) is practicable.

### Kiyotaki, Nobuhiro

**TI** Toward a Theory of International Currency. **AU** Matsuyama, Kiminori; Kiyotaki, Nobuhiro; Matsui, Akihiko.

### Klette, Tor Jakob

**PD** March 1992. **TI** The Inconsistency of Common Scale Estimators when Output Prices are Unobserved and Endogenous. **AU** Klette, Tor Jakob; Griliches, Zvi. **AA** Klette: Central Bureau of Statistics, Norway. Griliches: National Bureau of Economic Research and Harvard University. **SR** National Bureau of Economic Research Working Paper: 4026; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** \$5.00. **JE** D43, L13. **KW** Imperfect Competition. Scale Economies. Markups.

**AB** This paper explores the inconsistency of common scale estimators when output is proxied by deflated sales, based on a common output deflator across firms. The problems arise when firms operate in an imperfectly competitive environment and prices differ between firms. In particular, we show that scale estimates will tend to be downward biased in the production function case, under a wide range of assumptions about the pattern of technology, demand, and factor price shocks. The result also holds for scale estimates obtained from cost functions. The empirical part of the paper presents various estimates of scale economies for a sample of Norwegian manufacturing plants. The findings provide some support for the hypothesis that the firms face an imperfectly competitive environment.

### Kletzer, Kenneth M.

**TI** Distribution of Rents and Growth. **AU** Engel, Charles; Kletzer, Kenneth M.

**TI** Government Solvency, Ponzi Finance and the Redundancy and Usefulness of Public Debt. **AU** Buiter, Willem H.; Kletzer, Kenneth M.

### Kolstad, Charles

**PD** January 1992. **TI** Efficiency and the Non-Enforcement of Penalties. **AU** Kolstad, Charles; Leitzel, Jim. **AA** Kolstad: University of Illinois. Leitzel: Duke University and Hoover Institution. **SR** Hoover Institute Working Papers in Economics: E-92-2; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 31. **PR** not available. **JE** K12, D89. **KW** Breach of Contract. Liquidated Damages.

**AB** A longstanding puzzle in the economics of contract law is the refusal of courts to enforce liquidated damages clauses that substantially exceed actual damages. In this paper we

develop a model of breach involving damages that may be made contingent on an information signal received after contract consummation but before the breach decision. We show that in contracts where damages are not completely contingent on the information signal, court non-enforcement of penalties can be efficiency enhancing.

### Kon-Ya, Fumiko

**TI** Expanding the Scope of Expectations Data Collection: The U.S. and Japanese Stock Markets. **AU** Shiller, Robert J.; Kon-Ya, Fumiko; Tsutsui, Yoshiro.

### Konrad, Kai A.

**TI** Intertemporal Commitment Problems and Voting on Redistributive Taxation. **AU** Glazer, Amihai; Konrad, Kai A.

### Kopp, Raymond K.

**PD** September 1990. **TI** International Comparisons of Environmental Regulation. **AU** Kopp, Raymond K.; Portney, Paul R.; DeWitt, Diane E. **AA** Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-22-REV; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 54. **PR** \$2.25 prepaid (U.S. funds only). **JE** Q28. **KW** Environmental Regulation. Competitive Advantage.

**AB** In this paper, the authors examine whether environmental regulations put the United States at a competitive trade advantage or disadvantage with respect to other industrialized countries. The analysis focuses exclusively on policies the U.S. and OECD countries have adopted to control air and water pollution and hazardous wastes. Air and water pollution control strategies in the United States and in other western democracies are found to be more similar than different, with differences narrowing over time with European environmental integration. All the countries surveyed have policies in place based on ambient environmental standards with specific source discharge standards to accomplish them.

### Korenman, Sanders

**TI** Sources of Bias in Women's Wage Equations: Results Using Sibling Data. **AU** Neumark, David; Korenman, Sanders.

### Koticha, Apoorva

**TI** The Micro-Structure of Options Markets: Informed Trading, Liquidity, Volatility and Efficiency. **AU** John, Kose; Koticha, Apoorva; Subrahmanyam, Marti G.

### Kramarz, F.

**TI** Exit, Voice and the Dual Labor Market. **AU** Cahuc, P.; Kramarz, F.

**TI** Labor Demand for Heterogeneous Workers with Non Linear Asymmetric Adjustment Costs. **AU** Bresson, G.; Kramarz, F.; Sevestre, P.

**PD** November 1991. **TI** Adjustment Costs and Adjustment "Speed". **AA** INSEE. **SR** ENSAE/INSEE Unite de Recherche Document de Travail: 9127; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 41. **PR** no charge. **JE** C33, J23. **KW** Skills. Panel Data. Labor Demand.

**AB** It is common belief among economists working on labor



demand that the higher the adjustment costs, the slower employment adjusts itself to its desired level. More precisely, in a quadratic linear framework, the larger the (positive) coefficient of the squared difference between employment of a given category of workers at date  $t$  and at date  $t-1$ , the stronger is the coefficient of the lagged value of the dependent variable in the closed form expressing the dynamics of employment. For instance, as one generally supposes that the higher the skill, the higher the cost of adjustment, one expects to get perfectly ordered coefficients of the lagged employment in labor demand estimations. An inversion among skill levels would then be interpreted as, among others possibilities, a misspecification problem in the labor demand. As "common belief" seems to suggest, this is only a belief i.e. such a statement may be wrong. An empirical analysis on panel data is provided. Then, a theoretical explanation is given.

**TI** A Test of Negotiation and Incentive Compensation Models Using Longitudinal French Enterprise Data.  
**AU** Abowd, John M.; Kramarz, F.

### Kremers, Jeroen J. M.

**PD** June 1992. **TI** The Power of Cointegration Tests.  
**AU** Kremers, Jeroen J. M.; Ericsson, Neil R.; Dolado, Juan J.  
**AA** Kremers: Ministry of Finance, The Hague, The Netherlands. Ericsson: Board of Governors of the Federal Reserve System. Dolado: Bank of Spain. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 431; Division of International Finance, Stop 24, Board of Governors of the Federal Reserve System, Washington DC 20551. **PG** 18. **PR** no charge. **JE** C12, C15, C22, C32. **KW** Dickey-Fuller Statistic. Error Correction. Statistical Inference.

**AB** A cointegration test statistic based upon estimation of an error correction model can be approximately normally distributed when no cointegration is present. By contrast, the equivalent Dickey-Fuller statistic applied to residuals from a static relationship has a non-standard asymptotic distribution. When cointegration exists, the error-correction test generally is more powerful than the Dickey-Fuller test. These differences arise because the latter imposes a possibly invalid common factor restriction. The issue is general and has ramifications for system-based cointegration tests. Monte Carlo analysis and an empirical study of U.K. money demand demonstrate the differences in power.

### Kristensen, Kai

**TI** Measuring Strategic Decision Behaviour. **AU** Holler, Manfred; Host, Viggo; Kristensen, Kai.

### Kroon, Leo

**TI** Exact and Approximation Algorithms for the Operational Fixed Interval Scheduling Problem. **AU** Van Wassenhove, Luk; Kroon, Leo; Salomon, Marc.

### Krueger, Alan B.

**TI** The Effect of the Minimum Wage on the Fast Food Industry. **AU** Katz, Lawrence F.; Krueger, Alan B.

### Kuik, Roelof

**TI** Statistical Search Methods for Lotsizing Problems.  
**AU** Van Wassenhove, Luk; Kuik, Roelof; Salomon, Marc.

### Kupiec, Paul H.

**PD** May 1992. **TI** Dividend-Price Ratios and Expected Inflation: Is There More to the Story Than the Proxy Effect?  
**AA** Board of Governors of the Federal Reserve System.  
**SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 196; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 45. **PR** no charge. **JE** E31, G10. **KW** Expected Stock Returns. Expected Inflation.

**AB** This paper examines the relationship between dividend-price ratios and expected inflation. It documents the existence of a positive correlation between the S&P500 dividend-price ratio, inflation, and expected inflation in post-war data. It presents empirical results which suggest that higher inflation expectations are associated with lower stock prices and higher dividend-price ratios. Further analysis shows that positive correlation owes to a negative relationship between expected inflation and the expected real growth rate of dividends and a positive relationship between expected inflation and the real expected return to equity. These relationships appear to be true independent relationships, not spurious correlations induced by the proxy effect.

### Lach, Saul

**PD** February 1992. **TI** R&D, Investment and Industry Dynamics. **AU** Lach, Saul; Rob, Rafael. **AA** Lach: Hebrew University. Rob: University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-02; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 28. **PR** no charge. **JE** L22, D21, O31, O32. **KW** Industry Evolution. Investment.

**AB** We present a model of industry evolution where the dynamics are driven by a process of endogenous innovations, followed by subsequent embodiments in physical capital. Traditionally, the only distinction between R&D and physical investment was one of labeling: the first process accumulates an intangible stock (knowledge) while the second accumulates physical capital; both stocks affect output in a symmetric fashion. We argue that the story is not that simple, and there is more to it than differences in the object of accumulation. Our model stresses the causal relationship between past R&D expenditures and current investments in machinery and equipment.

**PD** April 1992. **TI** R&D, Investment and Industry Dynamics. **AU** Lach, Saul; Rob, Rafael. **AA** Lach: Hebrew University and National Bureau of Economic Research. Rob: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 4060; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$5.00. **JE** E22, L20. **KW** Endogeneous Innovation. Physical Capital. **AB** See other entry.

### Lagunoff, Roger D.

**TI** On the Social Stability of Coalitional Property Rights Regimes. **AU** Glomm, Gerhard; Lagunoff, Roger D.

### Lal, Deepak

**PD** January 1992. **TI** Why Growth Rates Differ: The Political Economy of Social Capability in 21 Developing

Countries. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 642; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 31. **PR** \$2.50; checks payable to U.C. Regents. **JE** O04, O05, H11. **KW** Growth Theory. Political Economy.

**AB** This paper first summarizes the evidence on the proximate causes of growth in a sample of 21 developing countries studied as part of a large multi-country comparative study. It briefly examines various endogenous growth models and finds only one -- due to Scott -- to be consistent with the evidence from the 21 country studies. The paper then outlines a 3x2x5-fold classification of the countries initial resource endowments, organizational structure, and policies to draw comparative historical judgements on the deeper determinants of growth. The final part outlines the policy framework which on the basis of the country studies is most likely to foster social capability.

**PD** February 1992. **TI** Industrialization Strategies and Long Term Resource Allocation. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 640; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 29. **PR** \$2.50; checks payable to U.C. Regents. **JE** F01, O14. **KW** Industrialization. Trade Theory. Industrial Policy.

**AB** The paper provides a broad historical perspective on the pattern of industrialization and ideas about industrial policy, in terms of different historical phases over the past 200 years. It then re-examines the relevance of the case for free trade in the light of various "new" arguments being advanced for dirigiste industrial and trade policies.

**PD** March 1992. **TI** Social Policy after Socialism. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 641; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 26. **PR** \$2.50; checks payable to U.C. Regents. **JE** B24, H05, I03. **KW** Welfare State. Egalitarianism.

**AB** This paper examines the difficulties in the transition from socialism. It argues that an essential element in devising a social policy after socialism must be a repudiation of the failed creed of egalitarianism. It sets out the principles from the viewpoint of classical liberalism which should govern social policy for alleviating poverty in a sustainable post-socialist economy, and speculates on the likelihood of such reforms being adopted in diverse socialist economies.

### Lane, Christel

**PD** July 1991. **TI** Industrial Reorganization in Europe: Patterns of Convergence and Divergence in Germany, France and Britain. **AA** Cambridge University. **SR** University of Cambridge Small Business Research Centre Working Paper: 11; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 34. **PR** \$10.00 (L5.00), checks payable to University of Cambridge. **JE** L22, L10, O52. **KW** Industrial Organization. Large Firms. Regionalization.

**AB** This paper takes the view that a proper understanding of recent transformations in European manufacturing industry can

only be gained from studying the large firm and SME sectors in relation to each other, focusing particularly on the changing division of labor between firms in different size categories. The study of this changing relationship is approached in both an historical and a comparative manner for Germany, Britain, and France.

### Lang, Kevin

**PD** April 1992. **TI** Does the Human Capital/Educational Sorting Debate Matter for Development Policy? **AA** Boston University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4052; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** \$5.00. **JE** I22, I28, J24, D83. **KW** Education. Educational Subsidy.

**AB** If education increases human capital, subsidizing education can generate economic growth and combat poverty. Estimates of its return suggest that education is a good social investment. In sorting models, the return reflects in part the information about productivity revealed by the worker's education. Thus the social and private returns diverge. It might appear that if we believe the sorting model, we should be less swayed by evidence that estimated returns to education exceed the social discount rate, and therefore less likely to support education-based development policies. This conclusion is shown to be incorrect.

### Langot, F.

**TI** La courbe de Beveridge: une comparaison internationale. **AU** Jacques, J. F.; Langot, F.

### Lanjouw, Peter

**TI** Economic Mobility and Agricultural Labour in Rural Idea: A Case Study. **AU** Dreze, Jean; Lanjouw, Peter; Stern, Nicholas.

### Laroque, G.

**TI** Estimating the Commodity Price Model. **AU** Deaton, A.; Laroque, G.

**TI** Multivariate Time Series. **AU** Gregoir, S.; Laroque, G.

### Laurent, Monique

**TI** Variety of Hypercube Embeddings of the Equidistant Metric and Designs. **AU** Deza, Michel; Laurent, Monique.

**TI** Some New Classes of Facets for the Equicut Polytope. **AU** De Souza, C. C.; Laurent, Monique.

**TI** Extension Operations for Cuts. **AU** Deza, Michel; Laurent, Monique.

**PD** November 1991. **TI** Graphic Vertices of the Metric Polytope. **AA** University of Paris. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 737-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 21. **PR** no charge. **JE** C60. **KW** Graph Theory. Metric Polytope.

**AB** The metric polytope  $MP_n$  is defined by the triangle inequalities. The integral vertices of  $MP_n$  are the cuts of the complete graph  $K_{sub} n$  and, so  $MP_n$  is a relaxation of the cut polytope. We study here the fractional vertices of  $MP_n$ . Many of them are constructed from graphs, including all one-third-

integral vertices which are, in a sense, the simplest fractional vertices of MPn. We present several constructions for one-third-integral vertices; in particular, we characterize the graphic vertices arising from the suspension of a tree. We also address the question of adjacency of the fractional vertices to some cut. We give all the vertices of MPn for n less than or equal to 6. We describe all the symmetries of MPn and obtain that the vertices are partitioned into switching classes. With the exception of the cuts which are pairwise adjacent, we show that no two vertices of the same switching class are adjacent on MPn.

### Leamer, Edward E.

**PD** February 1992. **TI** Wage Effects of a U.S.- Mexican Free Trade Agreement. **AA** University of California, Los Angeles and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3991; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 50. **PR** \$5.00. **JE** F14, F17, F41. **KW** Protectionism. International Trade. Low-Skilled Labor.

**AB** Mexico doesn't seem economically large enough now to have a significant effect on the prices of goods and the earnings of labor in the United States, but Mexican population growth and productivity gains induced by liberalization will make the Mexico of the future much larger than today, especially in those sectors that use intensively Mexico's abundant low-skilled labor. Furthermore, in a free trade agreement with the United States, Mexico has an incentive to concentrate production on those sectors that are most protected by the U.S. from third-country competition, and to export all that product to the high-priced protected U.S. market. For all these reasons, the Mexico of the future is large enough to undo current or future U.S. protection designed to maintain wages of low-skilled workers. With or without a free trade agreement, the United States faces a substantial problem with the continuing economic deterioration of the lowest skilled workers.

### Lebow, David E.

**PD** March 1992. **TI** Is the Shift Toward Employment in Services Stabilizing? **AU** Lebow, David E.; Sichel, Daniel E. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 123; Board of Governors of the Federal Reserve System. Economic Activity Section. Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 27. **PR** no charge. **JE** E22, L80. **KW** Business Cycles Services. Monetary Policy. Sectoral Analysis.

**AB** The share of employment in the service sector has increased steadily over time. Further, employment growth is substantially more stable in the services sector than in the goods sector. According to the conventional wisdom, total employment growth therefore should become more stable over time. We demonstrate that -- as a matter of logic -- the shift towards services does not have to be stabilizing and we suggest three factors that could offset the stabilizing mix-shift effect implicit in the conventional wisdom. These factors are the outsourcing of business services, increased consumption of luxury services, and the changing influence of monetary effects. While the mix-shift effect has reduced the volatility of employment growth, these three other factors appear to have offset most of this stabilization. Overall, it appears that the shift

toward services has not done much to stabilize employment.

**PD** April 1992. **TI** Economic Performance under Price Stability. **AU** Lebow, David E.; Roberts, John M.; Stockton, David J. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 125; Board of Governors of the Federal Reserve System. Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 42. **PR** no charge. **JE** E50, E31. **KW** Price Stability. Inflation. Monetary Policy.

**AB** This paper provides some historical and empirical content to the goal of price stability. We examine the historical evidence in the United States and the other G-7 countries to look for examples of price stability and inflation stability. We estimate and simulate a simple rational expectations model to distinguish price stability from alternative targets, and we ask how much price level uncertainty would exist under different monetary policy regimes. We examine correlations between inflation and various measures of economic performance. We ask whether the choice of a nominal anchor matters by examining whether different major price indexes are cointegrated. Finally, we evaluate several common arguments against price stability.

### Lee, Inpyo

**TI** Optimal Changepoint Tests for Normal Linear Regression. **AU** Andrews, Donald W. K.; Lee, Inpyo; Ploberger, Werner.

### Lee, Sung R.

**TI** The Pricing Behavior of Interest Rate Swap Contracts. **AU** Dhrymes, Phoebus J.; Lee, Sung R.

### Leff, Nathaniel H.

**PD** January 1992. **TI** Economic Development in Brazil, 1822-1913. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-92-02; Columbia University, Graduate School of Business, First Boston Series, New York, NY 10027. **PG** 29. **PR** \$5.00 academics and non-profit institution; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** N33, N53. **KW** Economic History. Northeast Brazil.

**AB** This paper analyzes key features of Brazil's economic history between 1822 and 1913. Special attention is given to the Northeast and its experience with the "Dutch disease;" the elastic supply of low-cost labor from overseas; the large domestic agricultural sector; and the strategic role of the railroads.

### Lehmann, Bruce N.

**PD** April 1992. **TI** Empirical Testing of Asset Pricing Models. **AA** University of California, San Diego and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4043; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 46. **PR** \$5.00. **JE** G12. **KW** Asset Pricing. Literature Review.

**AB** This essay reviews the extensive literature on empirical testing of asset pricing models. It briefly describes the kinds of asset pricing models typically tested in the literature and explicates their econometric implications, both in terms of the



estimation of relevant parameters and tests of their implied restrictions. Pertinent aspects of the available data on security prices and macroeconomic variables are discussed as well. The essay concludes with the examination of selected aspects of the current empirical state of asset pricing theory.

### Lehrer, Ehud

**TI** Subjective Equilibrium in Repeated Games. **AU** Kalai, Ehud; Lehrer, Ehud.

**TI** Weak and Strong Merging of Opinions. **AU** Kalai, Ehud; Lehrer, Ehud.

### Leiderman, Leonardo

**TI** Currency Substitution under Non-Expected Utility - Some Empirical Evidence. **AU** Bufman, Gil; Leiderman, Leonardo.

**TI** Simulating an Optimizing Model of Currency Substitution. **AU** Bufman, Gil; Leiderman, Leonardo.

### Leitzel, Jim

**TI** Efficiency and the Non-Enforcement of Penalties. **AU** Kolstad, Charles; Leitzel, Jim.

### Lenk, Peter

**TI** Nonstationary Conditional Trend Analysis: An Application to Scanner Panel Data. **AU** Tibrewala, Vikas; Lenk, Peter; Rao, Ambar.

### Leonard, Jonathan S.

**TI** Inflation Expectations and the Structural Shift in Aggregate Labor-Cost Determination in the 1980s. **AU** Neumark, David; Leonard, Jonathan S.

### Levine, Phillip B.

**TI** Unemployment Insurance Taxes and the Cyclical and Seasonal Properties of Unemployment. **AU** Card, David; Levine, Phillip B.

### Lewis, Jeffrey D.

**TI** From Stylized to Applied Models: Building Multisector CGE Models for Policy Analysis. **AU** Devarajan, Shantayanan; Lewis, Jeffrey D.; Robinson, Sherman.

### Lewis, Karen K.

**TI** Peso Problems and Heterogeneous Trading: Evidence From Excess Returns in Foreign Exchange and Euromarkets. **AU** Evans, Martin D. D.; Lewis, Karen K.

### Lundahl, Mats

**TI** Natural Resources, "Vent for Surplus" and the Staples Theory: Trade and Growth with an Endogenous Land Frontier. **AU** Findlay, Ronald; Lundahl, Mats.

### Lynch, Lisa M.

**TI** Training at Work: A Comparison of U.S. and British Youths. **AU** Blanchflower, David; Lynch, Lisa M.

### Lyon, Kenneth S.

**TI** Domestic Earmarks As Trade Policy: An Application to U.S. Log Exports. **AU** Wiseman, Clark; Lyon, Kenneth S.; Sedjo, Roger A.

### Lyon, Tomas P.

**PD** November 1990. **TI** Designing Price Caps for Gas Distribution Systems. **AU** Lyon, Tomas P.; Toman, Michael A. **AA** Lyon: Indiana University. Toman: Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-01; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 36. **PR** \$5.00 prepaid (U.S. funds only). **JE** L43, L95. **KW** Price Caps. Gas Distribution Companies.

**AB** We examine the applicability of price cap mechanisms to the regulation of gas distribution company rates for gas supply and transportation services. Although distribution companies will continue to be regulated for the foreseeable future, we argue that a hybrid of price and profit regulation of transportation rates will increase allocative efficiency and provide greater incentives for productive efficiency. The design of incentives for cost minimization in long-term gas supply contracts is more elusive, but an index cap based on the cost of gas acquired by other distribution companies merits attention.

### Ma, Ching-to Albert

**PD** December 1990. **TI** Renegotiation and Optimality in Agency Contracts. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 4; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 25. **PR** no charge. **JE** C78, D82. **KW** Principal-Agent Model.

**AB** We analyze contract renegotiation in a principal-agent model. The procedure is one where the agent makes contract renegotiation offers. We impose a mild restriction on the principal's belief when she receives a renegotiation offer from the agent; she must not believe that the agent uses a strictly dominated strategy. This renegotiation game has a unique sequential equilibrium that satisfies our belief restriction. The outcome of this equilibrium is identical to the second-best outcome in the standard principal-agent model without renegotiation. This means that when renegotiation is led by the agent, the equilibrium is (constrained) Pareto efficient, and renegotiation does not impose new and binding restrictions.

**PD** April 1991. **TI** Bargaining with Deadlines and Imperfect Player Control. **AU** Ma, Ching-to Albert; Manove, Michael. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 7; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 32. **PR** no charge. **JE** C78. **KW** Strategic Delay. Bargaining Models.

**AB** Bargaining often occurs under the pressure of a deadline. This model incorporates a bargaining deadline, the possibility of strategic delay, and a lack of perfect player control over the timing of offers. To model imperfect player control, we incorporate exogenous random delays into offer transmission. We solve the model for which transmission delays are uniformly distributed. Our model has a unique symmetric Markov-perfect equilibrium in which players adopt strategic delay early in the game, make and reject offers later on, and reach agreements late in the game if at all. In equilibrium players miss the deadline with positive probability. If equilibrium play results in an agreement, the division of the surplus is unique and close to an even split.

**PD** July 1991. **TI** Regulation, Quality Competition, and Price in the Hospital Industry. **AU** Ma, Ching-to Albert;

Burgess, James F.Jr. **AA** Ma; Boston University. Burgess: Department of Veterans Affairs and Union College. **SR** Boston University Industry Studies Program Discussion Paper Series: 14; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 23. **PR** no charge. **JE** 111, 118. **KW** Hospital Demand. Medical Insurance. Health Care.

**AB** This paper investigates regulation, quality, and price competition in the hospital industry. Hospitals produce differentiated products and attract patients by increasing their expenditures on qualities; consumers have diverse preferences on qualities provided by hospitals. Hospital demand functions are derived explicitly from consumer preferences, and competition among hospitals are modeled as non-cooperative games. In the first model, consumers are assumed to be fully insured and hospital demands are determined entirely by their qualities. Next, we consider three models of price and quality competition. We find that some forms of price-and-quality competition result in a socially efficient quality level. Furthermore, we compare the equilibrium outcomes in price-cum-quality competitive models and regulation-cum-quality competitive models.

**PD** January 1992. **TI** Paying for Joint Costs in Health Care. **AU** Ma, Ching-to Albert; McGuire, Thomas G. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 23; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 28. **PR** no charge. **JE** 112, 118. **KW** Medicare. Payment System. Health Care.

**AB** Joint costs in health care consist mainly of capital equipment and technology-related expenses. We model joint costs as a decision made by a hospital in response to payment system incentives. The public payer (inspired by the federal Medicare program) may pay for joint costs by a combination of directly reimbursing for costs incurred ("pass-through" payments) and adding a margin over variable costs paid per discharge. In the model, both payers behave strategically in paying for joint costs. Medicare's current policy is to move away from "subsidizing" hospital capital purchases through pass-through payments, and towards including capital payments in the per discharge payment system. Our major result is that this policy change is a mistake: positive-pass through is always part of an optimal policy to implement a desired level of joint costs.

**PD** March 1992. **TI** Quality Competition, Welfare, and Regulation. **AU** Ma, Ching-to Albert; Burgess, James F.Jr. **AA** Ma; Boston University. Burgess: Department of Veterans Affairs and Union College. **SR** Boston University Industry Studies Program Discussion Paper Series: 24; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 18. **PR** no charge. **JE** D43, L51. **KW** Price Regulation. Imperfect Competition.

**AB** In this paper we study price regulation and the supply of quality in imperfectly competitive markets. We explore the role of regulation in markets where firms may use both quality and price to compete for customers. We present a strategic effect that tends to depress equilibrium market quality level. Firms react to quality disadvantages by price reduction; thus they do not have the correct incentive to set socially efficient quality levels. We also show that price regulation may result in lower price and higher quality.

**Macauley, Molly K.**

**PD** February 1991. **TI** The NASA Budget: For Whom, For What, and How Big? **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-08; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 31. **PR** \$5.00 prepaid (U.S. funds only). **JE** D73, D78. **KW** Budgetary Decision-Making. Principal-Agent Framework.

**AB** No magic number identifies the "proper" amount of U.S. spending on space activities. In fact, the question "how large should the NASA budget be" has only the answer: "it depends". The size of the NASA budget is not the most useful question, then. Rather, the critical questions are (a) can we increase the effectiveness of spending on space activities, and (b) if so, how? This paper suggests a principal-agent framework for considering the process of decisionmaking about the NASA budget. The paper seeks to identify (a) specific problems in the process as it relates to the interactions among the public, the Congress, NASA, and the aerospace and space science communities, and (b) ways to extract better performance from these parties in managing expenditure on space activities.

**PD** April 1991. **TI** Economic Considerations in Supplying Earth Observation Data From Space. **AU** Macauley, Molly K.; Toman, Michael A. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-11; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 18. **PR** \$5.00 prepaid (U.S. funds only). **JE** L86, L33. **KW** Remote Sensing. Outer Space Industry. Public-Private Interactions.

**AB** Growing interest in understanding global environmental change has greatly increased demand for remote sensing of the earth from space. The bulk of the funds from the U.S. budget to study global change are a down payment on a \$52 billion space data program, the "Earth Observing System" (EOS). The huge cost of EOS, together with its "eggs-in-one-basket" architecture, have provoked significant criticism and in turn, several proposals for smaller-scale alternatives. We view the two issues we address in this paper to be fundamental to the now rancorous debate over EOS. We first ask whether economies of scale (in the architecture) and scope (in the data mix) appear substantial enough, and risk small enough, to justify EOS' large-scale approach. We then ask a separate but related question about the organization of the project, namely whether these supply attributes require the technology to be an almost exclusively governmentally funded, owned, and operated activity as is indeed the case with EOS.

**Makridakis, Spyros**

**PD** February 1992. **TI** The M-2 Competition: A Budget Related Empirical Forecasting Study. **AU** Makridakis, Spyros; Hibon, Michele. **AA** INSEAD. **SR** INSEAD Working Paper: 92/13/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 11. **PR** not available. **JE** C52, E17. **KW** M-Competition. Forecasting. **AB** The purpose of the M2 Competition is to determine the post-sample accuracy of various forecasting methods. The M2-Competition consisted of distributing 29 actual series to six forecasters. The objective was to make monthly forecasts covering fifteen months starting from October and including December of the next year. year later the forecasters were

provided with the new data as they had. Although the number of series involved was small and the forecasters had additional information about the series being predicted a study of the results show few or no differences in post-sample forecasting accuracy when compared to those of the M-Competition or the earlier Makridakis and Hibon empirical study.

**Maldonado-Bear, Rita**

**PD** March 1992. **TI** The Invisible Hand and Health Care: Diagnosing and Treating Market Inadequacies. **AU** Maldonado-Bear, Rita; Bear, Larry. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-14; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 24. **PR** \$5.00. **JE** 111, K32, I18. **KW** Health Care. Health Care Markets.

**AB** In this paper, we examine some economic, political, and legal aspects of our health care markets in the hope of at least understanding those public policy choices any democratic citizenry is morally bound to make.

**PD** March 1992. **TI** Legal and Financial Agency, Ethics and the Fiduciary Relationship. **AU** Maldonado-Bear, Rita; Bear, Larry. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-15; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 19. **PR** \$5.00. **JE** K20, G20. **KW** Principal-Agent Relationship.

**AB** The law views the agency relationship in terms of the rights and obligations not only of the principal and agents, but additionally, of third parties involved with them as well; e.g., a supplier of goods to the principal through the agent's contract, or, a pedestrian suing the principal personally for damages caused by the principal's truck driven, on official business, by the agent. The major question the law addresses in terms of the agency relationship, is therefore: Exactly what are the rights and obligations of principals and agents - to each other and to third parties, which is to say, society at large?.

**Mankiw, N. Gregory**

**TI** Capital Mobility in Neoclassical Models of Growth. **AU** Barro, Robert J.; Mankiw, N. Gregory; Sala-i-Martin, Xavier.

**Manove, Michael**

**TI** Bargaining with Deadlines and Imperfect Player Control. **AU** Ma, Ching-to Albert; Manove, Michael.

**Markusen, James R.**

**PD** April 1992. **TI** Noncooperative Equilibria in Regional Environmental Policies when Plant Locations are Endogenous. **AU** Markusen, James R.; Morey, Edward R.; Olewiler, Nancy. **AA** Markusen: University of Colorado and National Bureau of Economic Research. Morey: University of Colorado. Olewiler: Simon Fraser University. **SR** National Bureau of Economic Research Working Paper: 4051; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$5.00. **JE** Q20, Q28. **KW** Environmental Standards. Environmental Taxes.

**AB** A two-region model is presented in which an imperfectly

competitive firm produces a good with increasing returns at the plant level, and in which shipping costs exist between the two markets. Production of the good causes local pollution, and regional governments can levy pollution taxes or impose environmental regulations. The firm decides, partly on the basis of these environmental policy variables, whether to maintain plants in both regions, serve both regions from a single plant or shut down. Two types of harmful tax (regulatory) competitions are documented. If the disutility of pollution is high enough, each region will only want the polluting good produced in the other region and the two regions will likely compete by increasing their environmental taxes (standards) until the polluting firm is driven from the market. Alternatively, if the disutility from pollution is not as great, each region will realize that their welfare could decrease if their environmental policy causes the firm to not operate in their region. In this case, the regions will usually compete by undercutting each others pollution tax rates (environmental standards).

**Maschter, Michael**

**TI** Credible Equilibria in Games with Utilities Changing During the Play. **AU** Ferreira, Jose-Luis; Gilboa, Itzhak; Maschter, Michael.

**Matsui, Akihiko**

**TI** Toward a Theory of International Currency. **AU** Matsuyama, Kiminori; Kiyotaki, Nobuhiro; Matsui, Akihiko.

**Matsuyama, Kiminori**

**PD** January 1992. **TI** Agricultural Productivity, Comparative Advantage, and Economic Growth. **AA** Hoover Institution and Northwestern University. **SR** Hoover Institute Working Papers in Economics: E-92-3; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 28. **PR** not available. **JE** F43, O11, O41. **KW** Endogenous Growth. Learning-by-Doing.

**AB** The role of agricultural productivity in economic development is addressed in a two-sector model of endogenous growth in which a) preferences are non-homothetic and the income elasticity of demand for the agricultural good is less than unitary, and b) the engine of growth is learning-by-doing in the manufacturing sector. For the closed economy case, the model predicts a positive link between agricultural productivity and economic growth, while, for the small open economy case, it predicts a negative link. This suggests that the openness of an economy should be an important factor when planning development strategy and predicting growth performance.

**PD** January 1992. **TI** Imperfect Competition, Foreign Trade, and the Multipliers: Machlup-Metzler Fifty Years Later. **AA** Hoover Institution and Northwestern University. **SR** Hoover Institute Working Papers in Economics: E-92-4; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 20. **PR** not available. **JE** E62, F12, F41. **KW** Aggregate Demand Spillovers. Fiscal Policies. Income Determination.

**AB** This paper constructs a general equilibrium model of imperfect competition and international trade and investigates the international transmission of country specific aggregate demand shocks, such as changes in taste and fiscal policies. The impacts of coordinated fiscal expansion and of transfer payments are also discussed. The model has some curious



resemblance with earlier Keynesian models of open economies, notably of the Machlup-Metzler variety, which emphasize the role of foreign trade multipliers in income determination in interdependent national economies.

**PD** April 1992. **TI** Toward a Theory of International Currency. **AU** Matsuyama, Kiminori; Kiyotaki, Nobuhiro; Matsui, Akihiko. **AA** Matsuyama: Northwestern University. Kiyotaki: University of Minnesota and Federal Reserve Bank of Minneapolis. Matsui: University of Pennsylvania. **SR** Hoover Institute Working Papers in Economics: E-92-6; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 50. **PR** not available. **JE** C73, F33. **KW** Economic Integration. Evolutionary Dynamics. Medium of Exchange.

**AB** We use the framework of random matching games and develop a two country model of the world economy, in which two national currencies compete and may be circulated as media of exchange. There are multiple equilibria, which differ in the areas of circulation of the two currencies. In one equilibrium, the two national currencies are circulated only locally. In another, one currency is circulated as an international currency. There is also an equilibrium in which both currencies are accepted internationally. We also find an equilibrium in which the two currencies are directly exchanged. We first characterize the existence conditions of these equilibria in terms of the relative country size and the degree of economic integration and then use an evolutionary approach to equilibrium selection to explain the evolution of the international currency as the two economies become more integrated. Some welfare implications are also discussed.

### Mattei, Aurelio

**PD** November 1991. **TI** A Non-Parametric Test of Consumer Behavior Using Panel Data. **AA** Université de Lausanne. **SR** Université de Lausanne, Cahiers de Recherches Economiques: 9112; Département D'économetrie et D'économie Politique, Université de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 29. **PR** no charge. **JE** D12. **KW** Revealed Preference.

**AB** In this paper panel data are used to test if consumer behavior is consistent with utility maximization. The test is based on revealed preference theory and it does not assume a specific functional form. The data come from surveys of Swiss household budgets for the period 1975-1987. Our results show that a static neoclassical model cannot be used to explain the monthly expenditure of about half of all households. Finally, the results obtained with two well known functional forms (the indirect translog utility function and the almost ideal demand system) show that, as in the case of aggregate or per capita data, one should not use these models to test homogeneity and symmetry restrictions with data from an individual consumer.

### Mayer, Thomas

**PD** May 1992. **TI** What do Significance Tests Signify? **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 397; Department of Economics, University of California at Davis, Davis, CA 95616-8578. **PG** 15. **PR** \$3.00 U.S. and Canada. \$4.00 International. **JE** C10. **KW** Significance Tests.

**AB** This paper says nothing fundamentally new. Instead, it reviews some familiar qualifications to significance testing, e.g. that failure to confirm a hypothesis is not equivalent to

confirming the converse, and that statistical significance does not necessarily imply substantive significance. Such qualifications are often ignored in practice, and that is unwarranted.

### McConnell, Sheena

**TI** Firm-Specific Determinants of the Real Wage. **AU** Currie, Janet; McConnell, Sheena.

### McGuire, Martin C.

**PD** May 1991. **TI** The Pure Theory of Unemployment Insurance: Hoping for the Worst When Insurance is Available. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 91-16; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 11. **PR** no charge. **JE** J65. **KW** Unemployment. Insurance.

**AB** Utilization of a fixed endowment of a resource is postulated under two contingencies; when the resource can be sold or traded for another good (e.g. leisure for goods) at a fixed price; alternatively, when no trade or exchange is allowed and the entire endowment must be consumed. The paper demonstrates that a rational consumer will insure so much as to prefer the "bad" outcome to arise, under the assumptions: (a) insurance at fair odds is available; (b) individual utility function is state independent, and strictly quasiconcave linear homogeneous, or any smooth concave transformation of the same.

### McGuire, Thomas G.

**TI** Medicare Payment to Psychiatric Facilities: Unfair and Inefficient? **AU** Cromwell, Jerry; Harrow, Brooke S.; Ellis, Randall P.; McGuire, Thomas G.

**PD** September 1991. **TI** Physician Response to Fee Changes with Multiple Payers. **AU** McGuire, Thomas G.; Pauly, Mark V. **AA** McGuire: Boston University. Pauly: University of Pennsylvania. **SR** Boston University Industry Studies Program Discussion Paper Series: 15; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 28. **PR** no charge. **JE** I11, I12. **KW** Physician Behavior. Health Care.

**AB** This paper develops a general model of physician behavior with demand inducement encompassing the two benchmark cases of profit maximization and target-income behavior. It is shown that when income effects are absent, physicians maximize profits, and when income effects are very strong, physicians seek a target income. The model is used to derive own and cross-price expressions for the response of physicians to fee changes in the realistic context of more than one payer under the alternative behavior assumptions of profit maximization and target income behavior. The implications for public and private fee policy, and empirical research on physician response to fees, are discussed.

**PD** September 1991. **TI** Workplace Drug Abuse Policy. **AU** McGuire, Thomas G.; Ruhm, Christopher J. **AA** McGuire: Boston University. Ruhm: University of North Carolina at Greensboro. **SR** Boston University Industry Studies Program Discussion Paper Series: 19; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 25. **PR** no charge. **JE** J26, J32, I10. **KW** Drug Abuse Treatment. Workplace Policy.

**AB** Drug abuse is an important and expensive problem for

employers. This paper considers the effects of workplace policies relating to drug abuse treatment and testing in a labor market with asymmetric information about worker proclivities to abuse drugs and to incur costs of workplace accidents. Drug abuse has a moral hazard component related to worker choice of treatment or other deterrent activities, and a selection component related to drug testing. We characterize the type and frequency of workers treated and tested in labor market equilibrium, and compare this market outcome to the frequency of treatment and testing which maximizes social product.

**TI** Paying for Joint Costs in Health Care. **AU** Ma, Ching-to Albert; McGuire, Thomas G.

**TI** Should Physicians be Permitted to "Balance Bill" Patients? **AU** Glazer, Jacob; McGuire, Thomas G.

**TI** The Economics of Referrals. **AU** Glazer, Jacob; McGuire, Thomas G.

**PD** April 1992. **TI** Incomplete Information and Optimal Market Structures: Public Purchases from Private Providers. **AU** McGuire, Thomas G.; Riordan, Michael H. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 10; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 30. **PR** no charge. **JE** D40, D43. **KW** Public Procurement. Market Structure.

**AB** Market structure is endogenized in a normative model of public procurement featuring a social cost of profit, product variety, economies of scale, and incomplete information about cost. Depending on parameters, either sole sourcing or dual sourcing might be optimal. However, if the social cost of profit is positive but not too large, incomplete information biases optimal market structure in favor of sole sourcing. On the other hand, this bias in favor of sole sourcing may be reversed if the social cost of profit is large. An application to the publicly financed treatment for drug abuse motivates the analysis.

### McKenney, Mary S.

**PD** July 1991. **TI** Climate Data Needs From GCM Experiments for Use in Assessing the Potential Impacts of Climate Change on Natural Resource Systems. **AU** McKenney, Mary S.; Rosenberg, Norman J. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-15; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 18. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q29. **KW** Climate Change. Global Climate Modeling.

**AB** In this paper we address the question: Ideally, what kinds of information are needed from GCM experiments to support research on the impacts of climatic change on natural resource systems? We draw upon the literature and personal communication with impact assessors to highlight and briefly discuss the climatic factors which influence various natural resources. Some of the more frequently cited types of data needs include improvements in the spatial and temporal resolution of GCM outputs, improved estimates of climate variability and extreme events, better estimates of changes in precipitation and soil moisture, and more reliable simulations of the transient response of climate to increasing concentrations of greenhouse gases.

**PD** August 1991. **TI** Simulating the Impacts of Climate Change on Potential Evapotranspiration: A Comparison of the

Climate Sensitivity of Selected Methods. **AU** McKenney, Mary S.; Rosenberg, Norman J. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-17; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 60. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q29, Q19. **KW** Climate Change.

**AB** A simulation approach was used to generate estimates of climate change effects on potential evapotranspiration (ET<sub>p</sub>) using eight alternative methods for computing ET<sub>p</sub>. The methods, which differ in structure and data requirements, included Thornthwaite, Blaney-Criddle, Hargreaves, Samani-Hargreaves, Jensen-Haise, Priestley-Taylor, Penman, and Penman-Monteith. Simulation analysis were performed using climate data from five sites in the North American Great Plains. The results showed that the methods differed in their sensitivities to temperature and other climate inputs, as well as in their predictions of ET<sub>p</sub> even without climate change.

### Meghir, Costas

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

### Mehta, J. S.

**TI** Circumstances in Which Different Criteria of Estimation Can be Applied to Estimate Policy Effects. **AU** Swamy, P. A. V. B.; Mehta, J. S.; Singamsetti, Rao N.

### Mei, X.

**TI** Industrial Development and Reform in Changzhou City - A Case Study. **AU** Xu, L.; Sherbourne, R.; Mei, X.

### Mester, Loretta J.

**PD** March 1992. **TI** Further Evidence Concerning Expense Preference and the Fed. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 92-4; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 13. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** H50. **KW** Expense Preference Behavior.

**AB** This paper presents further evidence on the existence of expense preference behavior toward labor in the Federal Reserve System over the period 1954-89. I expand on a model of Fed behavior presented in Boyes, Mounts, and Sowell (1988) (hereafter BMS). BMS's results suggested that the Fed indulged in expense preference. However, one of the assumptions of their model was that the Fed uses a Cobb-Douglas production structure. This paper shows that the data reject the hypothesis that the Fed uses a Cobb-Douglas production structure. Further analysis using the test developed in Mester (1989), which permits a less restrictive production technology, suggests that the Fed did not indulge in expense-preference behavior over the sample period.

### Metcalf, Gilbert E.

**TI** Energy Tax Credits and Residential Conservation Investment. **AU** Hassett, Kevin A.; Metcalf, Gilbert E.

**Meyer, Arnoud**

**PD** November 1991. **TI** Product Development in the Textile Machinery Industry. **AA** INSEAD. **SR** INSEAD Working Paper: 91/61/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 16. **PR** not available. **JE** L15, L23, L64, M11. **KW** Management Technique. Technology Transfer.

**AB** The textile machinery industry is a highly concentrated industry. In particular, the design and production of textile looms is carried out by a limited number of companies. Through interview we have gathered data on the product development process as well as the development/production interface in five of these companies. What started as a comparison between Japanese and European companies turned out very quickly to be a comparison of management techniques amongst groups of companies for which the dividing lines do not coincide with geographical location. We studied in particular for this paper the issue of development philosophy, the organization of the development laboratory, and the differences in approach to the technology transfer between development and production.

**Michaud, Claude**

**TI** Longevity of Business Firms: A Four-Stage Framework for Analysis. **AU** Hogarth, Robin M.; Michaud, Claude; Doz, Yves; Van Der Heyden, Ludo.

**Micklewright, John**

**PD** February 1992. **TI** Income Support for the Unemployed in Hungary. **AA** European University Institute, Florence, Italy. **SR** LSE Welfare State Programme: WSP/67; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 43. **PR** no charge. **JE** I38, J64, J65. **KW** Unemployment Benefit. Unemployment Duration. Hungary.

**AB** Much of the current comment on unemployment compensation schemes in Eastern Europe appears to be based on consideration of only a limited range of the parameters in these schemes and with little attention paid to other sources of income support for the unemployed. Such an approach is inadequate and may give a misleading picture of both living standards and incentives to work. The paper considers in detail the functioning in principle of the income support system for the unemployed in Hungary. Some aspects of the functioning in practice of the central element - unemployment compensation - is then analyzed using data from administrative sources.

**Miller, Robert A.**

**TI** A Simulation Estimator for Dynamic Models of Discrete Choice. **AU** Hotz, V. Joseph; Miller, Robert A.; Sanders, Seth; Smith, Jeffrey.

**Mincer, Jacob**

**PD** not available. **TI** Human Capital: A Review. **AA** Columbia University and National Bureau of Economic Research. **SR** Columbia University Department of Economics Discussion Paper: 591; Department of Economics, Columbia University, New York, New York 10027. **PG** 38. **PR** \$5.00. **JE** J24, J41. **KW** Labor Economics. Human Capital.

**AB** The following is in large part, a review of the contributions of human capital analysis to labor economics.

More space is given to work after the 1970's than before, partly because the earlier period has been described in several surveys. Much of it covers my own research. Fortunately, as the evolution of my research in this field was not atypical, it serves easily as an organizing principle for a review. The emphasis on empirical work and on its connection with theory is another feature of this review.

**Miron, Jeffrey A.**

**TI** The Seasonal Cycle in U.S. Manufacturing. **AU** Beaulieu, J. Joseph; Miron, Jeffrey A.

**TI** A Cross Country Comparison of Seasonal Cycles and Business Cycles. **AU** Beaulieu, J. Joseph; Miron, Jeffrey A.

**Mohtadi, Hamid**

**TI** Education, Job Signaling, and Dual Labor Markets in Developing Countries. **AU** Kim, Sunwoong; Mohtadi, Hamid.

**PD** January 1992. **TI** Labor Specialization and Endogenous Growth. **AU** Mohtadi, Hamid; Kim, Sunwoong. **AA** Mohtadi; University of Minnesota. Kim; University of Wisconsin-Milwaukee. **SR** University of Minnesota Economic Development Center Bulletin: 92-2; Department of Agricultural and Applied Economics, 352 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 12. **PR** no charge. **JE** J41, O40. **KW** Labor Specialization. Human Capital. Growth.

**AB** Previous explanations for the non-convergence of long-run growth rates have focused on the role of human capital in production or in technology. But the specific nature of human capital and the mechanism by which it contributes to output or to technology remain ambiguous. In this paper we focus on this issue, emphasizing the specialization aspect of human capital. We distinguish between two types of human capital; extensive human (or generalized) versus intensive (or specialized) human capital. With specific trade-offs between the two types of human capital, we focus on the worker-consumer decision to consume versus to invest in human capital. We find that for positive long run growth rates extensive human capital must decline and intensive human capital must rise over time.

**Monfort, A.**

**TI** Pseudo-Likelihood Methods. **AU** Gourieroux, C.; Monfort, A.

**TI** Two Stage Generalized Moment Method with Applications to Regressions with Heteroskedasticity of Unknown Form. **AU** Gourieroux, C.; Monfort, A.; Renault, E.

**Mongiardino, Allesandra****Morey, Edward R.**

**TI** Noncooperative Equilibria in Regional Environmental Policies when Plant Locations are Endogenous. **AU** Markusen, James R.; Morey, Edward R.; Olewiler, Nancy.

**Morris, Stephen**

**TI** Finite Bubbles with Short Sale Constraints and Asymmetric Information. **AU** Allen, Franklin; Morris, Stephen; Postlewaite, Andrew.



**Morrisette, Peter M.**

**PD** October 1990. **TI** Lessons From Other International Agreements for a Global CO2 Accord. **AU** Morrisette, Peter M.; Darmstadter, Joel; Plantinga, Andrew J.; Toman, Michael A. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-02; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 65. **PR** \$5.00 prepaid (U.S. funds only). **JE** D74. **Q25**. **KW** Climate Change. International Agreement.

**AB** Meaningful pursuit of CO2 controls can occur only within a multi-country context; but the very multi-country dimension of any effective greenhouse strategy -- whether in the form of a carbon tax, emission ceilings, or other policy constraints -- poses inherent and formidable obstacles of administration, equity, and economic efficiency. In this paper, we focus on one particular question pertinent to the issue of CO2 controls: what lessons can we learn from other international environmental agreements that strengthen or diminish the prospect of a CO2 accord?.

**PD** December 1990. **TI** How the CO2 Issue is Viewed in Different Countries. **AU** Morrisette, Peter M.; Plantinga, Andrew J. **AA** Resource for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-03; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 49. **PR** \$5.00 prepaid (U.S. funds only). **JE** D74. **KW** Climate Change.

**AB** Our interest in this paper is to better understand how the global warming issue is viewed in different countries and what that means for the prospects of achieving an international agreement to control global CO2 emissions. Our focus is on five countries or sets of countries--the United States, Japan, the other OECD countries, Eastern Europe and the Soviet Union, and the developing countries (particularly Brazil, China, and India). For each country or set of countries, where possible, we outline specific policies and actions concerning global warming and examine political and public attitudes toward the issue. More importantly, however, we attempt to understand the context in which these countries may have to make decisions concerning the global warming issue by examining the different economic, political, and social factors that will influence policymaking and shape public attitudes on this issue.

**Morrison, Catherine J.**

**TI** High-Tech Capital Formation and Labor Composition in U.S. Manufacturing Industries: An Exploratory Analysis. **AU** Berndt, Ernst R.; Morrison, Catherine J.; Rosenblum, Larry S.

**Mortensen, Dale T.**

**PD** March 1992. **TI** The Cyclical Behavior of Job Creation and Job Destruction. **AU** Mortensen, Dale T.; Pissarides, Christopher. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 982; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 32. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** C68. E32. E24. **KW** Unemployment Rates. Matching Technology.

**AB** Panel studies show that job creation and job destruction coexist at all phases of the business cycle. In this paper, we develop a model of endogenous job destruction in response to persistent idiosyncratic shocks and incorporate the model into the transactions cost (matching) approach to equilibrium job creation and wage determination. Second, we examine the dynamic stochastic implications of the model for co-movement between job creation, job destruction, and employment growth induced by a common aggregate shock to productivity. Finally, a simulation of the model for a reasonable parameterization demonstrates that it can explain cyclical properties of US manufacturing data.

**Mulligan, Casey B.**

**PD** January 1992. **TI** Transitional Dynamics in Two-Sector Models of Endogenous Growth. **AU** Mulligan, Casey B.; Sala-i-Martin, Xavier. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 651; Economic Growth Center, Yale University, Box 987, Yale Station, New Haven CT 06520. **PG** 59. **PR** \$2.00 + postage. **JE** O41. **KW** Convergence. Economic Growth.

**AB** The steady state and transitional dynamics of two-sector models of endogenous growth are analyzed in this paper. We describe necessary conditions for endogenous growth. The conditions allow us to reduce the dynamics of the solution to a system with one state-like and two control-like variables. We analyze the determinants of the long run growth rate. We use the Time-Elimination Method to analyze the transitional dynamics of the models. We find that there are transitions in real time if the point-in-time production possibility frontier is strictly concave. We also show that if the models have a transition in real time, the models are globally saddle path stable. We find that the wealth or consumption smoothing effect tends to dominate the substitution or real wage effect so that the transition from relatively low levels of physical capital is carried over through high work effort rather than high savings. We develop some empirical implications.

**Mummy, Gene E.**

**TI** Integration, Segregation, and Discrimination in Clubs. **AU** Glazer, Amihai; Mummy, Gene E.; Niskanen, Esko.

**Murphy, Kevin M.**

**TI** The Division of Labor, Coordination Costs, and Knowledge. **AU** Becker, Gary S.; Murphy, Kevin M.

**Mwabu, Germano M.**

**TI** The Demand for Outpatient Medical Care in Rural Kenya. **AU** Ellis, Randall P.; Mwabu, Germano M.

**Nagarajan, S.**

**TI** Financial Contracts As Lasting Commitments: The Case of a Leveraged Oligopoly. **AU** Fulghieri, P.; Nagarajan, S.

**PD** February 1992. **TI** Efficient Trading System Design: Market Makers, Membership Fees, and Exchange Ownership Structure. **AU** Nagarajan, S.; Ramakrishnan, Ram T. S. **AA** Nagarajan: McGill University. Ramakrishnan: Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-92-05; Columbia University, Graduate School of Business, First Boston Series, New York, NY 10027. **PG** 15. **PR** \$5.00 academics and non-profit institution; \$6.00 corporations (add \$1.00 outside

U.S., Canada and Puerto Rico). **JE** G34, G14. **KW** Bilateral Trading. Asset Trading.

**AB** This paper shows that in a simple bilateral trading framework, prior membership fees can improve the expected trading gains and volume. Direct trading, however, is not efficient in general - due to the constraints arising from the expected settlement of the fees. This issue is not serious in arbitrarily large multi-asset exchanges. When the number of assets is finite, however, a competitive risk-neutral market maker can strictly improve the expected trading gains and volume-thus effectively performing the role of large multi-asset markets. The possibility of the traders colluding against the market maker is then examined, and necessary and sufficient conditions are derived for collusion to have no welfare effects.

#### Nesetril, Jaroslav

**PD** July 1991. **TI** On Ordered Graphs and Graph Orderings. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 712-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 6. **PR** no charge. **JE** C60. **KW** Graph Theory. Ramsey Theory.

**AB** In this note we discuss various existential problems related to graph orientations, to ordered graphs and their relationship to Ramsey theory. Particularly, we disprove a conjecture posed by Cochand and Duchet.

#### Neumark, David

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

**PD** March 1992. **TI** Inflation Expectations and the Structural Shift in Aggregate Labor-Cost Determination in the 1980s. **AU** Neumark, David; Leonard, Jonathan S. **AA** Neumark: University of Pennsylvania and National Bureau of Economic Research. Leonard: University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4018; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 11. **PR** \$5.00. **JE** E24, D84. **KW** Labor-Cost Inflation.

**AB** Aggregate labor cost equations tended to overpredict labor-cost inflation in the United States in the 1980s. We consider the hypothesis that a change in the price-inflation-expectations mechanism can explain this apparent structural shift in the 1980s. We examine whether the sharp recession of the early 1980s and continued tight monetary policy throughout the decade may have led to changes in the relationship between past price inflation and expected price inflation such that distributed lags of price inflation persistently overestimated expected price inflation, and hence led to overprediction of labor-cost inflation by standard Phillips curves in this period. The evidence leads us to reject this hypothesis, and to conclude instead that there was a true structural shift in labor cost determination.

**PD** March 1992. **TI** Sources of Bias in Women's Wage Equations: Results Using Sibling Data. **AU** Neumark, David; Korenman, Sanders. **AA** Neumark: University of Pennsylvania and National Bureau of Economic Research. Korenman: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic

Research Working Paper: 4019; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$5.00. **JE** J16, J70. **KW** Marriage Premium. Wage Bias.

**AB** We use data on sisters to jointly address heterogeneity bias and endogeneity bias in estimates of wage equations for women. This analysis yields evidence of biases in OLS estimates of wage equations for white and black women, some of which are detected only when these two sources of bias are addressed simultaneously. For both white and black women there is evidence of upward bias in the estimated returns to schooling. Bias-corrected estimates of the effect of marriage on wages, for white women, suggest a positive marriage premium. We also use the sibling data to identify our models, and test a number of other commonly used identifying assumptions as overidentifying restrictions.

**PD** April 1992. **TI** Union Threat Effects and Nonunion Industry Wage Differentials. **AU** Neumark, David; Watcher Michael L. **AA** Neumark: University of Pennsylvania and National Bureau of Economic Research. Watcher: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 4046; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$5.00. **JE** J51. **KW** Threat Model. Crowding Model. Complements Model.

**AB** We investigate the impact of union strength on changes in nonunion wages and employment. The prevailing model in this area is the threat model, which predicts that increases in union strength cause increases in nonunion wages and decreases in nonunion employment. In testing the threat model, we are also testing two alternatives, the crowding and complements models. The evidence we find supports the complements model, but neither the threat model nor the crowding model.

**PD** May 1992. **TI** Hostile Takeovers and Expropriation of Extramarginal Rents: A Test. **AU** Neumark, David; Sharpe, Steven A. **AA** Neumark: University of Pennsylvania. Sharpe: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 197; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 55. **PR** no charge. **JE** D21, G34, J24, J26, J33. **KW** Stakeholder. Industry Wage Premium. Implicit Contracts.

**AB** We construct a prediction model for testing the hypothesis that firms with employees earning extramarginal wages--perhaps owing to long-term implicit contracts--were more likely to experience hostile tender offers from 1979-1989. Firms on the Compustat (active) file in 1979 comprise the domain from which targets were identified. The 1980 Census of Population is used to estimate wage equations by two-digit (SIC) industry and extract both industry wage premia as well as age-earnings profiles and age distributions of employees by industry. Firm-level estimates of employee characteristics are then constructed using the Compustat breakdown of firm sales by industry segment. Finally, event probabilities are estimated using logit and multinomial logit models.

#### Newlon, T. Scott

**TI** The Effects of U.S. Tax Policy on the Income Repatriation Patterns of U.S. Multinational Corporations. **AU** Altshuler, Rosanne; Newlon, T. Scott.

**TI** The Effects of Tax Planning on the Foreign Income Flow of U.S. Multinational Corporations. **AU** Altshuler, Rosanne; Newlon, T. Scott.

### Niskanen, Esko

**TI** Integration, Segregation, and Discrimination in Clubs. **AU** Glazer, Amihai; Mumy, Gene E.; Niskanen, Esko.

### Noldeke, Georg

**PD** February 1992. **TI** Unverifiable Information, Incomplete Contracts, and Renegotiation. **AU** Noldeke, Georg; Schmidt, Klaus M. **AA** Noldeke: University of Bonn. Schmidt: Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 92-6; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 17. **PR** \$6.00 Domestic. \$8.00 Overseas. \$2.00 Student. **JE** K12, L14, L22. **KW** Investment. Unverifiable Contracts. Renegotiation.

**AB** Hart and Moore (1988) argued that non-verifiability is a major cause for contract incompleteness and leads in general to underinvestment if the parties can not commit not to renegotiate their initial contract. We show that this result relies on the assumption that the courts cannot distinguish which party refused to trade. If this assumption is relaxed the first best can be achieved by giving control to one party which can decide unilaterally whether or not to enforce trade. Our result suggests that if relationship specific investments are non-verifiable, then vertical integration may perform better than separate ownership.

### O'Flaherty, Brendan

**PD** October 1991. **TI** What's Homelessness? Comparing New York and London. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 567; Department of Economics, Columbia University, New York, New York 10027. **PG** 30. **PR** \$5.00. **JE** I31, I32, I38. **KW** Homeless. Public Policy.

**AB** According to the McKinney Act (P.L. 100-77, July 22, 1987) the number of people homeless on any night is the sum of two numbers: the number of people sleeping on streets or in other unusual places and the number sleeping in emergency shelters. The definition says homelessness is a housing market outcome--where you sleep--and it is a sum. Since it is a sum, the natural question is: why should these two numbers be added? In this paper we investigate the rationale behind this definition.

### Oates, Wallace E.

**PD** May 1991. **TI** Global Environmental Management: Towards an Open Economy Environmental Economics. **AA** University of Maryland and Resources for the Future. **SR** University of Maryland Department of Economics Working Paper: 91-17.; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 24. **PR** no charge. **JE** Q20, Q28. **KW** Environmental Policy. Regulation.

**AB** This paper seeks to extend the perspective of environmental economics to an open-economy setting that encompasses trade, financial, and environmental flows across national borders. It sets forth a simple analytical framework around which to organize a research agenda for the analysis of

global environmental issues. The paper explores the design and implementation of global policy measures with an emphasis on the problems of the developing countries. Of particular concern are the issues of distortions in market prices and limited administrative capacity--and their implications for global environmental policies.

**PD** September 1991. **TI** Economic Incentives and the Containment of Global Warming. **AU** Oates, Wallace E.; Portney, Paul R. **AA** Oates: University of Maryland and Resources for the Future. Portney: Resources for the Future. **SR** University of Maryland Department of Economics Working Paper: 91-18; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 34. **PR** no charge. **JE** Q20, Q28. **KW** Environmental Regulation. Global Warming.

**AB** This paper explores the role for economic instruments in the control of global warming. It begins with a review of what theory and practice have taught us about these instruments--pollution taxes and systems of transferable permits--in the pursuit of domestic environmental management. It then extends this analysis to a global framework and examines some of the difficult issues that arise in the design and implementation of such policy measures for the regulation of global emissions of greenhouse gases.

**PD** October 1991. **TI** Pollution Charges as a Source of Public Revenues. **AA** University of Maryland and Resources for the Future. **SR** University of Maryland Department of Economics Working Paper: 91-22; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 24. **PR** no charge. **JE** H21, H23, Q28. **KW** Taxes. Pollution Charges.

**AB** This paper explores the role of pollution charges as a revenue instrument. In an optimal taxation setting, such charges can serve to reduce the reliance on distorting taxes and can improve the efficiency properties of the overall revenue system. However, in a public choice setting, where there is a conflict between environmental-management and revenue objectives, things become more complicated. A revenue-maximizing agency, for example, may use this simply as a source of additional revenues. Interestingly, it is impossible to determine, in general terms, whether such an agency will employ a higher or lower tax rate than the "environmental optimum." The paper also argues against the earmarking of funds from such taxes for environmental projects.

### Olewiler, Nancy

**TI** Noncooperative Equilibria in Regional Environmental Policies when Plant Locations are Endogenous. **AU** Markusen, James R.; Morey, Edward R.; Olewiler, Nancy.

### Orphanides, Athanasios

**PD** April 1992. **TI** The Timing of Stabilizations. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 194; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 37. **PR** no charge. **JE** E31, F30. **KW** High Inflation Stabilization. Optimal Policy.

**AB** In this paper I present a positive theory of stabilization from high inflation. A unified framework addresses questions regarding the timing of stabilization attempts, the degree of



macroeconomic adjustment, and the determination of possible failures. The main result is that in the presence of uncertainty, delay in the adoption of a stabilization program and its possible abandonment can be understood as optimal decisions taken by a forward looking rational government balancing the costs of continuing inflation against the benefit of a possibly less costly future disinflation. I also discuss the role of anticipations of external aid, conditionality agreements, speculative activity, and the frontloading of adjustment in determining optimal stabilization delay and failure.

**PD** April 1992. **TI** Labor Hoarding When Unemployment is a Worker Discipline Device. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 195; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 12. **PR** no charge. **JE** E24, J30. **KW** Efficiency Wages. Severance Pay. Adjustment Costs.

**AB** This paper provides an explanation for labor hoarding behavior by profit maximizing firms in the absence of explicit adjustment costs, and a rationale for the adoption of voluntary severance pay plans. The explanation is based on the use of compensation and the threat of unemployment for effort solicitation. In the Shapiro and Stiglitz (1984) model, it is shown that the need of compensation for the risk of layoff serves as an implicit linear separation cost. Consequently, firms subject to idiosyncratic demand shocks find it optimal to engage in labor hoarding behavior. Severance pay plans serve as a means of providing compensation for the risk of layoffs without the need for direct wage rate adjustments.

#### Overgaard, Per Baltzer

**TI** Upstream Pricing and Advertising Signal Downstream Demand. **AU** Albaek, Svend; Overgaard, Per Baltzer.

#### Parker, Philip

**PD** November 1991. **TI** Specifying Competitive Effects in Diffusion Models: An Empirical Analysis. **AU** Parker, Philip; Gatignon, Hubert. **AA** Parker: INSEAD. Gatignon: University of Pennsylvania. **SR** INSEAD Working Paper: 91/62/MKT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 29. **PR** not available. **JE** M31, M37. **KW** Trial Dynamics. Brand Trials. Advertising.

**AB** The objectives of this research are to provide a systematic analysis of alternative specifications of brand-level first purchase diffusion models, and to empirically assess within a product category the relative success of these models to explain trial dynamics.

#### Passmore, S. Wayne

**TI** Market Power and the Pricing of Mortgage Securitization. **AU** Goodman, John L., Jr.; Passmore, S. Wayne.

#### Pauly, Mark V.

**TI** Physician Response to Fee Changes with Multiple Payers. **AU** McGuire, Thomas G.; Pauly, Mark V.

#### Paxson, Christina H.

**PD** January 1992. **TI** The Dynamics of Job Mobility and Dual-Job Holding. **AU** Paxson, Christina H.; Sicherman,

Nachum. **AA** Paxson: Princeton University. Sicherman: Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-92-04; Columbia University, Graduate School of Business, First Boston Series, New York, NY 10027. **PG** 24. **PR** \$5.00 academics and non-profit institution; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** J22, J60. **KW** Labor Supply. Hours Constraint.

**AB** This paper presents a stochastic dynamic model of job mobility and dual-job holding. The key idea underlying the model is that hours cannot be easily changed within jobs, and variations in labor supply determinants over time result in hours constraints within jobs for workers. We investigate the conditions under which constrained workers will either change jobs or take second jobs. Our work is motivated by the following facts: a large fraction of working men hold second jobs in any given year, movements into and out of second jobs are frequent, and those who move into and out of second jobs more often also change their main jobs more often. Our empirical results indicate that hours constraints affect both job mobility and patterns of dual-job holding.

#### Peck, James

**TI** Competition Over Price and Service Rate When Demand is Stochastic: A Strategic Analysis. **AU** Deneckere, Raymond J.; Peck, James.

#### Pessach, Shula

**PD** May 1992. **TI** Targeting the Exchange Rate under Inflation. **AU** Pessach, Shula; Razin, Assaf. **AA** Pessach: Bank of Israel. Razin: Tel Aviv University and National Bureau of Economic Research. **SR** Tel Aviv Sackler Institute of Economic Studies: 5/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 17. **PR** no charge. **JE** F30, F31. **KW** Target Zone. Foreign Currency. Market Fundamentals.

**AB** The purpose of this paper is to implement empirically a variant of the new theory of exchange rate targeting, suitable for high inflation small open economies. We formulate an expectations induced relationship between the exchange rate and the fundamental subject to random shocks and target zone constraints on rates of depreciation. The empirical analysis provides estimates for the key parameters of the exchange rate dynamic equation, and thereby identifies the unique roles played by policy variables and market fundamentals in foreign exchange markets.

#### Peters, Wolfgang

**PD** December 1991. **TI** Public Pensions, Family Allowances and Endogenous Growth. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-347; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 17. **PR** no charge. **JE** H55, H20. **KW** Tax Transfer. Social Welfare. Pension System.

**AB** We analyze the optimal extent of a public scheme in the presence of external effects of fertility and education on the net domestic product. Family allowances are used to internalize external effects in such a way that welfare is maximized. If we compare the American and German scheme it is obvious that both fail the full optimum. While the first deviates from the modified golden rule the second leads at least partially to Ramsey taxes. The cause for the imperfectness lies in the

unavailable debt strategy (open or hidden) for the American system and the unfeasible lump-sum transfers to old generation in the German system.

### **Pezzey, John**

**TI** Should a Carbon Tax Rise or Fall Over Time?  
**AU** Ulph, Alistair; Ulph, David; Pezzey, John.

### **Philippopoulos, Apostolis**

**TI** Political Parties, Elections and Exchange Rate Regimes: On the Deeper Determinants of Inflation in Greece.  
**AU** Alogoskoufis, George S.; Philippopoulos, Apostolis.

### **Phillips, Garry D. A.**

**TI** The Bias of OLS, GLS and Sure Estimators in Dynamic Seemingly Unrelated Regression Models. **AU** Kiviet, Jan F.; Phillips, Garry D. A.

**TI** Exact Similar Tests for Unit Roots and Cointegration.  
**AU** Kiviet, Jan F.; Phillips, Garry D. A.

### **Phillips, Peter C. B.**

**PD** May 1992. **TI** Posterior Odds Testing for a Unit Root with Data-Based Model Selection. **AU** Phillips, Peter C. B.; Ploberger, Werner. **AA** Phillips: Yale University. Ploberger: Technical University of Vienna and Yale University. **SR** Yale Cowles Foundation Discussion Paper: 1017; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven CT 06520. **PG** 33. **PR** \$2.00. **JE** C11, C51, C52, C53. **KW** Kalman Filter. Bayesian Data Density. Stochastic Regressors.

**AB** The Kalman filter is used to derive updating equations for the Bayesian data density in discrete time linear regression models with stochastic regressors. The implied "Bayes model" has time varying parameters and conditionally heterogeneous error variances. A sigma-finite "Bayes model" measure is given and used to produce a new model selection criterion (PIC) and objective posterior odds tests for sharp null hypotheses like the presence of a unit root. Simulation results and an empirical application are reported. The simulations show that the new model selection criterion "PIC" works very well and is generally superior to the Schwarz criterion BIC even in stationary systems.

### **Pissarides, Christopher**

**TI** The Cyclical Behavior of Job Creation and Job Destruction. **AU** Mortensen, Dale T.; Pissarides, Christopher.

### **Pittis, Nikitas**

**PD** December 1990. **TI** On the Rationality of Expectations and the Stationarity of Risk Premia in the Foreign Exchange Market: An Empirical Test. **AA** Birbeck College. **SR** Birbeck College Discussion Paper in Financial Economics: FE-4/91; Department of Economics, University of London, London, W1P 1PA, ENGLAND. **PG** 10. **PR** no charge. **JE** F31, F30. **KW** Rational Expectations. Cointegration. Exchange Rates.

**AB** The usual interpretation of the cointegrability between spot and forward rates is that both the risk premium and the forecast error are  $I(0)$ . This is a necessary condition for market efficiency. An alternative explanation is, that both are  $I(1)$  and cointegrated, which is a sufficient condition for market inefficiency. To distinguish between these two cases, two

simple variance inequalities are developed, in a way that rejection of either of the two can only be explained by the existence of a non-stationary risk premium and forecast error. The evidence that this paper provides, strongly suggests the presence of such non-stationarities in the foreign exchange markets for German marks, Swiss francs, and pounds sterling.

### **Plantinga, Andrew J.**

**TI** Lessons From Other International Agreements for a Global CO2 Accord. **AU** Morrisette, Peter M.; Darmstadter, Joel; Plantinga, Andrew J.; Toman, Michael A.

**TI** Lessons From Other International Agreements for a Global CO2 Accord. **AU** Morrisette, Peter M.; Darmstadter, Joel; Plantinga, Andrew J.; Toman, Michael A.

**TI** How the CO2 Issue is Viewed in Different Countries.  
**AU** Morrisette, Peter M.; Plantinga, Andrew J.

**TI** The Economic Cost of CO2 Mitigation: A Review of Estimates for Selected World Regions. **AU** Darmstadter, Joel; Plantinga, Andrew J.

### **Platt, Glenn J.**

**TI** Equilibrium Among Jurisdictions When Households Differ by Preferences and Income. **AU** Epple, Dennis; Platt, Glenn J.

### **Platteau, J-Ph**

**PD** February 1992. **TI** Aristocratic Patronage as an Ingredient of the Caste System: Formal Analysis and Dynamic Considerations. **AA** Facultes Universitaires of Namur (Belgium). **SR** LSE Development Economics Research Programme: DEP No.36; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 86. **PR** no charge. **JE** J43, J41. **KW** Caste. Institutional Economics.

**AB** The aim of this paper is twofold. On the one hand, it constitutes a first attempt at modelling a particular view of the caste system of India (known as *jajmani*) as a specific form of patronage based on hereditary relationships and cohesive aristocratic behavior on the part of the masters. Second, it aims at a better understanding of the forces which cause such a system to vanish or to get gradually transformed into less stringent forms of patron-client or permanent labor relations. An essential result yielded by the comparative-statics exercise is that the master class may have a strong incentive in calling the distribution rules underlying the system into question when a number of empirically important changes occur.

**PD** January 1992. **TI** Formalization and Privatization of Land Rights in Sub-Saharan Africa: A Critique of Current Orthodoxies and Structural Adjustment Programmes. **AA** Facultes Universitaires of Namur (Belgium). **SR** LSE Development Economics Research Programme: DEP No.34; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 70. **PR** no charge. **JE** Q15, Q13. **KW** Land Rights. Land Markets. Africa.

**AB** While the question of land reform today receives much less attention than it did in the fifties and the sixties, it has recently emerged as a major policy issue confronting countries

of Sub-Saharan Africa. The purpose of this paper is twofold. First, it attempts to identify the main theoretical arguments generally used towards establishing the case for a land reform in Africa. Second, it proposes a critical evaluation of these arguments. The broad idea developed here is that the case for establishing a private land market in these countries is less solid than it may appear at first sight. It is argued in particular that an important flaw in the conventional approach lies in the fact that it neglects the interdependence between equity and efficiency considerations under private land property.

#### **Ploberger, Werner**

**TI** Optimal Tests When a Nuisance Parameter is Present Only Under the Alternative. **AU** Andrews, Donald W. K.; Ploberger, Werner.

**TI** Optimal Change-point Tests for Normal Linear Regression. **AU** Andrews, Donald W. K.; Lee, Inpyo; Ploberger, Werner.

**TI** Posterior Odds Testing for a Unit Root with Data-Based Model Selection. **AU** Phillips, Peter C. B.; Ploberger, Werner.

#### **Poljak, S.**

**PD** November 1991. **TI** Solving the Max-Cut Problem Using Eigenvalues. **AU** Poljak, S.; Rendl, F. **AA** Poljak: University of Praha. Rendl: University of Graz. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 735-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 32. **PR** no charge. **JE** C60, C63. **KW** Graph Theory. Subdifferential Optimization. Computational Experiments.

**AB** We present computational experiments for solving the max-cut problem using an eigenvalue relaxation. Our motivation is twofold - we are interested both in the quality of the bound, and in developing an efficient code to compute it. We describe the theoretical background of the method, an implementation of the algorithm, and its practical performance. The experiments have been done for various data sets, including random graphs of different densities, clustering problems, problems arising from quadratic 0-1 optimization, and some graphs taken from the literature. The basic algorithm is used to compute an upper and lower bound on the max-cut.

#### **Porter, Robert H.**

**PD** March 1992. **TI** Detection of Bid Rigging in Procurement Auctions. **AU** Porter, Robert H.; Zona, J. Douglas. **AA** Porter: Northwestern University and National Bureau of Economic Research. Zona: N.E.R.A. **SR** National Bureau of Economic Research Working Paper: 4013; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$5.00. **JE** D44, H40. **KW** Government Contract Auctions. Collusion.

**AB** This paper examines bidding in auctions for state highway construction contracts on Long Island in the early 1980s, in order to determine whether bid rigging occurred. Detection of collusion is possible because of limited participation in the collusive scheme. The paper looks at differences in behavior between ring members and non-members. The bidding data indicate that the bids of non-cartel firms, as well as their rank distribution, were related to cost measures, such as how much backlog a firm was carrying. In

contrast, the rank distribution of higher cartel bids was unrelated to similar cost measures, and differed from the distribution of the low cartel bid.

#### **Portney, Paul R.**

**TI** International Comparisons of Environmental Regulation. **AU** Kopp, Raymond K.; Portney, Paul R.; DeWitt, Diane E.

**TI** Economic Incentives and the Containment of Global Warming. **AU** Oates, Wallace E.; Portney, Paul R.

#### **Post, Mitchell A.**

**TI** Commercial Paper/The Effect of SEC Amendments to Rule 2a-7 on the Commercial Paper Market. **AU** Crabbe, Leland; Post, Mitchell A.

#### **Postlewaite, Andrew**

**TI** Finite Bubbles with Short Sale Constraints and Asymmetric Information. **AU** Allen, Franklin; Morris, Stephen; Postlewaite, Andrew.

#### **Potscher, Benedikt M.**

**PD** January 1992. **TI** A Comparison of Order Estimation Procedures for ARMA Models. **AU** Potscher, Benedikt M.; Srinivasan, Sylaja. **AA** Potscher: Universitat Wien and University of Maryland. Srinivasan: University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 92-1; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 20. **PR** no charge. **JE** C15. **KW** Time Series. Model Selection.

**AB** Order estimation procedures for autoregressive moving average models such as minimum BIC, a procedure introduced in Potscher (1990) and variants thereof, as well as Pukkila, Koreisha & Kallinen's (1990) procedure are compared on the basis of large and small sample results. The relationship between these procedures is also discussed.

#### **Price, Lydia J.**

**PD** November 1991. **TI** The Indirect Effects of Negative Information Exchanges on Attitude Exchange. **AA** INSEAD. **SR** INSEAD Working Paper : 91/57/MKT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 27. **PR** not available. **JE** D80, L15, M31. **KW** Message Valence. Message Effects.

**AB** Drawing on previous research suggesting that negative and positive information are subject to differing levels of processing intensity, an argument is built that non-targeted changes in product attribute beliefs will differ as a function of message valence. Results of an experiment indicate that recipients of negative product claims tend to update non-targeted beliefs on the basis of claim inconsistency with prior beliefs and perceived attribute correlations. Positive message recipients are less sensitive to claim inconsistency and tend to update all non-targeted beliefs by a similar amount, regardless of attribute correlations. Finally, the indirect effect of negative information are found to mediate the relationship between direct message effects attitude change.

**PD** February 1992. **TI** Identifying Cluster Overlap with Normix Population Membership Probabilities. **AA** INSEAD. **SR** INSEAD Working Paper: 92/14/MKT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 29. **PR** not available. **JE** C15, J10. **KW** Overlapping Populations. Monte Carlo Test.



**AB** Two Monte Carlo tests of the accuracy of clustering procedures have suggested that NORMIX performs poorly under conditions of cluster overlap. In each of these previous studies, however, the accuracy criterion specified that an entity be assigned to the single population from which it was sampled. NORMIX population membership probabilities were used for this purpose by assigning entities to the single population of highest probability. It is argued in this research that, when populations overlap, a more appropriate criterion of accuracy would recognize that entities may belong to multiple populations. Moreover, it is argued that NORMIX probabilities can be useful in making such multiple group assignments. The results of a Monte Carlo test support this argument.

#### **Prisbrey, Jeffrey**

**PD** March 1992. **TI** An Experimental Analysis of Two-Person Reciprocity Games. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 787; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 40. **PR** no charge. **JE** C91, C72. **KW** Experiments. Repeated Games. Public Goods.

**AB** This paper presents experimental evidence concerned with behavior in one-shot, finite repetition, and infinite repetition, two-person reciprocity games. Both symmetric and asymmetric games as well as games with explicit punishment actions are studied and compared. Along with classifying the group outcomes to the games, individual strategies are classified. The importance of alternation or turn-taking, group welfare, and equality as focal solutions is examined. Also considered is whether or not outcomes are unique, Pareto Optimal, or individually rational, and whether or not finite repetition treatments are subject to end-game effects.

#### **Pudney, S.**

**TI** Unemployment in Urban China: An Analysis of Survey Data from Shanghai. **AU** Gangzhan, F.; Hussain, A.; Pudney, S.; Wang L.

#### **Quandt, Richard E.**

**TI** Uncertainty, Bailouts, and the Kornai Effect. **AU** Goldfeld, Stephen M.; Quandt, Richard E.

#### **Quiggin, John**

**TI** Estimation Using Contingent Valuation Data From a "Dichotomous Choice with Follow-Up" Questionnaire. **AU** Cameron, Trudy Ann; Quiggin, John.

#### **Radner, Roy**

**TI** Optimal Principal Agent Contracts for a Class of Incentive Schemes: A Characterization and the Rate of Approach to Efficiency. **AU** Dutta, Prajit K.; Radner, Roy.

#### **Ralston, Katherine**

**TI** Institutions and Economic Linkages at the Village Level in West Java, Indonesia. **AU** Adelman, Irma; Ralston, Katherine.

#### **Ramakrishnan, Ram T. S.**

**TI** Efficient Trading System Design: Market Makers, Membership Fees, and Exchange Ownership Structure. **AU** Nagarajan, S.; Ramakrishnan, Ram T. S.

#### **Ramey, Garey**

**TI** Coordination Economics, Advertising and Search Behavior in Retail Markets. **AU** Bagwell, Kyle; Ramey, Garey.

#### **Rao, Ambar**

**TI** Nonstationary Conditional Trend Analysis: An Application to Scanner Panel Data. **AU** Tibrewala, Vikas; Lenk, Peter; Rao, Ambar.

#### **Rasmussen, Bo Sandemann**

**PD** October 1991. **TI** Union Cooperation and Non-Traded Goods in General Equilibrium. **AA** University of Aarhus. **SR** Aarhus Institute of Economics Memo: 1991-36; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. **PG** 20. **PR** no charge. **JE** F41, J51, J31. **KW** Wage Formation. Non-Cooperation. Union-Union Bargaining.

**AB** A general equilibrium model of a small open economy with traded and non-traded goods and sector specific trade unions is set up. Wage formation is either non-cooperative or cooperative. Egalitarian union wage policy is shown to be the equilibrium under cooperation. Important asymmetries are encountered and an alternative model of cooperative behavior called bargaining cooperation is proposed. Bargaining cooperation is shown to have qualitatively different implications than simple cooperation, while the welfare and employment effects of bargaining cooperation compared to a simple cooperation are ambiguous.

#### **Rausser, Gordon C.**

**TI** Interactions Among Money, Exchange Rates, and Commodity Prices. **AU** Ardeni, Pier Giorgio; Rausser, Gordon C.

#### **Ravn, Morten O.**

**PD** June 1992. **TI** The Use of Recursive Variance Plots: A Note. **AU** Ravn, Morten O.; Sola, Martin. **AA** Ravn: University of Aarhus and University of Southampton. Sola: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9217; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 10. **PR** no charge. **JE** C22. **KW** Recursive Plots. Outliers.

**AB** In this paper we evaluate the practice of recursively computing unconditional variances as a means of checking for constancy of the variance. We highlight some major weaknesses with this practice. The first is the problem of diminishing weights - the fact that observations towards the end of the sample are given smaller weight than near the beginning. We propose a simple way to alleviate this problem. The second weakness of the approach is that, in small samples, it is sensitive towards outliers that are not necessarily inconsistent with constancy of the variance. The third problem is that changes in the mean of the process can be confused with changes in the variance.

#### **Rayner, Janne**

**PD** May 1992. **TI** Identification of Structural VARS. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9219; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 13.

**PR** no charge. **JE** C10. **KW** VAR. Identification.

**AB** Since Sims (1980) the VAR has been at the center of macroeconomic research. The VAR we refer to is the structural VAR. It is standard to claim identification by considering only order conditions. Such models impose nonlinear restrictions on the covariance matrix of the errors. However, existing identification results consider only linear restrictions on the covariance matrix (see for example Magnus and Neudecker (1988) and Bekker and Pollock (1986)). In this paper rank and order conditions for models of this type are derived. The identification of the model estimated by Bernanke is examined using these conditions. The model is found to be unidentified.

**PD** May 1992. **TI** Distinguishability and Identifiability. **AU** Rayner, Janne; Aldrich, John. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9220; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 50. **PR** no charge. **JE** C10. **KW** Non-Nested Testing. Model Selection. Identification.

**AB** A model is identified when no structures of the model are observationally equivalent. This notion is closely related to the estimability of the parameter(s) of the model. A pair of models is distinguishable when there is at least one structure of one of the models which is not observationally equivalent to any structure of the other model. This notion is closely related to the testability of one model against the other. The paper discusses the relationship between identifiability and distinguishability and the relationship of the latter to non-nested testing, model selection, and encompassing.

#### **Razin, Assaf**

**TI** Targeting the Exchange Rate under Inflation. **AU** Pessach, Shula; Razin, Assaf.

#### **Redish, Angela**

**TI** Maximizing Seigniorage Revenue During Temporary Suspensions of Convertibility: A Note. **AU** Bordo, Michael D.; Redish, Angela.

#### **Regev, Haim**

**TI** Productivity and Firm Turnover in Israeli Industry: 1979-1988. **AU** Griliches, Zvi; Regev, Haim.

#### **Reinhart, Vincent Raymond**

**PD** March 1992. **TI** Theory and Evidence on Reform of the Treasury's Auction Procedure. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 190; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 50. **PR** no charge. **JE** D44, G10. **KW** Auctions. Bidding Theory. Treasury Issuance.

**AB** This paper critically reviews the U.S. Treasury's current procedure for selling securities and an alternative technique suggested by Milton Friedman. The current practice of soliciting sealed bids and awarding securities at the highest prices probably restrains demand at auctions and provides opportunities for market manipulation. Milton Friedman's proposal, that the Treasury end its price discrimination by charging a single price to all winning bidders, would entice investors to enter auctions directly, benefitting Treasury

revenue. However, this paper suggests an alternative scheme--conducting auctions via a real-time, automated network with repeated bidding--that should more effectively combat manipulation and, perhaps, further improve auction participation.

#### **Reitzes, James D.**

**PD** July 1991. **TI** Antidumping Policy. **AA** Federal Trade Commission. **SR** Federal Trade Commission Bureau of Economics Working Paper: 192; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Ave. NW Washington, D.C. 20580. **PG** 25. **PR** no charge. **JE** F13, F12, L13, L52. **KW** Strategic Behavior. Dynamic Games. Oligopoly.

**AB** We examine antidumping policy in a model where a foreign firm is a monopolist in the foreign market, but competes with a native firm in the home market. An antidumping policy changes strategic behavior by giving firms an incentive to manipulate the price differential between home and foreign markets. Under quantity-setting behavior, an antidumping policy often improves the home country's welfare. The welfare of the foreign country may also improve. Under price-setting behavior, an antidumping policy worsens the home country's welfare unless the foreign firm has a large cost advantage (or unless entry occurs). The foreign country often suffers a welfare loss, although this result may be reversed when firms produce imperfect substitutes.

#### **Renault, E.**

**TI** Two Stage Generalized Moment Method with Applications to Regressions with Heteroskedasticity of Unknown Form. **AU** Gourieroux, C.; Monfort, A.; Renault, E.

#### **Rendl, F.**

**TI** Solving the Max-Cut Problem Using Eigenvalues. **AU** Poljak, S.; Rendl, F.

#### **Richardson, David J.**

**PD** April 1992. **TI** "New" Trade Theory and Policy a Decade Old: Assessment in a Pacific Context. **AA** Syracuse University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4042; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$5.00. **JE** F12, F14. **KW** International Trade. Trade Policy.

**AB** This paper characterizes and evaluates what has been called variously the new, new-view, strategic, or industrial organization approach to international trade and trade policy. This approach analyzes trade in "strategic environments," those in which small numbers of large, self-consciously interdependent agents interact, and in which their activities themselves are interdependently (strategically) linked. The new view's perspectives have been controversial, but often because they have been misunderstood. Many of its subtler strengths have remained hidden. The misunderstandings and subtler strengths of the approach are the main themes of the paper. Its secondary emphasis is on applied and empirical work in the new tradition and its policy implications, with special regard to Pacific trade and investment.

**Riordan, Michael H.**

**PD** October 1990. **TI** Regulation and Preemptive Technology Adoption: Cable TV Versus Telephone Companies. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 2; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 27. **PR** no charge. **JE** L51, L82, L11. **KW** Entry Regulation.

**AB** Should local telephone companies be allowed to compete with cable TV companies in providing video entertainment? The answer depends on the extent to which telephone companies have access to a superior technology. If qualitative superiority is small, an entry barrier might beneficially slow the adoption of new fiber optic technology. If it is high, a barrier might harmfully defer the adoption of new technology indefinitely. These and related issues are addressed in a simple dynamic model illustrating how price and entry regulation matter for new technology adoption.

**TI** Learning to Compete and Vice Versa. **AU** Cabral, Luis M. B.; Riordan, Michael H.

**PD** August 1991. **TI** Regulation and Preemptive Technology Adoption. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 18; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 31. **PR** no charge. **JE** D43, L51. **KW** Regulation. Preemption. Games of Timing.

**AB** Two rival firms must decide if and when to adopt a new technology, knowing how adoption costs decline over time and how profit flows vary with adoption patterns. In many, but not all cases, price and entry regulation beneficially slow technology adoption by making preemption strategies less attractive. In some cases, these regulations can so discourage a firm from preemption as to change the order in which firms adopt new technologies, speeding one firm's adoption date, and slowing the other's. In the context of a particular scenario for cable and telephone companies adoptions of new fiber optic technologies, the case against the "crossownership ban" depends on the extent to which telephone companies have access to a superior new technology, and reregulation of cable companies strengthens this case.

**PD** March 1992. **TI** Qualified Suppliers. **AA** Boston University and University of California at Berkeley. **SR** Boston University Industry Studies Program Discussion Paper Series: 25; Department of Economics, Boston University, Boston Massachusetts 02215. **PG** 18. **PR** no charge. **JE** L15. **KW** Procurement. Incomplete Information.

**AB** In an extension of the Laffont-Tirole procurement model, a buyer fully qualifies suppliers and awards all production to the most efficient. The buyer's incomplete information about costs biases ex ante market structure in favor of a greater number of qualified suppliers.

**TI** Incomplete Information and Optimal Market Structures: Public Purchases from Private Providers. **AU** McGuire, Thomas G.; Riordan, Michael H.

**PD** April 1992. **TI** Competition and Bank Performance: A Theoretical Perspective. **AA** Boston University. **SR** Boston University Industry Studies Program Discussion Paper Series: 26; Department of Economics, Boston University, Boston, Massachusetts 02215. **PG** 20. **PR** no charge. **JE** D82, G21, L13. **KW** Loan Market. Screening. Winners. Curse.

**AB** A simple screening model shows that more competition might damage the performance of loan markets for two reasons. First, the statistic the market uses to select loans may become less informative about the quality of the loan. Second, loan approval practices may be too conservative, and more competition may make them even more so. These results follow from the "winner's curse" of common value auctions.

**TI** Regulating Complementary Products: A Problem of Institutional Choice. **AU** Gilbert, Richard J.; Riordan, Michael H.

**Rob, Rafael**

**PD** January 1992. **TI** Sales, Uncertainty, and the Determinants of Investment. **AA** University of Pennsylvania. **SR** University of Pennsylvania CARESS Working Paper: 92-03; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 37. **PR** no charge. **JE** E22, D81. **KW** Investment. Market Profitability.

**AB** Modern investment studies generate a link between investments and Tobin's q variable. But empirical tests indicate that the q variable accounts for a disappointingly small fraction of the variation in investment expenditures, whereas sales or current profits accounts for much more. This leads me to a formulation where the demand is uncertain, and where sales act as a statistical indicator of demand and, hence, of the return to investments. In such context large sales stimulate investments because they reflect "good news" about the market's profitability and, therefore, about the return to investments. I embed this hypothesis into a dynamic industry context and derive both the industry equilibrium as well as the social optimum investment time paths.

**TI** R&D, Investment and Industry Dynamics. **AU** Lach, Saul; Rob, Rafael.

**TI** R&D, Investment and Industry Dynamics. **AU** Lach, Saul; Rob, Rafael.

**Roberts, John**

**TI** Acquisition as Long Term Venture; Cases from High Technology Industry. **AU** Gamsey, Elizabeth W.; Alford, Helen; Roberts, John.

**TI** Aftermath of Acquisition of High Technology Ventures: A Further Case Comparison. **AU** Gamsey, Elizabeth W.; Roberts, John.

**Roberts, John M.**

**TI** Economic Performance under Price Stability. **AU** Lebow, David E.; Roberts, John M.; Stockton, David J.

**Robinson, Dennis P.**

**TI** Spatial Correlation: Comments on the Cliff and Ord Model and a Suggested Alternative. **AU** Kelejian, Harry H.; Robinson, Dennis P.

**TI** Spatial Patterns in Household Demand: A Note Concerning Asymmetry of the Model. **AU** Kelejian, Harry H.; Robinson, Dennis P.

**Robinson, Sherman**

**TI** From Stylized to Applied Models: Building Multisector



CGE Models for Policy Analysis. **AU** Devarajan, Shantayanan; Lewis, Jeffrey D.; Robinson, Sherman.

**TI** Hungary, Austria, and the European Community: A CGE Model of Economic Reform and Integration. **AU** Hinojosa-Ojeda, Raul; Robinson, Sherman; Tesche, Jean.

#### **Rogerson, Richard**

**TI** Human Capital Accumulation and Income Distribution. **AU** Fernandez, Raquel; Rogerson, Richard.

#### **Rose, Andrew K.**

**TI** Trade With Mexico and Water Use in California Agriculture. **AU** Feenstra, Robert C.; Rose, Andrew K.

#### **Rosenberg, Norman J.**

**TI** Climate Data Needs From GCM Experiments for Use in Assessing the Potential Impacts of Climate Change on Natural Resource Systems. **AU** McKenney, Mary S.; Rosenberg, Norman J.

**TI** Simulating the Impacts of Climate Change on Potential Evapotranspiration: A Comparison of the Climate Sensitivity of Selected Methods. **AU** McKenney, Mary S.; Rosenberg, Norman J.

#### **Rosenblum, Larry S.**

**TI** High-Tech Capital Formation and Labor Composition in U.S. Manufacturing Industries: An Exploratory Analysis. **AU** Berndt, Ernst R.; Morrison, Catherine J.; Rosenblum, Larry S.

#### **Rosenthal, Jean-Laurent**

**PD** May 1992. **TI** The French Revolution and Financial Markets: A Look Beyond Government Debt. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 659; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 36. **PR** \$2.50; checks payable to U.C. Regents. **JE** N23, N43, G14, G20. **KW** Credit Markets.

**AB** This paper analyses the French revolution's impact on a credit market in rural France. The political instability and economic crises that rages between 1789 and 1797 left local credit markets devastated. Population movements, uncertainty, and the destruction of credit networks all reduced access to capital between 1780 and 1805. Recovery was very slow despite some improvement in the institutions of credit markets and even by 1840 local credit markets remained smaller than their Old Regime climax. Wholesale property rights change as occurred between 1789 and 1797 leads to persistent uncertainty and thereby reduces the willingness of individuals to participate in intertemporal exchange. Thus economists should take a longer view of the process of economic reform.

#### **Rosett, Joshua G.**

**TI** Auditing the Producer Price Index: Micro Evidence From Prescription Pharmaceutical Preparations. **AU** Berndt, Ernst R.; Griliches, Zvi; Rosett, Joshua G.

#### **Ross, Thomas W.**

**TI** Bank Runs: Liquidity and Incentives. **AU** Cooper, Russell; Ross, Thomas W.

#### **Roubini, Nouriel**

**PD** April 1992. **TI** A Growth Model of Inflation, Tax Evasion and Financial Repression. **AU** Roubini, Nouriel; Sala-i-Martin, Xavier. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 658; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 39. **PR** \$2.00 + postage. **JE** H25, H23. **KW** Growth. Inflation. Tax Evasion. Financial Repression.

**AB** In this paper we study the effects of policies of financial repression on long term growth and try to explain why optimizing governments might want to repress the financial sector. We also explain why inflation may be negatively related to growth, even though it does not affect growth directly. We argue that the main reason why governments repress the financial sector is that this sector is the source of "easy" resources for the public budget.

#### **Rubinstein, Ariel**

**PD** April 1992. **TI** On the Interpretation of Two Theoretical Models of Bargaining. **AA** Tel Aviv University and Princeton University. **SR** Tel Aviv Sackler Institute of Economic Studies: 7/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 18. **PR** no charge. **JE** C78. **KW** Nash Bargaining. Alternating Offers Model.

**AB** This paper is devoted to a discussion of the interpretation of two game-theoretic models of bargaining: Nash's bargaining model and the alternating offers model. The Nash bargaining solution is the agreement such that any argument of the type "You should agree to my request,  $x$ , since  $x$  is better than insisting on the convention  $y^*$  given the probability  $1-p$  of breakdown" is not profitable to the objector when he takes into account the same probability of breakdown. The solutions of the alternating offers model are those for which any objection is credibly rejected by a counteroffer which is acceptable in an internally consistent sense and given that  $p$  is a fixed probability of breakdown whenever an offer is rejected.

**PD** May 1992. **TI** A Remark on Infinitely Repeated Extensive Games. **AU** Rubinstein, Ariel; Wolinsky, Asher. **AA** Rubinstein: Tel Aviv University and Princeton University. Wolinsky: Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 989; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 7. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** C72, C73. **KW** Repeated Games. Folk Theorems. Extensive Form.

**AB** The comment demonstrates several examples of extensive games for which the set of subgame perfect equilibrium payoff vectors of its repeated game with discounting is very different than that of the corresponding repeated reduced normal form game even when the discount factor is close to 1. Nevertheless, it is true that with a "dimensionality" condition (ala Fudenberg and Maskin (1986), or, Abreu and Dutta (1991) all feasible and strictly individually rational payoff vectors are subgame perfect equilibrium payoff vectors where the discount rate approaches the unity.

#### **Rudebusch, Glenn D.**

**PD** April 1992. **TI** The Uncertain Unit Root in Real GNP.

**AA** Board of Governors of the Federal Reserve System.  
**SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 193; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 17. **PR** no charge. **JE** C22. **KW** Unit Root. Persistence. Autoregressive Bias.

**AB** This note argues that, for real GNP, unit root tests have low power against plausible trend stationary alternatives that display little persistence. First, I select plausible difference stationary and trend stationary representations for output and examine whether these representations have different short-run persistence properties. Then, I examine simulated data from these models and show that a unit root test cannot distinguish between these particular representations. Finally, I extend the analysis to account for small-sample bias in the estimated model coefficients.

### Ruhm, Christopher J.

**TI** Workplace Drug Abuse Policy. **AU** McGuire, Thomas G.; Ruhm, Christopher J.

### Russett, Bruce

**PD** March 1992. **TI** Diminished Expectations of Nuclear War and Increased Personal Savings: Evidence From Individual Survey Data. **AU** Russett, Bruce; Slemrod, Joel. **AA** Russett: Yale University. Slemrod: University of Michigan and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4031; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$5.00. **JE** E21. **KW** Savings. War.

**AB** At the end of 1983 Gallup polls showed that 52 percent of Americans thought that the probability of a world war in the next 10 years was 50% or higher, by 1989 the percentage had dropped to 29%. Fear of war of this pervasiveness is bound to have an effect on decisions about present versus uncertain future consumption. This paper investigates the cross-sectional relationship between saving and fear of war using responses to telephone surveys conducted during April and October of 1990. The analysis shows that an individual's professed level of fear about the likelihood of nuclear war was significantly negatively related to the probability of being a saver rather than a dissaver, to changes in actual saving, and to saving plans relative to actual savings.

### Saari, Donald G.

**PD** November 1991. **TI** Symmetry Extensions of "Neutrality" I: Advantage to the Condorcet Loser. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 963; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 29. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make checks payable to Northwestern University. **JE** D71, D72, C60. **KW** Condorcet Winner. Borda. Neutrality. Voting.

**AB** This is the first of three papers introducing a theory for positional voting methods that determines all possible election rankings and relationships that ever could occur with a profile over all possible subsets of candidates for any specified choices of positional voting methods. As such, these results extend to all positional voting systems what was previously possible only

for the Borda Count and the plurality voting systems. In this first part certain mathematical symmetries based on neutrality are used 1) to generalize the basic properties that cause the desired features of the Borda Count and 2) to describe classes of positional voting methods with new types of election relationships among the election outcomes. Some of these relationships generalize the well-known results about the positioning of a Condorcet winner/loser within a Borda ranking, but now it is possible for the Condorcet loser, rather than the winner, to have the advantage to win certain positional elections.

**PD** March 1992. **TI** Symmetry Extensions of "Neutrality" II: Partial Ordering of Dictionaries. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 979; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 30. **PR** Per copy: \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. Make check payable to Northwestern University. **JE** D71, D72. **KW** Positional Voting. Border. Voting Paradoxes.

**AB** For  $n > 3$  candidates, a system voting vector  $W$  specifies the positional voting method assigned to each of the subsets of two or more candidates. While most system voting vectors need not admit any relationships among the election rankings; the ones that do are characterized here. The characterization is based on a particular geometric structure (an algebraic variety) that is described in detail and then used to define a partial ordering "P" among system voting vectors. The impact of the partial ordering is that if  $W(1) P W(2)$ , then  $W(1)$  admits more kinds of (single profile) voting paradoxes than  $W(2)$ . Therefore the partial ordering provides a powerful, computationally feasible way to compare system voting vectors. The basic ideas are illustrated with examples that completely describe the partial ordering for 3 and 4 candidates.

### Sachs, Horst

**PD** October 1991. **TI** Coin Graphs, Polyhedra, and Conformal Mapping. **AA** University of Ilmenau. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 730-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 7. **PR** no charge. **JE** C60. **KW** Graph Theory. Convex Polyhedra.

**AB** This is a brief report on some interesting theorems and their interconnections. All of these results are known, some of them have only recently been proved. The key result, however, though found already in 1935, was almost forgotten and its original proof remained unnoticed until very recently. Therefore, it seems worthwhile to the author to take the opportunity to inform the graph theoretic community about some facts which appear to be not so well known.

### Sadka, Efraim

**PD** May 1992. **TI** International Capital Flows: Efficiency of Savings and Investments. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 11/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 8. **PR** no charge. **JE** F21, F32, H21. **KW** Source-Based Taxation. Residence-Based Taxation. Allocation of Capital.

**AB** The volume of international capital flows, measured for each country by the sum of capital export and import, has

grown rapidly in the 1970s and 1980s. Coupled with residence-based taxation of capital income from foreign sources, free international mobility of capital can increase the efficiency of the international allocation of capital by reducing international differences in the marginal products of capital. Indeed, real rates of interest in the seven major industrial country (G-7) seem to converge to each other in recent years.

### Sala-i-Martin, Xavier

**TI** Regional Growth and Migration: A Japan - U.S. Comparison. **AU** Barro, Robert J.; Sala-i-Martin, Xavier.

**TI** Transitional Dynamics in Two-Sector Models of Endogenous Growth. **AU** Mulligan, Casey B.; Sala-i-Martin, Xavier.

**TI** Capital Mobility in Neoclassical Models of Growth. **AU** Barro, Robert J.; Mankiw, N. Gregory; Sala-i-Martin, Xavier.

**TI** Regional Growth and Migration: A Japan - U.S. Comparison. **AU** Barro, Robert J.; Sala-i-Martin, Xavier.

**PD** April 1992. **TI** Pensions. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 657; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 58. **PR** \$2.00 + postage. **JE** J14, J26, H55. **KW** Pension. Social Security.

**AB** In this paper I develop a positive theory of intergenerational transfers. I argue that transfers are a way to induce retirement, that is, to buy the elderly out of the labor force. The reason why societies choose to do such a thing is that aggregate output is higher if the elderly do not work. I model this idea through externalities in the average stock of human capital: because skills depreciate with age, one implication of these externalities is that the elderly have a negative effect on the productivity of the young. When the difference between the skill level of the young and old is large enough, aggregate output in an economy where the elderly do not work is higher. Retirement in this case will be a good thing to have; pensions are just the means by which such retirement is induced.

**TI** A Growth Model of Inflation, Tax Evasion and Financial Repression. **AU** Roubini, Nouriel; Sala-i-Martin, Xavier.

### Salant, David J.

**TI** Movie Wars. **AU** Gandal, Neil; Salant, David J.

### Salomon, Marc

**TI** Exact and Approximation Algorithms for the Operational Fixed Interval Scheduling Problem. **AU** Van Wassenhove, Luk; Kroon, Leo; Salomon, Marc.

**TI** Statistical Search Methods for Lotsizing Problems. **AU** Van Wassenhove, Luk; Kuik, Roelof; Salomon, Marc.

### Saloner, Garth

**PD** April 1992. **TI** Adoption of Technologies with Network Effects: An Empirical Examination of the Adoption of Automated Teller Machines. **AU** Saloner, Garth; Shepard, Andrea. **AA** Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4048; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$5.00. **JE** C41, G21. **KW** Duration

Models. Network Effect.

**AB** The literature on networks suggests that the value of a network is positively affected by the number of geographically dispersed locations it serves (the "network effect") and the number of its users (the "production scale effect"). We show that as a result a firm's expected time until adoption of technologies with network effects declines in both users and locations. We provide empirical evidence on the adoption of automated teller machines by banks that is consistent with this prediction. Using standard duration models, we find that a bank's date of adoption is decreasing in the number of its branches (a proxy for the number of locations and hence for the network effect) and the value of its deposits (a proxy for number of users and hence for production scale economies). The network effect is the larger of the two effects.

### Samwick, Andrew A.

**TI** The Nature and Magnitude of Precautionary Wealth. **AU** Carroll, Christopher D.; Samwick, Andrew A.

### Sanders, Seth

**TI** A Simulation Estimator for Dynamic Models of Discrete Choice. **AU** Hotz, V. Joseph; Miller, Robert A.; Sanders, Seth; Smith, Jeffrey.

### Santaella, Julio A.

**TI** Devaluation Controversies in the Developing Countries: Lessons from the Bretton Woods Era. **AU** Edwards, Sebastian; Santaella, Julio A.

### Santos Silva, Joao

**TI** Discrete Choice Models Without the IIA Property. **AU** Chesher, Andrew; Santos Silva, Joao.

### Santos-Silva, J. M. C.

**PD** September 1991. **TI** Discriminating Between the Linear and Log-Linear Forms of a Regression Model: Optimal Instrumental Variables Tests. **AA** University of Bristol and Universidade Tecnica de Lisboa. **SR** University of Bristol Discussion Paper: 91/301; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 22. **PR** no charge. **JE** C51, C12, C52. **KW** Transformation Models. Optimal Instruments. Score Tests.

**AB** This paper suggests the use of instrumental variables to construct tests to discriminate between the Linear and Log-Linear forms of a regression model and generally to test for incorrect functional form. This approach is attractive because it leads to simple tests that can be performed without specifying the distribution of the errors of the model. Moreover, some well known tests can be interpreted as variants of the procedure proposed here and, using adequate instruments, it is possible to obtain optimal tests.

### Satchell, Stephen E.

**TI** The Hazards of Doing a PhD: An Analysis of Competition and Withdrawal Rates of British PhD's in the 1980's. **AU** Booth, Alison L.; Satchell, Stephen E..

### Saunders, Anthony

**PD** February 1992. **TI** Financial Research on Africa: A Financial Theory Perspective. **AU** Saunders, Anthony;



Senbet, Lemma W. **AA** Saunders: New York University. Senbet: University of Maryland. **SR** New York University Salomon Brothers Working Paper: S-92-17; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 39. **PR** \$5.00. **JE** G10, O55. **KW** Financial System. Allocational Inefficiency.

**AB** This paper provides an overview of the major problems faced in African financial systems and sketched out an agenda for future research. Unlike many other such overviews we endeavor to analyze these problems in the framework of modern financial theory which provides a body of theory and benchmarks against which any existing financial system can be compared.

### Schiantarelli, Fabio

**TI** Delivery Lags, Adjustment Costs, and Econometric Investment Models. **AU** Chirinko, Robert S.; Schiantarelli, Fabio.

**TI** Variable Markups in a Model with Adjustment Costs: Econometric Evidence for U.S. Industry. **AU** Galeotti, Marzio; Schiantarelli, Fabio.

**TI** Are Adjustment Costs for Labor Asymmetric? An Econometric Test on Panel Data for Italy. **AU** Jaramillo, Fidel; Schiantarelli, Fabio; Sembenelli, Alessandro.

### Schmeidler, David

**TI** Additive Representations of Non-Additive Measures and the Choquet Integral. **AU** Gilboa, Itzhak; Schmeidler, David.

**TI** Canonical Representation of Set Function. **AU** Gilboa, Itzhak; Schmeidler, David.

### Schmidt, Klaus M.

**TI** Unverifiable Information, Incomplete Contracts, and Renegotiation. **AU** Noldeke, Georg; Schmidt, Klaus M.

### Schnitzer, Monika

**PD** February 1992. **TI** Breach of Trust in Takeovers and the Optimal Corporate Charter. **AA** M.I.T. and University of Bonn. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 92-10; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 27. **PR** \$6.00 Domestic. \$8.00 Overseas. \$2.00 Student. **JE** G34, L14. **KW** Takeovers. Incomplete Contracts. Poison Pills.

**AB** This paper analyzes how takeovers and takeover defenses affect the value of target companies, using an incomplete contracts framework. We consider a raider who intends to improve the efficiency of production and to appropriate the rents enjoyed by stakeholders of the company. Anticipating this rent shifting the stakeholders invest too little in relationship specific assets which may offset the ex post value increase. Our main focus is on how the corporate charter should be designed to mitigate these inefficiencies. We show that shareholders can use poison pills and golden parachutes to solve the underinvestment problem without forgoing profitable takeovers.

### Sedjo, Roger A.

**TI** Domestic Earmarks As Trade Policy: An Application to

U.S. Log Exports. **AU** Wiseman, Clark; Lyon, Kenneth S.; Sedjo, Roger A.

**PD** August 1991. **TI** Toward a Worldwide System of Tradeable Forest Protection and Management Obligations. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-16; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 40. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q23, Q28. **KW** Deforestation. Tradeable Permits.

**AB** There is widespread concern that the world's forests, not only those of the tropics but the temperate and boreal forests as well, may be experiencing excessive rates of deforestation and conversion to nonforest uses. In addition, even where forested areas persist, there is concern that the various disturbances of the forest are changing the nature of the forest ecosystem. The concerns over the loss of forest have been substantiated by a study by the Food and Agricultural Organization of the United Nations (FAO 1982) which found that tropical deforestation circa 1980 was occurring at a rate of about 11 million ha annually. The FAO is currently updating the study for 1990 and the preliminary figures suggest that the more recent rate of tropical deforestation has been higher than that reported in the 1982 study (FAO 1988).

### Selten, Reinhard

**PD** February 1992. **TI** An Axiomatic Approach to Consumers' Welfare. **AU** Selten, Reinhard; Winter, Eyal. **AA** Selten: University of Bonn. Winter: Hebrew University of Jerusalem. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-208; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** no charge. **JE** D11. **KW** Consumer's Welfare. Consumer Surplus.

**AB** This paper addresses the issue of consumers' welfare using an axiomatic approach, and avoiding the assumption of utility maximization. We thus take the demand function as a primitive, and construct a measure for the consumers' welfare from a change of prices. This is done by imposing a set of axioms on this measure which uniquely determines the measure.

### Sembenelli, Alessandro

**TI** Are Adjustment Costs for Labor Asymmetric? An Econometric Test on Panel Data for Italy. **AU** Jaramillo, Fidel; Schiantarelli, Fabio; Sembenelli, Alessandro.

### Senbet, Lemma W.

**TI** Financial Research on Africa: A Financial Theory Perspective. **AU** Saunders, Anthony; Senbet, Lemma W.

### Seo, Cheong-seog

**PD** January 1992. **TI** Interior Quality Equilibrium and the Effect of a Government Subsidy. **AA** New York University. **SR** New York University Economic Research Report: 92-05; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 18. **PR** no charge. **JE** H20, H23. **KW** Government Subsidy. Equilibrium.

**AB** I examine the existence of a subgame perfect equilibrium in a duopoly where the products are differentiated in quality, and derive the conditions under which an interior solution for

the optimal qualities is obtained. The effect of government subsidy is investigated. I find that, in equilibrium, the subsidization of the high quality good may cause the quality of both products to fall, while subsidization of the low quality good unambiguously improves the quality of both products. If both products are subsidized, the effect is ambiguous.

#### Sevestre, P.

**TI** Labor Demand for Heterogeneous Workers with Non Linear Asymmetric Adjustment Costs. **AU** Bresson, G.; Kramarz, F.; Sevestre, P.

#### Shahrokhi, Farhad

**PD** September 1991. **TI** An Algebraic Approach to the Uniform Concurrent Multi-Commodity Flow Problem: Theory and Applications. **AU** Shahrokhi, Farhad; Szekely, Laszlo. **AA** Shahrokhi: University of North Texas. Szekely: University of Budapest. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: C-91 725 OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 59. **PR** no charge. **JE** C60. **KW** Graph Theory.

**AB** An algebraic theory for solving the uniform concurrent multicommodity flow problem based on the automorphism group of the underlying graph is developed. The main idea is to average a multicommodity flow over a group of automorphisms to produce a group invariant flow. This algebraic approach also provides for some sharp upper bounds on the congestion and vertex utilization corresponding to the group invariant flow. Applications include (i) all pairs packet routing problem in Cayley graphs, (ii) evaluation of tight lower bounds on the bisection width and size of balanced vertex separators in any graphs.

#### Sharpe, Steven A.

**TI** Hostile Takeovers and Expropriation of Extramarginal Rents: A Test. **AU** Neumark, David; Sharpe, Steven A.

#### Shavell, Steven

**PD** March 1992. **TI** Suit Versus Settlement When Parties Seek Nonmonetary Judgements. **AA** Harvard Law School and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4012; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** \$5.00. **JE** K41, K10. **KW** Nonmonetary Judgements. Settlement. Litigation Costs.

**AB** This article considers situations in which plaintiffs seek nonmonetary judgements, for instance, custody of a child or an injunction. The primary questions of interest concern when parties will be likely to settle and, if so, what the nature of their settlements will be. The answers to these questions are different from what they are when plaintiffs seek purely monetary awards. In that case settlements involve only money payments whereas here they involve as well disposition of the nonmonetary things sought (who obtains custody of a child). Also, as is well known, when plaintiffs seek monetary judgments the parties will be inclined to settle to save litigation costs and reduce risk if they agree about the likelihood of plaintiff success at trial, but here that is not necessarily true.

#### Shepard, Andrea

**TI** Adoption of Technologies with Network Effects: An

Empirical Examination of the Adoption of Automated Teller Machines. **AU** Saloner, Garth; Shepard, Andrea.

#### Sherbourne, R.

**TI** Industrial Development and Reform in Changzhou City - A Case Study. **AU** Xu, L.; Sherbourne, R.; Mei, X.

#### Shiller, Robert J.

**PD** March 1992. **TI** Expanding the Scope of Expectations Data Collection: The U.S. and Japanese Stock Markets. **AU** Shiller, Robert J.; Kon-Ya, Fumiko; Tsutsui, Yoshiro. **AA** Shiller: Yale University. Kon-Ya: Japan Securities Research Institute. Tsutsui: Osaka University. **SR** Yale Cowles Foundation Discussion Paper: 1012; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 22. **PR** no charge. **JE** C22, C82. **KW** Expectations. Stock Markets. Data Collection.

**AB** A pilot effort was undertaken to experiment with a method of collecting parallel time series data for expectations and popular models and theories of institutional stock market participants in the United States and Japan 1989-91, covering the period before and after the dramatic and sudden halving of Japanese stock prices. Substantial variability within countries through time in the responses and dramatic differences across countries in expectations (even expectations for the same country) were found. There are significant research opportunities in expanded data collection along these lines.

#### Shy, Oz

**PD** May 1992. **TI** A Welfare Evaluation of Anti-Dumping Rules. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 8/92; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 16. **PR** no charge. **JE** F13. **KW** International Dumping. Market Shares.

**AB** The paper constructs a general equilibrium environment where firms find it profitable to set low prices abroad in order to 'dump' their products overseas. The paper conducts a welfare evaluation of implementing anti-dumping policies for two common interpretations of dumping activities: pricing below the cost of production and pricing abroad lower than at home. The major findings are: (a) in a world economy where firms play a price game in all markets, the anti-cost dumping policy is superior to the anti-price dumping policy for generating a welfare improvement for the injured country. (b) There is a special case where the imposition of anti-dumping rules can be welfare improving in all countries.

#### Sichel, Daniel E.

**TI** Is the Shift Toward Employment in Services Stabilizing? **AU** Lebow, David E.; Sichel, Daniel E.

#### Sicherman, Nachum

**TI** The Dynamics of Job Mobility and Dual-Job Holding. **AU** Paxson, Christina H.; Sicherman, Nachum.

#### Sims, Christopher A.

**PD** March 1992. **TI** Interpreting the Macroeconomic Time Series Facts: The Effects of Monetary Policy. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 1011; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 16. **PR** no charge. **JE** C22, E52. **KW** Interest Rates. Aggregate Activity.

**AB** Existing theory and evidence on the effects of monetary policy are reviewed. Substantial room for disagreement among economists remains. New evidence, based on multivariate time series studies of several countries, is presented. While certain patterns in the data consistent with effective monetary policy are strikingly similar across countries, others, particularly the tendency of interest rate increases to predict high inflation, are harder to reconcile with effective monetary policy.

### Sinclair-Desgagne, Bernard

**PD** November 1991. **TI** Aspirations and Economic Development. **AA** INSEAD. **SR** INSEAD Working Paper : 91/56/OB ; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 8. **PR** not available. **JE** O10. **KW** Accumulation. Economic Aspirations.

**AB** Recent contributions to the theory of economic growth identify internal economic forces that can lead to perpetual accumulation. It is shown, however, that this outcome relies on the postulate that economic aspirations are exogenous.

### Singamsetti, Rao N.

**TI** Circumstances in Which Different Criteria of Estimation Can be Applied to Estimate Policy Effects. **AU** Swamy, P. A. V. B.; Mehta, J. S.; Singamsetti, Rao N.

### Sinn, Hans-Werner

**PD** February 1992. **TI** Privatization in East Germany. **AA** University of Munich and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3998; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$5.00. **JE** F36, F02, F01, H80. **KW** Participation Model. Economic Recovery. Economic Transition.

**AB** This paper is a critical view of east German privatization policy. It is argued that the restitution of old property rights has been a major obstacle to investment and that the attempt to sell two thirds of an economy in the market place is bound to be a failure. Such an attempt implies serious macro and microeconomic stock-flow problems which erode the sales prices of Treuhand assets, induce the Treuhand to slow down its sales, and reduce private investment. By combining a participation model with a wage freeze the paper designs a social contract that may help increase the chances of economic recovery in east Germany.

### Sklivas, Steven D.

**PD** May 1991. **TI** The Choice of Technology: A Conflict Between Strategic and Efficiency Considerations. **AA** Columbia University. **SR** Columbia University Department of Economics Discussion Paper: 570; Department of Economics, Columbia University, New York, New York 10027. **PG** 17. **PR** \$5.00. **JE** D42, D43, L12. **KW** Monopoly. Entry. Oligopoly. Costs.

**AB** We examine the firm's choice of technology in strategic settings. An incumbent monopolist facing potential entry as well as a standard quantity-setting oligopoly is considered. In choosing its technology the firm must balance a trade-off between fixed and variable costs. We find there to be two effects that the firm faces, the strategic and efficiency effects. The efficiency effect acts to minimize total costs while the strategic effect takes into account consequences for market behavior. We find in both settings that the presence of the strategic effect causes the firm to choose a more capital

intensive technology, i.e. one that results in higher fixed versus variable costs, than would be dictated by efficiency.

### Slemrod, Joel

**TI** Diminished Expectations of Nuclear War and Increased Personal Savings: Evidence From Individual Survey Data. **AU** Russett, Bruce; Slemrod, Joel.

### Smith, Jeffrey

**TI** A Simulation Estimator for Dynamic Models of Discrete Choice. **AU** Hotz, V. Joseph; Miller, Robert A.; Sanders, Seth; Smith, Jeffrey.

### Sola, Martin

**PD** February 1992. **TI** Testing the Term Structure of Interest Rates from a Stationary Switching Regime VAR. **AU** Sola, Martin; Driffill, John. **AA** Sola: University of Southampton. Driffill: University of London. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9202; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 25. **PR** no charge. **JE** E43, C32. **KW** Term Structure. Non-Linear Filtering. Regime Switching.

**AB** We present an expectations model of the term structure for US data on 3 and 6 month Treasury bills for the period 1962(1) - 1987(3). The model allows for the non-stationarity of the data, and for unobserved stochastic switches of regime, by estimating VAR's in the yield spread and the change in the three month rate which allow the time series processes to change between regimes. In contrast to other results for the expectations model, such as those of Hamilton (1988), Mankiw and Miron (1986), and others, we find that the data do not reject the model. Movements in the short term (3 month) which have been interpreted elsewhere as changes in a term premium are here interpreted as resulting from variations in the inferred probabilities of a regime shift having occurred.

**TI** Market Fundamentals versus Speculative Bubbles: A New Test Applied to the German Hyperinflation. **AU** Blackburn, Keith; Sola, Martin.

**TI** Testing the Present Value Hypothesis from a Vector Autoregression with Stochastic Regime Switching. **AU** Driffill, John; Sola, Martin.

**TI** The Use of Recursive Variance Plots: A Note. **AU** Ravn, Morten O.; Sola, Martin.

### Srinivasan, Sylaja

**TI** A Comparison of Order Estimation Procedures for ARMA Models. **AU** Potscher, Benedikt M.; Srinivasan, Sylaja.

### Stapleton, Richard C.

**PD** April 1991. **TI** The Analysis and Valuation of Interest Rate Options. **AU** Stapleton, Richard C.; Subrahmanyam, Marti G. **AA** Stapleton: Lancaster University. Subrahmanyam: New York University. **SR** New York University Salomon Brothers Working Paper: S-92-18; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 36. **PR** \$5.00. **JE** G12, G13. **KW** Interest Rate Options. Bond Options.



**AB** Interest rate options are inter-related in a relatively complex manner. However, they can be valued by relating them to options on the underlying coupon bonds, if consistent distributional assumptions hold for those bonds. In this paper, we have used methods, traditional in the stock option literature, to value European-style bond options, and hence, also European-style options on interest rates, caps and floors, and swap options. One difference here is that it is the forward price of the bond which is assumed to follow a hedgeable, two-state process. This allows us to retain Cox-Ross "risk neutral" pricing results even in a stochastic interest rate economy by assuming that the forward bond price follows some sort of binomial process.

**TI** The Valuation of American Options in Stochastic Interest Rate Economies. **AU** Ho, Teng Suan; Stapleton, Richard C.; Subrahmanyam, Marti G.

**TI** Multivariate Binomial Approximation for Variables with Arbitrary Variance and Covariance Characteristics. **AU** Ho, Teng Suan; Stapleton, Richard C.; Subrahmanyam, Marti G.

### Stein, Jeremy C.

**TI** Monetary Policy and Credit Conditions: Evidence from the Composition of External Finance. **AU** Kashyap, Anil K.; Stein, Jeremy C.; Wilcox, David W.

### Stengos, Thanassis

**TI** Testing for Non-Linear Dynamics in Historical Unemployment Series. **AU** Alogoskoufis, George S.; Stengos, Thanassis.

### Stern, Nicholas

**TI** Economic Mobility and Agricultural Labour in Rural Idea: A Case Study. **AU** Dreze, Jean; Lanjouw, Peter; Stern, Nicholas.

### Stock, James H.

**PD** March 1992. **TI** A Procedure for Predicting Recessions with Leading Indicators: Econometric Issues and Recent Experience. **AU** Stock, James H.; Watson, Mark W. **AA** Stock: Harvard University and National Bureau of Economic Research. Watson: Northwestern University, Chicago Federal Reserve Bank, and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4014; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$5.00. **JE** E32, E37. **KW** Recession. Leading Indicators. Experimental Leading Indicator.

**AB** This paper examines the forecasting performance of various leading economic indicators and composite indexes since 1988, in particular during the onset of the 1990 recession. The primary focus is on an experimental recession index (title "XRI"), a composite index which provides probabilistic forecasts of whether the U.S. economy will be in a recession six months hence. After detailing its construction, the paper examines the out-of-sample performance of the XRI and a related forecast of overall economic growth, the experimental leading index (XLI). These indexes performed well from 1988 through the summer of 1990. However, the XLI failed to forecast the sharp declines of October and November 1990. After exploring several possible explanations, we conclude that one important source of the forecast error was the use of financial variables during a recession that were not associated

with a particularly tight monetary policy.

### Stockdale, James Bond

**PD** March 1992. **TI** On Heros and Heroism. **AA** Stanford University. **SR** Stanford Hoover Institute International Studies Working Paper: I-92-4; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 22. **PR** not available. **JE** A13. **KW** Courage. United States Naval Academy. **AB** not available.

### Stockton, David J.

**TI** Economic Performance under Price Stability. **AU** Lebow, David E.; Roberts, John M.; Stockton, David J.

### Strauss, John

**PD** November 1991. **TI** Wages, Schooling and Background: Investments in Men and Women in Urban Brazil. **AU** Strauss, John; Thomas, Duncan. **AA** Strauss: Rand Corporation. Thomas: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 649; Economic Growth Center, Yale University, Box 1987, Yale Station, New Haven CT 06520. **PG** 50. **PR** \$2.00 + postage. **JE** J31, J00. **KW** Labor Market Participation. Wage Determination.

**AB** Numerous empirical regularities of the urban Brazilian labor market are documented using the 1982 Pesquisa Nacional por Amostra de Domicilios (PNAD). Using a semi-parametric approach, special attention is paid to the shape of the relation between wage and years of schooling. We focus on heterogeneity in this relationship: by gender, region, choice of sector of employment, age-cohort and race. We also examine the role of family background in wage determination, both directly and through its influence on labor market participation choices.

### Sturzenegger, Federico A.

**PD** April 1992. **TI** Currency Substitution and the Regressivity of Inflationary Taxation. **AA** University of California, Los Angeles and National Bureau of Economic Research. **SR** University of California at Los Angeles Department of Economics Working Paper: 656; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 15. **PR** \$2.50; checks payable to U.C. Regents. **JE** E44, E41, E31. **KW** Inflation Tax. Currency Substitution.

**AB** The purpose of this paper is to show that in the presence of financial adaption or currency substitution, the inflation tax is extremely regressive. This regressivity arises from the existence of a fixed cost of switching to inflation-proof transactions technologies. This fixed cost makes it optimal only for those agents with sufficiently high incomes to switch out of domestic currency. The effects are illustrated and quantified for a particular case.

**PD** April 1992. **TI** Hyperinflation with Currency Substitution: Introducing an Indexed Currency. **AA** University of California, Los Angeles and National Bureau of Economic Research. **SR** University of California at Los Angeles Department of Economics Working Paper: 657; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 27. **PR** \$2.50; checks payable to U.C. Regents. **JE** E44, E41, E31. **KW** Inflation Tax. Currency Substitution.

**AB** This paper analyzes the properties of hyperinflationary equilibria in a model of currency substitution in which money is in the utility function. A liquidity costs model is used to derive a utility function in which the monetary assets are substitutes. I discuss the effects of introducing an alternate currency on a hyperinflationary equilibrium. The model predicts that the rate of growth of inflation of the original currency decreases. The predictions of the model are then tested against two historical experiences.

**PD** April 1992. **TI** Inflation and Social Welfare in a Model with Endogenous Financial Adaptation. **AA** University of California, Los Angeles and National Bureau of Economic Research. **SR** University of California at Los Angeles Department of Economics Working Paper: 658; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 24. **PR** \$2.50; checks payable to U.C. Regents. **JE** E44, E41, E31. **KW** Financial Adaptation. Inflation. Seigniorage.

**AB** This paper develops a model with endogenous financial adaptation. With a representative agent, inflation and welfare increase upon introduction of financial adaptation. Once we allow for agents' heterogeneity, we can show that inflation still increases and that the "poor" are hurt, while the "rich" benefit from the process of financial adaptation. Finally, we consider the optimal level of seigniorage collection. With a representative agent, financial adaptation increases both the optimal level of government spending and the inflation rate. With heterogeneous agents, if the government cares for the low income group, the optimal amount of government spending falls even though the rate of inflation increases.

**Subrahmanyam, Marti G.**

**TI** The Analysis and Valuation of Interest Rate Options. **AU** Stapleton, Richard C.; Subrahmanyam, Marti G.

**TI** The Valuation of American Options in Stochastic Interest Rate Economies. **AU** Ho, Teng Suan; Stapleton, Richard C.; Subrahmanyam, Marti G.

**TI** The Micro-Structure of Options Markets: Informed Trading, Liquidity, Volatility and Efficiency. **AU** John, Kose; Koticha, Apoorva; Subrahmanyam, Marti G.

**TI** Multivariate Binomial Approximation for Variables with Arbitrary Variance and Covariance Characteristics. **AU** Ho, Teng Suan; Stapleton, Richard C.; Subrahmanyam, Marti G.

**TI** The Effects of Derivative Securities on the Markets for the Underlying Assets in the United States: A Survey. **AU** Damodaran, Aswath; Subrahmanyam, Marti G.

**Sunder, Shyam**

**TI** Allocative Efficiency of Markets with Zero Intelligence (ZI) Traders: Market as a Partial Substitute for Individual Rationality. **AU** Gode, Dhananjay K.; Sunder, Shyam.

**TI** Lower Bounds for Efficiency of Surplus Extraction in Double Auctions. **AU** Gode, Dhananjay K.; Sunder, Shyam.

**PD** February 1992. **TI** Insider Information and its Role in Security Markets. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-18; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, Pittsburgh PA 15213-3890. **PG** 22. **PR** no charge. **JE** D82. **KW** Stock Markets. Regulation. International

Comparisons.

**AB** Markets and organizations are devices for efficient processing of information. The first four sections of the paper examine the distribution, scope and role of information in organizations and markets with special emphasis on the dissemination of information in security markets in Section 5. Section 6 examines the difficulty of designing the CEO-shareholder relationship that constitutes the interface between the corporate organization and the security market. In Section 7 alternative criteria for evaluation of insider trading laws and policies are examined. The paper concludes with suggestions for attaining a reasonable balance between these conflicting criteria.

**PD** March 1992. **TI** Experimental Asset Markets: A Survey. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-19; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, Pittsburgh PA 15213-3890. **PG** 81. **PR** no charge. **JE** C90. **KW** Experimental Economics. Market Efficiency. Stocks.

**AB** Experimentation with simple laboratory models of markets for stock, futures, and derivative securities reveals that such markets can, but do not always, aggregate and disseminate information. When information dissemination does occur, it is rarely instantaneous or perfect. Experiments have shown that markets we know to be informationally inefficient can be quite efficient by statistical criteria. Perhaps the most important finding to emerge from a decade of experimentation with stock markets is that statistical efficiency of a market does not imply that it is allocatively or informationally efficient.

**Swamy, P. A. V. B.**

**PD** May 1992. **TI** Circumstances in Which Different Criteria of Estimation Can be Applied to Estimate Policy Effects. **AU** Swamy, P. A. V. B.; Mehta, J. S.; Singamsetti, Rao N. **AA** Swamy: Board of Governors of the Federal Reserve System. Mehta: Temple University. Singamsetti: University of Hartford. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 198; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Wash., DC 20551. **PG** 46. **PR** no charge. **JE** C13, C11. **KW** Stochastic Laws. Fixed Coefficients Models. Maximum Likelihood.

**AB** In this paper, an attempt is made to connect Swamy and Tinsley's stochastic coefficients model with Pratt and Schlaifer's definition of a stochastic law and to explore the role of such a model in estimating the effects of economic policies. It is only under special conditions, to be stated explicitly in the paper, that the maximum likelihood method applied to the stochastic coefficients model yields asymptotically efficient parameter estimators. For conditions generally encountered, we propose an estimation procedure whose justification lies solely in permitting each investigator to choose among various possible estimators of the stochastic coefficients model and its special cases upon reflecting on their abilities to explain past data and experience and to yield useful predictions of future data and experience.

**Szekely, Laszlo**

**TI** An Algebraic Approach to the Uniform Concurrent Multi-Commodity Flow Problem: Theory and Applications. **AU** Shahrokhi, Farhad; Szekely, Laszlo.

**Taylor, Peter**

**TI** Econometric Modelling of the Use of Computers by Economists in UK Higher Education. **AU** Dolton, Peter; Taylor, Peter.

**Tesche, Jean**

**TI** Hungary, Austria, and the European Community: A CGE Model of Economic Reform and Integration. **AU** Hinojosa-Ojeda, Raul; Robinson, Sherman; Tesche, Jean.

**Thanheiser, Heinz**

**TI** Regaining Competitiveness: A Process of Organisational Renewal. **AU** Doz, Yves; Thanheiser, Heinz.

**Thomas, Duncan**

**TI** Wages, Schooling and Background: Investments in Men and Women in Urban Brazil. **AU** Strauss, John; Thomas, Duncan.

**Thomas, S. H.**

**TI** International Evidence for the Predictability of Bond and Stock Returns. **AU** Clare, A. D.; Thomas, S. H.

**Tibrewala, Vikas**

**PD** November 1991. **TI** Nonstationary Conditional Trend Analysis: An Application to Scanner Panel Data. **AU** Tibrewala, Vikas; Lenk, Peter; Rao, Ambar. **AA** Tibrewala: INSEAD. Lenk: University of Michigan. Rao: University of Arizona. **SR** INSEAD Working Paper: 92/15/MKT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 35. **PR** not available. **JE** C10, E17. **KW** Forecasting. Hierarchical Bayes. Poisson Process.

**AB** Conditional trend analysis (CTA) predicts the number of purchases in a test period by all households that purchase a given number of items in a base period. The underlying model assumes that households' purchases follow stationary Poisson processes with rate parameters that vary across the households in a market. This paper extends CTA to the nonstationary setting and compares the stationary and nonstationary models. Falsely assuming stationarity systematically biases forecasts. Although modeling nonstationarity reduces bias, under-prediction, especially of the zero class, persists. We show that this under-prediction is, in part, a mathematical artifact due to the skewness of the negative binomial distribution.

**Tobin, James**

**PD** March 1992. **TI** Money (for New Palgrave Money and Finance). **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 1013; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 31. **PR** no charge. **JE** E40. **KW** Macroeconomics. Classical Dichotomy. Quantity Theory. **AB** Among the conventions of almost every human society of historical record has been the use of money, i.e. particular commodities or tokens as measures of value and media of exchange in economic transactions. Somehow the members of a society agree on what will be acceptable tender in making payments and settling debts among themselves. General agreement to the convention, not the particular media agreed upon, is the source of money's immense value to the society. In this respect money is similar to language, standard time, or the

convention designating the side of the road for passing. This paper reviews the history of various forms of money, the functions of money, and the role of money in economic theory.

**Toman, Michael A.**

**TI** Designing Price Caps for Gas Distribution Systems. **AU** Lyon, Tomas P.; Toman, Michael A.

**PD** January 1991. **TI** Economics and "Sustainability": Balancing Tradeoffs and Imperatives. **AU** Toman, Michael A.; Crosson, Pierre. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-05; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 37. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q00, D60, A13. **KW** Sustainable Development. Intergenerational Equity. Limits to Growth.

**AB** In this paper we explore ways to more precisely define the amorphous concept of "sustainability," with particular emphasis on differences in interpretation among economists, ecologists, and philosophers. We argue that alternative conceptions of sustainability hinge on assumptions regarding three issues: (i) intergenerational fairness and responsibility, (ii) substitutability between natural resources and other forms of "social capital," and (iii) the scale of human activity relative to ecological "carrying capacity." We show how this combination of factors can imply the existence of a fuzzy dividing line in social decisionmaking between normal resource tradeoffs and imperatives for ecological protection through the establishment of "safe minimum standards."

**TI** Equity and International Agreements for CO<sub>2</sub> Containment. **AU** Burtraw, Dallas; Toman, Michael A.

**TI** Economic Considerations in Supplying Earth Observation Data From Space. **AU** Macauley, Molly K.; Toman, Michael A.

**PD** April 1991. **TI** The Economics of Energy Security: Theory, Evidence, Policy. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-13; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 70. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q48, Q43. **KW** Oil Markets. Import Dependence.

**AB** Relatively few events in recent economic history have generated the quantity of scholarly writing, policy analysis, and public debate that has resulted from the "oil shocks" of the 1970s and 1980s. This essay provides a review of scholarly research concerning (i) the functioning of world oil markets, (ii) the consequences of import dependence and instability in energy markets for aggregate economic well-being, and (iii) the policy options available for addressing these concerns. The review is limited to issues faced by industrialized, market-oriented economies.

**Tommasi, Mariano**

**PD** April 1992. **TI** The Welfare Effects of Inflation: The Consequences of Price Instability on Search Markets. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 655; Department of Economics, University of California at Los Angeles, 2263 Bunche, Los Angeles, CA 90024. **PG** 30. **PR** \$2.50; checks payable to U.C.



Regents. **JE** D83, E31, L13, L16. **KW** Price Instability. Information. Search. Efficiency.

**AB** There is considerable disparity between popular opinion about the welfare loss due to inflation and formal estimates of this loss. This paper goes part of the way in filling that gap, by taking into account of the association of higher inflation with higher relative price variability that previous studies have ignored. I model a market for a homogeneous good, in which buyers search for low prices and sellers set prices to maximize profits, to analyze the effects of relative price variability on information acquisition, price setting, and equilibrium price information stocks, that is, by accepting higher real prices.

### Trajtenberg, Manuel

**TI** Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations. **AU** Jaffe, Adam B.; Trajtenberg, Manuel; Henderson, Rebecca.

### Trejo, Stephen J.

**TI** Self-Selection and Internal Migration in the United States. **AU** Borjas, George J.; Bronars, Stephen G.; Trejo, Stephen J.

**TI** National Origin and Immigrant Welfare Reciprocity. **AU** Borjas, George J.; Trejo, Stephen J.

### Tsutsui, Yoshiro

**TI** Expanding the Scope of Expectations Data Collection: The U.S. and Japanese Stock Markets. **AU** Shiller, Robert J.; Kon-Ya, Fumiko; Tsutsui, Yoshiro.

### Ulph, Alistair

**PD** September 1991. **TI** Should a Carbon Tax Rise or Fall Over Time? **AU** Ulph, Alistair; Ulph, David; Pezzey, John. **AA** Ulph, A.: University of Southampton. Ulph, D. and Pezzey: University of Bristol. **SR** University of Bristol Discussion Paper: 91/309; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 24. **PR** no charge. **JE** H20, H23, Q25, Q28. **KW** Time Profile of Tax. Carbon Tax. Ad Valorem Tax.

**AB** A carbon tax has been proposed as one possible way of reducing the emissions of "greenhouse gasses". Much of the recent work on carbon taxation has concentrated on analyzing the effects of introducing such a tax at a level which would meet certain emission targets at some fixed date. Less attention has been devoted to the time profile of this tax. Yet in securing international agreement on the introduction of a carbon tax it could matter greatly whether what is being proposed is a tax which is initially low but rising, or initially high but falling. We undertake a systematic examination of the optimal time profile of a carbon tax in the presence of both a stock externality and an exhaustion constraint and show that, if a steady-state exists, the specific tax will be rising, but the ad valorem tax rate will be constant.

**PD** September 1991. **TI** Labour Markets and Strategic Innovation: Long-Term vs Short-Term Contracts. **AU** Ulph, Alistair; Ulph, David. **AA** Ulph, A.: University of Southampton. Ulph, D.: University of Bristol. **SR** University of Bristol Discussion Paper: 91/310; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 39. **PR** no charge. **JE** J41, J51, L14. **KW** Labor Contracts. Unions. Investment.

**AB** The conventional wisdom is that the inability of unions

and firms to enter into a long-term relationship (contract), is detrimental to investment (including R&D), and can damage both firms and unions. Theoretical support for this view is contained in the work of Grout (1984) in the context of a model in which (a) there is a single firm bargaining with a single union, and (b) the union operates an internal unemployment insurance scheme. In this paper we show that both of these elements are crucial to our understanding of the impact of unions and bargaining structures on innovation, and that, in their absence, little of the conventional wisdom survives. We develop a model of two firms who are in a race to introduce some new, more productive technology.

### Ulph, David

**TI** Should a Carbon Tax Rise or Fall Over Time? **AU** Ulph, Alistair; Ulph, David; Pezzey, John.

**TI** Labour Markets and Strategic Innovation: Long-Term vs Short-Term Contracts. **AU** Ulph, Alistair; Ulph, David.

**PD** September 1991. **TI** Strategic Manpower Policy and International Trade. **AU** Ulph, David; Winters, Alan. **AA** Ulph: University of Bristol. Winters: University of Birmingham. **SR** University of Bristol Discussion Paper: 91/311; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 60. **PR** no charge. **JE** F20, F12. **KW** Strategic Trade. Industrial Policies. International Mobility.

**AB** This paper argues that the success of strategic trade and industrial policies directed at the "high-tech" sector depends crucially on factors such as the mobility of key scientific personnel, while, conversely, arguments about the importance of developing policies to confront manpower problems such as skill shortages and "brain drains" are best understood in the recently developed analytical framework of strategic trade policy. We show that provided there is some degree of international mobility of scientific personnel policies designed to support the high-tech sector and encourage the demand for scientific manpower will be beneficial. Calibrations of the model suggest that policies are potentially powerful.

**PD** October 1991. **TI** Optimal Income Taxation: Resourcism vs Welfarism. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 91/312; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 31. **PR** no charge. **JE** D10, H21. **KW** Opportunity. Policy Analysis.

**AB** In this paper I try to take forward in a constructive way the debate about whether resourcism or welfarism offers a better basis for policy analysis. I do this in two stages. In the first stage I propose what I think are some rather natural axioms that a measure of opportunity should satisfy. These measures are fairly natural extension of the economist's familiar concept of real income. In the second stage I develop the implications of this formalization of resourcism in the context of discussions about income taxation when people have different preferences.

**PD** November 1991. **TI** Endogenous Growth and Industrial Structure. **AA** University of Bristol. **SR** University of Bristol Discussion Paper: 92/315; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 ITN, IRELAND. **PG** 47. **PR** no charge. **JE** D21, O40, O32. **KW** Horizontal Differentiation. Research and Development.

**AB** This paper presents a model of R&D as a continual

process of competition to improve the quality of products on offer. There is a continuum of horizontally differentiated products which can be simultaneously improved up a quality ladder by spending on R&D. However unlike the recent paper by Grossman and Helpman (1991) which starts from a similar framework, I assume (i) that instead of a single representative consumer there is a continuum of different consumer types; and (ii) that once a firm starts producing a particular product it can only make improvements to that product. I show that there is a fundamental link between the average price-cost margin and the rate of growth.

**PD** January 1992. **TI** A Note on the "Double Benefit" of Pollution Taxes. **AA** University of Bristol and University College London. **SR** University of Bristol Discussion Paper: 92/317; Department of Economics, University of Bristol, 8 Woodlands Road, BRISTOL, BS8 1TN, IRELAND. **PG** 23. **PR** no charge. **JE** H22, H23, Q28. **KW** Ramsey Tax System. Pigouvian Tax System.

**AB** It is now widely accepted that using pollution taxes as an instrument of environmental policy will confer a "double benefit" (or "double dividend:") -they will reduce the damage caused by the pollution, and the revenue raised by these taxes can be used to lower taxes on income and commodities and so reduce the deadweight loss which these latter taxes impose. I conclude that, in designing tax systems, while it is certainly desirable to recognize uncorrected externalities, it is wrong to oversell pollution taxes as being, in general, doubly superior to conventional taxes.

#### Van Der Heyden, Ludo

**TI** Longevity of Business Firms: A Four-Stage Framework for Analysis. **AU** Hogarth, Robin M.; Michaud, Claude; Doz, Yves; Van Der Heyden, Ludo.

#### Van der Ploeg, Frederick

**TI** Debts, Deficits and Growth in Interdependent Economies. **AU** Alogoskoufis, George S.; Van der Ploeg, Frederick.

#### Van Wassenhove, Luk

**PD** January 1992. **TI** Exact and Approximation Algorithms for the Operational Fixed Interval Scheduling Problem. **AU** Van Wassenhove, Luk; Kroon, Leo; Salomon, Marc. **AA** Van Wassenhove: INSEAD. Kroon and Salomon: Erasmus University. **SR** INSEAD Working Paper: 92/08/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 11. **PR** not available. **JE** L23, M11. **KW** Job Scheduling. Production Management.

**AB** The Operational Fixed Interval Scheduling Problem (OFISP) is characterized as the problem of scheduling a number of jobs, each with a fixed starting time, a fixed finishing time, a priority index, and a job class. The objective is to find an assignment of jobs to machines with maximal total priority. The problem is complicated by the restrictions that (i) each machine can handle only one job at a time, (ii) each machine can handle only jobs from a prespecified subset of all possible job classes, and (iii) preemption is not allowed. In this paper we discuss the occurrence of the problem in practice, and we present newly developed exact and approximation algorithms for solving OFISP.

**PD** January 1992. **TI** Statistical Search Methods for Lotsizing Problems. **AU** Van Wassenhove, Luk; Kuik,

Roelof; Salomon, Marc. **AA** Van Wassenhove: INSEAD. Kuik and Salomon: Erasmus University. **SR** INSEAD Working Paper: 92/09/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 13. **PR** not available. **JE** C61, C67, D20. **KW** Simulated Annealing. Tabu Search. Mixed-Integer Programming.

**AB** This paper reports on our experiments with statistical search methods for solving lotsizing problems in production planning. In lotsizing problems the main objective is to generate a minimum cost production and inventory schedule, such that (i) customer demand is satisfied, and (ii) capacity restrictions imposed on production resources are not violated. We discuss our experiences in solving these, in general NP-hard, lotsizing problems with popular statistical search techniques like simulated annealing and search. The paper concludes with some critical remarks on the use of statistical search methods for solving lotsizing problems.

#### Vanhonacker, Wilfried

**PD** October 1991. **TI** CONPRO \* DOGIT: A New Brand Choice Model Incorporating a Consideration Set Formation Process. **AA** INSEAD. **SR** INSEAD Working Paper: 92/01/MKT/EP/TM; INSEAD, Boulevard de Constance Fontainebleau, 77305 Cedex, FRANCE. **PG** 29. **PR** not available. **JE** C20, D11, D12. **KW** Consideration Set. Choice. Dogit.

**AB** In this paper, an individual level choice model is developed for the utility-maximizing consumer which explicitly recognizes the use of heuristics to confine choice to a subset of available alternatives. A rational choice set formation process is integrated probabilistically within a random utility framework. Conceptually, the model integrates previously suggested formalizations based on search theory and decision costs. Operationally, the model relies on the random utility assumptions of the multinomial logit model.

**PD** December 1991. **TI** The Dynamics of the Consideration Set Formation Process: A Rational Modelling Perspective and Some Numerical Results. **AA** INSEAD. **SR** INSEAD Working Paper: 92/02/MKT/EP/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 30. **PR** not available. **JE** C20, D11, D12, D83. **KW** Consideration Set. Random Utility. Choice. Search.

**AB** The notion of a consideration set describing a subset of brands from which an individual consumer will select or choose has received considerable attention in the recent literature. This paper develops a rational model of the consideration set formation process which is characterized by a sequential search balancing incremental benefit with decision costs. The model enables full analysis of the dynamics of consideration set formation over time. Extensive numerical results add validity to the process and its operationalization, and provide important insights into the likelihood of expansion and contraction of consideration sets.

#### Vermaelen, Theo

**PD** December 1991. **TI** Financial Innovation: Self-Tender Offers in the U.K. **AU** Vermaelen, Theo; Cools, Kees. **AA** Vermaelen: INSEAD. Cools: Tilburg University. **SR** INSEAD Working Paper: 92/06/FIN; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 21. **PR** not available. **JE** D80, M21. **KW** Insider Behavior. Signalling.

**AB** This paper reports the causes and consequences of the first repurchase tender offer in the U.K. The value of the repurchasing company, International Business Communication, increased by more than 32 percent around the announcement. The repurchase was essentially triggered by the 1987 stock market crash. In contrast to the typical U.S. self tender offer insiders tendered their shares and the stock price increase was not permanent. The paper illustrates the relevance of insider behavior in assessing the truthfulness of signalling through repurchase tender offers.

#### **Vosti, Stephen A.**

**TI** Economic Analysis of the Treatment of Malaria: A Case Study. **AU** de Bartolome, Charles A. M.; Vosti, Stephen A.

#### **Walls, Margaret A.**

**PD** February 1991. **TI** U.S. Energy and Environmental Policies: Problems of Federalism and Conflicting Goals. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-10; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 45. **PR** \$5.00 prepaid (U.S. funds only). **JE** H77, Q28, Q38. **KW** Energy Policy. Environmental Policy. Auto Pollution. Federalism.

**AB** This paper analyzes the choice of governmental jurisdiction for energy security and environmental policies. It examines the economic arguments for and against decentralized control and concludes that the federal government should undertake energy security policies while many environmental programs should be left to state and local governments. It then discusses the problems that can arise in a federalist system even when it appears that the appropriate jurisdiction is in charge of a particular policy. These problems arise because of conflicting goals across jurisdictions and because of the absence of compensating transfers between jurisdictions. Two case studies are examined: federal government leasing of lands on the Outer Continental Shelf for oil and gas operations and federal regulation of pollution from automobiles.

**PD** September 1991. **TI** Using a "Hybrid" Approach to Model Oil and Gas Supply: A Case Study of the Gulf of Mexico Outer Continental Shelf. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-18; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 49. **PR** \$5.00 prepaid (U.S. funds only). **JE** Q41. **KW** Petroleum Supply Modeling.

**AB** "Hybrid" models of oil and gas supply combine an econometric model of exploration activity with a geologic/engineering model of the discovery process. The advantage of such models over purely econometric approaches is their recognition of the regularities in the discovery process that arise due to the nature of oil and gas resources: most oil and gas is found in large pools and large pools are found earlier in the discovery history of a region. The advantage of the models over purely geologic/engineering approaches is their use of historical data to test the implications of the models and their ability to generate time series forecasts without incorporating ad hoc constraints. A hybrid model of oil and gas supply on the Gulf of Mexico Outer Continental Shelf is developed in the paper and used to forecast future supplies to

the year 2000.

#### **Walters, Alan**

**PD** April 1992. **TI** Currency Boards. **AU** Walters, Alan; Hanke, Steve H. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 281; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 14. **PR** no charge. **JE** E42. **KW** Monetary Policy. Keynes. Currency Boards. **AB** A currency board, an alternative to a central bank, is a monetary authority that issues domestic currency backed 100 percent by foreign assets. Currency board systems have existed in over seventy countries. They survive today in such small countries as Singapore, Brunei, and Hong Kong. This article, which will appear in *The New Palgrave Dictionary of Money and Finance*, examines the rationale and workings of the currency board system. It also briefly recounts a recently discovered case of a currency board established by John Maynard Keynes.

#### **Wang L.**

**TI** Unemployment in Urban China: An Analysis of Survey Data from Shanghai. **AU** Gangzhan, F.; Hussain, A.; Pudney, S.; Wang L.

#### **Watcher Michael L.**

**TI** Union Threat Effects and Nonunion Industry Wage Differentials. **AU** Neumark, David; Watcher Michael L.

#### **Watson, Mark W.**

**TI** A Procedure for Predicting Recessions with Leading Indicators: Econometric Issues and Recent Experience. **AU** Stock, James H.; Watson, Mark W.

#### **Weil, Philippe**

**TI** Dynamic Efficiency, the Riskless Rate, and Debt Ponzi Games under Uncertainty. **AU** Blanchard, Olivier Jean; Weil, Philippe.

#### **White, Lawrence J.**

**PD** May 1992. **TI** Change and Turmoil in U.S. Banking: Causes, Consequences, and Lessons. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-23; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 31. **PR** \$5.00. **JE** G21, G28. **KW** Regulation. Banking.

**AB** This paper proceeds as follows: Section II will analyze the special characteristics of banks that have caused them to attract political attention and to be heavily regulated in the U.S.. Section III will explore the reasons for the four decades of banking tranquility that preceded the turmoil of the 1980s and then highlight the changes of the 1970s and early 1980s that led to the turmoil. Section IV will describe the current state of change and turmoil in American banking. Section V will discuss the prospects for continued turmoil for banking in the 1990s. Section VI will analyze three alternative "visions" of reform of U.S. deposit insurance and bank regulation. And Section VII draws the conclusions from this study of the recent U.S. experience.



**Whitehouse, Edward**

**TI** The Earnings-Related State Pension, Indexation and Lifetime Redistribution in the U.K. **AU** Creedy, John; Disney, Richard; Whitehouse, Edward.

**Wilcox, David W.**

**TI** Monetary Policy and Credit Conditions: Evidence from the Composition of External Finance. **AU** Kashyap, Anil K.; Stein, Jeremy C.; Wilcox, David W.

**Williams, Jeffrey R.**

**PD** February 1992. **TI** How Sustainable is Your Competitive Advantage?. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-03; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, PA 15213-3890. **PG** not available. **PR** no charge. **JE** L21, D21, D23. **KW** Business Strategy. Management.

**AB** Through strategy, a company seeks to sustain its competitive advantage. Yet only recently has the study of strategy begun to decipher how long a specific advantage can be sustained. Based on a study of sustainability patterns in a number of industries, this paper shows how sustainability can be predicted by understanding what type of unique resource or capability lies at the core of an organization's advantage. We classify a number of these core capabilities, or isolating mechanisms, and link these to how fast and by what means a company's advantage is likely to evolve and be duplicated. We find that an organization's character is shaped by the sustainability of its resources and that competitive forces associated with resource imitation shape many strategic decisions in companies.

**PD** February 1992. **TI** Strategy and the Search for Rents: The Evolution of Diversity Among Firms. **AA** Carnegie Mellon University. **SR** Carnegie-Mellon Graduate School of Industrial Administration (GSIA) Working Paper: 1992-04; Working Paper Secretary, GSIA, Carnegie-Mellon University, Schenley Park, PA 15213-3890. **PG** not available. **PR** no charge. **JE** L21, D21, D23. **KW** Business Strategy. Firm Diversity.

**AB** Fundamental issues in business strategy have elements in common with the question, "Why Are Firms Different?" In this paper I characterize strategy as the search for rents. These may be accumulated and imitated at different rates along a competitive spectrum, depending upon the type of capability the firm acquires. Firm diversity arises and can be understood through the interplay of capability formation, search behavior, and evolutionary equilibria. It is here that differences among firms originate that underlie interesting questions in strategy.

**Williamson, Steve**

**PD** May 1992. **TI** Barter and Monetary Exchange Under Private Information. **AU** Williamson, Steve; Wright, Randall. **AA** Williamson: University of Western Ontario. Wright: University of Pennsylvania and Federal Reserve Bank of Minneapolis. **SR** University of Pennsylvania CARESS Working Paper: 92-14; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 29. **PR** no charge. **JE** D82, D50, D51, E40. **KW** Monetary Theory. Private Information. Commodity Quality.

**AB** We analyze economies with private information concerning the quality of commodities. Without private information there is a nonmonetary equilibrium with only high quality commodities, and money cannot improve welfare. With private information there can be equilibria with low quality commodities, and sometimes no active (i.e., nondegenerate) equilibria exist. The use of money can lead to active equilibria when no active nonmonetary equilibrium exists. Even when active nonmonetary equilibria exist with private information, money can increase welfare through incentive effects: in monetary equilibrium, agents may adopt trading strategies that increase the probability of acquiring high quality output.

**Winter, Eyal**

**TI** An Axiomatic Approach to Consumers' Welfare. **AU** Selten, Reinhard; Winter, Eyal.

**Winters, Alan**

**TI** Strategic Manpower Policy and International Trade. **AU** Ulph, David; Winters, Alan.

**Wiseman, Clark**

**PD** February 1991. **TI** Domestic Earmarks As Trade Policy: An Application to U.S. Log Exports. **AU** Wiseman, Clark; Lyon, Kenneth S.; Sedjo, Roger A. **AA** Wiseman: Gonzaga University. Lyon: Utah State University. Sedjo: Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR91-09; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, D.C. 20036. **PG** 26. **PR** \$5.00 prepaid (U.S. funds only). **JE** F13, F14, Q23. **KW** Timber Market. Trade Policy.

**AB** A restriction allocating a portion of the output of an export good to the domestic market, called here a "domestic earmark," is shown to be nonequivalent to the more common and direct forms of export restriction -- quotas and tariffs. Identical trade equilibria generated by an earmark and export quota yield different domestic market equilibria. The nature and effects of an earmark are analyzed and compared with an export quota or tariff, and a condition of an "optimal earmark" is derived. The analysis is applied to current U.S. softwood log export policy.

**Wolinsky, Asher**

**TI** A Remark on Infinitely Repeated Extensive Games. **AU** Rubinstein, Ariel; Wolinsky, Asher.

**Wood, Peter**

**TI** Entrepreneurship and Flexibility in Business Services: The Rise of Small Management Consultancy and Market Research Firms in the U.K. **AU** Bryson, John; Keeble, David; Wood, Peter.

**PD** January 1992. **TI** Regional Patterns of Small Firm Development in the Business Services: Preliminary Evidence from the UK. **AU** Wood, Peter; Bryson, John; Keeble, David. **AA** Wood: University College. Bryson and Keeble: Cambridge University. **SR** University of Cambridge Small Business Research Centre Working Paper: 14; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 25. **PR** \$10.00 (£5.00), checks payable to University of Cambridge. **JE** L20, L80. **KW** Regional Development.

Flexibility.

**AB** This paper reviews the growth of business services in the U.K. during the 1980's and especially the role of small firms. Reports the preliminary results of an intensive questionnaire survey, undertaken in 1991, of small management consultancy and market research companies in three areas; inner London, the outer south east, and north-western England. Early tabulations of responses suggest that regional economic and social characteristics mold the activities of these firms, although somewhat differently for the two sectors, even though many firms engage in a significant degree of interregional trade.

### Wright, Randall

**TI** Barter and Monetary Exchange Under Private Information. **AU** Williamson, Steve; Wright, Randall.

### Wu, Ho-Mou

**TI** Individual Risk and Mutual Insurance: A Reformulation. **AU** Cass, David; Chichilnisky, Graciela; Wu, Ho-Mou.

### Wyplosz, Charles

**TI** Human Capital, Investment and Migration in an Integrated Europe. **AU** Burda, Michael; Wyplosz, Charles.

### Xu, L.

**PD** February 1992. **TI** Industrial Development and Reform in Changzhou City - A Case Study. **AU** Xu, L.; Sherbourne, R.; Mei, X. **AA** London School of Economics. **SR** LSE Research Programme on the Chinese Economy: CP/20; Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 49. **PR** no charge. **JE** P21. **KW** China. Urban. Reform.

**AB** The paper provides an analytical account of economic and administrative reforms in Changzhou, a medium-sized city near Shanghai, which in 1984 was selected by the central government as a test-bed for urban reforms. The paper is divided into two parts; Part 1 provides the background on the economy of Changzhou and Part 2 the details of industrial, fiscal, and administrative reforms. A contract between a leading industrial enterprise and the Changzhou city government is provided in the appendix.

### Yanagawa, Noriyuki

**PD** February 1992. **TI** Asset Bubbles and Endogenous Growth. **AU** Yanagawa, Noriyuki; Grossman, Gene M. **AA** Yanagawa: Princeton University and University of Tokyo. Grossman: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4004; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 15. **PR** \$5.00. **JE** O40, E21, G21. **KW** Labor Productivity. Savings. Endogenous Growth.

**AB** We study the interaction between productive and nonproductive savings in an economy that grows in the long run due to endogenous improvements in labor productivity. As in the neoclassical growth setting with overlapping generations studied by Tirole (1985), asset bubbles can exist in an economy with endogenous growth provided they are not too large and that the growth rate in the bubbleless equilibrium is endogenous, the existence condition reflects parameters of tastes and technology. We find that bubbles, when they exist, retard the growth of the economy, perhaps even in the long run,

and reduce the welfare of all generations born after the bubble appears.

### Yashiv, Eran

**PD** February 1992. **TI** Money Demand in a High Inflation Economy: The Case of Israel. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-92-11; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 24. **PR** \$5.00. **JE** E41. **KW** Money Demand. Cointegration.

**AB** Money demand plays a central role in recent models of rapid inflation and stabilization which are highly relevant to the Israeli economy. This paper uses cointegration analysis to estimate money demand in Israel. We find that money demand shifted at the beginning of the 1980's, probably as a result of increased use of liquid indexed assets which provide protection against high inflation. In the previous two decades the equation was a fairly conventional "U.S.-type" logarithmic function. In the last decade the equation has had a lower constant and has exhibited less sensitivity to interest rate changes. In both periods the nominal rate of interest and real private consumption have been cointegrated with real M1 balances, and interest elasticity has been less than unity.

### Yucesan, Enver

**PD** February 1992. **TI** On the Intractability of Verifying Structural Properties of Discrete Event Simulation Models. **AU** Yucesan, Enver; Jacobson, Sheldon. **AA** Yucesan: INSEAD. Jacobson: Case Western Reserve University. **SR** INSEAD Working Paper: 92/11/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 19. **PR** not available. **JE** C60, C61, C63. **KW** Computational Complexity. Modeling. Structural Analysis.

**AB** This paper presents an application of the theory of computational complexity to assess the difficulty of discrete event simulation modeling questions. The problem of verifying structural properties of such models is shown to be intractable. More specifically, accessibility of states, ordering of events, ambiguity of model implementations, and execution stalling are shown to be NP-complete decision problems. These results imply that it is unlikely that a polynomial-time algorithm can be devised to verify these structural properties of such models. The consequences of these assertions cover a wide range of modeling and analysis question in simulation.

### Zhao, Haiying

**PD** October 1991. **TI** The Impact of Economic Structure on Long-Term Growth. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 91-19; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 33. **PR** no charge. **JE** O41. **KW** Growth. Learning-by-Doing.

**AB** This paper introduces imported intermediates into a two sector learning-by-doing growth model. By assuming that the importable sector depends on the exportable sector for imported intermediates rich results are obtained. First, the interdependence of the sectors sets an important limit to the extent of import substitution. It is shown that if a country pursues a policy of wide range of import substitution the demand for imported intermediates will be so high that the

export sector will not be able to meet this demand without depressing the growth of the protected sector. Second, the direction of the dynamics and the long-term growth performance of the economy depend on the inherited economic structure--the economy's production technology and its dependence on the world market. Third, an import subsidy (tax) affects the dynamics of the economy, and thus affects the effectiveness of an import substitution policy.

**Zilberman, David**

**TI** Risk Attitudes Over Wealth Under Discrete Status Levels. **AU** Buschena, David E.; Zilberman, David.

**Zona, J. Douglas**

**TI** Detection of Bid Rigging in Procurement Auctions. **AU** Porter, Robert H.; Zona, J. Douglas.