

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)

Abdel-Motaal, Karim

PD December 1994. TI Analysis of the Yield on Foreign Exchange Bearer Certificates: Rationality and Financial Behavior in Pakistan. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94156; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 12. PR not available. JE G14, G18. KW Foreign Exchange. Pakistan. Interest Rates. Financial Markets.

AB Financial market efficiency in Pakistan is investigated through an analysis of the secondary market for Foreign Exchange Bearer Certificates (FEBC). A reduced form model for FEBC yield is specified and estimated. The FEBC's roles as an avenue for relaxing the legal foreign exchange constraint, and for transferring funds from the informal to the formal sectors, are shown to be significant predictors of yield behavior. Adjusting for these effects, yield sensitivity to local and international rates of return is sustained. Financial reform appears to have increased the impact on FEBC yield of interest rate movements, and reduced those of regulations effects. The model outperforms conventional interest parity specifications as a description of FEBC yield. Empirical results suggest a 'rational' interest rate structure is underlying regulation laden rates of return.

Abell, Peter

TI An Aggregate Time Series Analysis of Non-Agricultural Self-Employment in the UK. AU Crouchley, Robert.; Abell, Peter.; Smeaton, Deborah.

Abrahamse, Allan F.

TI Three Strike and You're Out: estimated Benefits and Costs of California's New Mandatory-Sentencing Law. AU Greenwood, Peter; Rydell, C. Peter; Abrahamse, Allan F.; Caulkins, Jonathan P.; Chiesa, James R.; Model, Karyn E.; Klein, Stephen P.

TI Three Strike and You're Out: estimated Benefits and Costs of California's New Mandatory-Sentencing Law. AU Greenwood, Peter; Rydell, C. Peter; Abrahamse, Allan F.; Caulkins, Jonathan P.; Chiesa, James R.; Model, Karyn E.; Klein, Stephen P.

TI A Demonstration Policy evaluation of the Dutch Second Transport Structure Plan (SVV). AU Walker, Warren E.; Abrahamse, Allan F.; Kleijn, Henk.

Acemoglu, Daron

PD June 1994. TI Corporate Control and Balance of Powers. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of

Economics Working Paper: 94-22; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 24. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE D23, G32. KW Incomplete Contracts. Separation Control. Property Rights. Managerial Discretion. Ownership.

AB Most managers enjoy considerable discretion and protection from possible interventions which enables them to look after their own interests. This is often attributed to the dispersion of shareholders and regulations that deter effective outside interventions. This paper presents a model that has empire-building managers who have important effort choices. Because the manager is not the residual claimants of the relevant returns, in order to provide him with the right incentives, he needs to be given sufficient discretion and the opportunity to share some of the rents he creates. To achieve this, equilibrium organizational form separates control from ownership and tries to contain the manager's empire-building incentives using performance contracts and the capital structure rather than more direct methods of control. Nevertheless, owners will often be unable to commit to managerial discretion because ownership of the assets gives them the right to decide to what use that asset will be put and thus the right to fire the manager. In this case, it will be necessary to choose a disperse ownership structure in order to create free-rider effects among shareholders and thus to commit them to be passive. Thus, the dispersion of ownership, rather than being the cause of the problem, may be a solution to a more serious one. Nevertheless, there will often be benefits to having large shareholders. In this case, the paper shows that an intermediate level of dispersion is the optimum.

PD June 1994. TI Search in the Labor Market, Incomplete Contracts and Growth. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-23; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 19. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE J31, O41. KW Search. Human Capital. Wage Determination. Incomplete Contracts. Growth.

AB This paper shows that search in the labor market has important effects on accumulation decisions. In a labor market characterized by search, employment contracts are naturally incomplete and this creates a wedge between the rates of return and marginal products of both human and physical capital. As a result, when a worker invests more in his human capital, he increases the rate of return on physical capital. Provided that these factors are complements in the production function, this will increase the desired level of investment for firms. Then, because physical capital is not being paid its marginal product,

the rate of return on all human capital goes up. Thus in this model there are pecuniary increasing returns to scale in human capital accumulation in the sense that the more human capital there is, the more profitable it is to accumulate human capital. Applying this argument conversely, the presence of pecuniary increasing returns in physical capital accumulation also follows. These pecuniary increasing returns lead to amplified inefficiencies and to the possibility of multiple equilibria. They also imply that factor distribution of income has an important impact on growth. Finally, the paper derives new links between unemployment and human capital accumulation and shows that when technology choice is endogenized, search introduces a negative wage formation externality which may lead to excessively fast diffusion of new technologies.

PD December 1994. **TI** Labor Market Imperfections and Thick Market Externalities From Innovation. **AA** Massachusetts Institute of Technology. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 218; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 34. **PR** no charge. **JE** O31, E24. **KW** Labor Markets. Training. Innovation.

AB In the presence of labor market imperfections, workers do not receive their full marginal product and the skill level of the workforce becomes a public good from which all firms benefit. As a result, the adoption of an innovation that increases the non-firm specific human capital of a worker creates a positive externality for his future employers who will also benefit from the increased productivity. This holds even when complete contracts can be written between worker and employer because the externality is between current and future employers of the worker. This externality can lead to a multiplicity of equilibria whereby in the Pareto dominated equilibrium innovation is not profitable because the workforce is untrained (unskilled). This mechanism also illustrates how labor market conditions influence investment and innovation activity and offers new links between unemployment and growth. These links imply that when entry decisions of firms are endogenized an additional thick market externality is created. Entry, by reducing unemployment, makes investment and further entry more profitable. Finally, when firms are allowed to choose the timing of their innovation, free-rider effects are introduced and the Pareto preferred equilibrium is destroyed.

Adams, Philip D.

PD July 1994. **TI** ORANI-F and Monash: General Equilibrium Models of the Australian Economy for Medium-Run Forecasting. **AU** Adams, Philip D.; Parmenter, Brian R. **AA** Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: OP-80; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 19. **PR** not available. **JE** C68, O21. **KW** Computer Modelling. Dynamic Forecasting. Dynamic Modelling. Macroeconomic Forecasting. **AB** Since the mid-1980s ORANI-F has been the main vehicle used by the research team located at the Centre of Policy Studies for forecasting the average annual growth rates of macroeconomic and structural variables over the medium-run periods (six years, say). The model contains enough dynamics to accumulate variables such as capital stocks and foreign debt over the medium term but not enough to give convincing year-to-year time paths for the variables. In this paper we describe a

22-sector version of ORANI-F which is available to users outside the CoPS (Centre of Policy Studies) research team in a fully documented PC version. The CoPS team is in the process of moving to a new model, called MONASH, with enough dynamics to allow sectorally disaggregated annual forecasts which track externally projected business-cycle phenomena. We compare forecasts from MONASH and ORANI-F for the period 1990-91 to 1996-97.

Aitken, Brian

PD December 1994. **TI** Spillovers, Foreign Investment, and Export Behavior. **AU** Aitken, Brian; Hanson, Gordon H.; Harrison, Ann E. **AA** Aitken: International Monetary Fund. Hanson: University of Texas and National Bureau of Economic Research. Harrison: Columbia University and National Bureau of Economic Research. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-06; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 26. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** C33, D21, F12, F13. **KW** Export Behavior. Foreign Markets. Spillovers.

AB Case studies of export behavior suggest that firms who penetrate foreign markets reduce entry costs for other potential exporters, either through learning by doing or through establishing buyer-supplier linkages. We pursue the idea that spillovers associated with one firm's export activity reduce the cost of foreign market access for other firms. We identify two potential sources of spillovers: export activity in general and the specific activities of multinational enterprises. We use a simple model of export behavior to derive a logit specification for the probability a firm exports. Using panel data on Mexican manufacturing plants, we find evidence consistent with spillovers from the export of multinational enterprises but not with general export activity.

Aiyagari, S. Rao

PD August 1995. **TI** Comments on Farmer and Guo's "The Econometrics of Indeterminacy: An Applied Study.". **AA** Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 196; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 14. **PR** no charge. **JE** C32, E32. **KW** Business Cycles. Indeterminacy. Sunspots. Labor Markt.

AB Farmer and Guo's one-sector real business cycle model with indeterminacy and sunspots fails empirically. Its failure is inherent in the logic of the model taken together with some simple labor market facts.

PD August 1995. **TI** Social Insurance and Taxation under Sequential Majority Voting and Utilitarian Regimes. **AU** Aiyagari, S. Rao; Peled, Dan. **AA** Rao: Federal Reserve Bank of Minneapolis; Peled: Israel Institute of Technology, University of Western Ontario. **SR** Federal Reserve Bank of Minneapolis Staff Report: 196; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 29. **PR** no charge. **JE** C68, E62, H23. **KW** Proportional Taxes. Sequential Majority Voting. Utilitarian Government.

AB It is often argued that with a positively skewed income distribution majority voting would result in higher tax rates than maximizing average welfare, and hence would lower aggregate savings. We re-examine this view in a capital

accumulation model, in which distortionary redistributive taxes provide insurance against idiosyncratic shocks and income distributions evolve endogenously. We find small differences of either sign between tax rates set by majoritary voting and rates set by utilitarian government, for reasonable parametric specifications.

Alberini, Anna

PD October 1994. TI Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan. AU Alberini, Anna; Cropper, Marueen; Fu, Tsu-Tan; Krupnick, Alan; Liu, Jin-Tan; Shaw, Daigee; Harrington, Winston. AA Cropper: The World Bank. Liu: National Taiwan University. Shaw and Fu: Academia Sinica. SR Resources for the Future Discussion Paper: 95-01; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 51. PR \$6.00 (prepaid, U.S. funds only). JE I10, Q25. KW Morbidity Valuation. Contingent Valuation Survey. Benefits Transfer.

AB A contingent valuation survey was conducted in three cities of the Republic of China (Taiwan) to elicit willingness to pay to avoid a recurrence of the episode of illness most recently experienced by the respondent. A hedonic specification of the willingness to pay function-- with willingness to pay depending on the attributes of the illness and the respondent's characteristics--reveal that willingness to pay for improved health depends on the duration of the illness, the number of symptoms experienced, and income. The elasticity of willingness to pay with respect to each of these variables is, however, quite low. Willingness to pay (WTP) is also affected by the subject's health history and "taste" for health. We use the fitted WTP function to predict willingness to pay of Taiwan households and compare this prediction with benefits transfer extrapolations that multiply WTP for the U.S. by the ratio of Taiwan household income to U.S. household income.

Alexander, William E.

TI Treasury Bill Auctions: Issues and Uses. AU Clark, Peter B.; Alexander, William E.

Allan, Bill

PD December 1994. TI Public Expenditure Management and Budget Law: Toward a Framework for a Budget Law for Economies in Transition. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94149; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 25. PR not available. JE K39, H61. KW Budget Law. Economies in Transition. Legislation.

AB This paper discusses basic principles underlying budget law and reviews key features of budget legislation in several OECD countries as a basis for development of budget legislation in economies in transition (EITs) to a market environment. It recommends a broad structure and a number of specific provisions that could be included in budget law for EITs.

Allen, Beth

PD February 1995. TI Capacity Precommitment as a Barrier to Entry: A Bertrand-Edgeworth Approach. AU Allen, Beth; Deneckere, Raymond; Faith, Tom; Kovenock, Dan. AA Allen: University of Minnesota and Federal Reserve Bank of Minneapolis. Deneckere: University of Wisconsin. Faith: Tilburg University. Kovenock: Purdue

University. SR Federal Reserve Bank of Minneapolis Staff Report: 187; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 50. PR no charge. JE L41, C72, D43, D21, D24. KW Entry Barriers. Price Competition. Capacity. Bertrand-Edgeworth Duopoly.

AB This paper considers the role of capacity as a strategic entry deterrent for a game in which the incumbent and entrant sequentially precommit to capacity levels before competing in price, possibly using mixed strategies. Depending on the magnitudes of the fixed set-up cost, the cost of capacity, and the relative costs of production, the model produces a wide spectrum of equilibrium behaviors, including some not previously suggested in literature. Interesting deterrence effects occur because firms need time to build. In contrast to much previous work, the incumbent may hold idle capacity when entry is deterred.

Alston, Lee J.

PD July 1994. TI An Analysis of Property Rights, Land Rents, and Agricultural Investment on Two Frontiers in Brazil. AU Alston, Lee J.; Libecap, Gary D.; Schneider, Robert. AA Alston: University of Illinois. Libecap: University of Arizona. Schneider: World Bank. SR University of Arizona Economics Working Paper: 94-2; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 29. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE D23, O13, Q15. KW Property Rights. Resource Use. Simultaneity.

AB This paper examines the development of property rights to land in two Brazilian frontiers, in the southern state of Parana during the coffee boom between 1940 and 1970 and in the Amazon state of Para during the period of rapid migration to the region after 1970. Examination of frontier conditions allows us to observe both the demand for more secure property rights and the supply of tenure institutions by government. In particular, we examine the simultaneous interactions among rising land values, the demand and supply of tenure services, and land-specific investment. Although there is a large literature on property rights, there are few empirical analyses of the simultaneous relationships among tenure, land value, and investment. Comparison of two frontiers allows for a determination of whether settlement and government tenuring policies changed over time as land use requirements changed. The empirical analysis employs Brazilian agricultural census data from 1940 through 1985, with observations at the county or municipal level. With census data, we can observe much greater variation in land value, tenure, and investment than is possible with household survey data. We find that for Parana, the predicted positive relationships among land value, title, and investment generally hold, with the interactions becoming more important over time between 1940 and 1970, as one would expect with economic development.

Altman, Edward I.

TI Financial Distress and Restructuring Models. AU Chen, Yehning; Weston, J. F.; Altman, Edward I.

Amir, Eli

PD May 1995. TI Value-Relevance of Nonfinancial Information: The Wireless Communications Industry. AU Amir, Eli; Lev, Baruch H. AA Amir: Columbia University. Lev: University of California Berkeley.

SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-07; PaineWebber Series, 6N Urish Hall, Columbia University, New York, NY 10027. **PG** 30. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** G12, G14, G32. **KW** Financial Information. Technology. Telecommunications. Research and Development. **AB** The financial information of firms in fast changing, technology-based industries appears to be of limited value to investors. Telecommunications, biotechnology, and software companies, among others, invest heavily in intangibles, such as R&D, customer-based creation, franchise, and brand development, yet such investments are either immediately expensed in financial reports or arbitrarily amortized. Consequently, while in most of these industries significant market values are created by production and investment activities, key financial variables, such as earnings and book values, are often negative or excessively depressed and appear unrelated to market values. Such anomalous relations between real values and financial variables, typical to fast-changing, technology-based industries, raise three intriguing questions, to be examined in this study. First, what is the value-relevance of reported financial information of fast-changing, science-based companies? While earnings and book values of such companies are typically depressed due to excessive investment expensing, they may still provide relevant information for asset valuation. Second, what is the incremental value-relevance of publicly available nonfinancial information? Finally, to the extent that nonfinancial information is value-relevant, do investors fully recognize its implications in a timely manner? Based on a sample of independent cellular phone companies, we find that on a stand-alone basis, financial information (earnings, book values and cash flows) appears largely irrelevant for the valuation of cellular companies. However, when combined with nonfinancial information, these variables contribute to the explanation of stock prices and returns.

Anctil, Regina

TI Activity-Based Costing for Economic Value Added. **AU** Jordan, J.S.; Anctil, Regina; Mukherji, Arijit.

Andersen, Lars

PD June 1994. **TI** Orthogonal A-Trails in Medial Graphs in Surfaces of Low Genus. **AU** Andersen, Lars; Bouchet, Andre; Jackson, Bill. **AA** Andersen: Aalborg University. Bouchet: University du Maine. Jackson: Goldsmiths' College. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 94824; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 15. **PR** no charge. **JE** C44. **KW** Euler Trail. Orthogonal A-Trails.

AB Anton Kotzig has shown that every connected 4-regular plane graph has an A-trail, that is an Euler trail in which any two consecutive edges lie on a common face boundary. We shall characterize the 4-regular plane graphs which contain two orthogonal A-trails, that is to say two A-trails for which no subtrail of length 2 appears in both A-trails. Our proof gives rise to a polynomial algorithm for deciding if two such A-trails exist. We shall also discuss the corresponding problem for graphs in the projective plane and the torus, and the related problem of deciding when a 2-regular digraph contains two orthogonal Euler trails.

Anderson, Evan

PD September 1995. **TI** On the Mechanics of Forming and Estimating Dynamic Linear Economies. **AU** Anderson, Evan; Hansen, Lars; McGrattan, Ellen; Sargent, Thomas. **AA** Anderson and Hansen: University of Chicago. McGrattan: Federal Reserve Bank of Minneapolis. Sargent: University of Chicago and Stanford University. **SR** Federal Reserve Bank of Minneapolis Staff Report: 198; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 65. **PR** no charge. **JE** C63, C13, C32. **KW** Dynamic Economies. Computing Equilibria. Maximum Likelihood Estimation.

AB This paper catalogues formulas that are useful for estimating dynamic linear economic models. We describe algorithms for computing equilibria of an economic model and for recursively computing a Gaussian likelihood function and its gradient with respect to parameters. We apply these methods to several example economies.

Ando, Kazutoshi

PD November 1994. **TI** A Greedy Algorithm for Minimizing a Separable Convex Function over a Finite Jump System. **AU** Ando, Kazutoshi; Fujishige, Saturo; Naitoh, Takeshi. **AA** Ando and Fujishige: University of Tsukuba. Naitoh: Shiga University. **SR** Univeritaet Bonn, Sonderforschungsbereich 303 Discussion Papers: 94836; Sonderforschungsbereich 303 an der Universitaet Bonn Lennestrasse 37, D-53113 Bonn, Germany. **PG** 17. **PR** no charge. **JE** C44. **KW** Greedy Algorithm. Jump System. Bisubmodular Polyhedron.

AB not available.

Arora, Vivek B.

PD November 1994. **TI** Trade Reform and Inflation Stabilization. **AU** Arora, Vivek B.; Kumar, Manmohan S. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94130; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 18. **PR** not available. **JE** E63, F13, F31, F41. **KW** Inflation. Open Economy. Stabilization.

AB This paper examines two important issues for a small high-inflation open economy with trade controls where the government implements an exchange-rate based stabilization program: first, the extent to which the degree of openness of the economy influences the probability of success of the program; and second, the conditions under which a trade reform, implemented in conjunction with the stabilization program, will increase the probability that stabilization will be successful. The paper shows that in an economy with high export and import price elasticities, structural reforms to increase openness can be important in determining the success of the program.

Ascari, A.

PD 1994. **TI** Reengineering and Organizational Change: Lessons From a Comparative Analysis of Company Experiences. **AU** Ascari, A.; Rock, M.; Dutta, S. **AA** Ascari: McKinsey & Co. Rock: Andersen Consulting. Dutta: INSEAD. **SR** INSEAD Working Papers: 94/71; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 14. **PR** not available. **JE** M11, M12, M13. **KW** Organizational Change. Business Process Reengineering.

AB Business Process Reengineering is fast becoming the

terminology of many companies' efforts to reexamine their businesses and change to improve their competitiveness. As such it is also the object of numerous reports and studies which define frameworks and suggest methodologies for organizational change. This report compares and contrasts several companies' efforts in implementing reengineering/change programs. The successful elements of various change programs as well as some of the challenges and "pitfalls" of the companies' efforts are emphasized.

Asch, Beth J.

PD 1994. TI Educational Benefits Versus Enlistment Bonuses: A Comparison of Recruiting Options. AU Asch, Beth J.; Dertouzos, James N. AA Rand Corporation. SR Rand Report: MR-302; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 40. PR \$15.00. JE H56, J21, J31, J45. KW Bounties. Cost effectiveness. Defense. Military. Recruiting. Veterans Education.

AB The relative cost-effectiveness of two incentive programs for recruitment--enlistment bonuses and educational benefits--are analyzed. The analysis also considers the effects of such programs on the service history of recruits, including reserve component accessions. Educational benefits are shown to significantly expand enlistment supply and increase incentives for first term completion. Relative to bonus programs, educational benefits enhance flow of prior-service individuals into the Selected Reserves and have reduced costs because payments are deferred.

Athanasoulis, Stefano

TI World Income Components: Measuring and Exploiting International Risk Sharing Opportunities. AU Shiller, Robert J.; Athanasoulis, Stefano.

Athukorala, Premachandra

PD April 1995. TI Modelling Manufactured Imports: Methodological Issues with Evidence from Australia. AU Athukorala, Premachandra; Menon, Jayant. AA Athukorala: Australian National University. Menon: Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: G-112; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 12. PR not available. JE F32, F17, F14. KW Trade Elasticities. Import Demand Functions.

AB This paper investigates the relationship between manufactured import flows to Australia, and relative prices and domestic economic activity net of cyclical demand effects over the period 1981Q3 and 1991Q2. This is done through the estimation of import demand functions for total manufactured imports and nine major import categories using the general to specific modeling approach. We find that the homotheticity assumption on activity elasticity is met in most cases. The price elasticity estimates for individual categories range from 0.32 to 2.1, with a weighted-average of 0.52. We also find some evidence of upward bias in price elasticity estimates when an aggregate import function is employed in a context where a significant portion of imports are subject to quantitative restrictions (QRs).

Ayres, R. U.

PD January 1995. TI Thermodynamics and Process

Analysis for Future Economic Scenarios. AA INSEAD. SR INSEAD Working Papers: 94/75; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 18. PR not available. JE C68, D58. KW Thermodynamics. Process Analysis. Mass Balance. Input-Output. Computable General Equilibrium. Life Cycle Analysis.

AB Economists are increasingly interested in forecasting future costs and benefits of policies for dealing with materials/energy fluxes, polluting emissions and environmental impacts on various scales, from sectoral to global. Computable general equilibrium (CGE) models are currently popular because they project demand and industrial structure into the future, along an equilibrium path. But they are applicable only to the extent that structural changes occur in or near equilibrium, independent of radical technological (or social) change. The alternative tool for analyzing economic implications of scenario assumptions is to use Leontief-type Input-Output (I-O) models. I-O models are unable to endogenize structural shifts (changing I-O coefficients). However, this can be a virtue when considering radical rather than incremental shifts. Postulated I-O tables can be used independently to check the internal consistency of scenarios. Or I-O models can be used to generate scenarios by linking them to econometric "macro-drivers" (which can, in principle, be CGE models). Explicit process analysis can be integrated, in principle, with I-O models. This hybrid scheme provides a natural means of satisfying physical constraints, especially the first and second laws of thermodynamics. This is important, to avoid constructing scenarios based on physically impossible processes. Process analysis is really the only available tool for constructing physically plausible alternative future I-O tables, and generating materials/energy and waste emissions coefficients. Explicit process analysis also helps avoid several problems characteristic of "pure" CGE or I-O models.

Backus, David K.

PD July 1994. TI The Forward Premium Anomaly: Three Examples in Search of a Solution. AU Backus, David K.; Foresi, Silverio; Telmer, Chris I. AA Backus: New York University and National Bureau of Economic Research. Foresi: Columbia University and New York University. Telmer: Carnegie Mellon University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-01; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 19. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE F32, G12, G15. KW Exchange Rates. Risk Premium. Pricing Kernels. Bond Pricing.

AB Perhaps the most puzzling feature of currency prices is the tendency for high interest rate currencies to appreciate when the expectations hypothesis suggests the reverse. This forward premium anomaly has been attributed, by some, to a time-varying risk premium, but theory has yet to produce a risk premium with the requisite properties. We characterize the risk premium in a general theoretical framework and construct three examples that illustrate features a theoretical explanation of the anomaly is likely to have.

PD October 1994. TI Arbitrage Opportunities in Arbitrage-Free Models of Bond Pricing. AU Backus, David K.; Foresi, Silverio; Zin, Stanley E. AA Backus: New York University and National Bureau of Economic Research. Foresi: New York University. Zin: Carnegie Mellon University and

National Bureau of Economic Research. **SR** New York University Salomon Brothers Working Paper: 94-31; 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** not available. **JE** E43, G12, G13. **KW** Bond Prices. Yields. Forward Rates. Time-Dependent Drift. Volatility. Options.

AB We explore the practitioners' methodology of choosing time-dependent parameters to fit a bond model to selected asset prices, and show that it can lead to systematic mispricing of some assets. The Black-Derman-Toy model, for example, is likely to overprice call options on long bonds when interest rates exhibit mean reversion. This mispricing can be exploited, even when no other traders offer the mispriced assets. We argue more generally that time-dependent parameters cannot substitute for sound fundamentals.

PD October 1994. **TI** Arbitrage Opportunities in Arbitrage-Free Models of Bond Pricing. **AU** Backus, David K.; Foresi, Silverio; Zin, Stanley E. **AA** Backus: New York University and National Bureau of Economic Research. Foresi: Columbia University and New York University. Zin: Carnegie Mellon University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-02.; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 19. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** E43, G12, G13. **KW** Bond Prices. Yields. Forward Rates. Time-Dependent Drift. Volatility. Options.

AB We explore the practitioners' methodology of choosing time-dependent parameters to fit a bond model to selected asset prices, and show that it can lead to systematic mispricing of some assets. The Black-Derman-Toy model, for example, is likely to overprice call options on long bonds when interest rates exhibit mean reversion. This mispricing can be exploited, even when no other traders offer the mispriced assets. We argue more generally that time-dependent parameters cannot substitute for sound fundamentals.

Balduzzi, Pierluigi

PD August 1995. **TI** The Simple Analytics of Assets Values and Infrequent Policy Changes. **AU** Balduzzi, Pierluigi; Corsetti, Giancarlo; Foresi, Silverio. **AA** Balduzzi: New York University. Corsetti: University of Rome. Foresi: New York University and Columbia University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-21; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 14. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** E62, E63, E65, G12. **KW** Fiscal Retrenchments. Government Spending. Policy Regime. Stock Prices. Term Structure. Interest Rates. Trigger Point.

AB This paper studies the effects on financial markets of an anticipated fiscal stabilization policy in a stochastic environment. Stabilization is defined as a discrete change in the budget process which is implemented when government consumption reaches some threshold level, known by economic agents. Our analysis integrates the study of financial markets within the framework adopted by Bertola and Drazen (1993) to explain the effects on private consumption of an anticipated fiscal retrenchment, such as the fiscal reform implemented in

Denmark in 1983. The actual behavior of Danish financial markets points in the direction of two interesting features of the policy change. First, in a model of intertemporal consumption smoothing, one can replicate the observed boom in the stock market only with expectations of an increase in net income to stockholders. The term-structure evidence, on the other hand, is consistent with less than full credibility of the retrenchment, that is with investors attaching some probability to a further expansion of the government sector.

PD December 1995. **TI** The Central Tendency: A Second Factor in the Short-Term Rate. **AU** Balduzzi, Pierluigi; Das, Sanjiv Ranjan; Foresi, Silverio. **AA** Balduzzi: New York University. Das: Harvard University. Foresi: Columbia University and New York University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-23; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 10. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** C32, E43, G12. **KW** Term Structure. Interest Rates. Volatility. Monetary Policy.

AB We show how changes in the average of short-term interest rates contribute to explain changes in yields, over and above changes in volatility. Hence, we develop a two-factor model of the term structure which identifies the first factor with the level of the short-term rate, and the second factor with its central tendency. The model is then used to estimate the central-tendency factor from the data. Changes in this second factor are found to be related to changes in the stance of monetary policy, as summarized by the level of the overnight federal funds rate targeted by the Federal Reserve.

Bame, Jack

PD November 1994. **TI** The Meaning of Balance of Payments Statistics in an Interdependent World. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94131; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 8. **PR** not available. **JE** B41, F02, F13, F23. **KW** Balance of Payments. Investment. International Accounts.

AB The relevance of the standard measures of international transactions in goods and services as reflected in the fifth edition of the IMF Balance of Payments Manual (BPM) and in the 1993 System of National Accounts (SNA) has been questioned in several recent studies and articles. Alternative measures have been proposed, that either (i) substitute an ownership basis for transactions for the long-established residency basis; (ii) maintain the residency basis but combine net direct investment income with goods and services; or (iii) question the validity of any measures in the form of net balances as a guide to policy. This paper affirms the central role of residency in the international accounts, discusses the supplementary value of alternative proposals, and notes the importance of international efforts to improve and refine the measurement of external transactions based on the principles of the BPM and SNA.

Bardhan, Pranab

PD July 1994. **TI** The Contributions of Endogenous Growth Theory to the Analysis of Development Problems: An Assessment. **AA** University of California Berkeley. **SR** Center for International and Development Economics Research: C94-038; University of California Berkeley,

Department of Economics, Berkeley, CA 94720. PG 19. PR not available. JE F12, O31, O34, O41. KW Learning. Strategic Complementarities. New Goods. AB In this paper we provide a critical assessment of the contributions of new growth theory to the theory of economic development. We focus positively on the new emphasis on fixed costs and nonconvexities in the process of introduction of new goods and technologies, particularly in the realm of trade and technological diffusion for a developing country, and on the formalization of coordination failures and underdevelopment traps.

Bartolini, Leonardo

TI Financing the Transition of Previously Centrally Planned Economies: Macroeconomic Effects on Western Europe. AU Symansky, Steven; Bartolini, Leonardo.

Bassett, Sheila

TI Fiscal Policy Sustainability in Oil-Producing Countries. AU Liuksila, Claire; Garcia, Alejandro; Bassett, Sheila.

Basu, Susanto

PD November 1994. TI Corruption and Reform. AU Basu, Susanto; Li, David D. AA University of Michigan. SR Department of Economics---CREST Working Paper Series: 94-14; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. PG 26. PR \$4.00. JE P21, O10. KW Corruption. Transition. Reform. Property Rights. AB We question the received wisdom on the role of corruption in economic development and economic reform. We treat corruption as a by-product of bureaucratic institutions. We distinguish the roles played by corruption pre-reform and during reform. We show that a one-time corruption is a catalyst for reform by providing incentives for the bureaucrats in power to accede to reform and to dissolve the class of bureaucrats. Thus, a one-time surge of corruption can be a prelude to a permanently reduced level of corruption in the future.

Bayoumi, Tamim

PD October 1994. TI Consumption, Income, and International Capital Market Integration. AU Bayoumi, Tamim; MacDonald, Ronald. AA Bayoumi: International Monetary Fund, MacDonald: University of Strathclyde. SR International Monetary Fund Working Paper: 94120; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 14. PR not available. JE E21, F36. KW Consumption. Capital Market. Japan. AB This paper uses consumption patterns across countries to measure capital market integration. It argues that earlier empirical tests of this type were potentially mis-specified and proposes a more robust specification. The results indicate that Japan was the only industrialized country for which national consumption was fully integrated with the rest of the world over the period 1973-89. For the other countries the source of the failure varies. Within the EC it is generally associated with incomplete integration across capital markets. Elsewhere, consumption is found to be excessively dependent on disposable income.

Benassy, Jean-Pascal

PD April 1994. TI Classical and Keynesian Features in Macroeconomic Models with Imperfect Competition.

AA CEPREMAP, CNRS, DELTA. SR CEPREMAP Discussion Paper: 9418; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 19. PR 25 F.F. JE D52, E12, E13. KW Macroeconomics. Imperfect Competition. Classical. Keynesian.

AB For more than fifty years now the two main (and competing) paradigms in macroeconomics have been the Keynesian and Classical ones. Since about twenty years a new paradigm, imperfect competition macroeconomics, has emerged, which avoids the main shortcomings of the two earlier ones. We investigate in this article whether the models in this line of work have more Keynesian or Classical properties. For that purpose we construct a simple prototype macroeconomic model with imperfect competition and rational expectations, and study its properties. We find notably that the equilibria of this model have inefficiency properties very similar to those of Keynesian models. The economy, however, reacts to monetary and fiscal policies in a very "classical" manner. Finally, normative prescriptions are neither Keynesian nor classical.

Bensaou, M.

PD 1994. TI Interorganizational Cooperation: The Role of Information Technology. An Empirical Comparison of U.S. and Japanese Supplier Relations. AA INSEAD. SR INSEAD Working Papers: 94/68; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 22. PR not available. JE F12, F13, F14, L14. KW Cooperation. Relationships. Information Technology. AB This paper investigates the comparative role of several factors, including information technology (IT), predicting the level of cooperation between two independent organizations. Drawing upon multiple theoretical perspectives we develop five hypotheses about the impact on cooperation of three sets of factors: (1) the characteristics of the environment within which the relationship operates, (2) the characteristics of the relationship itself, and (3) how information technology is used across organizational boundaries. Each conceptual construct is operationalized and measured within the context of buyer-supplier relationships in the U.S. and Japanese automobile industries. The five hypotheses are tested using multiple regressions conducted on a data set of 447 distinct relationships. The data analysis suggests that relational characteristics (i.e., the climate of the relationship) are the most consistent predictor of cooperation in both countries when compared with other structural (e.g., asset specificity) or technological factors (use of EDI). Environmental uncertainty (i.e., technological unpredictability) is positively associated with cooperation only in Japanese supplier relations. Governance structure is a strong and highly significant predictor of cooperation in both samples, but with the opposite sign. Similarly, information technology does not play the same role in the two countries. Significant only in Japan it reflects an 'electronic partnership' approach to the use of IT in supplier relations.

Berck, Peter

PD July 1995. TI Natural Resource Prices: Will They Ever Turn Up? AU Berck, Peter; Roberts, Mike. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 699; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720.

PG 69. PR \$14.75 Domestic \$29.50 International Surface Rate. JE C15, Q31. KW Natural Resources. Rents. Hotelling's Theory.

AB Hotelling's theory predicts that natural resource rents should increase over time. However, technical progress in resource extraction, environmental constraints, or great natural abundance could result in stagnant or declining product prices. Thus, there is no theoretical reason to believe that product prices will rise in the near future. The prediction of product prices by time-series methods is shown to depend critically upon whether the series are modeled as differenced or trend stationary. Dickey-Fuller and Lagrange Multiplier tests are used to show that the series are differenced stationary. Long- and short-sample series are tested. Trend-stationary modeling strongly predicts rising resource prices. The result from differenced-stationary modeling is that there is only a weak supposition that natural resource prices will rise.

Bergstrom, Theodore C.

PD December 1993. TI Marriage Markets and Bargaining Between Spouses. AA University of Michigan. SR Department of Economics---CREST Working Paper Series: 94-12; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. PG 11. PR \$4.00. JE C73, J12, J13. KW Marriage. Marriage Contract. Postmarital Bargaining.

AB Proposing marriage, an eager suitor might promise a lifetime of devoted service to the whims of his beloved. A sensible young woman is more likely to base her expectations about marriage on what she knows of the way her mother and other married female acquaintances have faced, than on her suitor's unenforceable promises. Most of the important decisions that new couple make will have to be resolved as they arise, after marriage. A theory of courtship and mating that deals satisfactorily with each individual's prospects in a marriage, must include postmarital bargaining between spouses. Further, since a person's bargaining power within a marriage may depend on the threat of exercising the "outside options" of divorcing and re-entering the marriage market, a satisfactory theory of bargaining within marriage must include a theory of courtship and mating.

PD June 1994. TI A Survey of Theories of the Family. AA University of Michigan. SR Department of Economics---CREST Working Paper Series: 94-13; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. PG 70. PR \$4.00. JE C73, J12, J13. KW Altruism. Bargaining. Family. Household. Public Choice. Tiebout Theory.

AB To a labor economist or an industrial organization economist, a family looks like "a little factory." To a bargaining theorist, a husband and wife are "two agents in a relation of bilateral monopoly." To an urban economist or a public choice theorist, a family looks like "a little city", or perhaps "a little club". To a welfare economist, a family is an association of benevolently interrelated individuals. Each of these analogies suggests useful ways in which the standard tools of neoclassical economics can aid in understanding the workings of a family. The first section of this review draws on the analogies to a little factory and to a little city. It explores the theory of household technology and the household utility possibility frontier. The second section concerns decisions theory within the household. This discussion applies standard consumer decision theory as well as bargaining theory and the theory of public choice. The

third section of this paper deals with family formation. This theory is analogous to Tiebout theory in urban economics, where the objects of choice include not only the public goods supplied in each city, but which individuals live together. An aspect of family life that has fewer parallels in the economics of market economies is intrafamilial love and altruism. The final section of this paper reviews a growing theoretical literature on love, altruism and the family.

PD July 1994. TI On the Economics of Polygyny. AA University of Michigan. SR Department of Economics---CREST Working Paper Series: 94-11; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. PG 18. PR \$4.00. JE C73, J12, J13. KW Polygamy.

AB This paper concerns the economics of polygynous societies with well-functioning markets for marriage partners.

PD October 1994. TI Primogeniture, Monogamy and Reproductive Success in a Stratified Society. AA University of Michigan. SR Department of Economics---CREST Working Paper Series: 94-10; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. PG 31. PR \$4.00. JE C73, J12, J13. KW Aristocracy. Monogamy. Primogeniture. Reproduction. Stratification.

AB This paper explores the workings of stratified societies in which there is primogeniture and where the nobility practice monogamous marriage with a double standard of sexual fidelity. The paper models a simple stratified society and defines the reproductive values of male and female nobility relative to that of commoners. It goes on to explore implications of the hypothesis that preferences have evolved to favor maximization of reproductive value. This hypothesis is tested against fragmentary data from ancient civilizations and quite detailed information about the British aristocracy in the seventeenth and eighteenth centuries.

Bernanke, Ben

PD July 1994. TI The Financial Accelerator and the Flight to Quality. AU Bernanke, Ben; Gertler, Mark; Gilchrist, Simon. AA Bernanke: Princeton University. Gertler: New York University. Gilchrist: Board of Governors. SR New York University, C.V. Starr Center Economic Research Report: 94-24; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Analytic Economics, 269 Mercer Street, New York, NY 10003. PG 37. PR no charge. JE E32, E44, E51. KW Financial Accelerator. Quality. Business Cycle.

AB Adverse shocks to the economy may be amplified by worsening credit-market conditions-- the "financial accelerator". Theoretically, we interpret the financial accelerator as resulting from endogenous changes over the business cycle in the agency costs of lending. An implication of the theory is that, at the onset of a recession, borrowers facing high agency costs should receive a relatively lower share of credit extended (the flight to quality) and hence should account for a proportionally greater part of the decline in economic activity. We review the evidence for these predictions and present new evidence drawn from a panel of large and small manufacturing firms.

Bernard, Andrew B.

PD September 1994. TI Exporters, Skills Upgrading, and

the Wage Gap. AU Bernard, Andrew B.; Jensen, J. Bradford. AA Bernard: Massachusetts Institute of Technology. Jensen: Bureau of the Census. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-30; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 26. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE F10, J21, E24. KW Wage Inequality. Exports. Technological Change. AB This paper examines plant level evidence on the increase in demand for non-production workers in U.S. manufacturing during the 1980's. The major finding is that increases in employment at exporting plants contribute heavily to the observed increase in relative demand for skilled labor in manufacturing during the period. Exporters account for almost all of the increase in the wage gap between high and low-skilled workers. Tests of the competing theories with plant level data show that demand changes associated with increased exports are strongly associated with the wage gap increases. Increases in plant technology are determinants of within plant skill-upgrading but not of the aggregate wage gap rise.

Bhagwati, Jagdish

TI Trade and the Environment: Does Environmental Diversity Detract From the Case for Free Trade? AU Srinivasan, T. N.; Bhagwati, Jagdish.

Bimber, Bruce A.

PD 1994. TI The Decentralization Mirage: Comparing Decisionmaking Arrangements in Four High Schools. AA Rand Corporation. SR Rand Report: MR-459-GGF/Le; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 54. PR \$7.50. JE H42, I21, I28. KW School Management. Decision Making.

AB Decentralization has been a centerpiece of U.S. Education reform for a decade and has been driven by the idea that removing centrally designed constraints so school staffs can exercise greater discretion will produce better schools. So far, however, there is little evidence of better student achievement. This study analyzes decisionmaking at four high schools having varying degrees of decentralization and finds that decentralization efforts can fail to significantly change external constraints and decisionmaking authority. The chief reason for the limited effects of decentralization in this study is the inseparability of decisions regarding budget, personnel, instruction, and operations. Attempts to decentralize authority over some decisions have limited effect when control over other, related decisions remain centralized. In addition, many features of governance arrangements insulate the financial and professional interests of teachers and administrators from one another and from the performance of their schools, thus exacerbating risk-aversion, mistrust, and inaction. While it is too soon to know whether significant governance changes improve schools educationally, it is clear that decentralization can fail to produce meaningful governance changes.

Blackburn, J. D.

PD October 1994. TI Concurrent Software Engineering: Prospects and Pitfalls. AU Blackburn, J. D.; Hoedemaker, G.; Van Wassenhove, L. N. AA Blackburn: Vanderbilt University. Hoedemaker and Wassenhove: INSEAD. SR INSEAD Working Papers: 94/65; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 29.

PR not available. JE D21, L86, M13, O31. KW Engineering. Software.

AB Software development remains largely a sequential process. Concurrent engineering principles have been more widely adopted and with greater success in hardware. A methodology for marrying concurrent engineering principles to software engineering, or concurrent software engineering, is proposed. A hierarchy of software project complexity from single stage problems to firmware and multi-product, multi-platform projects is defined. Principles of concurrent software engineering are developed for each level in the hierarchy. Research findings that establish limitations to implementing concurrent engineering are also discussed.

Blackman, Allen

PD January 1995. TI The Usefulness of Macroeconomic Statistics in Explaining International Differences in the Diffusion of Process Innovations: A Note. AU Blackman, Allen; Boyd, James. AA Resources for the Future. SR Resources for the Future Discussion Paper: 95-10; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 11. PR \$6.00 (prepaid, U.S. funds only). JE O30, L61, L67. KW Technology Diffusion. Steel. Textile.

AB International differences in the timing and speed of the diffusion of technical innovations have profound economic and environmental effects. For example, they affect the rate of "convergence" of levels of per capita income in developing and industrialized countries and the rate of global warming. This note investigates the usefulness of macroeconomic statistics as predictors of such differences. Specifically, we test to see whether differences in the timing and speed of the diffusion of four steel and textile core-process innovations (the basic oxygen furnace, continuous casting, the open-end rotor, and the shuttle-less loom) in 48 diverse countries are explained by: GDP per capita, exports as a share of sectoral production, and money stock as a share of GDP. We find that these statistics do in fact explain some international variation in patterns of diffusion; the two steel innovations diffused faster in countries where a relatively high proportion of steel output was exported, and the two textile innovations diffused either earlier or faster in countries with relatively high GDP.

Blomberg, Brock S.

PD March 1994. TI A Model of Voter Choice in a Life-Cycle Setting. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9404; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG not available. PR no charge. JE H11, H50, H81. KW Life-Cycle. Overlapping Generations. Political Business Cycle.

AB This paper formulates a structural intertemporal model of voter choice. This paper employs an overlapping generations framework in which voters choose political parties based on the economic shocks faced over their lifetimes. Parties internalize voting preferences and develop platforms based on this information. The resulting equilibrium implies that voters select parties that maximize income in their labor period and that minimize inflation in their retirement period. The equilibrium also has the property that individuals switch their votes between the parties, in the presence of adverse states of nature. These results provide an explanation for post World

War II voting patterns in the United States.

PD July 1994. **TI** Scoring Political Economy Models: A Multiple Equilibria Approach. **AU** Blomberg, Brock S.; Cohen, Gerald D. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9410; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** not available. **PR** no charge. **JE** H11, H50, H81. **KW** Macroeconomics. Econometrics. Political Business Cycle.

AB This paper investigates the empirical implications of political economy models using output growth, unemployment and inflation. By employing a variant of the Markov-switching estimation procedure, the paper studies how political shocks effect the business cycle. Our method allows time-varying probabilities of transition to depend on the political economy. The "partisan" model best describes movement in GDP and unemployment whereas the "opportunistic" model best describes movements in inflation. However, only the rational partisan unemployment model performs particularly well.

PD October 1994. **TI** A Simple Model of Conflicting Horizons. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9417; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** not available. **PR** no charge. **JE** H56, O40, O57. **KW** Political Instability. Time Inconsistency.

AB This paper develops a model to explain why decision making in the presence of "political instability" can be dynamically inconsistent. The paper studies a two agent case (rulers and peasants) where each agent is characterized by a different rate of time preference. The rulers' rate of time preference is greater than the peasants because of their nonzero probability of being overthrown or "political death". The inequality of time preferences creates the time inconsistency in the problem. The resulting theory shows that welfare is improved by eliminating political instability. This result has the strong implication that decisions become time invariant if governments have no term limits.

PD November 1994. **TI** Growth, Political Instability and the Defense Burden. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9420; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** not available. **PR** no charge. **JE** H56, O40, O57. **KW** Defense. Human Capital. Kleptocracy. Political Instability.

AB This paper develops a model to examine the economic effects of political instability and military expenditures. Defense plays three important roles in the model. First, "kleptocracies" use defense as "imperfect" insurance against the probability of being overthrown. Second, increasing defense has a positive "spin-off" effect by augmenting the human capital stock. Finally, defense investment comes at the expense of consuming scarce resources (a crowding out effect). The paper's central contribution is to model each of these effects and analyze their relationship to one another. The resulting theory predicts that the equilibrium is Pareto inefficient and that increased political instability or increased defense can inhibit economic growth. Using cross-sectional time-series data, I find that increases in political instability decrease growth while increases in defense decrease political instability. The paper

also finds that increases in defense have a direct negative effect on growth, although the relation is weak. The weak relation suggests that the crowding-out effect is largely mitigated by the spin-off effect.

Bodie, Zvi

PD May 1994. **TI** What the Pension Benefit Guaranty Corporation Can Learn from the Federal Savings and Loan Insurance Corporation. **AA** Boston University and Harvard University. **SR** New York University Salomon Brothers Working Paper: 94-27; 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** 13. **PR** not available. **JE** G23, G28. **KW** Corporate Debt. Pension Benefits. FSLIC.

AB This paper attempts to draw attention to some important lessons that the Pension Benefit Guaranty Corporation (PBGC) can learn from the experience of the Federal Savings and Loan Insurance Corporation (FSLIC). FSLIC was the government agency that insured deposits at savings and loan associations until it was replaced in 1989 leaving a massive deficit to be financed by taxpayers. Like FSLIC, the PBGC is a government agency that guarantees a form of private corporate debt. As guarantor of the pension benefits promised by private plan sponsors, the PBGC bears the risk of a shortfall between the value of insured benefits and the assets securing those benefits. The magnitude of the PBGC's exposure to shortfall risk depends on three factors: the degree of underfunding of insured benefits, the financial strength of plan sponsors, the mismatch between the market-risk exposure of insured benefits (a form of long-term corporate debt) and the market-risk exposure of the assets securing that debt. As was the case with FSLIC, the last of these factors is not well understood by public policymakers. There is a widespread belief that a well-diversified pension portfolio of equity securities provides an effective long-run hedge against liabilities of defined-benefit pension plans, so that there is no mismatch problem. This belief is mistaken. Equities are not a hedge against fixed-income liabilities even in the long run. Indeed, when a pension plan sponsor invests the pension assets in equities, the cost to the PBGC of providing a guarantee against a shortfall increases rather than decreases with the length of the time horizon, even for a plan that starts out being fully funded. The PBGC's current legislative proposals for reform rely heavily on improved funding to correct its actuarial deficit. However, even if the PBGC achieves the goal of full funding at one point in time, the mismatch between the market-risk exposure of the pension benefits it insures and the pension assets backing them creates the potential for large shortfall losses in the future. Therein lies an ominous parallel with FSLIC's situation in the 1970's and the 1980's.

Bonanno, Giacomo

PD September 1994. **TI** An Axiomatic Approach to Equilibrium in Extensive Games. **AA** University of California at Davis. **SR** University of California, Davis Department of Economics Working Paper: 94-13; Department of Economics, University of California, Davis, Davis, CA 95616-8578. **PG** 31. **PR** \$3.00 U.S. and Canada. \$4.00 International. **JE** C72. **KW** Information. Beliefs. Nash Equilibrium. Subgame-Perfect Equilibrium.

AB not available.

PD December 1994. **TI** On the Choice Between Process

and Product Innovation. AU Bonanno, Giacomo; Haworth, Barry. AA University of California at Davis. SR University of California, Davis Department of Economics Working Paper: 94-16; Department of Economics, University of California, Davis, Davis, CA 95616-8578. PG 20. PR \$3.00 U.S. and Canada. \$4.00 International. JE D43, L13. KW Production Innovation. Vertical Differentiation. Strategic Complements.

AB Although the literature on innovation acknowledges the existence of two different avenues for firms' R&D efforts, namely process innovation and product innovation, very little has been said about the factors that might affect a firm's decision to pursue one avenue rather than the other. We take a first step in the direction of filling this lacuna. We consider a model of vertical differentiation and define product innovation as an increase in the quality of the firm's product, while process innovation consists in a reduction in the firm's costs. We consider two cases: Bertrand competition (representing the case where the decision variables are strategic complement) and Cournot competition (representing the case where the decision variables are strategic substitutes). In the Bertrand case process innovation leads the innovator to act more aggressively by reducing its price. The competitors will respond by also reducing their prices, thus increasing the intensity of price competition. Product innovation, on the other hand, has the opposite effect. Thus a Bertrand competitor tends to favor product innovation over process innovation. Indeed we show that it is never the case that a Cournot competitor would choose product innovation, while - at the same time - a Bertrand competitor would choose process innovation. In other words, whenever the two make different choices, the Cournot competitor will opt for process innovation, while the Bertrand competitor will opt for product innovation.

Boozer, Michael

PD May 1995. TI Intraschool Variation in Class Size: Patterns and Implications. AU Boozer, Michael; Rouse, Cecilia. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 728; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG 43. PR \$2.00. JE H41, H52, I21, J15, J24, J31. KW Economics of Education. Human Capital.

AB Economists attempting to explain the widening of the black-white wage gap in the late 1970s by differences in school quality have been faced with the problem that recent data reveal virtually no gap in the quality of schools attended by blacks and whites using a variety of measures. In this paper, we re-examine racial differences in school quality. We consider the effects the pupil-teacher ratio, rather than the school's average class size, in an education production function. We consider the importance of using actual class size rather than school-level measures of class size. We find that while the pupil-teacher ratio and average class size are correlated, the pupil-teacher ratio is systematically less than or equal to the average class size. Mathematically, part of the difference is due to the intraschool allocation of teachers to classes. As a result, while the pupil-teacher ratio suggests no black-white differences in class size, measures of the school's average class size suggest that blacks are in larger classes. Further, the two measures result in differing estimates of the importance of class size in an education production function. We also conclude that school level measures many obscure important within-school variation in class size due to the small class sizes for compensatory

education. Since black students are more likely to be assigned to compensatory education classes, a kind of aggregation bias results. We find that not only are blacks in schools with larger average class sizes, but they are also in larger classes within schools, conditional on class type. The intraschool class size patterns suggest that using within-school variation in education production functions is not a perfect solution to aggregation problems because of non-random assignment of students to classes of differing sizes. However, once the selection problem has been addressed, it appears that smaller classes at the eighth grade lead to larger test score gains from eighth to tenth grade and that differences in class size can explain approximately 15 percent of the black-white difference in educational achievement.

Bordo, Michael D.

PD November 1994. TI France and the Breakdown of the Bretton Woods International Monetary System. AU Bordo, Michael D.; Simard, Dominique; White, Eugene N. AA Rutgers University and International Monetary Fund. SR International Monetary Fund Working Paper: 94128; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 33. PR not available. JE F41, F42, N14. KW Monetary Policy. Gold Standard. Bretton Woods. France. AB French international monetary policy under Charles de Gaulle is reexamined in this paper. We argue that the objectives of French policy in the 1960's were consistent with plans developed in the interwar period and Bretton Woods of establishing a symmetrical and co-operative gold-exchange standard. The conventional American view that France purposely converted dollars into gold after 1965 to provoke the collapse of the Bretton Woods System incorrectly interprets the French strategy of using proposals for an orthodox gold standard and dollar conversions as tactics to induce the United States to cooperate in a reform of the international monetary system.

Bouchet, Andre

TI Orthogonal A-Trails in Medial Graphs in Surfaces of Low Genus. AU Andersen, Lars; Bouchet, Andre; Jackson, Bill.

Boughton, James M.

PD October 1994. TI The IMF and the Latin American Debt Crisis: Seven Common Criticisms. AA International Monetary Fund. SR International Monetary Fund Papers on Policy Analysis and Assessment: 9423; International Monetary Fund, Washington, DC 20431. PG 21. PR not available. JE F34, N16. KW IMF. Debt Strategy. Latin America. Developing Countries.

AB The IMF played a key role in developing and implementing the debt strategy throughout the 1980's. That strategy not only overcame the crisis but also produced successful transformations of several major economies in Latin America. Nonetheless, the IMF's role has also been criticized on several grounds. This study examines seven such criticisms. Although a number of the arguments are shown to be misplaced or exaggerated, there also are some lessons for the future; notably, the successful long-term resolution of crises in developing countries is enhanced to the extent that it can be based on a comprehensive approach to adjustment and growth.

Bouwman, Tony

TI Is There LIFE(F)E After DTB? Competitive Aspects of Cross Listed Futures Contracts on Synchronous Markets. **AU** Kofman, Paul; Bouwman, Tony; Moser, James T.

Bowman, David

PD December 1994. **TI** Loss Aversion in a Consumption/Savings Model. **AU** Bowman, David; Minehart, Deborah; Rabin, Matthew. **AA** Bowman: Board of Governors of the Federal Reserve System. Minehart: Boston University. Rabin: University of California, Berkeley. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 492; Board of Governors of the Federal Reserve System, Division of International Finance, Washington, DC 20551. **PG** 21. **PR** no charge. **JE** C91, D11, D81, E21. **KW** Consumption. Habit Formation. Loss Aversion. Reference Points. Risk Aversion. Savings.

AB Psychological evidence indicates that a person's well-being depends not only on his current consumption of goods, but on the reference level determined by his past consumption. According to Kahneman and Tversky's (1979) prospect theory, people care much more about losses relative to their reference points than about gains, are risk-averse over gains, and risk-loving over losses. We define these characteristics as loss aversion. We incorporate an extended form of loss aversion into a simple two-period savings model. Our main conclusion is that, when there is sufficient income uncertainty, a person resists lowering consumption in response to bad news about future income, and this resistance is greater than the resistance to increasing consumption in response to good news. We discuss some recent empirical research that confirms this predicted asymmetry in behavior, which seems inconsistent with other models of consumption.

Boyd, James

PD November 1994. **TI** Extending Liability: Should the Sins of the Producer Be Visited Upon Others? **AU** Boyd, James.; Ingberman, Daniel E. **AA** Boyd: Resources for the Future. Ingberman: Washington University. **SR** Resources for the Future Discussion Paper: 95-05; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. **PG** 26. **PR** \$6.00 (prepaid, U.S. funds only). **JE** K13, L51. **KW** Liability. Contracts. Market Organization.

AB This paper examines the desirability of extending liability from "producers"--whose safety expenditures affect the probability of social loss--to "contractors" who do not directly influence risk. Central to the analysis is that transactions between contractors and producers are allowed to emerge endogenously and as a function of producers' capital and safety decisions. In addition to producer-only liability, two forms of extended liability are contrasted: proportional and joint and several liability. When liability is extended, the possibility of separating equilibria arises, in which thinly capitalized contractors prefer to be served by similarly shallow pocketed producers. The incentive to separate reflects contractors' desire to externalize expected losses associated with the transaction. If production technologies exhibit returns to scale, separation implies larger than optimal production costs and can imply that overall welfare is reduced by the extension of liability. Our primary result is that when prices can be conditioned on the wealth type of contractors, proportional liability is at least as efficient as producer-only liability. When liability is joint and

several, however, or when transaction prices cannot be conditioned on contractors' wealth types (producers are constrained to uniform pricing), then the superiority of extended liability is not assured.

TI The Usefulness of Macroeconomic Statistics in Explaining International Differences in the Diffusion of Process Innovations: A Note. **AU** Blackman, Allen; Boyd, James.

Boyer, Robert

PD August 1993. **TI** The Convergence Hypothesis Revisited: Globalization But Still the Century of Nations? **AA** CEPREMAP and CNRS. **SR** CEPREMAP Discussion Paper: 9403; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 39. **PR** 25 F.F. **JE** M10, O11, O50, P17, P51. **KW** Comparative Growth. Convergence Theory. Economic History. Globalization. Economic Institutions. Unions. European Integration.

AB The paper distinguishes among three definitions for convergence: economic convergence, analogous systems combining democracy and markets, convergence in institutional forms, and "regulation" modes. A survey of comparative long term growth shows that convergence is not a permanent nor universal phenomenon, since it is restricted to a small set of countries, mainly after world war II. Similarly, even if the Fordist development mode has diffused after WWII, most institutional forms, and especially the capital labor relations continue to exhibit specific national idiosyncrasies. For instance, the decline of unions is not at all universal. Thus, the convergence theory is reassessed by a close examination of the possible mechanisms involved: most of them are uncertain and slow to operate. Basically, the idea of a "one and unique best way" should be replaced by a variety of punctuated equilibria, which take into account local specificities. The present phase of European integration clearly shows that convergence is not at all an automatic and simple process. We are still in the epoch of nations.

PD January 1994. **TI** Wage Reform Imposed by the State: Some Paradoxes in French Income Policies. **AA** CEPREMAP and CNRS. **SR** CEPREMAP Discussion Paper: 9402; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 33. **PR** 25 F.F. **JE** D33, E64, J31, J33, J38. **KW** Income Policy. Inflation. Wage. Profit Sharing. Wage Flexibility. France.

AB The French income policies exhibit three paradoxes. Firstly, contrary to the German or social-democratic model, the State has had the leading role, facing rather weak unions and business associations, quite reluctant to negotiate--and nevertheless, the related interventions have not always been inefficient at least in the short run. Secondly, the drastic reversal of economic policy in 1983 has promoted quite new principles for wage formation: indexing, incentive to decentralize bargaining, promotion of profit sharing formula, etc. Quite surprisingly, nearly a decade after this epochal change, the efficiency of such a policy has not been totally eroded, contrary to that had been observed for the previous incomes policies. Last paradox, this surprising success of wage moderation is not necessarily evidence for a full-fledged reconstruction of industrial relations and income distribution; unemployment may have been a powerful disciplinary device.

Brams, Steven J.

TI Minimal Winning Coalitions in Weighted-Majority

Voting Games. AU Fishburn, Peter C.; Brams, Steven J.

PD October 1994. TI Old and New Moving-Knife Schemes. AU Brams, Steven J.; Taylor, Alan D.; Zwicker, William S. AA Brams: New York University. Taylor and Zwicker: Union College. SR New York University, C.V. Starr Center Economic Research Report: 94-30; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Analytic Economics, 269 Mercer Street, New York, NY 10003. PG 15. PR no charge. JE O63, C71, C72. KW Fair Division. Envy-Freeness. Game Theory. Justice. Equity.

AB Over the past fifty years, the mathematical theory of fair division has often been formulated in terms of cutting a cake. More specifically, one seeks ways to divide a cake among several people so that each person is satisfied, in some sense, with the piece he or she receives, even though different people may value certain parts of the cake differently.

Brauner, Marygail K.

PD 1994. TI An Approach to Understanding the Value of Parts. AU Brauner, Marygail K.; Hodges, James S.; Relles, Daniel A. AA Rand Corporation. SR Rand Report: MR-313-A/USN; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 48. PR \$9.00. JE C61, C63, H57. KW Greedy Algorithm. Heuristics. Knapsack Problem. Logistics. Maintenance.

AB This report proposes a way to think about the stockage decisions service maintenance depots must make. The approach involves defining the value of each part so the costs of parts can be related to their effects on fixing end-items. Very simply if a part breaks frequently and tends to hold up the repair of an expensive end-item, then a spare is very valuable. Using the measure of value, the authors develop a rank-ordered list of repair parts: the higher it is on the list, the more valuable the part is to reducing the value of the repair pipeline. The stockage problem posed is an instance of the classic knapsack problem; the algorithm is a heuristic solution, a greedy algorithm. Simulation tests show that the method does a good job of setting authorized stockage levels. The simulations also suggest that large savings may be possible, and they identify the weapon systems for which savings are likely to accrue. The results make the case for experimenting with the method at a depot or a remanufacturing site.

Brendley, David

TI The Decline of the U.S. Machine Tool Industry and Prospects for Its Sustainable Recovery: Volume 1. AU Finegold, David; Brendley, David; Lempert, Robert; Henry, Donald; Cannon, Peter; Boultinghouse, Brent; Nelson, Max.

Brennan, Michael J.

PD October 1994. TI Market Microstructure and Asset Pricing: On the Compensation for Adverse Selection in Stock Returns. AU Brennan, Michael J.; Subrahmanyam, Avanidhar. AA Brennan: University of California, Los Angeles and London Business School. Subrahmanyam: University of California, Los Angeles and Columbia University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-18; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 21. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada

and Puerto Rico). JE G12, G14, D81, D82. KW Adverse Selection. Price Formation. Securities Market.

AB Models of price formation in securities markets suggest that privately informed investors create significant adverse selection costs for uninformed investors. This suggests that uninformed investors will demand higher rates of return on securities for which informational asymmetries are more severe. In this paper, we derive a simple relation between expected stock returns and market illiquidity (due to information asymmetry) in a model with a single representative investor. Using CRSP data for the period 1984-1991, and ISSM intraday data for the years 1984 and 1988, we investigate the empirical relation between stock returns and measures of illiquidity. We find a significant relation between required rates of return and our measures of illiquidity after adjusting for the Fama-French risk factors related to the overall market, firm size, and the book-to-market ratio, and also after accounting for the effects of the quoted bid-ask spread.

Broecker, Thorsten

PD October 1994. TI Lump Sum License Fee Arrangements are the Arm's Length Equivalent of Cost Sharing Arrangements. AA A. T. Kearny Management Consultants. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-458; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 17. PR no charge. JE O32, H22, H25, C72. KW Cost Sharing. Licensing. Technology Transfer. International Transfer Pricing. Tax Code.

AB International tax law allows the use of cost sharing arrangements instead of licenses to transfer technology between affiliated companies. This article investigates under which circumstances cost sharing arrangements are arm's length (i.e. the outcome of negotiations between independent parties). It is shown that a dominant firm that can undertake a R&D program is indifferent in equilibrium between offering a cost sharing arrangement and a lump sum license fee arrangement to a second firm provided that both firms operate in exclusive geographic markets and that complete rent extraction through cost sharing is allowed--otherwise cost sharing is not arm's length.

Brown, Stephen J.

PD September 1994. TI Performance Persistence. AU Brown, Stephen J.; Goetzmann, William N. AA Brown: New York University. Goetzmann: Yale University. SR New York University Salomon Brothers Working Paper: 94-28; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. PG 14. PR not available. JE G11, G12, C31. KW Performance Persistence. Mutual Funds. Probit Analysis.

AB We explore performance persistence in mutual funds using absolute and relative benchmarks. Our sample, largely free of survivorship bias, indicates that relative risk-adjusted performance of mutual funds persists, however persistence is mostly due to funds that lag the S&P 500. A probit analysis indicates that poor performance increases the probability of disappearance. A year-by-year decomposition of the persistence effect demonstrates that the relative performance pattern depends upon the time period observed, and it is correlated across managers. Consequently, it is due to a

common strategy that is not captured by standard stylistic categories, or risk adjustment procedures.

Browne, Sid

PD March 1995. TI Portfolio Choice and the Bayesian Kelly Criterion. AU Browne, Sid; Whitt, Ward. AA Browne: Columbia University. Whitt: AT&T Bell Laboratories. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-03; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 29. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE C61, G11. KW Betting Systems. Proportional Gambling. Kelly Criterion. Portfolio Theory. Random Walk. Kiefer Process. Brownian Motion.

AB We derive optimal gambling and investment policies for cases in which the underlying stochastic process has parameter values that are unobserved random variables. For the objective of maximizing logarithmic utility when the underlying stochastic process is a random walk in a random environment, we show that a state-dependent control is optimal, which is a generalization of the celebrated Kelly strategy: The optimal strategy is to bet a fraction of current wealth equal to the posterior mean increment. To approximate more general stochastic processes, we consider a continuous-time analog involving Brownian motion. To analyze the continuous-time problem, we study the diffusion limit of the random walk in a random environment. We prove that they converge weakly to a Kiefer process, or tied-down Brownian sheet. We then find conditions under which the discrete-time process converges to a diffusion, and analyze the resulting process. We analyze in detail the case of the natural conjugate prior, where the success probability has a beta distribution, and show that the resulting limiting diffusion can be viewed as a rescaled Brownian motion. These results, besides allowing explicit computation of the optimal control policies for the continuous-time gambling and investment problems without resorting to continuous-time stochastic-control procedures, also allow an explicit quantitative evaluation of the financial value of randomness, the financial gain of perfect information and the financial cost of learning needed in the Bayesian problem.

PD November 1995. TI Survival and Growth with a Fixed Liability: Optimal Portfolio Strategies in Continuous Time. AA Columbia University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-30; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 32. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE C61, D11, G11. KW Stochastic Control. Portfolio Theory. Diffusions. Martingales. Bankruptcy. Optimal Gambling. Portfolio Insurance.

AB We study the optimal behavior of an investor who is forced to withdraw funds continuously at a fixed rate per unit time (e.g., to pay for a liability, to consume, or to pay dividends). The investor is allowed to invest in any or all of a given number of risky stocks, whose prices follow geometric Brownian motion, as well as in a riskless asset which has a constant rate of return. The fact that the withdrawal is continuously enforced ensures that there is a region where there is a positive probability of ruin. We first consider the problem of maximizing the probability that the investor survives forever. This turns out to be equivalent to maximizing the

probability of reaching a particular finite goal. While we show, among other results, that an optimal policy does not exist for this problem, we are able to construct explicit epsilon-optimal policies, for any $\epsilon > 0$. If this goal is reached, ultimate survival is assured, and so we then turn our attention to growth. Among other results, we find the optimal growth policy for the investor, i.e., the policy which reaches another (higher valued) goal as quickly as possible. These last results are intimately related to the theory of Constant Proportions Portfolio Insurance, the economic justification of which is based on a utility maximization problem for a consumption-investment model where the investor is forced to consume. Our results allow us to give another objective justification related to that of what we refer to as a "goal" problem. Other variants of both survival problem as well as the growth problem are also discussed.

Brunner, Allan D.

PD November 1994. TI On the Dynamic Properties of Asymmetric Models of Real GNP. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 489; Board of Governors of the Federal Reserve System, Division of International Finance, Washington, DC 20551. PG 11. PR no charge. JE C22, E32. KW Business Cycles. Nonlinearities. Heteroskedasticity.

AB There is now a substantial body of evidence that suggests business cycles are asymmetric. However, the evidence has been accumulated using a wide array of statistical techniques and, consequently, is based on various definitions of asymmetry. This paper examines several parametric models that have been used to study asymmetries in real GNP. Although these models capture asymmetries in very different ways, their dynamic properties are remarkably similar.

Buchta, Joachim

TI Experimental Sealed Bid First Price Auctions with Directly Observed Bid Functions. AU Selten, Reinhard; Buchta, Joachim.

Buddin, Richard J.

PD 1994. TI Skill Qualification and Turbulence in the Army National Guard and Army Reserve. AU Buddin, Richard J.; Grissmer, David W. AA Rand Corporation. SR Rand Report: MR-289-RA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 62. PR \$15.00. JE H56, J21, J24, J45. KW Occupational Training. Military. Labor Turnover.

AB This Report addresses the issue of individual job training in the Army National Guard and Army Reserve. For several reasons, a significant proportion of reservists in units are not even minimally qualified in their assigned jobs. These reasons include the large share of prior-service personnel requiring retraining, the large number of reservists who change units and jobs over their career, and forces retraining required when the force structure changes or is modernized. This research has established a job tracking system for reservists and used that system to measure job qualification levels in different units and jobs. It has also measured the frequency of assigned job changes and provided evidence on the causes of such changes. Finally, it has measured average retraining time for reservists changing jobs.

Caballero, Ricardo J.

PD September 1994. TI Explaining Investment Dynamics in U.S. Manufacturing: A Generalized (S,s) Approach. AU Caballero, Ricardo J.; Engel, Eduardo. AA Caballero: Massachusetts Institute of Technology and National Bureau of Economic Research. Engel: Universidad de Chile and National Bureau of Economic Research. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-32; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 30. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE C13, E13. KW Investment. Aggregation. Non-Linear Time Series.

AB In this paper we derive a model of aggregate investment that builds from the lumpy microeconomic behavior of firms facing stochastic fixed adjustment costs. Instead of the standard (S,s) bands, firms' optimal adjustment policies are probabilistic, with a probability of adjusting (adjustment hazard) that grows smoothly with firms' disequilibria. Depending upon the specification of the distribution of fixed adjustment costs, the adjustment hazards approach encompasses models ranging from the very non-linear (S,s) model to the linear partial adjustment model. Except for the latter extreme, the processes for aggregate investment obtained from adding up the actions of firms subject to aggregate and idiosyncratic shocks, is highly non-linear. Estimating the aggregate model by maximum likelihood, we find clear evidence supporting non-linear models over linear ones for postwar sectoral U.S. manufacturing equipment and structures investment. For a given sequence of aggregate shocks, the nonlinear model estimated generates brisker expansions and, to a lesser extent, sharper contractions than its linear counterpart. These features fit well with the observed positive skewness and large kurtosis of U.S. manufacturing sectoral investment/capital ratios.

Caillaud, Bernard

PD TI Strategic Aspects of Delegation. AU Caillaud, Bernard; Rey, Patrick. AA Caillaud: CERAS-ENPC (CNRS) and CEPREMAP. Rey: CREST (CNRS) and Centre for Economic Policy Research. SR CEPREMAP Discussion Paper: 9422; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 10. PR 25 F.F. JE C72, D43, D82. KW Vertical Integration. Delegation. Foreclosure. Precommitment Effect.

AB This paper offers an overview of the strategic aspects of situations where, either institutionally or contractually, a firm delegates some of its decisions to another firm, a subsidiary, an internal division, etc. Delegation may have several kinds of strategic benefits: in the short-term, it may improve the competitive position of the firm, or induce a more lenient behavior from its competitors; in the long-run, it may be used to deter the entry of potential competitors, to foreclose market access, or to induce actual competitors to exit. The paper analyzes the trade-off between these possible benefits and the agency costs of delegation, and emphasizes the key issues of credibility and commitment.

PD January 1994. TI National versus European Industrial Policies: A Contract Theory Approach. AU Caillaud, Bernard; Jullien, B.; Picard, Pierre. AA CEPREMAP. SR CEPREMAP Discussion Paper: 9401; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 37. PR 25 F.F. JE D82, F15, F21. KW Hierarchies. Incentives. Contracts. Subsidiary Principle. Decentralization. European Integration.

AB We build a hierarchical model of contractual relationships under moral hazard to address issues about subsidiarity, i.e. optimal (de)centralization of industrial policies at the national level or at the European Community level. Industrial policy is viewed as an incentive contract for producers who take unobservable decisions that have spillover effects across Member States. A Community Agency designs contracts for producers and contractual compensatory transfers between States on the basis of its observations; then National regulators and their home producers negotiate, according to a generalized Nash bargaining, a national contract that complements the Community contracts, given that national regulators will have access to more observations on the producers activities. In this setting, we show that full centralization is never optimal; we give sufficient conditions for complete decentralization to be optimal; and when both policies are present, we characterize how they interact to provide incentives to producers.

PD June 1994. TI Towards a Theory of Self Restraint. AU Caillaud, Bernard; Cohen, Daniel; Jullien, B. AA Caillaud: CERAS-ENPC and CEPREMAP. Cohen: ENS and CEPREMAP. Jullien: ENSAU-CREST, Montrouge, and CEPREMAP. SR CEPREMAP Discussion Paper: 9421; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 23. PR 25 F.F. JE D11, D91. KW Dynamic Inconsistency. Self-Restraint.

AB The decision problem of an inconsistent agent has usually been formalized as an intrapersonal non-cooperative game between the different selves of the agent, considered as different players. We attempt, in the paper, to offer an alternative route. We will assume the agent is one single self who is able to self-restrain his choices, by which we mean that, at every point in time, he obeys the following behavioral constraints: 1) he can willingly commit to a Markovian strategy, but 2) he also acknowledges the fact that he cannot commit to disregard in the future any alternative commitment to another (Markovian) strategy that will appear to be preferable from this later date (and state) on, this later strategy being itself to be subject to the same constraint. In a simple model with a state variable, we are able to show that there exists one (and only one) way for the agent to comply with our solution concept (i.e., one and only one "self-restrained" way to behave).

Cameron, Martin

TI The Macroeconomic, Industrial, Distributional and Regional Effects of Government Spending Programs in South Africa. AU Horridge, J. Mark; Parmenter, Brian R.; Cameron, Martin; Joubert, Riaan; Suleman, Areef; de Jongh, Dawie.

TI The Macroeconomic, Industrial, Distributional and Regional Effects of Government Spending Programs in South Africa. AU Horridge, J. Mark; Parmenter, Brian R.; Cameron, Martin; Joubert, Riaan; Suleman, Areef; de Jongh, Dawie.

Canjels, Eugene

PD September 1994. TI Estimating Deterministic Trends in the Presence of Serially Correlated Errors. AU Canjels, Eugene; Watson, Mark W. AA Canjels: Northwestern University. Watson: Northwestern University and National Bureau of Economic Research. SR National Bureau of

Economic Research: 165; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C22, E27. KW Cochrane-Orcutt. Linear Trend. Prais-Winsten. Time Series.

AB This paper studies the problems of estimation and inference in a linear trend model: where errors follow an autoregressive process with largest root ρ , and the slope is the parameter of interest. We contrast asymptotic results for the cases of ρ less than 1 (in modulus), and argue that the most useful asymptotic approximations obtain from modeling ρ as local-to-unity. Asymptotic distributions are derived for the OLS, first-difference, infeasible GLS and three feasible GLS estimators. These distributions depend on the local-to-unity parameter and a parameter that governs the variance of the initial error term, κ . The feasible Cochrane-Orcutt estimator has poor properties, and the feasible Prais-Winsten estimator is the preferred estimator unless the researcher has sharp a priori knowledge about ρ and κ . The paper develops methods for constructing confidence intervals for the slope that account for uncertainty in ρ and κ . We use these results to estimate growth rates for real per capita GDP in 128 countries.

Canoy, Marcel

PD 1994. TI Natural Monopoly and Differential Pricing. AA CEPREMAP and University of Amsterdam. SR CEPREMAP Discussion Paper: 9411; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 15. PR 25 F.F. JE D42, D43, L41, L51. KW Natural Monopoly. Differential Pricing. Two-Stage Game. Entry Deterrence.

AB Under uniform pricing a monopolist cannot make a positive profit in equilibrium. Uniform pricing is an unnecessary restriction. In the paper I analyze how differential pricing can be exploited by a natural monopolist to deter entry when entry is costless. In a two-stage game with price competition before quantity competition I show that the incumbent firm can deter entry and make a positive profit in equilibrium. The incumbent sets two different prices, the low price to deter entry and the high price to generate profit. Entry is not possible because of scale effects. I show that for some parameter values the incumbent is forced to engage in a stunt (i.e. set a negative low price) to keep entrants out.

PD April 1994. TI Tendering, Auctions and Preparation Costs. AU Canoy, Marcel; Waterson, Michael. AA Canoy: CEPREMAP and University of Amsterdam. Waterson: University of Warwick. SR CEPREMAP Discussion Paper: 9410; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 18. PR 25 F.F. JE D44, D52. KW Auction. Bid Preparation Cost. Revenue Equivalence.

AB The main purpose of the paper is to examine the effects on the nature of equilibrium, and on comparisons between equilibria, of introducing bid preparations costs into various auction and tendering settings. In a model with private values and risk neutral players, we characterize the equilibria for the English auction, the Dutch open auction and the sealed-bid auction. We show that the revenue equivalence theorem still holds if bid preparation costs are introduced. Subsequently, we introduce asymmetry and we show that the revenue equivalence theorem holds as well under asymmetry, but not under both asymmetry and bid preparation costs.

Canter, Michael S.

TI The Collapse of Metallgesellschaft: Unhedgeable Risks, Poor Hedging Strategy or Just Bad Luck? AU Edwards, Franklin R.; Canter, Michael S.

Card, David

PD October 1994. TI A Living Wage? The Effects of the Minimum Wage on the Distribution of Wages, the Distribution of Family Earnings, and Poverty. AU Card, David; Krueger, Alan B. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 333; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 33. PR \$2.00. JE I31, I32, J31, D31. KW Minimum Wage. Distribution of Income. Wage Inequality. Poverty.

AB This paper analyzes the distributional impact of the 1990 and 1991 increases in the federal minimum wage. The rise in the federal minimum wage had very different impacts across states, depending on state-specific minimum wage floors and the overall level of wages in each state. In states with a higher fraction of workers affected by the minimum wage change, we find that the minimum wage hike generated significant increases in the lower percentiles of wages, and significant reductions in wage dispersion. The higher minimum wage also led to increases in the lower percentiles of the family earnings distribution, and a narrowing of the dispersion in family earnings. We find some evidence that the increase in the minimum wage lowered poverty rates for families with some attachment to the labor market.

PD October 1994. TI The Economic Return to School Quality: A Partial Survey. AU Card, David; Krueger, Alan B. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 334; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 22. PR \$1.50. JE I21, I22. KW School Quality. Student Achievement. Earnings.

AB We present a survey of the literature on the economic returns to school quality. A dozen studies conducted over the past 20 years show remarkably consistent estimates of the effect of school quality on students' subsequent earnings. A 10 percent increase in school spending is associated with 1 to 2 percent higher annual earnings for students later in life. We argue that the similarity of the findings across data sources and research methods suggests that school quality has a true causal effect on student earnings. Increases in school resources are also associated with significantly higher educational attainment, although the range of estimates of the effect is relatively wide.

PD December 1994. TI The Effect of the Minimum Wage on Shareholder Wealth. AU Card, David; Krueger, Alan B. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 337; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 30. PR \$2.00. JE J31, G14. KW Minimum Wage. Event Study. Stock Market Valuation.

AB This paper presents a series of event studies that measure the stock market reaction to news about the minimum wage. We use two samples of firms: a broad sample of companies in low-wage industries; and a narrow sample of firms that mentioned the cost effects of the federal minimum wage in their recent annual reports. Our analysis of legislative events leading

up to the 1989 amendments to the Fair Labor Standards Act shows little systematic effect on the market value of low-wage companies. We also analyze a series of events associated with a confidential memo from the Secretary of Labor that was leaked in mid-1993. Here, the stock market reactions suggest that news of a possible change in the minimum wage may have a modest effect on value of low-wage companies.

Carter, Grace M.

TI Designing a Capitation Payment Plan for Medicare end Stage Renal Disease. AU Farley, Donna O.; Kallich, Joel D.; Carter, Grace M.; Lucas, Thomas W.; Spritzer, Karen L.

PD 1994. TI Cost estimates for Cost Outlier Cases Under Medicare's Prospective Payment System. AU Carter, Grace M.; Rumpel, J. David. AA Rand Corporation. SR Rand Report: MR-397-HCFA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 29. PR \$13.00. JE I11, I12, I18. KW Capitation. Cost Control. Health Care. Hospitals. Medicare.

AB The authors studied the ratio of costs to charges (RCC) used to estimate the cost of Medicare hospital cases in the formula which sets cost outlier payments. The authors estimate that, under current payment policy, the cost of the average cost outlier case is overestimated by 23 percent. The causes of this overestimate are a secular decline in RCC of between 2 and 3 percent a year and the fact that cost outlier cases typically receive a higher percentage of ancillary charges which have a very low actual RCC. The inaccurate estimate of the cost of cost outlier cases contravenes current policy intent in two important ways. First, it changes the fraction of the excess costs that are insured from the intended 75 percent to 92 percent. Secondly, cases face different cost outlier thresholds, and therefore receive different payment amounts, depending on the mix of ancillary and accommodation services required by the patient. It would be possible to improve the measurement of the cost of cost outlier cases by using separate RCCs for ancillary and accommodation charges. The outcomes of alternative policies are estimated in the report.

Caulkins, Jonathan P.

PD 1994. TI Developing Price Series for Cocaine. AA Rand Corporation, Ford Foundation and Heinz School of Public Policy and Management. SR Rand Report: MR-317-DPRC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 43. PR \$13.00. JE H59. KW Cocaine. Contraband. Contraband Pricing. Contraband Quality.

AB This report describes how to construct time series for the price of cocaine using data from the Drug Enforcement Administration's System to Retrieve Information from Drug Evidence, a database that includes records of prices paid by undercover agents for individual purchases. Central to this process is the task of standardizing data for transaction size and purity. Prior efforts in this area are reviewed and their treatment of purity found wanting. This report suggests that because quality control is difficult for illicit products, price is governed more by the expected purity than by the actual purity of the product. Using this concept, price series are constructed for the gram, ounce, and kilogram level in a variety of locations. Significant price differences exist between cities, even at the wholesale level; these differences do not necessarily dissipate over time; and the ratio of prices at different market levels has remained remarkably constant over time. This last result is

consistent with the hypothesis that price increases at one level are passed through to lower levels on a percentage basis (i.e., according to a multiplicative model) rather than a dollar-for-dollar basis (i.e., according to an additive model).

Chang, Ike Yi

PD 1994. TI The economics of Dominant Technical Architectures: The Case of the Personal Computer Industry. AA Rand Corporation. SR Rand Report: P-7888; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 36. PR \$5.00. JE O31, O32, O33, O34. KW Computer. Industry Standards. Innovation. Intellectual Property.

AB The predominance of a single architectural standard in the personal computer (PC) industry has enabled certain firms to attain near monopoly positions in their respective markets. This paper discusses how Intel and Microsoft obtained near-monopoly positions in their respective markets due to intellectual property rights and how their strong market positions enabled them to innovate beyond their competitors. It is argued, therefore, that public policy motives to limit their market power by weakening the intellectual property rights of market-leading companies such as Intel and Microsoft should not take precedence over the positive role played by intellectual property in inducing such companies to make innovative investments that benefit society over the long run.

Chang, Kevin

PD August 1994. TI Evaluating Chart-Based Technical Analysis: The Head-and-Shoulders Pattern in Foreign Exchange Markets. AU Chang, Kevin; Osler, Carol L. AA Chang: New York University. Osler: Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9414; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 30. PR no charge. JE F31, G12, G14. KW Technical Analysis. Exchange Rate Dynamics.

AB This paper evaluates rigorously the predictive power of the head-and-shoulders pattern which is one of the standard patterns used by chart-based technical analysts. We apply this trading rule to daily dollar exchange rates during the floating rate period (March 1973-June 1994). To do so we use an objective, computer-implemented algorithm to identify head-and-shoulders patterns, basing the algorithm on criteria recommended in published technical analysis manuals. The resulting profits, replicable in real-time, are then compared with the hypothesis of a random walk. Results: The head-and-shoulders trading rule appears to have some predictive power for the mark and yen but not the Canadian dollar, Swiss franc, French franc, or pound. Profits for the mark and yen are large but extremely risky.

Chemmanur, Thomas J.

PD March 1995. TI Why Include Warrants in New Equity Issues? A Theory of Unit IPOs. AU Chemmanur, Thomas J.; Fulghieri, Paolo. AA Chemmanur: Columbia University. Fulghieri: Columbia University and Northwestern University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-05; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 32. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE G14, G24, G32, D82.

KW Asymmetric Information. Initial Public Offer. Equity Market.

AB We develop a theory of unit IPOs, in which the firm going public issues a package of equity with warrants. We model an equity market characterized by asymmetric information, where insiders have private information about the riskiness as well as the expected value of their firm's future cash flows. We demonstrate that, in equilibrium, high risk firms issue "units" of equity and warrants, and the package of equity and warrants is underpriced; lower risk firms, on the other hand, issue underpriced equity alone. An important feature of our model is that, in contrast to the existing literature, underpricing is used as a signal in equilibrium in the context of a one-shot equity offering. While the model is developed in the context of IPOs equity, it is also applicable with minor modifications to the case of seasoned equity offerings packaged with warrants; further, the intuition behind the model generalizes readily to provide a new rationale for packaging call options like claims with other risky securities (e.g., convertible debt, debt with warrants) as well.

Chen, Ming-Jer

TI Nonconformity in Competitive Repertoires. **AU** Miller, Danny; Chen, Ming-Jer.

TI The Simplicity of Competitive Repertoires: An Empirical Analysis. **AU** Miller, Danny; Chen, Ming-Jer.

Chen, Yan

PD September 1994. **TI** Electoral Systems, Legislative Process and Income Taxation. **AA** University of Michigan. **SR** Department of Economics--CREST Working Paper Series: 94-08; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. **PG** 37. **PR** \$4.00. **JE** H21, D72, D78. **KW** Income Tax. Legislative Game. Voting.

AB We examine the effects that political institutions, i.e., electoral systems and legislative processes, have on income taxation and public good allocation. We characterize the equilibrium income tax schedules and the optimality conditions under two types of political institutions, a two party plurality system with a single district, and one with multiple districts where the tax policy is determined through a legislature. It is shown that the exogenous social welfare functions in the optimal taxation literature can be endogenously determined by explicitly modelling the political institutions, which put different welfare weights on different subsets of the population.

Chen, Yehning

PD December 1994. **TI** Financial Distress and Restructuring Models. **AU** Chen, Yehning; Weston, J. F.; Altman, Edward I. **AA** Chen: National Taiwan University. Weston: University of California, Los Angeles. Altman: New York University. **SR** New York University Salomon Brothers Working Paper: 94-34; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 33. **PR** not available. **JE** G31, G32, G33. **KW** Financial Distress. Corporate Strategies. Restructuring.

AB In recent years, the literature on financial distress has been enriched by the development of formal models. This paper develops a synthesis of that formal analysis, linking it to related finance literature and corporate strategies for distressed

financial restructuring. Several key assumptions generate different results which predict the effects of financial distress on investment efficiency and restructuring strategy. Central to these strategies are the recontracting arrangements proposed between owners, creditors, and other relevant stakeholders. The critical factors in the alternative models are: (1) the term structure of the firm's debt, (2) the role of the seniority of debts, (3) the effects of exchange offers, (4) the effects of an automatic stay on debt payments, and (5) the role of alternative voting rules.

Chin, Dan

PD July 1995. **TI** Fixed vs. Floating Exchange Rates: A Dynamic General Equilibrium Analysis. **AU** Chin, Dan; Miller, Preston. **AA** Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 194; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 43. **PR** no charge. **JE** C61, E43, F31. **KW** Exchange Rates. Dynamic General Equilibrium. Monetary Policies. Policy Coordination.

AB In this study we contrast fixed and floating exchange rate regimes in a dynamic general equilibrium model. We find that the fundamental difference in the regimes is in the courses they imply for monetary policies. Because of policy coordination requirements, a tighter monetary policy needed to maintain a fixed exchange rate may necessitate a tightening in budget policy as well. We show that under some initial conditions voters or a social planner will favor one regime, but under other conditions they will favor the other. However, the choices of voters and a social planner are almost diametrically opposed.

Chisholm, Darlene C.

PD May 1994. **TI** Profit-Sharing Versus Fixed-Payment Contracts: Evidence from the Motion Pictures Industry. **AA** Massachusetts Institute of Technology and Lehigh University. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-26; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 18. **PR** \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. **JE** L14, D23, L82. **KW** Share Contracts. Moral Hazard. Motion-Pictures Industry.

AB The choice between sharing and fixed-payment compensation schemes is examined using data on contracts from the motion-pictures industry. The data support the hypothesis that share contracts mitigate the negative efficiency effects arising from hidden action and hidden information. Furthermore, the data provide only weak support of the risk-sharing alternative explanation for the choice of a share arrangement.

PD August 1994. **TI** The Risk Premium Hypothesis and Two-Part Tariff Contract Design: Some Empirical Evidence. **AA** Massachusetts Institute of Technology and Lehigh University. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-28; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 9. **PR** \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. **JE** L14, D81, L82. **KW** Share Contracts. Risk Premium. Motion-Pictures Industry.

AB The hypothesis that the fixed component of a share contract serves as a risk premium is tested using a sample of

contracts from the motion-pictures industry. The evidence refutes the risk-premium hypothesis under a variety of assumptions about the relative risk averseness of the players. Alternative explanations for the role of a fixed payment in two-part tariff contract design are proposed.

Christiano, Lawrence

PD September 1995. TI Small Sample Properties of GMM for Business Cycle Analysis. AU Christiano, Lawrence; den Haan, Wouter. AA Christiano: Federal Reserve Bank of Minneapolis, Northwestern University, National Bureau of Economic Research, and Federal Reserve Bank of Chicago. den Haan: University of California. SR Federal Reserve Bank of Minneapolis Staff Report: 199; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 50. PR no charge. JE C12, C15, E32. KW Business Cycle. Filtering. Monte Carlo Simulation.

AB We investigate, by Monte Carlo methods, the finite sample properties of GMM procedures for conducting inference about statistics that are of interest in the business cycle literature. These statistics include the second moments of data filtered using the first difference and Hodrick-Prescott filters, and they include statistics for evaluating model fit. Our results indicate that, for the procedures considered, the existing asymptotic theory is not a good guide in a sample the size of quarterly postwar U.S. data.

Christoffersen, Peter F.

PD October 1994. TI Optimal Prediction Under Asymmetric Loss. AU Christoffersen, Peter F.; Diebold, Francis X. AA Christoffersen: University of Pennsylvania. Diebold: University of Pennsylvania and National Bureau of Economic Research. SR National Bureau of Economic Research: 167; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C22. KW Asymmetric Loss. GARCH. Loss Function. Optimal Prediction.

AB Prediction problems involving asymmetric loss functions arise routinely in many fields, yet the theory of optimal prediction under asymmetric loss is not well developed. We study the optimal prediction problem under general loss structures and characterize the optimal predictor. We compute the optimal predictor analytically in two leading cases. Analytic solutions for the optimal predictor are not available in more complicated cases, so we develop numerical procedures for computing it. We illustrate the results by forecasting the GARCH(1,1) process which, although white noise, is non-trivially forecastable under asymmetric loss.

Churchill, N. C.

PD October 1994. TI Entrepreneurial Management: A Converging Theory for Large and Small Enterprises. AU Churchill, N. C.; Muzyka, D. F. AA INSEAD. SR INSEAD Working Papers: 94/64; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 13. PR not available. JE D21, D23, M13, M21. KW Corporations. Management Model. Corporate Venturing. Entrepreneurial Management.

AB There has been extensive research and experimentation on the part of practitioners in search of a new model of the corporation; one which is able to maintain a high level of performance and adapt to new opportunities under rapidly

changing environmental conditions. While much of the change is directed at "re-engineering" and simplifying the current form of corporations, some corporations are seeking a new management model which is more entrepreneurial in nature. Different forms of corporate entrepreneurial activity have been well documented in recent years, generally under the description Corporate Venturing. While this work provides a great deal of insight into relatively isolated entrepreneurial activities of otherwise well established administrative hierarchies, it does not provide us information on the extended ability of medium- and large-sized organizations to adapt to changing sets of opportunities. The observations and findings reported here are the initial output of an extended research project designed to capture the common practices of both large and small companies which have demonstrated the long-term capability to adapt and grow by pursuing and capturing opportunities. The research is focused on describing what we have observed as the common characteristics of what we term Entrepreneurial Management.

Clark, Andrew E.

PD January 1994. TI Is Job Satisfaction U-Shaped in Age? AU Clark, Andrew E.; Oswald, Andrew J.; Warr, Peter B. AA Clark: CEPREMAP, ESRC, and University of Essex. Oswald: ESRC and London School of Economics. Warr: ESRC and University of Sheffield. SR CEPREMAP Discussion Paper: 9407; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 23. PR 25 F.F. JE J28, D91. KW Job Satisfaction. Age. Work Expectations.

AB It is generally believed that job satisfaction increases linearly with age. However, there are persuasive arguments and some empirical evidence that the relationship is U-shaped, declining from a moderate level in the early years of employment and then increasing steadily up to retirement. This paper investigates the relationship between age and satisfaction, using survey responses from a large sample of British employees. For overall job satisfaction, satisfaction with pay, and satisfaction with the work itself, a strongly significant U-shape is observed. Possible contributors to this age pattern are investigated through ordered probit analyses of each form of satisfaction. Despite the inclusion of 80 control variables for personal characteristics, job features and work values, significant coefficients are retained for age and age-squared (representing the non-linear component). It is shown that a similar age pattern occurs also for employees' context-free mental health, suggesting that both job satisfaction and context-free mental health are affected by non-job factors of life-stage and personal circumstances. The importance of changes in expectations with increasing age is emphasized.

PD February 1994. TI Satisfaction and Comparison Income. AU Clark, Andrew E.; Oswald, Andrew J. AA Clark: CEPREMAP, ESRC, and University of Essex. Oswald: London School of Economics. SR CEPREMAP Discussion Paper: 9408; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 18. PR 25 F.F. JE J28, J30, D63. KW Job Satisfaction. Wages. Education. Work Experience.

AB This paper is an attempt to test the hypothesis that utility depends on income relative to a 'comparison' or reference level. Using data on 5,000 British workers, it provides two kinds of evidence. First, workers' reported satisfaction levels are shown to be inversely related to their comparison wage rates. Second, satisfaction levels are shown to be strongly

declining in the level of education. College graduates, for example, have the lowest job satisfaction, *ceteris paribus*. Concern for relatives seems the natural explanation for this remarkable result. More generally, the paper tries to help begin the task of constructing an economics of job satisfaction.

Clark, Peter B.

PD November 1994. TI Treasury Bill Auctions: Issues and Uses. AU Clark, Peter B.; Alexander, William E. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94135; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 31. PR not available. JE D44, G12, H19. KW Treasury Bill. Auctions.

AB We review the main issues that arise in the design of treasury bill auctions and survey the relevant empirical literature. We also provide a detailed description of the actual design of these auctions in a sample of 42 industrial and developing countries.

Clements, Benedict

PD October 1994. TI Public Education Expenditure and Other Determinants of Private Investment in the Caribbean. AU Clements, Benedict; Levy, Joaquim V. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94122; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 17. PR not available. JE E22, H52, O54. KW Private Investment. Education. Capital Formation. Caribbean.

AB This paper presents an analysis of the determinants of private investment in the Caribbean region, using data for the 1977-91 time period. Drawing on the endogenous growth literature, a model is developed to capture the impact of public education expenditure on private sector capital formation. The implications of this model are tested in the context of an econometric model assessing the impact of education and other variables on the share of private investment in GDP. The empirical results reveal that public education outlays, as well as economic growth, have a significant effect on private capital formation. Public investment has a negative effect on private investment, while real interest rates and external debt burdens are found to have no statistically significant impact on private investment.

Coe, David T.

PD December 1994. TI North-South R&D Spillovers. AU Coe, David T.; Helpman, Elhanan; Hoffmaister, Alexander W. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94144; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 13. PR not available. JE O31, O40. KW Developing Countries. Research and Development. Productivity. Spillovers.

AB We examine the extent to which developing countries that do little, if any, research and development themselves benefit from R&D that is performed in the industrial countries. By trading with an industrial country that has a large "stock of knowledge" from its cumulative R&D activities, a developing country can boost its productivity by importing a larger variety of intermediate products and capital equipment embodying foreign knowledge, and by acquiring useful information that would otherwise be costly to obtain. Our empirical results, which are based on observations over the 1971-90 period for 77

developing countries, suggest that R&D spillovers from the industrial countries in the North to the developing countries in the South are substantial.

Cohen, Daniel

PD May 1994. TI Uneven Technical Progress and Job Destructions. AU Cohen, Daniel; Saint-Paul, Gilles. AA Cohen: CEPREMAP, Centre for Economic Policy Research, Ecole Normale Supérieure. Saint-Paul: CERAS, DELTA, Centre for Economic Policy Research. SR CEPREMAP Discussion Paper: 9412; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 24. PR 25 F.F. JE D84, E22, E24, J64. KW Unemployment. Technical Progress. Diminished Expectations.

AB We develop a two-sector model in which technological progress alternatively raises the productivity of one sector after the other. We assume that the goods are complement for the final consumers. The one sector which benefits from technical progress is consequently lead to a fall of its price. In our model, any uneven technical progress consequently leads to job destruction in the sector which benefits from it and job creation in the least productive sector. We then examine the pattern of wages and unemployment that follows any one of the kind of shocks (symmetric or asymmetric) which can occur in the economy. We show that wages will immediately rise and overshoot their long run target; as time goes on, they have to go down; similarly goes the degree of tightness on the labor market (and sometimes unemployment). An "age of diminished expectations" following any productivity shock is then likely to occur sooner or later.

TI Towards a Theory of Self Restraint. AU Caillaud, Bernard; Cohen, Daniel; Jullien, B.

Cohen, Gerald D.

TI Scoring Political Economy Models: A Multiple Equilibria Approach. AU Blomberg, Brock S.; Cohen, Gerald D.

Cornelius, Peter K.

PD October 1994. TI Defining, Measuring and Alleviating Poverty in an Economy in Transition: The Case of Lithuania. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94116; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 15. PR not available. JE I32, O11. KW Social Policy. Transition. Poverty. Lithuania.

AB Recognizing that social policy would need to play a critical role in Lithuania's transition to a market economy, substantial efforts have been made to identify the neediest segments of the population and to monitor poverty. However, the social safety net inherited from the former Soviet Union has remained virtually intact. As discussed in this paper, such a system, where the state assumes responsibility from cradle to grave, appears inadequate in preventing poverty and need. Some policy simulations are presented which suggest the need for far-reaching reforms.

Corneo, Giacomo

PD March 1994. TI Investing in Social Norms. AU Corneo, Giacomo; Jeanne, Olivier. AA Corneo: CEPREMAP and University of Bonn. Jeanne: CERAS-ENPC. SR CEPREMAP Discussion Paper: 9404; CEPREMAP, 142

rue du Chevaleret, 75013 Paris, FRANCE. PG 12. PR 25 FF. JE D11, D43, D46, M31. KW Social Norms. Reputation. Goods. Investment.

AB We show how social norms may be endogenously created in the context of Akerlof's theory of social custom. We argue that the development of a social norm can be conceived as an investment activity under external effects. As an example, the case of a consumption norm is presented. We provide conditions under which the norm is introduced and fully characterize the equilibrium path. Due to the externality, consumption norms may not come into existence under perfect competition, whereas a monopolist may be able to introduce norms even when they are inefficient.

PD August 1994. TI Snobs, Bandwagons and the Origin of Social Customs in Consumer Behavior. AU Corneo, Giacomo; Jeanne, Olivier. AA Corneo: University of Bonn. Jeanne: ENPC-CERAS. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A- 464; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 13. PR no charge. JE D11, L14. KW Social Customs. Consumption Externalities. Optimal Dynamic Pricing.

AB In this paper, we show how consumption norms may be endogenously created in the context of Akerlof's theory of social custom. We present a model in which consumption norms are generated by profit-maximizing producers. We show that the creation of a consumption norm may be viewed as an investment with external effects. A consumption norm may be created only if producers have enough market power.

PD December 1994. TI Conspicuous Consumption and the Existence of Upward Sloping Demand Curves. AU Corneo, Giacomo; Jeanne, Olivier. AA Corneo: University of Bonn. Jeanne: ENPC-CERAS. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A- 461; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 16. PR no charge. JE D11, D82, H23. KW Consumption Externalities. Status-Seeking Behavior. Law of Demand.

AB This paper develops a theoretical framework for studying conspicuous consumption. This is modeled as a device that signals the consumer's social status. Status is some function of the individual's rank in the wealth hierarchy. This approach makes it possible to distinguish between snob and conformist consumer behavior. It is shown that when behavior is conformist, the market demand curve for the good can exhibit a positive slope. A number of unconventional implications for public policy are then derived concerning taxation, monopoly power, and the voluntary provision of public goods.

Corsetti, Giancarlo

TI The Simple Analytics of Assets Values and Infrequent Policy Changes. AU Balduzzi, Pierluigi; Corsetti, Giancarlo; Foresi, Silverio.

Cropper, Marueen

TI Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan. AU Alberini, Anna; Cropper, Marueen; Fu, Tsu-Tan; Krupnick, Alan; Liu, Jin-Tan; Shaw, Daigee; Harrington, Winston.

Crouchley, Robert

PD August 1994. TI An Aggregate Time Series Analysis of Non-Agricultural Self-Employment in the UK. AU Crouchley, Robert.; Abell, Peter.; Smeaton, Deborah. AA Abell and Crouchley: London School of Economics and Centre for Economic Performance. Smeaton: University of Surrey. SR London School of Economics Centre for Economic Performance Discussion Paper: 209; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 45. PR no charge. JE J24. KW Self-Employment.

AB The effect of a number of variables upon the aggregate time series in the UK of the self-employed to employed and self-employed to unemployed is studied. The period covered is from 1950-90. Separate models are compared for men and for women. The findings suggest that self-employment may be insensitive to inheritance tax, tax rates and corporation tax. There is some evidence of a "political effect" (positive for a Conservative government) for men though not for women.

Dabalen, Andrew

PD June 1994. TI Complexity, Diversity and Stability Debate: Evidence From California County Data. AU Dabalen, Andrew; Goldman, George E. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 715; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 24. PR \$6.00 (U.S.) \$12.00 (For.). JE C80, R11, R13. KW Economic Diversity. Regional Development. Data Analysis. Linear Statistical Models.

AB A linear statistical model is used to test the hypothesis that higher levels of economic diversity are associated with more stability. We also compare the performance of several proposed indices of diversity in this linkage. The results show little support for the primary hypothesis, and a mixed verdict for the second.

Danthine, Jean-Pierre

PD December 1994. TI Asset Pricing Implications of Real Market Frictions. AU Danthine, Jean-Pierre; Donaldson, John B. AA Danthine: Universite de Lausanne and Centre for Economic Policy Research. Donaldson: Columbia University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 95-04; PaineWebber Series. 6N Uris Hall, Columbia University, New York, NY 10027. PG 49. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE E44, G12. KW Asset Pricing. Macroeconomic Models. Capital Accumulation.

AB The objectives of this paper are threefold: (1) to present a family of full-fledged dynamic macroeconomic models with financial sectors, (2) to discuss their implications for the pricing of financial assets, and (3) to evaluate quantitatively the potential of each model to explain a set of key stylized facts from the financial markets. We begin with an asset pricing model in the spirit of Lucas (1978) which we merge with a standard dynamic equilibrium model of capital accumulation. We next provide a new decentralized interpretation of the model's equilibrium. Under this interpretation firms make meaningful multiperiod investment decisions. We then compare, both quantitatively and qualitatively, the implications of the model with empirical summaries of actual financial

market behavior. On the basis of that comparison, we then progressively enrich the model by introducing costs to adjusting the stock of capital, corporate debt, and labor contracts. We conclude that additional progress towards the resolution of outstanding financial puzzles is as likely to come from a richer modeling of the real side of economies as from further refinements in the description of the financial sector.

Dargay, Joyce

PD November 1994. TI The Response of World Energy and Oil Demand to Income Growth and Changes in Oil Prices. AU Dargay, Joyce; Gately, Dermot. AA Dargay: Oxford University. Gately: New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-31; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Analytic Economics, 269 Mercer Street, New York, NY 10003. PG 22. PR no charge. JE Q41, D21, D43, D82. KW Oil Demand. Price Reversibility. Asymmetry.

AB This paper reviews the paths of world energy and oil demand over the past three decades, both over time and relative to income growth. We focus on the effects of oil price changes on demand, not only the oil price increases of the 1970's but also the oil decreases of the 1980's. Compared with demand in the industrialized countries (OECD), demand in the Less Developed Countries (LDC) has been more responsive to income growth, less responsive to price increases, but more responsive to price decreases. In the industrialized countries there has been an asymmetric, smaller demand response to the price decreases of the 1980's than to the price increases of the 1970's. But in the LDC there is less evidence of demand being imperfectly price-reversible: the price reductions of the 1980's have reversed much more of the demand reductions that followed the price increases of the 1970's, in comparison with the OECD. Transportation oil has grown consistently, in all regions of the world, about as rapidly as income growth, and it is less price-responsive than non-transportation oil demand. The LDC has exhibited much greater heterogeneity than the OECD, both in income growth and in the relationship of demand growth to income growth. This is true not only between the oil exporting countries and the others, but also between those LDC whose per-capita incomes have been growing steadily and those whose incomes have declined or been stagnant. It is important to analyze the behavior of these groups separately. Otherwise, the aggregation will distort the effects on demand of the price changes and income growth. We expect a smaller demand response to future price increases than to those of the 1970's. The demand response to future income growth will be not substantially smaller than in the past. Finally, given the prospect of growing dependence on OPEC oil, in the event of a major disruption the lessened responsiveness of demand to price increases could cause dramatic price increases and serious macroeconomic effects.

Das, Sanjiv Ranjan

TI The Central Tendency: A Second Factor in the Short-Term Rate. AU Balduzzi, Pierluigi; Das, Sanjiv Ranjan; Foresi, Silverio.

Dasbach, Oliver T.

PD August 1994. TI A Conjecture of Kauffman on Amphicheiral Alternating Knots. AU Dasbach, Oliver T.; Hougardy, Stefan. AA University of Bonn.

SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 94831; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 5. PR no charge. JE C44. KW Amphicheiral Alternating Knots.

AB We give a counterexample to the following conjecture of Kauffman. Let K be an amphicheiral alternating knot. Then there exists a reduced alternating knot-diagram D of K , such that $G(D)$ is isomorphic to $G^*(D)$, where $G(D)$ is a checkerboard-graph of D and $G^*(D)$ its dual.

Dattels, Peter

TI The Coordination of Domestic Public Debt and Monetary Management in Economies in Transition--Issues and Lessons from Experience. AU Sundararajan, V.; Dattels, Peter; McCarthy, Ian S.; Castello-Branco, Marta; Blommestein, Hans J.

de Anda, Gustavo Gordillo

TI NAFTA and Mexico's Corn Producers. AU de Janvry, Alain; Sadoulet, Elisabeth; de Anda, Gustavo Gordillo.

de Cecco, Marcello

PD October 1994. TI Central Banking in Central and Eastern Europe: Lessons from the Interwar Years' Experience. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94127; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 22. PR not available. JE E58, G28, N24. KW Central Bank. Fiscal Debt. Exchange Rates. Monetary Stability.

AB This paper examines the philosophies which inspired the institution of central banking in Central and Eastern Europe in the interwar years. Influenced by the Financial Section of the League of Nations, the new central banks adopted laws which prohibited or severely restricted the financing of government fiscal debt. They were encouraged to centralize their payment systems and manage exchange rates to keep control of the money supply and achieve monetary stability. Before long they were forced to adopt further provisions in the area of banking supervision to regulate commercial banks. This paper considers the particular cases of Czechoslovakia, Hungary, and Poland.

de Janvry, Alain

TI Efficient Share Tenancy Contracts Under Risk: The Case of Two Rice-Growing Villages in Thailand. AU Sadoulet, Elisabeth; Fukui, Seiichi; de Janvry, Alain.

PD July 1994. TI The Challenge of Uuling Over Diversity: An Extension of Pinhas Zusman's Modeling of Social Power. AU de Janvry, Alain; Fafchamps, Marcel; Sadoulet, Elisabeth. AA de Janvry and Sadoulet: University of California Berkeley. Fafchamps: Stanford University. SR Department of Agricultural and Resource Economics, University of Berkeley: 723; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 19. PR \$5.00 Domestic \$10.00 International Surface Rate. JE C78, H11. KW Economic Development. Economic Policy. Social Power. Diversity.

AB In this paper, we attempt to identify some of the structural determinants of increased lobbying, using a framework derived from Pinhas and Zusman (1976). Specifically, we use an archetypal general equilibrium model

where specific social and economic features lead to different levels of endogenous resource wage and lobbying. In this paper, the policy is defined by maximization of a governance function which can be derived from a game theoretic formulation in which the government has its own agenda which lobbies can influence by reward and punishment. Interest groups have a Stackelberg leadership position relative to the state implementing the governance objective, while each has a Nash non-cooperative bargaining attitude relative to the others.

PD July 1994. **TI** Project Evaluation For Sustainable Rural Development: Plan Sierra in the Dominican Republic. **AU** de Janvry, Alain; Sadoulet, Elisabeth; Santos, Blas. **AA** de Janvry and Sadoulet: University of California Berkeley. Santos: Plan Sierra, Dominican Republic. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 724; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 32. **PR** \$8.00 Domestic \$16.00 International Surface Rate. **JE** D78, O21, O22. **KW** Rural Development. Sustainable Development. Watershed Development.

AB A method of project appraisal combining the criteria of economic feasibility, acceptability, and sustainability is developed and applied to Plan Sierra, a watershed development project in the Dominican Republic. Feasibility is measured by the change in sustainable income due to the project; acceptability by the change in average annual income for the present generation; and sustainability by the difference between changes in sustainable and average annual incomes. These three criteria may be achieved by schemes of tax and subsidy between project and non-project households and between present and future generations.

PD July 1994. **TI** NAFTA and Mexico's Corn Producers. **AU** de Janvry, Alain; Sadoulet, Elisabeth; de Anda, Gustavo Gordillo. **AA** de Janvry and Sadoulet: University of California Berkeley. de Anda: Government of Mexico. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 725; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 30. **PR** \$7.50 Domestic \$15.00 International Surface Rate. **JE** F11, F13, Q18. **KW** NAFTA. Mexican Agriculture. Corn Producers.

AB The fall in the producer price of corn that will accompany NAFTA has led to dire predictions of labor displacement in Mexican agriculture. We use a household survey of the ejido sector to show that a majority of corn producers are in fact not producing for the market and will consequently not be directly affected by a fall in the price of corn. For the net sellers, we explore the determinants of two solutions to a falling corn price: diversification toward high value crops and modernization of corn production. For both of these, results show the fundamental importance of reconstructing supportive institutions for marketing, credit, and technical assistance in replacement of the services formerly offered by government.

TI The Meaning of Kinship in Sharecropping Contracts. **AU** Sadoulet, Elisabeth; Fukui, Seiichi; de Janvry, Alain.

de Kock, Gabriel S. P.

PD August 1994. **TI** The Role of the Exchange Rate in the Monetary Transmission Mechanism: A Time-Series Analysis. **AU** de Kock, Gabriel S. P.; Deleire, Thomas.

AA de Kock: Federal Reserve Bank of New York. Deleire: Stanford University. **SR** Federal Reserve Bank of New York Research Paper: 9412; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 42. **PR** no charge. **JE** E52, F41, F47. **KW** Exchange Rates. Monetary Transmission Mechanism.

AB The objective of this paper is to provide a quantitative overview of changes in the monetary transmission mechanism brought about by increased U.S. participation in international trade and finance. In particular we are interested in three questions: (i) to what extent the exchange rate has become a more important, if not the primary, channel of monetary policy transmission; (ii) whether the short-run policy trade-off between output and inflation has improved as a result of greater participation in international trade; and (iii) if greater integration of the U.S. in world goods and financial markets has rendered domestic U.S. activity more susceptible to foreign disturbances than in the past, thus complicating the formulation of monetary policy. The analysis is based on structural vector autoregressions which explicitly take into account the interaction between U.S. and foreign activity, interest rates and the exchange rate. It supports four broad conclusions: (i) A change in monetary policy (change in the fed funds rate) now has about one-third the effect on aggregate economic activity that it had before 1980 due to a reduction in the overall interest-sensitivity of domestic spending. (ii) The exchange rate accounted for roughly one-third of monetary transmission to output after 1982 compared to a near-negligible contribution earlier. The increase is due to a tripling in the effect of the exchange rate on output and a somewhat stronger effect of monetary policy on the dollar exchange rate. (iii) The exchange rate does not appear to contribute significantly to monetary policy transmission to inflation, however, a result consistent with limited exchange-rate pass-through. (iv) Most striking is the extent to which the U.S. has become more sensitive to external and exchange-rate disturbances. Foreign shocks were responsible for about one quarter of the fluctuations in U.S. activity in the 1980's. Exchange rate fluctuations that cannot be explained by "fundamentals" appear responsible for a greater proportion of GDP fluctuations than monetary policy.

Dekimpe, M. G.

PD December 1994. **TI** Modelling Global Diffusion. **AU** Dekimpe, M. G.; Parker, P. M.; Sarvary, M. **AA** Dekimpe: Catholic University Leuven. Parker and Sarvary: INSEAD. **SR** INSEAD Working Papers: 94/72; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 31. **PR** not available. **JE** L15, L96, M11. **KW** Telecommunications. Product Diffusion Processes.

AB This paper reports a general model of global diffusion processes. The approach recognizes "breadth and depth" of adoption by first considering the sequential introduction of the innovation across countries (breadth). Given an introduction timing, within-country diffusion levels (depth) are subsequently modeled. We illustrate the approach using data from the cellular telephone industry for 184 countries, and provide insights which could not have been obtained using traditional techniques.

Deleire, Thomas

TI The Role of the Exchange Rate in the Monetary

Transmission Mechanism: A Time-Series Analysis. AU de Kock, Gabriel S. P.; Deleire, Thomas.

Demers, Fanny S.

PD June 1994. TI Irreversible Investment and Costs of Adjustment. AU Demers, Fanny S.; Demers, Michel; Schaller, Huntley. AA Demers: CEPREMAP, CEPII, and Carleton University. Schaller: Carleton University. SR CEPREMAP Discussion Paper: 9416; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 24. PR 25 F.F. JE C23, E22. KW Irreversible Investment. Cost of Adjustment.

AB The Q theory of investment represents a major theoretical advance over investment models which postulate an exogenous partial adjustment mechanism for the capital stock. However, Q theory may be criticized, in turn, since it does not provide any theoretical basis for adjustment costs. In contrast, it is possible to endogenize costs of adjustment in a model where firms face uncertainty, anticipate information and where investment decisions are irreversible (see Demers 1985, 1991). The irreversibility model leads to a prediction which contrasts with that of the exogenous costs of adjustment-Q model: costs of adjustment arise endogenously and are time-varying. Unlike the Q theory, the irreversibility model suggests that the parameters of the adjustment cost function should vary over time. We use a long panel data set to test these implications of the model and find that estimated adjustment costs vary substantially over time.

Demers, Michel

TI Irreversible Investment and Costs of Adjustment. AU Demers, Fanny S.; Demers, Michel; Schaller, Huntley.

Demsetz, Rebecca S.

PD February 1994. TI Economic Conditions, Lending Opportunities, and Loan Sales. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9403; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG not available. PR no charge. JE G21. KW Lending Opportunities. Loan Sales.

AB The empirical literature on commercial bank loan sales pays little attention to the relationship between economic conditions and loan sales volume, though recent theoretical work hypothesizes a positive relationship between lending opportunities and loan sales activity. This paper explores the influence of regional economic conditions in the context of a cross-sectional analysis of individual bank loan sales. In recent years, the effect of current and expected future economic conditions on loan sales volume has been positive and strong. This relationship is driven by the many smaller institutions in the sample (those for whom the regional economy is most relevant) and appears to be at least in part attributable to the link between economic conditions and loan origination opportunities.

den Haan, Wouter

TI Small Sample Properties of GMM for Business Cycle Analysis. AU Christiano, Lawrence; den Haan, Wouter.

Deneckere, Raymond

TI Capacity Precommitment as a Barrier to Entry: A Bertrand-Edgeworth Approach. AU Allen, Beth; Deneckere,

Raymond; Faith, Tom; Kovenock, Dan.

Dertouzos, James N.

TI Educational Benefits Versus Enlistment Bonuses: A Comparison of Recruiting Options. AU Asch, Beth J.; Dertouzos, James N.

Diamond, Peter

PD August 1994. TI On the Near Optimality of Linear Incentives. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-29; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 13. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE J33, L51. KW Principal-Agent Problem. Managerial Incentives.

AB Managers make efforts and choices. Efficient incentives to induce effort focus on the signal extraction problem of inferring the level of effort. Efficient incentives for choices line up the relative payoffs of principal and agent. With choices much more important than the variation in the cost of inducing effort, the optimal payment schedule tends toward proportionality. The argument holds if the control space of the agent has full dimensionality, but not otherwise. If the agent's choices are a complete set of fair gambles and insurance, the proportional payoff schedule is no more expensive than other schedules that induce effort.

Diebold, Francis X.

TI Optimal Prediction Under Asymmetric Loss. AU Christoffersen, Peter F.; Diebold, Francis X.

PD November 1994. TI Comparing Predictive Accuracy. AU Diebold, Francis X.; Mariano, Roberto S. AA Diebold: University of Pennsylvania and National Bureau of Economic Research. Mariano: University of Pennsylvania. SR National Bureau of Economic Research: 169; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C12. KW Hypothesis Testing. Predictive Accuracy.

AB We propose and evaluate explicit tests of the null hypothesis of no difference in the accuracy of two competing forecasts. In contrast to previously developed tests, a wide variety of accuracy measures can be used (in particular, the loss function need not be quadratic, and need not even be symmetric), and forecast errors can be non-Gaussian, non-zero mean, serially correlated, and contemporaneously correlated. Asymptotic and exact finite sample tests are proposed, evaluated, and illustrated.

Dionne, G.

PD June 1994. TI Debt, Moral Hazard and Airline Safety: An Empirical Evidence. AU Dionne, G.; Gagne, R.; Gagnon, F.; Vanasse, C. AA Dionne: C.R.T., Universite De Montreal, Universite Paris X, CEPREMAP. Gagne: C.R.T., Universite De Montreal, H.E.C. Montreal. Vanasse: C.R.T. and Universite De Montreal. SR CEPREMAP Discussion Paper: 9419; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 20. PR 25 F.F. JE D82, G21, R40. KW Debt. Moral Hazard. Airline Safety. Empirical Evidence. AB For many years, there has been a proliferation of theoretical articles on ex-ante moral hazard without any strong

empirical measure of its effect on resource allocation. In this article, we present a detailed analysis of the relationship between the financial structure of airlines and the private safety decisions of managers. We show that an increase in the debt-equity ratio is theoretically ambiguous on safety: there is a trade-off between efficiency in investment and moral hazard. All estimated models do not reject the Poisson distribution assumption. Many financial variables are significant when explaining the distribution of accidents. More particularly, our results indicate that the moral hazard effect on safety is dominated by the investment effect for carriers in good financial conditions, while the moral hazard effect dominates for those experiencing financial difficulties.

Dixon, Lloyd S.

PD 1994. TI Fixing Superfund: The effect of the Proposed Superfund Reform Act of 1994 on Transaction Costs. AA Rand Corporation and Institute for Civil Justice. SR Rand Report: MR-455-ICJ; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 89. PR \$15.00. JE C78, Q24, Q25, Q28. KW Superfund Program. Hazardous Waste. Liability.

AB This report focuses on the possible effect of the proposed Superfund Reform Act of 1994 on transaction costs--costs resulting not from cleanup but from assigning liability for cleanup among the various parties. The analysis is based on previous work on transaction costs performed at Rand, and on telephone interviews with various interested participants in the Superfund process. Participants interviewed include representatives of large and small potentially responsible parties, insurers, reinsurers, the environmental Protection Agency, the Department of the Treasury, environmental groups, and researchers. Because of its focus on transaction costs, this report does not address other important effects of the proposed legislation. For example, it does not discuss the effect of the proposed reforms on EPA's budget or on the relationship between the costs of Superfund cleanups and the benefits of cleanups for human health and the environment.

PD May 1994. TI Fixing Superfund: The Impact of the Proposed Superfund Reform Act of 1994 on Transaction Costs. AA Rand Corporation. SR Rand Report: DRU-727-ICJ; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 61. PR not available. JE C78, Q24, Q25, Q28. KW Superfund Program. Hazardous Waste.

AB This report assesses whether reforms such as those of the Superfund Reform Act of 1994 are likely to reduce transactions costs associated with the Superfund program. We evaluate the provisions according to their effect on three central attributes of the Superfund process: complexity, assignment of task to party able to perform most efficiently, and inducement of cooperation rather than contest. The proposed legislation seems likely to reduce transactions costs generated by major actions among potentially responsible parties, but the overall effect on transactions costs generated from interaction between these parties and government is unclear.

Dixon, Peter B.

TI How Important is Intra-Industry Trade in Australia's Rapid Trade Growth? AU Menon, Jayant; Dixon, Peter B.

PD July 1994. TI Computable General Equilibrium Modelling. AU Dixon, Peter B.; Parmenter, Brian R.

AA Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: IP-65; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 94. PR not available. JE C68, O21. KW Computation. Modelling.

AB This paper reviews computable general equilibrium (CGE) modelling, taking as its starting point the pathbreaking contribution of Johansen (1960). It gives a brief history of the field; reviews solutions procedures based on linear computations for single-period and multi-period models; sets out the theoretical structure, the data and some simulations from an illustrative model; and assesses the achievements, limitations and potential of the CGE field. The emphasis is on the role of CGE models in practical policy analysis and forecasting.

PD April 1995. TI Measures of Intra-Industry Trade as Indicators of Factor Market Disruption. AU Dixon, Peter B.; Menon, Jayant. AA Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: G-113; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 13. PR not available. JE F32, F17. KW Intra-Industry Trade. Matched Trade. Factor Market Disruption.

AB Intra-industry trade (IIT) related concepts have often been used as indicators of the extent to which trade growth can be accommodated without factor market disruption. The most commonly used indicators have been movements in the Grubel-Lloyd (GL) index. However, GL-based indicators are sometimes misleading and, at best, they give qualitative information only. We develop two other indicators. The first involves computed changes in IIT. While this method provides a precise measure of the contribution of growth in IIT to total trade (TT) growth, it tends to overestimate the contribution of non-disruptive trade growth. This problem is overcome by our second indicator, dynamic intra-industry trade or matched changes in trade. All our indicators are illustrated with data for 133 Australian manufacturing industries.

TI Regional Trading Arrangements and Intra-Industry Trade: The Case of ANZCERTA. AU Menon, Jayant; Dixon, Peter B.

Donaldson, John B.

TI Asset Pricing Implications of Real Market Frictions. AU Danthine, Jean-Pierre; Donaldson, John B.

Dutta, S.

TI Reengineering and Organizational Change: Lessons From a Comparative Analysis of Company Experiences. AU Ascari, A.; Rock, M.; Dutta, S.

TI Software Development Productivity of European Space, Military and Industrial Applications. AU Maxwell, K.; Van Wassenhove, L. N.; Dutta, S.

Echevarria, Cristina

PD August 1995. TI Gender Differences in Education in a Dynamic Household Bargaining Model. AU Echevarria, Cristina; Merlo, Antonio. AA Echevarria: University of Saskatchewan. Merlo: Federal Reserve Bank of Minneapolis and University of Minnesota. SR Federal Reserve Bank of Minneapolis Staff Report: 195; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 34. PR no charge.

JE C73, J12, J13, J15. **KW** Education. Family. Gender. Household.

AB We interpret observed gender differences in education as the equilibrium outcome of a two-sex overlapping generations model where men and women of each generation bargain over consumption, number of children, and investment in education of their children conditional on gender. This model represents a new framework for the analysis of the process of intrahousehold decision making in an intergenerational setting.

Edwards, Franklin R.

PD September 1994. **TI** Systemic Risk in OTC Derivatives Markets: Much Ado About Not Too Much. **AA** Columbia University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-17; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 38. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** G13. **KW** Derivatives. Systemic Risk.

AB The objective of this paper is to examine the arguments and the evidence in support of the view that the burgeoning OTC derivative markets pose a significant systemic risk to financial markets. In general, my conclusion is that current concerns about a derivatives-induced systemic crisis are out of proportion to the actual risks associated with the OTC derivative market. Further, although some firms have incurred substantial derivatives-related losses, usually due to either mismanagement or ignorance, in general the OTC derivatives market appears to be working well.

PD December 1994. **TI** The Decline of Traditional Banking: Implications for Financial Stability and Regulatory Policy. **AU** Edwards, Franklin R.; Mishkin, Frederic S. **AA** Edwards: Columbia University and American Enterprise Institute. Mishkin: Columbia University, National Bureau of Economic Research, and Federal Reserve Bank of New York. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-26; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 29. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** G11, G13, G21, G28, D81, D82. **KW** Banking. Financial Stability. Risk. Regulatory Structure.

AB This paper outlines the fundamental economic forces that have led to the decline in traditional banking; that is, the process of making long-term loans funded by issuing short-dated deposits. The declining competitiveness of traditional banking may threaten financial stability by increasing bank failures and by increasing the incentives of banks to take more risk, either by making more risky loans or by engaging in "nontraditional" financial activities that promise higher returns but greater risk. The paper argues that most nontraditional activities, such as banks acting as derivatives dealers, expose banks to risks and moral hazard problems that are similar to those associated with banks' traditional activities, and that these activities can be regulated as effectively as can traditional bank activities. We argue that the best regulatory approach to maintain financial stability and strengthen the banking system is to adopt a system of structured bank capital requirements with early corrective action by regulators. In addition, market-value accounting principles should be applied to banks and there should be increased public disclosure by banks of the risks associated with their trading activities. Finally, with this

regulatory structure in place, banks should be permitted greater freedom to expand into nontraditional activities.

PD December 1994. **TI** Derivatives Can Be Hazardous to your Health: The Case of Metallgesellschaft. **AA** Columbia University and American Enterprise Institute. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-27; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 24. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** not available. **KW** not available.

AB not available.

PD January 1995. **TI** The Collapse of Metallgesellschaft: Unhedgeable Risks, Poor Hedging Strategy or Just Bad Luck? **AU** Edwards, Franklin R.; Canter, Michael S. **AA** Edwards: Columbia University and American Enterprise Institute. Canter: Columbia University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-28; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 36. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** G11, G13, G32, G33. **KW** Bankruptcy. Derivatives. Germany. Hedging.

AB In early 1994 Metallgesellschaft A.G. (MG), Germany's 14th largest industrial firm, narrowly escaped bankruptcy when its U.S. subsidiary MG Refining and Marketing (MGRM) sustained huge losses on its derivatives positions. Only a massive \$1.9 billion loan by an international consortium of 150 banks saved MG. This derivatives debacle was especially surprising given MG's sophisticated owners: Deutsche Bank and Dresdner Bank, Germany's two largest banks. In this paper we examine what went wrong at MG, and in particular who or what is to blame for the huge losses taken by MGRM. Contrary to other articles about MG, Edwards and Canter conclude that MGRM's hedging strategy entailed considerable risks and ultimately failed in 1993 when MGRM was hit with unanticipated developments in energy markets. During 1993 MGRM established short-dated derivatives positions in energy futures and swaps equivalent to about 160 million barrels of oil in an effort to hedge its long-dated (as long as ten years), fixed-priced, forward delivery contracts. These contracts committed MGRM to supplying large quantities of energy products at fixed delivery prices for long periods of time, exposing the firm to rising energy prices. MGRM sought to hedge this exposure with long positions in short-dated energy derivatives, which it had to roll forward continuously to maintain its hedge. In late 1993 this forward delivery program came unraveled. Energy prices dropped sharply, from about \$19 a barrel for crude oil to almost \$14 dollars a barrel; and, energy markets went into a sustained period of contango, causing MGRM to experience substantial "roll losses" when rolling its short-dated derivatives positions forward.

PD January 1995. **TI** Off-Exchange Derivatives Markets and Financial Fragility. **AA** Columbia University and American Enterprise Institute. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-29; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 37. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** G13. **KW** Derivatives. Systemic Risk.

AB The objective of this paper is to evaluate the arguments

and the evidence that have been advanced in support of the view that OTC derivatives markets pose a systemic risk to financial markets. Because many of these arguments can be found in the recent GAO Report, much of this paper is directed at evaluating the arguments and evidence presented by that report. While it is obvious that the possibility of a systemic crisis occurring in any financial market can never be completely ruled out, I find that OTC derivatives markets are in general working well and do not pose an unacceptable risk to the financial system.

Eichengreen, Barry

PD October 1994. TI Unemployment and the Structure of Labor Markets: The Long View. AA University of California Berkeley. SR Center for International and Development Economics Research: 94-229; University of California Berkeley, Department of Economics, Berkeley, CA 94720. PG 24. PR not available. JE J18, N33, N34. KW Unemployment. Labor Markets. Economic History. Europe.

AB Understanding the causes of high unemployment requires first understanding the structure of labor markets. This is an historical agenda, since it is only over time that there is significant variation in the institutions structuring labor market outcomes. This paper therefore adopts a lone view on the operation of labor markets in order to provide a context for discussions of the sources and solutions to Europe's current unemployment problem. It characterizes the operation of labor markets since the second half of the 19th century. It pursues comparisons with market structure and performance in the interwar years and concludes with implications for today.

PD October 1994. TI Financing Infrastructure in Developing Countries: Lessons from the Railway Age. AA University of California Berkeley. SR Center for International and Development Economics Research: 94-230; University of California Berkeley, Department of Economics, Berkeley, CA 94720. PG 22. PR not available. JE H54.L91, N73, O53, R42. KW Infrastructure. Investment. Railways. Economic History.

AB This paper considers the role of infrastructure investment in the economic development of the regions of overseas European settlement in the 19th century. Its premise is that the pattern of investment in general, and the roles of public intervention and external finance in particular, were consequences of the structure of financial markets in countries in the early stages of economic development. Government intervention, external finance and debt-servicing difficulties were correlates of the financial-market imperfections that gave rise to informational asymmetries, moral hazard and adverse selection, while government policies to overcome asymmetric information encouraged management to engage in bankruptcy for profit. The tradeoff between credit rationing and bankruptcy for profit is at the heart of the paper.

PD October 1994. TI Debt Deflation and Financial Instability: Two Historical Explorations. AU Eichengreen, Barry; Grossman, Richard S. AA Eichengreen: University of California Berkeley. Grossman: Wesleyan University. SR Center for International and Development Economics Research: 94-231; University of California Berkeley, Department of Economics, Berkeley, CA 94720. PG 24. PR not available. JE E32, E44, N21, N22. KW Debt Deflation. Financial Instability. Bank Failures. Business Cycles.

AB Recent research, both historical and contemporary, has broadened existing analyses of the connections between financial markets and macroeconomic conditions to embrace debt deflation and financial instability explanations for business cycle fluctuations. This paper explores two episodes on which much of this research has focused: the post-bellum United States and the global depression of the 1930s. It seeks to distinguish the effects of bank failures and debt deflation and to probe the connections between them.

PD December 1994. TI Two Cases for Sand in the Wheels of International Finance. AU Eichengreen, Barry; Tobin, James; Wyplosz, Charles. AA Eichengreen: University of California Berkeley. Tobin: Yale University. Wyplosz: INSEAD. SR Center for International and Development Economics Research: C94-45; University of California Berkeley, Department of Economics, Berkeley, CA 94720. PG 17. PR not available. JE F31. KW Exchange Rates. Monetary Policy. Capital Controls.

AB The incompatibility of pegged exchange rates, international capital mobility and national monetary autonomy is a basic postulate of open economy macroeconomics. In the present environment of high capital mobility and political uncertainty, even the possibility that governments may utilize their policy autonomy can defeat efforts to peg the exchange rate. This leaves two possibilities. One is to fix the exchange rate irrevocably through monetary unification. The other is to live with floating rates. Either way, a case can be made for "throwing sand in the wheels" of international finance. Where monetary unification is not an option, this is a way to make distinct national currencies tolerable and international money and capital markets compatible with modest national autonomy in monetary and macroeconomic policy. For EU countries striving to create a monetary union, it is the only politically and economically feasible way of completing the transition to Stage III of the Maastricht process.

Elgar, Jane

PD November 1994. TI The Impact of the Law on Industrial Disputes in the 1980s: Report of a Survey of Managers in the National Health Service. AU Elgar, Jane.; Simpson, Robert. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 216; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 18. PR no charge. JE J52, K31. KW Labor Management Relations. Dispute Resolution. Employment Law.

AB This paper reports the results of one part of a research project which investigated the nature and extent of the effect of the labour legislation enacted between 1980 and 1990 on the conduct of industrial relations and the processes by which this came about. Interviews were carried out with managers at national, regional, district and unit or trust level in the National Health Service. Although there had been major national disputes and industrial action in the 1980s, local issues were the most likely source of disputes and possible industrial action. The experience of the 1980s therefore had a continued relevance after the 1990 reforms encouraged extensive devolution of industrial relations issues to unit level. The only notable legal ingredient in management responses to industrial action was deductions from the pay of staff who were not working normally, but on this as on other issues there were notable variations in practice in different areas. In general the

law did not seem to be a central component in management thinking on how to respond to disputes.

PD November 1994. **TI** The Impact of the Law on Industrial Disputes in the 1980s: Report of a Survey of Public Sector Transport Employers. **AU** Elgar, Jane.; Simpson, Robert. **AA** London School Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 217; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 22. **PR** no charge. **JE** J52, K31. **KW** Labor Management Relations. Dispute Resolution. Employment Law.

AB This paper reports the results of one part of a research project which investigated the nature and extent of the effect of the labour legislation enacted between 1980 and 1990 on the conduct of industrial relations and the processes by which this came about. Interviews were carried out with managers in three major public sector transport organisations. All three were subject to radical organisational change during the period under review and had quite extensive experience of disputes in this time. While they had made greater use of the law than employers in other sectors covered by the research project, there were mixed views on the results of this sort to the law. In general the law appeared to be a subsidiary part of, and influence on, the management of the process of change rather than an independent factor influencing management's relations with trade unions and the workforce.

Ellison, Glenn

PD August 1994. **TI** Geographic Concentration in the U.S. Manufacturing Industries: A Dartboard Approach. **AU** Ellison, Glenn; Glaeser, Edward L. **AA** Ellison: Massachusetts Institute of Technology. Glaeser: Harvard University and National Bureau of Economic Research. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-27; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 27. **PR** \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. **JE** R11, R12, R14. **KW** Geographic Concentration. Localization. Random Agglomeration. Index. Measurement. Firm Location. Spillovers.

AB This paper discusses the prevalence of Silicon Valley-style localizations of individual manufacturing industries in the United States. Several models in which firms choose locations by throwing darts at a map are used to test whether the degree of localization is greater than would be expected to arise randomly and to motivate a new index of geographic concentration. The proposed index controls for differences in the size distribution of plants and for differences in the size of the geographic areas for which data is available. As a consequence, comparisons of the degree of geographic concentration across industries can be made with more confidence. We reaffirm previous observations in finding that almost all industries are localized, although the degree of localization appears to be slight in about half of the industries in our sample. We explore the nature of agglomerative forces in describing patterns of concentration, the geographic scope of localization, and the extent to which agglomerations involve plants in similar as opposed to identical industries.

Engel, Eduardo

TI Explaining Investment Dynamics in U.S. Manufacturing: A Generalized (S,s) Approach. **AU** Caballero, Ricardo J.;

Engel, Eduardo.

Engerman, Stanley L.

PD December 1994. **TI** Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States. **AU** Engerman, Stanley L.; Sokoloff, Kenneth L. **AA** Engerman: University of Rochester. Sokoloff: University of California, Los Angeles. **SR** National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: ; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. **PG** not available. **PR** \$5.00. **JE** N11, N12, N16. **KW** Canada. Growth. New World. Slavery. United States.

AB Many scholars are concerned with why the United States and Canada have been so much more successful over time than other New World economies. The divergence in paths can be traced back to the achievement of sustained growth by the United States and Canada during the eighteenth and early-nineteenth centuries. Although many explanations have been offered, this paper highlights the relevance of substantial differences in the records of growth. We suggest that the roots of these disparities in the extent of inequality lay in differences in the initial factor endowments of the respective colonies. Of particular significance for generating extreme inequality were the suitability for the use of slaves, as well as the presence of large concentrations of aboriginal Americans. Conspicuously absent from the nearly all-inclusive list of New World colonies with these conditions were the British settlements in the northern part of the North American continent. We explore the effects of the degree of inequality on the evolution of institutions conducive to broad participation in the commercial economy, markets, and technological change during this specific era, and suggest that their greater equality in wealth, human capital, and political power may have predisposed the United States and Canada toward earlier realization of sustained economic growth. Overall, we argue that the role of factor endowments has been underestimated, and the independence of institutional developments from the factor endowments exaggerated, in theories of the differential paths of growth among New World economies.

Ericsson, Neil R.

PD October 1994. **TI** Conditional and Structural Error Correction Models. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 487; Board of Governors of the Federal Reserve System, Division of International Finance, Washington, DC 20551. **PG** 13. **PR** no charge. **JE** C31, C51, C52. **KW** Cointegration. Conditional Models. Dynamic Specification. Error Correction. Exogeneity. Vector Autoregression.

AB A "structural" error correction model (in Boswijk's sense) is a representation of a conditional error correction model that satisfies certain restrictions. This paper examines the conditions under which such a structural error correction model exists and when the associated representation is of interest. To clarify the nature of such models, several analytical and empirical examples are considered, which violate those conditions. Structural error correction models are economically appealing, but their limitations imply that some care must be taken when applying them in practice.

Estrella, Arturo

PD September 1994. TI Options Positions: Risk Measurement and Capital Requirements. AU Estrella, Arturo; Hendricks, Darryll; Kambhu, John; Shin, Soo; Walter, Stefan. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9415; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 35. PR no charge. JE G13. KW Option. Risk. Capital.

AB This paper evaluates various supervisory approaches for the measurement and capital treatment of the market and credit risks of options contracts. The purpose of the paper is to provide a better understanding of sound methods for setting capital requirements for the options activity of financial institutions. The paper discusses a number of existing and potential methods for measuring the market risk of options, the risk that an options contract will decline in value due to changes in market prices or rates. An evaluation of these methods based on their efficiency and coverage indicates that approximate value-at-risk rules tend to perform better than simple strategy-based rules. Within the category of value-at-risk rules, those based on gamma and Taylor series provide relatively similar results. Both outperform a delta-equivalent rule, and the gamma rule tends to be a bit more conservative than the Taylor series rule. In addition to comparing the capital coverage of the different methods, the paper also evaluates the methods with respect to their simplicity and reporting burden and the degree to which they can easily be incorporated into the existing supervisory framework of the major G-10 countries. The paper also provides a general discussion of major issues concerning the credit risk of options, the risk of losses on an options contract due to the failure of a counterparty to perform.

Evenson, Robert E.

PD August 1995. TI Household Composition and Expenditures on Human Capital Formation in Kenya. AU Evenson, Robert E.; Mwabu, Germano. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 731; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG 58. PR \$2.00. JE J24. KW Household Composition. Human Capital. Expenditure Function. Kenya.

AB Expenditures on human capital determinants in Kenya are analyzed using microdata. Specific expenditures on food, schooling and medical care provide evidence of human capital formation activities of households. The analysis is focused on expenditure and distributional effects of household composition dimensions. To determine empirical magnitudes of the effects, a flexible form of a household expenditure function is estimated. The results of the analysis show that gender and age composition are important determinants of the level and distribution of human capital investments in a household. In addition, household budget allocation favors boys over girls for secondary school education. The policies implied by the findings are discussed.

Everingham, Susan M. Sohler

TI Controlling Cocaine: Supply Versus Demand. AU Rydell, C. Peter.; Everingham, Susan M. Sohler.

Fafchamps, Marcel

TI The Challenge of Uuling Over Diversity: An Extension

of Pinhas Zusman's Modeling of Social Power. AU de Janvry, Alain; Fafchamps, Marcel; Sadoulet, Elisabeth.

Faith, Tom

TI Capacity Precommitment as a Barrier to Entry: A Bertrand-Edgeworth Approach. AU Allen, Beth; Deneckere, Raymond; Faith, Tom; Kovenock, Dan.

Farley, Donna O.

PD 1994. TI Designing a Capitation Payment Plan for Medicare end Stage Renal Disease. AU Farley, Donna O.; Kallich, Joel D.; Carter, Grace M.; Lucas, Thomas W.; Spritzer, Karen L. AA Rand Corporation, Health Care Financing Administration, Department of Health and Human Services, University of California, Los Angeles and Harvard University. SR Rand Report: MR-391-HCFA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 94. PR \$13.00. JE I11, I12, I18. KW Capitation. Cost Control. Health Care. Medicare.

AB Reports findings from a study of design options and payment methods for a capitation payment plan for the Medicare End Stage Renal Disease (ESRD) Program. The study contributes to payment policy development by evaluating capitation as an alternative payment method to control Medicare costs while maintaining access and quality of care for ESRD patients. A capitation payment method has been developed that combines monthly capitation payments for dialysis and functioning graft patients with one-time payments for kidney transplant and graft failure events.

Faust, Jon

PD October 1994. TI A Distributed Block Approach to Solving Near-Block-Diagonal Systems with an Application to a Large Macroeconometric Model. AU Faust, Jon; Tryon, Ralph. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 488; Board of Governors of the Federal Reserve System, Division of International Finance, Washington, DC 20551. PG 16. PR no charge. JE C22, C12. KW Confidence Interval. Asymptotic. Estimation. Spectrum. Time Series. Unit Root.

AB This paper demonstrates two advantages of well-known block variants of standard algorithms for solving nonlinear systems. First, if a problem is sufficiently close to block-diagonal, block algorithms may offer significant speed advantages on a single processor. Second, block Jacobi algorithms can easily and efficiently be distributed across multiple processors. We illustrate the use of a distributed block Jacobi algorithm to solve a large nonlinear macroeconomic model. For our application, on a four-processor Unix server, the algorithm achieves a speedup factor of more than 6 over the standard algorithm on a single processor. A speedup factor of about 2 is due to the added efficiency of the block algorithm on a single processor, and the remaining factor of 3 results from distributing the work over four processors.

Fein, A. J.

TI Incumbent Defense Strategies Against New Product Entry. AU Gatignon, H.; Robertson, T. S.; Fein, A. J.

Feldman, Robert A.

PD September 1994. TI Measures of External Competitiveness for Germany. AA International Monetary

Fund. SR International Monetary Fund Working Paper: 94113; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 14. PR not available. JE F10, F14, F17. KW Exchange Rates. Competitiveness. Exports. Germany.

AB This paper assesses Germany's external competitive position from several angles. It first examines movements in several real exchange rate indices. The analysis of competitiveness is then supplemented by using the so-called constant market share approach, and finally by examining briefly both pressures on profit margins in the tradable goods sector as well as export prospects. A key conclusion of the analysis is that the deterioration of Germany's external competitiveness suggested by some commonly used indicators of the real appreciation of the Deutsche mark, such as those based on relative unit labor costs in manufacturing, is generally exaggerated.

Fernald, Julia

PD January 1994. **TI** The Market for Collateralized Mortgage Obligations (CMOs). **AU** Fernald, Julia; Keane, Frank; Mair, Martin. **AA** Fernald and Mair: Republic New York Corporation. Keane: Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9413; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 88. **PR** no charge. **JE** G12. **KW** CMO. Mortgage-Backed Security. Debt. Options.

AB The emergence of the Collateralized Mortgage Obligation (CMO) market over the last decade has underpinned the rapid growth of mortgage securitization within the United States. This paper provides a description of common CMO structures and considers pricing, valuation, regulatory and risk assessment issues raised by this innovation. The paper withholds judgement on whether the market's evolution can be viewed as an advance. The paper concludes that the true test for the CMO market lies ahead and that CMO price dynamics in a volatile interest rate environment might result in concentrated investor losses and cause some to retreat from the market. It does, however, seem likely that CMOs will remain an important feature of mortgage debt markets going forward.

PD August 1994. **TI** Mortgage Security Hedging and the Yield Curve. **AU** Fernald, Julia; Keane, Frank; Mosser, Patricia C. **AA** Fernald: Republic New York Corporation. Keane and Mosser: Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9411; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 23. **PR** no charge. **JE** G12. **KW** Mortgage-Backed Securities. Yield Curve. Duration Hedging.

AB The steepening of the yield curve in response to tighter monetary policy this past spring has been attributed to macroeconomic phenomena such as expectations of higher inflation and higher future interest rates. This article offers an additional explanation: the hedging of mortgage-backed securities in the Treasury market may have magnified any increases in long-term rates which accompanied policy tightening. In particular, reports from market participants, evidence on prices and volumes of mortgage securities and Treasuries, and information from the repo and futures market all suggest that mortgage hedging was widespread and had a significant effect on the short-run movements of the Treasury market, particularly for 10-year securities. To the extent that

such hedging activity has become a standard feature of the marketplace in the last few years, it may have permanently altered the short-run dynamics of the yield curve, and thus changed the transmission of monetary policy.

Fernandez, Linda

PD June 1993. **TI** Wetlands Mitigation Banks: A Developer's Investment Problem. **AU** Fernandez, Linda; Karp, Larry S. **AA** University of California Berkeley. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 713; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 35. **PR** \$8.75 (U.S.) \$17.50 (For.). **JE** Q21, Q22, Q24. **KW** Wetlands Mitigation Banks. Stochastic Control. Option Value. Investments.

AB We study a land developer's decision to invest in a wetlands mitigation bank. The state at which it is optimal to "cash in" the investment in return for restoration credits increases with uncertainty. We calibrate and numerically solve a stochastic control model which describes the developer's investment problem. We study the effect of the parameters of the model on the investment trajectory and the optimal stopping state. A subsidy increases the option value of the investment and the stopping state. A small decrease in the variance of the state dynamics decreases the option value of investment and the stopping state.

Fernandez, Raquel

PD December 1994. **TI** On the Political Economy of Education Subsidies. **AU** Fernandez, Raquel; Rogerson, Richard. **AA** Fernandez: Boston University and National Bureau of Economic Research. Rogerson: University of Minnesota and Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 185; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 27. **PR** no charge. **JE** I12, H41. **KW** Political Economy. Education. Human Capital.

AB Standard models of public education provision predict an implicit transfer of resources from higher income individuals toward lower income individuals. Many studies have documented that public education involves a transfer in the reverse direction. We show that this pattern of redistribution is an equilibrium outcome in a model in which education is only partially publicly provided and individuals vote over the extent to which it is subsidized. We show that increased inequality in the income distribution makes this outcome more likely and that the efficiency implications of this exclusion depend on the wealth of the economy.

Finegold, David

PD 1994. **TI** The Decline of the U.S. Machine Tool Industry and Prospects for Its Sustainable Recovery: Volume 1. **AU** Finegold, David; Brendley, David; Lempert, Robert; Henry, Donald; Cannon, Peter; Boultinghouse, Brent; Nelson, Max. **AA** Rand Corporation. **SR** Rand Report: MR-479/1-OSTP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 151. **PR** \$15.00. **JE** F11, F13, F14, O33. **KW** Computerization. Germany. Industrial Policy. Italy. Japan.

AB At the beginning of the 1980's, the United States was the

world's largest producer of machine tools and had developed a new technology-- computer numerical control--that would soon revolutionize the industry. By the end of the decade, U.S. production amounted to less than half that of Japanese and German firms, and the federal government felt compelled to protect the domestic market. Despite a recent resurgence, the industry is far from recapturing lost market share. Concerned by this decline, Congress asked Rand's Critical Technologies Institute to conduct a comprehensive study of the machine-tool industry in the United States, Japan, Germany, and Italy. The study analyzes the causes of the U.S. decline and offers policy options for aiding its recovery.

PD 1994. **TI** The Decline of the U.S. Machine Tool Industry and Prospects for Its Sustainable Recovery: Volume 2. **AA** Rand Corporation. **SR** Rand Report: MR-479/2-OSTP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 250. **PR** \$13.00. **JE** F11, F13, F14, O33. **KW** Computerization. Germany. Industrial Policy. Italy. Japan.

AB This volume consists of the appendixes to the machine-tool study main report MR-479/1. Among the appendixes are detailed studies of the Japanese, German, and Italian machine-tool industries; and separate case studies of two key technology areas: computer numerical control and transfer lines. The volume also includes the results of focus groups with industry experts and data problems associated with industry studies.

Fishback, Price V.

PD December 1994. **TI** A Prelude to the Welfare State: Compulsory State Insurance and Workers' Compensation in Minnesota, Ohio, and Washington, 1911-1919. **AU** Fishback, Price V.; Kantor, Shawn Everett. **AA** University of Arizona. **SR** National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 64; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. **PG** not available. **PR** \$5.00. **JE** H42, I38, N31, N41, N42. **KW** New Deal. Progressive Era. State Insurance. Workers Compensation.

AB This paper traces the political-economic history of the success of compulsory state workers compensation insurance in three states in the 1910s: Minnesota, Ohio, and Washington. State insurance gained broad support in these states because a coalition of progressive legislators took control of their respective legislatures, bringing with them the idea that government had the unique ability to correct market imperfections. The political environment in which state insurance thrived in the 1910s provides important insights into the growth of government in the 1930s and 1960s. The major social insurance programs of the New Deal and the Great Society were widely supported at the time because the private market was seen as unable to solve a particular problem, such as unemployment compensation or poverty in old-age. This paper argues that the government's dramatic expansion after 1932 federal election was not unprecedented; in fact, the ideological roots of New Deal activism were planted during the debates over compulsory state insurance and workers' compensation in the 1910s.

Fishburn, Peter C.

PD October 1994. **TI** Minimal Winning Coalitions in Weighted-Majority Voting Games. **AU** Fishburn, Peter C.; Brams, Steven J. **AA** Fishburn: AT&T Bell Laboratories.

SR New York University. **SR** New York University, C.V. Starr Center Economic Research Report: 94- 28; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Analytic Economics, 269 Mercer Street, New York, NY 10003. **PG** 19. **PR** no charge. **JE** C71, D72. **KW** Coalitions. Voting Power. Weighted Majority Games.

AB Riker's size principle for n-person zero-sum games predicts that winning coalitions will tend to be minimal winning (any player's defection negates its winning status) under certain conditions. Brams and Fishburn (1994) applied Riker's principle to weighted-majority voting games in which players have voting weights $W_1 > W_2 > \dots > W_n$, and a coalition is winning if its members' weights sum to more than half the total weight. This paper extends and refines the earlier analysis by providing mathematical foundations for minimal and least winning coalitions (a subset of minimal winning coalitions); developing new data to examine relationships between voting weight and voting power; and applying different measures of voting power to these data. All sets of minimal and least winning coalitions that arise from different voting weights for $n < 6$ are identified. The analysis shows that large size is sometimes more harmful than helpful in least winning coalitions but, overall, players' voting power is fairly insensitive to their weights in such conditions.

Fisher, Anthony

PD June 1994. **TI** Alternatives for Managing Drought: A Comparative Cost Analysis. **AU** Fisher, Anthony; Fullerton, David; Hatch, Nile; Reinelt, Peter. **AA** University of California Berkeley. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 643; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 36. **PR** \$9.00 (U.S.) \$18.00 (For.). **JE** Q25. **KW** Water Supply. Flood Control. Reservoirs. Benefit-Cost Analysis.

AB The question addressed by this study is how a large urban water district can best respond to a drought. Using a computer model of a representative district, we find that a combination of conjunctive use and water marketing is well over an order of magnitude cheaper than the traditional alternative of construction of new storage capacity. The indicated cost saving can be explained by the intermittent nature of the transfer, corresponding to the intermittent demand. Comparing costs to benefits, the consumer-surplus loss otherwise entailed by raising prices to cut back on consumption in the event of a drought, we find that construction of new storage does not pass a benefit/cost test, but introduction of conjunctive use/water marketing does.

Fishman, A.

TI The Durability of Information, Market Efficiency and the Size of Firms. **AU** Rob, R.; Fishman, A.

Fluck, Zsuzsanna

PD August 1994. **TI** The Dynamics of the Management-Shareholder Conflict. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: 94-16; 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** not available. **JE** G32, G34, M11, M12, M21. **KW** Corporate Control. Equity Holders. Management

Buyouts.

AB This paper analyzes the dynamics of the interaction between internal control and outside equity holders and the timing of corporate control contests and management buyouts. The model provides a particularly useful framework to investigate corporate decisions with a dynamic perspective. There is a trading-phase with a rational expectations model of security markets followed by a dynamic game model of a corporate phase in which payout policies and corporate control contests are decided. Internal control shareholders sustain their control by regular dividend payments in equilibrium. The equilibrium dividend policy is supported by the threat of a corporate control contest; a takeover, a directorial challenge or a proxy fight, to remove internal control shareholders from their control over the operation of the assets. When the real cost of capital is very low then shareholders have a long time horizon and they are willing to discipline unsuitable management no matter how costly it is in the short run. Unexpected rises in the cost of capital shift shareholders' time preference toward the present and make them less willing to undertake a control challenge that is costly in the short run. Since a control challenge is likely to cost more to win the larger management ownership is, management may preempt the threat of their dismissal by increasing their equity stake in their company. The model predicts that when the real cost of capital is low then management holds a negligible stake in their company. When there is an unexpected, significant rise in the real cost of financial capital, a shift that is likely to last long, then internal control shareholders may suddenly and massively increase their stake in their company or take their company private. The implications of the theory are consistent with empirical facts concerning movements of the real cost of capital and the pattern of management buyouts and reverse buyouts in the United States in the 1980s.

Foresi, Silverio

TI The Forward Premium Anomaly: Three Examples in Search of a Solution. **AU** Backus, David K.; Foresi, Silverio; Telmer, Chris I.

TI Arbitrage Opportunities in Arbitrage-Free Models of Bond Pricing. **AU** Backus, David K.; Foresi, Silverio; Zin, Stanley E.

TI Arbitrage Opportunities in Arbitrage-Free Models of Bond Pricing. **AU** Backus, David K.; Foresi, Silverio; Zin, Stanley E.

PD November 1994. **TI** The Conditional Distribution of Excess Returns: An Empirical Analysis. **AU** Foresi, Silverio; Peracchi, Franco. **AA** Foresi: Columbia University and New York University. Peracchi: University of Udine. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-22; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 27. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** C14, G12. **KW** Asset Pricing. Generalized Additive Models. Nonparametric Methods.

AB In this paper we describe the cumulative distribution function of excess returns conditional on a broad set of predictors that summarize the state of the economy. We do so by estimating a sequence of conditional logit models over a grid of values of the response variable. Our method uncovers higher-order multidimensional structure that cannot be found

by modeling only the first two moments of the distribution. We compare two approaches to modeling: one based on a conventional linear logit model, the other on an additive logit. The second approach avoids the "curse of dimensionality" problem of fully nonparametric methods while retaining both interpretability and the ability to let the data determine the shape of the relationship between the response variable and the predictors. We find that the additive logit fits better and reveals aspects of the data that remain undetected by the linear logit. The additive model retains its superiority even in out-of-sample prediction and portfolio selection performance, suggesting that this model captures genuine features of the data which seem to be important to guide investors' optimal portfolio choices.

TI The Simple Analytics of Assets Values and Infrequent Policy Changes. **AU** Balduzzi, Pierluigi; Corsetti, Giancarlo; Foresi, Silverio.

TI The Central Tendency: A Second Factor in the Short-Term Rate. **AU** Balduzzi, Pierluigi; Das, Sanjiv Ranjan; Foresi, Silverio.

Foster, Dean P.

PD August 1994. **TI** Continuous Record Asymptotics for Rolling Sample Variance Estimators. **AU** Foster, Dean P.; Nelson, Daniel B. **AA** Foster: The Wharton School. Nelson: University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research: 163; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** not available. **PR** not available. **JE** C22. **KW** ARCH. GARCH. Heteroskedasticity. Rolling Regression. Time Series.

AB Researchers adopt many strategies to accommodate conditional heteroskedasticity of asset returns. Among the most popular are: (a) chopping the data into short blocks of time and assuming homoskedasticity within the blocks, (b) performing one-sided rolling regressions, in which only data from, say, the preceding five year period is used to estimate the conditional covariance of returns at a given date, and (c) two-sided rolling regressions which use, say, five years of leads and five years of lags. GARCH amounts to a one-sided rolling regression with exponentially declining weights. We derive asymptotically optimal window lengths for standard rolling regressions and optimal weights for weighted rolling regressions. An empirical model of the S&P stock index provides an example.

Franke, Gunter

PD December 1994. **TI** The Size of Background Risk and the Theory of Risk Bearing. **AU** Franke, Gunter; Stapleton, Richard C.; Subrahmanyam, Marti G. **AA** Franke: University of Konstanz. Stapleton: Lancaster University. Subrahmanyam: New York University. **SR** New York University Salomon Brothers Working Paper: 94-32; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 20. **PR** not available. **JE** D11, D81. **KW** Risk Aversion. Utility Function. Income.

AB We establish a necessary and sufficient condition for the risk aversion of an agent's derived utility function to increase with independent, zero-mean background risk. This condition is weaker than standard risk aversion. For small risks, the condition is that the ratio of the third to the first derivative of the utility function is decreasing in income. In a market with

state-contingent marketable claims, an increase in background risk, which raises the agent's derived risk aversion, reduces the slope of the agent's optimal sharing rule. Under a weak aggregation condition, an increase of background risk for many agents in the economy raises the prices of marketable claims in states with a low level of marketable aggregate income relative to the prices in states with a higher level of such income.

Frankel, Jeffrey A.

PD December 1994. TI Sterilization of Money Inflows: Difficult (Calvo) or Easy (Reisen)? AA University of California, Berkeley and International Monetary Fund. SR International Monetary Fund Working Paper: 94159; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 18. PR not available. JE F31, F41, G15. KW Stabilization. Interest Rates. Capital Flows. Exports. Latin America. Asia.

AB Some countries undergoing exchanging-rate-based stabilization and financial liberalization in Latin America, Asia, and elsewhere have faced large capital inflows since 1991. Many have tried to sterilize the reserve inflows. Calvo, Leiderman, and Reinhart argue essentially that sterilization is more difficult than generally realized, due to the interest costs on sterilization bonds. Reisen argues essentially that sterilization is easier than generally believed. This paper reviews the issues in the simplest textbook model and concludes that local interest rates are not likely to rise if the source of the disturbance is an exogenous capital inflow, but will rise if the disturbance is an increase in money demand or an increase in exports.

Franses, Philip Hans

PD July 1994. TI Volatility Patterns and Spillovers in Bund Futures. AU Franses, Philip Hans; Van Ieperen, Reinoud; Kofman, Paul; Martens, Martin; Menkveld, Bert. AA Franses, Ieperen, Martens, and Menkveld; Erasmus University. Kofman; Monash University. SR Monash Department of Econometrics Research Working Paper: 16/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 18. PR no charge. JE G13, G15. KW ARMA Process. Volatility. Cross-Correlation. Transaction Prices.

AB In this paper we examine intraday volatility of the Bund future, which is traded at the London International Financial Futures Exchange (LIFFE) and the Deutsche Terminbörse (DBT). Our objective is two-fold. First, we investigate spillovers in volatility between the exchanges. Such spillovers are found to occur only within one minute and they do not reveal any systematic lead of one exchange on the other. Second, we study patterns in intraday volatility. Our results indicate that volatility decreases from the opening hour until early afternoon and rises thereafter. The same pattern is detected in explanatory variables like traded volume and time-between-trades. Bid-ask spreads, however, seem to be constant throughout the day.

Fremling, Gertrud M.

PD December 1994. TI The Bias Towards Zero in Aggregate Perceptions: An Explanation Based on Rationally Calculating Individuals. AU Fremling, Gertrud M.; Lott, John R. Jr. AA Lott; University of Chicago and University of Pennsylvania. SR University of Chicago Center for the Study of the Economy and the State Working Paper: 105;

Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. PG 31. PR \$3.00; make check payable to "The University of Chicago.". JE D83, E32. KW Identifying Relationships. Aggregate Perceptions.

AB This paper shows that individual errors in identifying the relationships among variables cause a downward bias in the aggregate that is equivalent to the public underestimating the strengths of the true relationships. We will argue that rational expectations has considered only the "misestimation" type of error, which can "cancel out" in the aggregate, but that with errors in identifying relationships, there is no similar canceling out effect. The result is that the public appears to "irrationally" underestimate the strengths of relationships even when all individual agents are behaving rationally. Empirical evidence that forecasts are systematically biased is reinterpreted using our discussion.

Friedland, Claire

PD September 1994. TI Catalogue of the George Joseph Stigler Manuscripts in Special Collections, Regenstein Library, University of Chicago. AA University of Chicago. SR University of Chicago Center for the Study of the Economy and the State Working Paper: 101; Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. PG 125. PR \$3.00; make check payable to "The University of Chicago.". JE A10, B31. KW Collected Papers. Collected Works. George Stigler. Manuscript.

AB Each version of the manuscripts in George Stigler's files, whether or not subsequently published, has been retained in the Stigler archives, which are destined for the Regenstein Library at the University of Chicago. This is a chronological and subject catalogue of these manuscripts, to which have been added brief notes, outlines for lectures, and other miscellaneous writings by Stigler collected from his various offices. The chronological section of the catalogue is annotated and gives title, subject, date, length, publication status, and in some cases relationship to each other Stigler manuscripts and publications.

Fry, Tim R. L.

PD November 1994. TI Advertising Wearout in the Transport Accident Commission Road Safety Campaigns. AA Monash University. SR Monash Department of Econometrics Research Working Paper: 20/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 12. PR no charge. JE M37, C20, R49. KW Advertising. Road Safety.

AB This paper uses a varying coefficient regression model to investigate whether there is any significant advertising wearout in the Transport Accident Commission (TAC) road safety campaigns on Victorian television. The results suggest that there is some evidence that the effectiveness of the campaigns may be declining with increased exposure.

Fu, Tsu-Tan

TI Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan. AU Alberini, Anna; Cropper, Marueen; Fu, Tsu-Tan; Krupnick, Alan; Liu, Jin-Tan; Shaw, Daigee; Harrington, Winston.

Fujishige, Saturo

PD August 1994. TI An Efficient Cost Scaling Algorithm

for the Independent Assignment Problem. AU Fujishige, Saturo; Zhang, Xiaodong. AA University of Tsukuba. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 94829; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 17. PR no charge. JE C44. KW Scaling Algorithm. Independent Assignment Problem. AB An efficient cost scaling algorithm is presented for the independent assignment problem of Iri and Tomizawa, which is equivalent to the weighted matroid intersection problem of Edmonds. Our algorithm in general can be viewed as a generalization of Orlin and Ahuja's scaling algorithm for the ordinary assignment problem.

PD August 1994. TI The Orthant Non-Interaction Theorem for Certain Combinatorial Polyhedra and Its Implications in the Intersection and the Dilworth Truncation of Bisubmodular Functions. AU Fujishige, Saturo; Patkar, Sachin B. AA Fujishige: University of Tsukuba. Patkar: University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 94830; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 12. PR no charge. JE C44. KW Orthant Non-Interaction Theorem. Combinatorial Polyhedra. Dilworth Truncation. Bisubmodular Function.

AB We show a theorem characterizing a class of polyhedra that are expressed by systems of inequalities. Based on this theorem we give a sufficient condition for the intersection of two bisubmodular polyhedra to be integral. We also extend the notion of the Dilworth truncation of bisubmodular functions to a wider plausible class of bisubmodular functions (i.e., newly defined "compliant-intersecting bisubmodular" functions).

TI A Greedy Algorithm for Minimizing a Separable Convex Function over a Finite Jump System. AU Ando, Kazutoshi; Fujishige, Saturo; Naitoh, Takeshi.

Fukui, Seiichi

TI Efficient Share Tenancy Contracts Under Risk: The Case of Two Rice-Growing Villages in Thailand. AU Sadoulet, Elisabeth; Fukui, Seiichi; de Janvry, Alain.

TI The Meaning of Kinship in Sharecropping Contracts. AU Sadoulet, Elisabeth; Fukui, Seiichi; de Janvry, Alain.

Fulghieri, Paolo

TI Why Include Warrants in New Equity Issues? A Theory of Unit IPOs. AU Chemmanur, Thomas J.; Fulghieri, Paolo.

Fullerton, David

TI Alternatives for Managing Drought: A Comparative Cost Analysis. AU Fisher, Anthony; Fullerton, David; Hatch, Nile; Reinelt, Peter.

Gagne, R.

TI Debt, Moral Hazard and Airline Safety: An Empirical Evidence. AU Dionne, G.; Gagne, R.; Gagnon, F.; Vanasse, C.

Gagnon, F.

TI Debt, Moral Hazard and Airline Safety: An Empirical Evidence. AU Dionne, G.; Gagne, R.; Gagnon, F.; Vanasse, C.

Garber, Peter M.

PD December 1994. TI Foreign Exchange Hedging with Synthetic Options and the Interest Rate Defense of a Fixed Exchange Rate Regime. AU Garber, Peter M.; Spencer, Michael G. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94151; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 21. PR not available. JE E43, E58, F31. KW Exchange Rate Regime. Interest Rates. Currency. Central Bank.

AB In the end-game of a fixed exchange rate regime, increases in interest rates to defend the currency may lead to an apparently perverse market response: further downward pressure on the exchange rate. This may result if a large proportion of investors' foreign exchange exposure is dynamically hedged. This paper describes the trading operations involved in implementing dynamic hedges and the impact of these operations on central bank policy. The success of an interest rate defense hinges on the size and timing of the funding operations of those who are being squeezed relative to those engaged in dynamic hedging.

Garcia, Alejandro

TI Fiscal Policy Sustainability in Oil-Producing Countries. AU Liuksila, Claire; Garcia, Alejandro; Bassett, Sheila.

Gardner, Roy

PD February 1994. TI Racing for the Water: Laboratory Evidence on Subgame Perfection. AU Gardner, Roy; Moore, Michael R.; Walker, James M. AA Gardner: Indiana University and USDA. Moore: USDA. Walker: Indiana University. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-278; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 14. PR no charge. JE C73, C72. KW Dynamic Resource Game. Subgame Equilibrium. Laboratory Experiments.

AB This paper examines strategic behavior in the context of a dynamic common-pool resource game with a unique symmetric subgame equilibrium. Solving the model for its optimal solution and its subgame perfect equilibrium provides benchmarks for behavior observed in laboratory experiments. Baseline experiments, which portray a "rule of capture" for establishing ownership with group size equal to 10, achieve an average efficiency of 30 percent. Experiments that restrict entry, with group size equal to 5, increase average efficiency to 44 percent. Experiments applying a stock quota show more marked improvement in efficiency, averaging 54 percent. The stock quota experiments come closest to producing data consistent with subgame perfection.

Gately, Dermot

TI The Response of World Energy and Oil Demand to Income Growth and Changes in Oil Prices. AU Dargay, Joyce; Gately, Dermot.

Gatignon, H.

PD October 1994. TI Incumbent Defense Strategies Against New Product Entry. AU Gatignon, H.; Robertson, T. S.; Fein, A. J. AA Gatignon: INSEAD. Robertson: London Business School. Fein: University of Pennsylvania. SR INSEAD Working Papers: 94/69; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 28.

PR not available. JE L13, M31. KW Marketing. Product Introduction. Strategy.

AB The objective of this study is to estimate the effectiveness of different strategies when faced with a new product introduction by a competitor. Using a cross-sectional sample of incumbents across a wide range of industries, we find that faster reactions to the new entrant have a positive impact on the perceived success of the defense strategy. However, the greater the breadth of reaction (number of marketing mix instruments used), the less successful the defense. The ability of an incumbent to maintain its market position is also affected significantly by industry characteristics and the degree of competitive threat posed by the entrant.

Gavrilenkov, Evgeny

PD December 1994. TI How Large Was the Output Collapse in Russia? Alternative Estimates and Welfare Implications. AU Gavrilenkov, Evgeny; Koen, Vincent. AA Gavrilenkov: Center for Economic Analysis-Government of Russia and International Monetary Fund. Koen: International Monetary Fund. SR International Monetary Fund Working Paper: 94154; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 21. PR not available. JE E21, E23, E65, P22, P24, P27. KW Production. Consumption. GDP. Russia.

AB The divergence between production and consumption indicators in Russia suggests that the magnitude of the output collapse in the course of the transition is overstated by the official statistics. Alternative estimates for real GDP are derived, which reconcile the official production and consumption data. Based on cautious assumptions, real GDP appears to have declined cumulatively by no more than one-third rather than by one-half. The drop in household welfare is much smaller still, as the output mix shifts and deadweight losses are sharply reduced.

Gertler, Mark

TI The Financial Accelerator and the Flight to Quality. AU Bernanke, Ben; Gertler, Mark; Gilchrist, Simon.

Geweke, John

PD March 1995. TI Measuring the Pricing Error of the Arbitrage Pricing Theory. AU Geweke, John; Zhou, Guofu. AA Geweke: Federal Reserve Bank of Minneapolis and University of Minnesota. Zhou: Washington University at St. Louis. SR Federal Reserve Bank of Minneapolis Staff Report: 189; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 36. PR no charge. JE C11, D49, D81, D83, D84. KW Arbitrage Pricing Theory. Bayesian Decision. Gibbs Sampler.

AB This paper provides an exact Bayesian framework for analyzing the arbitrage pricing theory. Based on the Gibbs sampler, we show how to obtain the exact posterior distributions for functions of interest in the factor model. In particular, we propose a measure of the arbitrage pricing theory pricing deviations and obtain its exact posterior distribution. Using monthly portfolio returns grouped by industry and market capitalization, we find that there is little improvement in reducing the pricing errors by including more factors beyond the first one.

PD May 1995. TI Monte Carlo Simulation and Numerical Integration. AA Federal Reserve Bank of

Minneapolis and University of Minnesota. SR Federal Reserve Bank of Minneapolis Staff Report: 192; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 71. PR no charge. JE C63, C15. KW Acceptance Sampling. Antithetic Variates. Control Variates. Variance Reduction.

AB This is a survey of simulation methods in economics, with a specific focus on integration problems. It describes acceptance methods, importance sampling procedures, and Markov chain Monte Carlo methods for simulation from univariate and multivariate distributions and their application to the approximation of integrals. The exposition gives emphasis to combinations of different approaches and assessment of the accuracy of numerical approximations to integrals and expectations. The survey illustrates these procedures with applications to simulation and integration problems in economics.

Ghose, Devajyoti

PD September 1994. TI Common Persistence in Conditional Variances: Implications for Dynamic Hedging. AU Ghose, Devajyoti; Kroner, Kenneth F. AA University of Arizona. SR University of Arizona Economics Working Paper: 94-1; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 16. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE C22, G13. KW GARCH. Common Trends. Dynamic Hedging.

AB This paper relates common persistence in GARCH models (Bollerslev and Engle, 1993) to the recent literature on the performance of hedging strategies (which involve continual rebalancing of the portfolio to account for time-varying distributions) to improve upon constant hedging, in fact, the gain can sometimes be quite small. Furthermore, the relative performance tends to vary across markets. A potential reason for the difference in performance of these two hedging strategies across assets is given in this paper. It is shown that dynamic and constant hedging will be approximately equivalent in the long run if there is common persistence in conditional variances of spot and futures returns. Conditions under which dynamic hedging will perform significantly better are also derived. This is an important practical issue because dynamic hedging can be quite costly compared to the constant hedge. The issues addressed here are therefore directly relevant for the investor's decision about whether and when to rebalance the hedging portfolio.

Gilchrist, Simon

TI The Financial Accelerator and the Flight to Quality. AU Bernanke, Ben; Gertler, Mark; Gilchrist, Simon.

Glaeser, Edward L.

TI Geographic Concentration in the U.S. Manufacturing Industries: A Dartboard Approach. AU Ellison, Glenn; Glaeser, Edward L.

Glied, Sherry A.

PD November 1994. TI Much Ado About Nothing? Capital Market Reactions to Changes in Antitrust Precedent Concerning Exclusive Territories. AU Glied, Sherry A.; Kroszner, Randall S. AA Glied: Columbia University. Kroszner: University of Chicago. SR University of Chicago Center for the Study of the Economy and the State Working

Paper: 102; Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. PG 39. PR \$3.00; make check payable to "The University of Chicago.". JE L42, K21, K40. KW Antitrust. Legal Precedent. Exclusive Territories.

AB This paper uses evidence from the capital markets to examine the changes in the legal rules governing a form of non-price vertical restraint, namely, exclusive territories. During the past three decades the U.S. Supreme Court has reinterpreted section 1 of the Sherman Antitrust Act concerning the treatment of exclusive territories three times, oscillating between a "rule of reason" standard and a "per se" illegality standard. To investigate the effects of these changes, we identify a sample of publicly-traded firms that are involved in related antitrust litigation. When these firms win (lose) their own exclusive territories case, they experience a statistically significant stock price gain (loss). When the Supreme Court switches between standards, however, these firms' stock prices do not respond. We also identify a sample of publicly-traded franchise firms, since franchisers often employ vertical restrictions such as exclusive territories. Again, the stock prices of franchise firms do not appear to react when the Supreme Court announces changes in exclusive territories precedent. Our evidence indicates that as far as the capital markets are concerned, per se versus rule of reason treatment of exclusive territories is a distinction without a difference.

Goetzmann, William N.

TI Performance Persistence. AU Brown, Stephen J.; Goetzmann, William N.

Goldberg, Linda S.

PD July 1994. TI Foreign Direct Investment, Exchange Rate Variability and Demand Uncertainty. AU Goldberg, Linda S.; Kolstad, Charles D. AA Goldberg; New York University. Kolstad; University of California, Santa Barbara. SR New York University, C.V. Starr Center Economic Research Report: 94- 23; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Analytic Economics, 269 Mercer Street, New York, NY 10003. PG 19. PR no charge. JE D81, F21, F23, F31. KW Foreign Direct Investment. Exchange Rates. Uncertainty. Investment.

AB Variable real exchange rates influence the country choice for location of production facilities by a multinational enterprise. With risk averse investors and fixed productive factors, a parent company should not be indifferent to the choice of production capacity location, even when the expected costs of production are identical across countries. If a non-negative correlation exists between real export demand shocks and real exchange rate shocks, the multinational will optimally locate some of its productive capacity abroad. The share of production capacity optimally located abroad increases as exchange rate volatility rises and as export demand shocks become more correlated. These theoretical results are confirmed by empirical analysis of quarterly United States bilateral foreign-direct-investment flows with Canada, Japan, and the United Kingdom.

Goldin, Claudia

PD June 1994. TI Appendix to: "How America Graduated From High School, 1910 to 1960", Construction of State-Level Secondary School Data. AA Harvard University.

SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 57; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG not available. PR \$5.00. JE I21, I29. KW Education. High School. Secondary School.

AB A new state-level series on secondary-school data demonstrates that graduation and enrollment rates increased greatly in the 1920s and 1930s in most regions. An 18-year old male in 1910 had just a 10 percent chance of having a high school diploma but by the mid-1930s the median 18-year old male was a high school graduate. This Appendix describes the procedures used to construct the state-level secondary school enrollment and graduation numbers contained in the NBER Working Paper "How America Graduated from High School: 1910 to 1960."

PD June 1994. TI Labor Markets in the Twentieth Century. AA Harvard University. SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 58; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG not available. PR \$5.00. JE J20, J30, J50, J60, J70. KW Benefits. Child Labor. Equality. Inequality. Labor. Labor Productivity.

AB Across the past hundred years, the rewards of labor have grown-- wages, benefits, and increased leisure through shorter hours, vacation time, sick leave, and earlier retirement. Labor has been granted added security on the job and more safety nets when unemployed, ill, and old. Change in the labor market has interacted with societal changes; women's increased participation in the paid labor force is the most significant, and the virtual elimination of child and full-time juvenile labor is another. Labor productivity has been lagging since the 1970s. It was equally sluggish at other junctures in American history, but the present has unique features. The current slowdown in the United States has been accompanied by a widening in the wage structure; rising inequality is far more significant because of the coincidence. The wage structure was as wide in 1940 as today but there is, to date, no hard evidence when it began its upward trend. Union strength has come full circle to that at the turn of this century.

PD December 1994. TI Cliometrics and the Nobel. AA Harvard University. SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 65.; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG not available. PR \$5.00. JE B41, N01. KW Cliometrics. Economic History. Robert Fogel. Nobel Prize. Douglass North. AB In October 1993, the Royal Swedish Academy of Sciences awarded the Nobel Prize in Economics to Robert William Fogel and Douglass Cecil North "for having renewed research in economic history." The Academy noted that "they were pioneers in the branch of economic history that has been called the 'new economic history,' or 'cliometrics'." In this paper I address what this cliometrics is and how these two Nobel Prize winners furthered the discipline of economics.

Goldman, George E.

TI Complexity, Diversity and Stability Debate: Evidence From California County Data. AU Dabalen, Andrew; Goldman, George E.

TI Economic Impacts of Urban Forestry in California-1992.

AU Templeton, Scott R.; Goldman, George E.

TI Economic Impacts of Urban Forestry in California-1992.

AU Templeton, Scott R.; Goldman, George E.

Gong, Xiaoning

PD December 1994. TI Improving the Estimation Methodology of Monthly Data in Direction of Trade Statistics. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94142; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 12. PR not available. JE C28, F17. KW Direction of Trade. Estimation Methodology. Historical Data.

AB The quality of the estimated data in DOTS depends on the availability and accuracy of direction of trade reports and the estimation methodology. Because of the low coverage of monthly reporting, the estimating procedure plays a role of increased importance. This study, however, reveals two deficiencies in current DOTS estimation methodology: The information on total trade in IFS is not efficiently used, and the assumed uniform 10 percent CIF/FOB factor is inappropriate. Accuracy would be improved if IFS total trade were allocated, when available, according to the shares of total trade derived from partner data; and the uniform 10 percent CIF/FOB factors were replaced by adjustment factors derived from historical data.

Gourieroux, Christian

PD January 1994. TI Testing, Encompassing and Simulating Dynamic Econometric Models. AU Gourieroux, Christian; Monfort, Alain. AA Gourieroux: CREST-CEPREMAP. Monfort: CREST. SR CEPREMAP Discussion Paper: 9406; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 25. PR 25 F.F. JE C14. KW Non-Nested Hypotheses. Simulations. Indirect Identification. Indirect Information.

AB We define, in a dynamic framework, the notions of binding functions, images, reflecting sets, indirect identification, indirect information, and encompassing. We study the properties of the notion of encompassing when the true distribution does not necessarily belong to one of the two competing models of interest. In this context we propose various test procedures of the encompassing hypothesis. Some of these procedures are based on simulations and some of them are linked with the notion of indirect estimation (in particular the GET and Simulated GET procedures). As a by-product, we get an asymptotic theory of the tests of non-nested hypotheses in the stationary dynamic case.

PD February 1994. TI Kernel M-Estimators: Non Parametric Diagnostics for Structural Models. AU Gourieroux, Christian; Monfort, Alain; Tenreiro, C. AA Gourieroux: CREST-CEPREMAP. Monfort: CREST. Tenreiro: Coimbra University. SR CEPREMAP Discussion Paper: 9405; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 19. PR 25 F.F. JE C14. KW Kernel. Functional Estimation. M-Estimators.

AB We consider kernel M-estimators, defined as a solution of an optimization problem. We study the asymptotic properties, consistency and asymptotic normality.

PD May 1994. TI Multivariate Distributions for Limited Dependent Variable Models. AU Gourieroux, Christian; Jouneau, F. AA Gourieroux: CREST and CEPREMAP. Jouneau: CREST and LILLE III. SR CEPREMAP

Discussion Paper: 9414; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 29. PR 25 F.F. JE C13, C51. KW Multivariate Logistic Distribution. Limited Dependent Variable. Bias.

AB In limited dependent variable modeling the multivariate normal distribution is generally used for the latent models but in practice may lead to multiple integrals which have to be approximated by simulation techniques. In this paper we discuss multivariate distributions with tractable forms, given marginal distributions, and possible correlations. In particular we study some multivariate extensions of the logistic distribution and explain how it may be used to approximate Gaussian limited dependent variable models.

PD May 1994. TI Estimation of the Term Structure From Bond Data. AU Gourieroux, Christian; Scaillet, O. AA Gourieroux: CREST and CEPREMAP. Scaillet: CREST. SR CEPREMAP Discussion Paper: 9415; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 26. PR 25 F.F. JE G12, E43, C31, C32. KW Term Structure. Bond. Cash Flow Correction. Spline. Local Regression.

AB We present and compare different statistical approaches to determine the term structure of interest rates from bond data. All these approaches allow for correction of cash flows and maturity effects. They may be parametric (regression models), or non parametric (splines and local regressions). An application to French data is described.

PD September 1994. TI Les Modeles Econometriques: Utilisation Et Interpretation. AA CREST and CEPREMAP. SR CEPREMAP Discussion Paper: 9423; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 36. PR 25 F.F. JE C14. KW Modeling. Misspecified Models. Encompassing. Indirect Inference.

AB We present the main principles of econometric modeling using the recent literature. We discuss especially the ideas of well and misspecified models, the upward and downward approaches, the encompassing principle, the use of auxiliary models, strategy based modeling, and finally we describe the problems of updating.

Govindarajulu, Z.

TI Optimal Choice from Known Rewards with Uncertain Response. AU Utikal, Klaus; Govindarajulu, Z.

Grandmont, Jean-Michel

PD October 1994. TI Expectations Formation and Stability of Large Socioeconomic Systems. AA CNRS and CEPREMAP. SR CEPREMAP Discussion Paper: 9424; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 44. PR 25 F.F. JE E10, E32, D84. KW Learning. Self-Fulfilling Expectations. Temporary Equilibrium.

AB Analysis of the local stability of self-fulfilling expectations in a simple model, when many agents try, in a decentralized fashion, to learn the dynamics of the system, suggests a sort of general "uncertainty principle". If agents are ready on average to extrapolate a significant range of regularities (trends) out of small past deviations from equilibrium, the actual temporary equilibrium dynamics with learning should be locally unstable, especially if the influence of expectations on the motion of the system is strong. Local stability seems to occur only when expectations don't matter much, or when agents are assumed to ignore, either by lack of ability, or by conscious choice if they are fairly confident about

the local stability of the system, all locally divergent tendencies that are present in past deviations from equilibrium.

Grawe, Oliver

PD December 1994. TI Did Depreciation of the Dollar Render the Steel VRAs Nonbinding? AU Grawe, Oliver; Howarth, Dolly; Morkre, Morris. AA Grawe and Morkre: Bureau of Economics, Federal Trade Commission. Howarth: MCI Corp. SR Federal Trade Commission Bureau of Economic Working Paper: 208; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Ave. NW, Washington, D.C. 20580. PG 63. PR no charge. JE F13, F31, D58, L61. KW Steel VRAs. Exchange Rate Pass Through. Globalization.

AB One of the puzzles about the recent steel VRAs is whether they limited imports toward the end of the 1980's. The 36 percent depreciation of the dollar between 1984 and 1989 is believed to have rendered the VRAs ineffective by 1989. This paper estimates the effect of the dollar depreciation on the steel VRAs using a computable, partial equilibrium model. We find that depreciation alone was not sufficient to render the VRAs ineffective. This result is due to the following. First, only part of the changes in exchange rates were passed through to domestic prices. We believe that for steel partial pass through is explained by globalization of markets for the major inputs (e.g., iron ore) consumed by steel firms worldwide. Second, steel is an intermediate product widely used by tradable industries. A dollar depreciation causes domestic steel-using industries to expand. What happens to steel imports is unclear a priori.

Greenwood, Peter

PD 1994. TI Three Strike and You're Out: estimated Benefits and Costs of California's New Mandatory-Sentencing Law. AU Greenwood, Peter; Rydell, C. Peter; Abrahamse, Allan F.; Caulkins, Jonathan P.; Chiesa, James R.; Model, Karyn E.; Klein, Stephen P. AA Rand Corporation. SR Rand Report: MR-509-RC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 70. PR \$13.00. JE H56, H57, H59. KW Crime. Imprisonment. Mandatory Sentences. Penial Institutions.

AB The authors report on the benefits and costs of California's new mandatory-sentencing law, which provides for progressively longer sentences with an increasing number of prior convictions for serious felonies. The new law, if fully implemented, will decrease serious crime committed by adults by about 28 percent at a cost of an extra \$5.5 billion a year. Alternatives that narrow the law's application result in a lower benefit but an even greater reduction in costs. The authors were also able to devise an alternative that resulted in the same crime-reduction benefit for lower cost. The authors conclude that the state budget cuts required to fund the new law will be so great that it is unlikely to be fully implemented.

Grissmer, David W.

TI Skill Qualification and Turbulence in the Army National Guard and Army Reserve. AU Buddin, Richard J.; Grissmer, David W.

Grodal, Birgit

PD 1994. TI General equilibrium 40th Anniversary Conference. AU Grodal, Birgit; Hahn, Frank; Hildenbrand, Werner; Polemarchakis, Heracles. AA Grodal: University of Copenhagen. Hahn: University of Cambridge. Hildenbrand:

Universitat Bonn. Polemarchakis: Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 9482; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 166. PR not available. JE B21, D50. KW General Equilibrium. History of Thought.

AB The aim of the conference is to assess the accomplishments as well as failures of general equilibrium theory during these years and the challenges ahead.

Grossman, Richard S.

TI Debt Deflation and Financial Instability: Two Historical Explorations. AU Eichengreen, Barry; Grossman, Richard S.

Guinnane, Timothy W.

PD June 1995. TI The Limits to Land Reform: The Land Acts in Ireland 1870-1909. AU Guinnane, Timothy W.; Miller, Ronald I. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 726; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG 31. PR \$2.00. JE N23, N24, Q15. KW Agricultural Credit. Land Reform. Land Tenure.

AB Land reform in Ireland came as a result of a long and heated political debate over landlord-tenant relations. While meeting some demands of Irish nationalists, the reforms did little to improve the efficiency of agriculture in Ireland. Tenant land purchase provided a transfer of wealth to Irish tenants but did not alter production incentives. Moreover, the reforms missed opportunities to improve the access to credit of small farmers that should have been opened by the creation of a class of present proprietors. Indeed, legal restrictions on mortgaging introduced by the Land Acts may well have damaged rural credit availability, decreasing productive investment and locking in a potentially inefficient allocation of land.

Hahn, Frank

TI General equilibrium 40th Anniversary Conference. AU Grodal, Birgit; Hahn, Frank; Hildenbrand, Werner; Polemarchakis, Heracles.

Haines, Michael R.

PD June 1994. TI The Population of the United States, 1790-1920. AA Colgate University. SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 56; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG not available. PR \$5.00. JE J11, J13, F29. KW Birth Rate. Fertility. Immigration. Population.

AB In the 130 years from the first federal census of the United States in 1790, the American population increased from about four million to almost 107 million persons. This was predominantly due to natural increase, early driven by high birth rates and moderate mortality levels and later (after the Civil War) by declining death rates. In addition, over 33 million recorded immigrant arrivals increased the growth rate. By the two decades prior to World War I, about one third of total increase originated in net migration. A number of unusual features characterized the American demographic transition over the "long" nineteenth century. The fertility transition was early (dating from at least 1800) and from very high levels. The average woman had over seven livebirths in 1800. The crude birth rate declined from about 55 in 1800 to about 25 in 1920. This occurred prior to 1860 in an environment without

widespread urbanization and industrialization in most of the nation. Mortality levels were moderate, and death rates began their sustained decline only by the 1870s, long after the fertility transition had begun. This contrasts to the more usual stylization of the demographic transition in which mortality decline precedes or accompanies the fertility transition. Over most of the 19th century, internal migration followed east-west axes, although this began to weaken as rural-urban migration began to supplant westward rural migration in importance. International migration proceeded in waves and changed its character as the "new" migration from eastern and southern Europe replaced the "old" migration from western and northern Europe. This paper summarizes much of what is currently known about the American population, its composition, vital processes, and location, over this crucial period of growth.

PD September 1994. **TI** Estimated Life Tables for the United States, 1850-1900. **AA** Colgate University. **SR** National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 59; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. **PG** not available. **PR** \$5.00. **JE** I12, J11. **KW** Life Span. Mortality.

AB This paper presents three sets of estimated life tables by sex for the total and white populations of the United States for the second half of the nineteenth century. The first set uses the Brass [1975] two parameter logit model with the 1900/2 Death Registration Area life tables as the standards. Available empirical American life tables for the period 1830-1911 are used to establish the relationship between the level and structure of mortality. Data on deaths for the ages 5-19 in the year prior to the census (from the decennial federal censuses of 1850-1900) are actually used to obtain the national tables. The second set of life tables also uses the census mortality data for the ages 5-19 but fits Coale and Demeny [1966] West Model life tables. Both these sets of life tables were derived following procedures in Haines [1979]. The third set of life tables was estimated from the public use micro-sample of the 1900 U.S. census from data on the number of children ever born, the number of children surviving, and the age structure of surviving children to women aged 14-34. Given the lack of national life tables for the United States prior to the early twentieth century, it is hoped that these tables will be of value in research on mortality and on issues for which mortality and survival probabilities by age, sex, and race are used. The overall results confirm that the sustained modern mortality transition in the United States did not begin until approximately 1880. Prior to that time, it appears that mortality was not under control.

Haley, James

PD December 1994. **TI** Monitoring Financial Stabilization in Moldova: The Role of Monetary Policy, Institutional Factors and Statistical Anomalies. **AU** Haley, James; Shabsigh, Ghiath. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: 9425; International Monetary Fund, Washington, DC 20431. **PG** 13. **PR** not available. **JE** E49, E59. **KW** Inflation. Monetary Restraint. Moldova. **AB** This paper reviews some problems encountered in the design and monitoring of Fund-supported programs in Moldova. Early in the stabilization process a discrepancy emerged between measured inflation and the targeted inflation path that was consistent with the programmed degree of monetary restraint. While several explanations for the sharp

acceleration of inflation were considered, attention focused on the possibility that the figures compiled by the Moldovan authorities were biased by statistical anomalies. Inflation data adjusted to correct the published figures for the effects of these anomalies were found to correspond more closely with the degree of monetary restraint in the program.

Hallock, Kevin F.

PD October 1994. **TI** Seniority and Monopsony in the Academic Labor Market: Comment. **AA** Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 336; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 4. **PR** \$1.00. **JE** J42, J44, J71. **KW** Monopsony. Seniority. Discrimination.

AB Michael R. Ransom (1993) outlines an interesting case for monopsony in the academic labor market. Using a simple specification cited by Ransom, I have replicated a result he cites (from Hoffman, 1976) using data from The University of Massachusetts at Amherst (UMASS) from a later period. It appears, though, that the negative seniority profile cited by Ransom is not robust for data from UMASS. The paper has three principal findings: 1) the return to seniority at UMASS is positive--at least for low levels of seniority, which is contrary to Ransom's results, 2) faculty hired with tenure have a significantly higher salary (which supports the Ransom monopsony hypothesis) and 3) sex discrimination as described by Hoffman is lower than it was 15 years prior.

Hansen, Lars

TI On the Mechanics of Forming and Estimating Dynamic Linear Economies. **AU** Anderson, Evan; Hansen, Lars; McGrattan, Ellen; Sargent, Thomas.

Hanson, Gordon H.

TI Spillovers, Foreign Investment, and Export Behavior. **AU** Aitken, Brian; Hanson, Gordon H.; Harrison, Ann E.

Hao, Kang

PD October 1994. **TI** A Diagnostic Test for Structural Change in Cointegrated Regression Models. **AU** Hao, Kang; Inder, Brett. **AA** Monash University. **SR** Monash Department of Econometrics Research Working Paper: 19/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 8. **PR** no charge. **JE** C22. **KW** Structural Change. Cointegration. Ordinary Least Squares. CUSUM Test.

AB In this paper we derive the asymptotic distribution of the OLS based CUSUM test in the context of cointegrated regression models and tabulate its critical values. It is also found that the test has non-trivial local power irrespective of the particular type of structural change.

Hao, Lingxin

PD October 1994. **TI** Public Policies, Private Support and Single Mothers' Schooling, Work, and Child Care. **AU** Hao, Lingxin; Leibowitz, Arleen. **AA** Hao: Rand Corporation and University of Iowa. Leibowitz: Rand Corporation. **SR** Rand Report: DRU-853-NICHD; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 27. **PR** not available. **JE** H42, I31, I38. **KW** AFDC. Child Care. Kin Support. Single Mothers. Single Parents.

AB This paper examines whether low-cost child care that is tied to single mothers' productive activities increases the likelihood of their schooling and work. Child care opportunities open to single mothers include co-resident kin and certain public programs, e.g., subsidized child care places, AFDC earned income disregards for child care expenses, and child care tax credits for mothers who are attending school or working. Also examined in the paper is whether public programs are substitutes for kin support in affecting unmarried mothers' schooling, work, and, for enrolled or working women, child care type. Findings include: (1) public policies tied to single mothers' performance can stimulate their schooling and work, while those that are not tied to performance can deter productive activities; (2) living with kin increases schooling and work among unmarried mothers; (3) public programs tend not to substitute for kin support, in particular, not to reduce kin's incentives to care for children.

Haque, Nadeem U.

PD December 1994. **TI** Human Capital Flight: Impact of Migration on Income and Growth. **AU** Haque, Nadeem U.; Kim, Se-jik. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94155; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 24. **PR** not available. **JE** O15, O41, H21, H22. **KW** Taxation. Subsidy Policy. Human Capital. Immigration.

AB This paper analyses the impact of government tax and subsidy policy on immigration of human capital and the effect of such immigration on growth and incomes. In the context of a two-country endogenous growth model with heterogeneous agents and human capital accumulation, we argue that human capital flight or "brain drain" arising out of wage differentials, say because of differences in income tax rates or technology, can bring about a reduction in the steady state growth rate of the country of emigration. Additionally, permanent difference in the growth rates as well as incomes between the two countries can occur making convergence unlikely. While in a closed economy, tax-financed increases in subsidy to education can have a positive effect on growth, such a policy can have a negative effect on growth when human capital flight is taking place. Since subsidizing higher education is more likely to induce substantial brain drain, it is likely to be inferior to subsidy to lower levels of education if growth is to be increased.

Hargraves, Monica

TI A Monetary Impulse Measure for Medium-Term Policy Analysis. **AU** McCallum, Bennett T.; Hargraves, Monica.

Harris, Mark N.

PD July 1994. **TI** Modeling the Probability of Youth Unemployment in Australia: 1985- 1988. **AA** Monash University. **SR** Monash Department of Econometrics Research Working Paper: 11/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 24. **PR** no charge. **JE** C23, C25, J24. **KW** Panel Data. Attrition Bias. Labor Supply Functions. Work-Force Discrimination. Discrete Data. Univariate Probit.

AB This paper attempts to explain how particular personal characteristics affect the probability of unemployment of Australian youth. For this purpose the Australian Longitudinal Survey (1985-1988) is utilized and a Univariate Equicorrelated

Random Effects Probit model applied to the data. The Survey appears to be affected by endogenous attrition, the source of which was found to be nationality and education levels. These processes were accounted for in the estimation procedures. This study appears to be the first attempt to analyze this particular data as a panel data set in a Random Utility Discrete Choice context. Results indicate that age, education and financial housing commitments exert a positive influence on the probability of unemployment. Also, there is evidence to suggest that the disabled are discriminated against, and that reservation wages exert a strong negative effect.

PD September 1994. **TI** A Comparative Study of Introductory and Undergraduate Econometric Textbooks. **AU** Harris, Mark N.; Macquarie, Lachlan R. **AA** Monash University. **SR** Monash Department of Econometrics Research Working Paper: 17/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 20. **PR** no charge. **JE** A27, C00. **KW** Econometrics. Textbooks. Teaching. Estimation. Hypotheses Testing.

AB There is at present a surfeit of introductory and undergraduate econometric text books. This can prove unfortunate for both the new student of econometrics wishing to purchase a textbook, and for course conveners whom have the responsibility of recommending a textbook. In a recent paper Granger (1994) reviewed graduate level textbooks, but there still remains a shortfall in the literature reviewing introductory/undergraduate texts. This paper is an attempt to fill this gap, by comprehensively reviewing what we consider to be the major mainstream introductory or undergraduate econometric textbooks. Our approach differs from Granger (1994) in that we do not attempt to give a formula for the "ideal" text, but simply evaluate what is currently available. Our research indicates that Maddala (1992) is the best introductory text, with Greene (1992) being more useful in later studies.

Harrison, Ann E.

TI Spillovers, Foreign Investment, and Export Behavior. **AU** Aitken, Brian; Hanson, Gordon H.; Harrison, Ann E.

Harrison, W. Jill

PD June 1994. **TI** Computing Solutions for Large General Equilibrium Models Using GEMPACK. **AU** Harrison, W. Jill; Pearson, K.R. **AA** Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: IP-64; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 55. **PR** not available. **JE** C68, C53, C88. **KW** GEMPACK. General Equilibrium. Modelling Software.

AB GEMPACK is a suite of general-purpose economic modelling software especially suitable for general and partial equilibrium models. It can handle a wide range of economic behaviour and also contains a versatile method for solving intertemporal models. GEMPACK provides software for calculating accurate solutions of an economic model, starting from an algebraic representation of the equations of the model. These equations can be written as levels equations, linearized equations or a mixture of these two. The software provides a range of utility programs for handling the economic data base and the results of simulations, and is fully documented from a user's point of view. GEMPACK is used to implement and

solve a number of economic models including several single-country models (of which the ORANI model of Australia is perhaps the best known), multi-country trade models, regional models and intertemporal (or dynamic) models. GEMPACK runs on a wide variety of computers including 80386/80486 microcomputers running DOS, Windows or OS/2, Apple Macintosh computers, Unix machines, DEC VAX and Alpha machines running VMS. This paper gives an overview of the current release of GEMPACK (Release 5.1, April 1994). Included are descriptions of the algebra-like language used to describe and document the equations of an economic model, the operation of the pre-processor TABLO which converts the equations of the model to a form suitable for computing solutions of the model, the solution methods used for producing accurate solutions of the model, the facilities for specifying and carrying out simulations, including the options for varying the choice of endogenous and exogenous variables and the variables shocked, the condensation facility which makes it possible to solve very large models, the utility programs for assisting in managing the data bases on which models are based, the different versions of GEMPACK.

PD September 1994. **TI** Multiregional and Intertemporal Age Modelling Via GEMPACK. **AU** Harrison, W. Jill; Pearson, K.R.; Powell, Alan A. **AA** Harrison and Powell: Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: IP-66; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 21. **PR** not available. **JE** C68, C53, C88. **KW** GEMPACK. General Equilibrium. Modelling. Modelling Software.

AB The past few years have seen increasing use of multiregional and intertemporal (that is, forward-looking) applied general equilibrium (AGE) models. These models share the characteristic of rapidly expanding dimensions. Because multilateral trade models increase in size with the square of the number of regions and intertemporal models increase in proportion to the number of time periods, they can be very difficult to solve purely because of their size. This paper considers three recent models of these kinds, namely, GTAP, the Global Trade Analysis Project's multiregional model of the world; MRES, a multiregional forecasting model of Australia; and ORANI-INT, an intertemporal model of the Australian economy. Each of these has been implemented using the GEMPACK suite of general-purpose economic modelling software. In this paper we discuss features of GEMPACK which are especially relevant for multiregional and/or intertemporal models. These include an automatic facility to condense models to a manageable size; separation of theory, data, and closure/shocks; automatic creation of updated (that is, post-simulation) data files; and a solver that is well suited to intertemporal models with substantial elements of forward-looking behaviour. Each feature is illustrated via references to one or more of the three models mentioned above.

Hartmann, Philipp

PD December 1994. **TI** Foreign Exchange Risk Regulation: Issues for Industrial and Developing Countries. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94141; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 35. **PR** not available. **JE** F31, F39, G28, O16. **KW** Foreign Exchange. Market Risk. Portfolio Choice.

AB Capital adequacy regulations or quantity restrictions on bank portfolios put forward by the Basle Committee on Banking Supervision have virtually become an international standard of prudential regulation. Recent proposals aim at extending this approach to market risks, in particular to foreign exchange risk. The present paper provides a critical analysis of proposals to introduce foreign exchange position limits on a uniform cross-country basis, focusing on their effectiveness and their possible impact on the functioning of both mature and developing foreign exchange markets. Theoretical considerations are underpinned in the paper with descriptions of existing or proposed regulations, in a broad range of both industrial and developing countries. Experiences with the use of foreign exchange position limits in developing countries provide insight into their widespread use for other than prudential purposes, in particular to support exchange rate and exchange control policies.

Hatch, Nile

TI Alternatives for Managing Drought: A Comparative Cost Analysis. **AU** Fisher, Anthony; Fullerton, David; Hatch, Nile; Reinelt, Peter.

Haworth, Barry

TI On the Choice Between Process and Product Innovation. **AU** Bonanno, Giacomo; Haworth, Barry.

Heckman, James

PD September 1994. **TI** Accounting for Dropouts in Evaluations of Social Experiments. **AU** Heckman, James; Taber, Christopher; Smith, Jeffrey. **AA** Heckman and Taber: University of Chicago. Smith: University of Western Ontario. **SR** National Bureau of Economic Research: 166; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** not available. **PR** not available. **JE** C24. **KW** Bloom. Censored Data.

AB This paper considers the statistical and economic justification for one widely-used method of adjusting data from social experiments to account for dropping-out behavior due to Bloom (1984). We generalize the method to apply to distributions not just means, and present tests of the key identifying assumption in this context. A re-analysis of the National JTPA experiment base vindicates application of Bloom's method in this context.

Heilbrunn, Joanna Zorn

TI Military Pay Gaps and Caps. **AU** Hosek, James R.; Peterson, Christine E.; Heilbrunn, Joanna Zorn.

Helpman, Elhanan

TI North-South R&D Spillovers. **AU** Coe, David T.; Helpman, Elhanan; Hoffmaister, Alexander W.

Hendricks, Darryll

TI Options Positions: Risk Measurement and Capital Requirements. **AU** Estrella, Arturo; Hendricks, Darryll; Kambhu, John; Shin, Soo; Walter, Stefan.

Henry, Donald

TI The Decline of the U.S. Machine Tool Industry and Prospects for Its Sustainable Recovery: Volume 1. **AU** Finegold, David; Brendley, David; Lempert, Robert;

Henry, Donald; Cannon, Peter; Boultinghouse, Brent; Nelson, Max.

TI The Decline of the U.S. Machine Tool Industry and Prospects for Its Sustainable Recovery: Volume 1. **AU** Finegold, David; Brendley, David; Lempert, Robert; Henry, Donald; Cannon, Peter; Boultinghouse, Brent; Nelson, Max.

Henry, Jerome

PD December 1994. **TI** The French-German Interest Rate Differential Since German Unification: The Impact of the 1992 and 1993 EMS Crisis. **AU** Henry, Jerome; Weidmann, Jens. **AA** Henry: Banque de France. Weidmann: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 295; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 20. **PR** no charge. **JE** F33, E43, C32. **KW** Interest Rates. Cointegration. Heteroskedasticity. **GARCH**. **EMS**. Asymmetry in the ERM.

AB The EMS crises of 1992-1993, which resulted in the widening of the exchange rate bands, may have had some impact on the long-run structure of the system consisting of daily 1-month-Eurorates on German Mark, US- Dollar and French Franc. First, we find that both the US Eurorate and the German-French Eurorate differential are stationary over the December 1990 to December 1993 period, within a Gaussian VAR. Second, using GARCH-models to account for heteroskedasticity it is demonstrated that Gaussian models can induce a misleading interpretation of the linkages, namely about the effects of the American rate on the French one. In spite of the crises and the changes in the ERM, the volatility parameters for the German-French interest rate differential are quite stable over the sample. This can be related to the observation that the July 1993 crisis is not linked to a specifically high volatility.

Hens, Thorsten

PD November 1994. **TI** On the Stability of Intertemporal Equilibria with Rational Expectations. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A- 465; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 23. **PR** no charge. **JE** D52, D54, D84. **KW** Stability. Rational Expectations. General Equilibrium.

AB In this paper we propose a concept of stability for intertemporal equilibria with rational expectations: current period prices move proportionally to current period excess demand while future prices are formed according to the perfect foresight hypothesis. It is shown that this process is locally asymptotically stable if all goods are gross substitutes, or if the equilibrium has no trade. In general this process differs from a tatonnement process in contingent contracts prices and from a tatonnement in asset and spot market prices. It also differs from Hicks' and exceptional stability. In an intertemporal variant of Scarf's example on the instability of the Walrasian tatonnement process it will be seen that the stability notion we propose is more stable than any other process investigated so far.

PD December 1994. **TI** Exchange Rates and Perfect Competition. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A- 466; Sonderforschungsbereich 303 an der Universitat Bonn,

Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 9. **PR** no charge. **JE** D51, F31. **KW** Exchange Rates. Competitive Equilibrium Prices. Law of One Price.

AB We consider two types of firms both operating in two countries. The demand side of the markets of the two countries are separated and each type of firm produces its good in one of these countries. We study the effect of an exchange rate change on the competitive equilibrium prices in each country. When producing for the foreign market causes the same costs as producing for the home market then the 'Law of one Price' holds and an exchange rate change is completely offset by price changes. Furthermore when cost functions are additively separable between producing for the home and producing for the foreign market then prices move in the 'right' direction in response to an exchange rate change. However, with general cost structures, even in this simple competitive model, any direction of price changes can result from an exchange rate change.

Hildenbrand, Werner

TI General equilibrium 40th Anniversary Conference. **AU** Grodal, Birgit; Hahn, Frank; Hildenbrand, Werner; Polemarchakis, Heracles.

TI General equilibrium 40th Anniversary Conference. **AU** Grodal, Birgit; Hahn, Frank; Hildenbrand, Werner; Polemarchakis, Heracles.

Ho, T. S.

PD December 1994. **TI** Correlation Risk, Cross-Market Derivative Products, and Portfolio Performance. **AU** Ho, T. S.; Stapleton, Richard C.; Subrahmanyam, Marti G. **AA** Ho and Stapleton: Lancaster University. Subrahmanyam: New York University. **SR** New York University Salomon Brothers Working Paper: 94-33; 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** 13. **PR** not available. **JE** G11, G13. **KW** Correlation Risk. Derivatives. Portfolio Performance. Exchange Risk.

AB We consider portfolios whose returns depend on at least three variables and show the effect of the correlation structure on the probabilities of the extreme outcomes of the portfolio return, using a multivariate binomial approximation. The portfolio risk is then managed by using derivatives. We illustrate this risk management both with simple options, whose payoff depends upon only one of the underlying variables, and with more complex instruments whose payoffs (and values) depend upon the correlation structure. The question of benchmarking portfolio performance is complicated by the use of derivatives, especially complex derivatives, since these instruments fundamentally alter the distribution of returns. We use the multivariate binomial model to set performance benchmarks for multicurrency, international, portfolios. Our model is illustrated using a simple example where a German institution invests a proportion of its funds in German equities, and the remainder in UK equities. Portfolio performance is measured in Deutsche Marks and depends upon (1) the DAX index, (2) the FTSE index, and (3) the Deutsche Mark-Sterling exchange rate. The output of the model is a simulation of possible outcomes from the portfolio hedging strategy. The difference in our methodology is that we are able to retain the simplicity of the binomial distribution, used extensively in the analysis of options, in a multivariate context. This is achieved

by building three (or more) binomial trees for the individual variables and capturing the correlation structure with the use of varying conditional probabilities.

Hodges, James S.

TI An Approach to Understanding the Value of Parts.
AU Brauner, Marygail K.; Hodges, James S.; Relles, Daniel A.

Hoedemaker, G.

TI Concurrent Software Engineering: Prospects and Pitfalls.
AU Blackburn, J. D.; Hoedemaker, G.; Van Wassenhove, L. N.

Hoffmaister, Alexander W.

TI North-South R&D Spillovers. AU Coe, David T.; Helpman, Elhanan; Hoffmaister, Alexander W.

PD December 1994. TI Asset Prices, Financial Liberalization and the Process of Inflation in Japan.
AU Hoffmaister, Alexander W.; Schinasi, Garry J.
AA International Monetary Fund. SR International Monetary Fund Working Paper: 94153; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 15.
PR not available. JE G12, E31, E44, C32. KW Asset Price. Business Cycle. Inflation. Japan.

AB This paper examines the extent to which the Japanese asset price cycle of the 1980's was determined by monetary factors, the real business cycle, and financial liberalization. Strong evidence is found of a shift in the relationships between monetary factors and land price inflation in the early 1980's. In particular, the estimated parameters of a vector autoregression imply that the transmission of monetary factors to asset prices was greater in the 1990's than in the 1970's. A key conclusion is that monetary shocks led to more asset price inflation and less consumer price inflation in the 1984-93 period than during 1970-83.

Hoffman, Elizabeth

PD October 1994. TI An Experimental Investigation of the Incentives to Form Agricultural Marketing Pools.
AU Hoffman, Elizabeth; Libecap, Gary D.; Shachat, Jason M.
AA Hoffman: Iowa State University. Libecap and Shachat: University of Arizona. SR University of Arizona Economics Working Paper: 94-4; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721.
PG 22. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air.
JE C35, C92, Q13. KW Marketing Pool. Experimental Economics. Discrete Choice.

AB This paper presents theoretical extensions and laboratory tests of the Hoffman and Libecap (1994) model of individual firm incentives to form agricultural marketing pools. The key incentives are lower variance in output prices and economies in scale in marketing. This paper extends the model by allowing firms to have heterogeneous risk attitudes over uncertain profits via the tools of Bayes-Nash equilibrium. An experimental design is conducted to test the theoretical implications of this model. Statistical analysis of the experimental data using random effects probit models supports the model that incorporates heterogeneous risk attitudes that are private information. Furthermore, the statistical analysis reveals a stylized fact: strategic uncertainty leads to more noise around the Bayes-Nash equilibrium of environments that possess

economies of scale for pool participants. This is evidence that economy of scale arguments for pooling may not be as empirically strong as previously believed.

Hoffman, Sandra A.

TI Defense Spending Reductions and the California Economy: A Computable General Equilibrium Model.
AU Robinson, Sherman; Hoffman, Sandra A.; Subramanian, Shankar.

PD June 1994. TI The 1990's Defense Build-Down in California and the United States. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 712; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 39.
PR \$9.75 (U.S.) \$19.50 (For.). JE C68, H56.
KW Defense Spending Reductions. California Economy.

AB The California economy entered a significant downturn in 1990. Since mid-1990 California nonfarm wage and salary employment has dropped steadily at a rate of roughly 1 percent to 2 percent per year (Gov. 1994). This is the longest continuous decline in California employment since 1939 (CDF 1993b). Net California nonfarm wage and salary employment dropped by 868,000 jobs between May 1990 (when the state recession began) and the end of 1993 (Gov. 1994). The California unemployment rate increased from 5.6 percent in 1990 to 9.1 percent in 1993. Manufacturing jobs accounted for 40 percent of this job loss; trade and construction accounted for roughly an additional 52 percent (Gov. 1994). Total employment also fell 1 percent between 1990 and 1991, but rose slightly in 1992 (CDF 1993b). Total California personal income fell less than 1 percent between 1990 and 1992 (CDF 1993b). In his 1994 budget proposal, Governor Wilson stated, "there is no question that defense is by far the leading cause of the state's economic distress. With the full effect of the Clinton cuts yet too felt, recovery through much of this decade will be jeopardized absent concerted action at all levels of government" (Gov. 1994 p. 14). California also reaped substantial gains from an expansion in U.S. military spending during the early through mid-1980s that was comparable to that during previous wars. In 1982, prime contract awards for defense procurement already exceeded their highest level during the Vietnam war. Between 1982 and their 1984 peak, prime contract awards rose 47 percent (DoD Prime Contract Awards various years). Nationwide, this expansion ended in 1986. By failing to substantially increase defense allocations between 1986 and 1991, Congress effectively cut defense appropriations in real terms by 2 percent annually (Wynne 1991). In January of 1990 President Bush formally proposed a 2 percent annual reduction in the defense budget for fiscal years FY 1991 through FY 1995 (Whitehead 1991). In February of 1991 he proposed cutting defense spending by 20 percent between FY 1992 and 1997 (1992-97 Future Years Defense Program). This paper reviews the literature discussing historical patterns in defense spending in the United States and California and the effect of the current defense build-down. Section 1 of this paper discussed defense spending's role in the U.S. economy and reviews proposed reductions in defense spending cuts at a national level. Section 2 describes the role defense spending has played in state economies, particularly the California economy, in the past and summarizes existing analyses of the effect of recent defense cuts on the California economy. It is also important to understand the range and limitations of economic model's

ability to project the effect of such policy changes. Section 3 reviews models which have been used to analyze the effect of defense cuts nation-wide and discusses the findings of studies using these models.

Holmes, Thomas

PD October 1994. TI Resistance to Technology and Trade Between Areas. AU Holmes, Thomas; Schmitz, James. AA Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 184; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 30. PR no charge. JE F10, O20, O30. KW Resistance to Technology. Technology Adoption. Growth.

AB Why are methods of production used in an area when more "efficient" methods are available? This paper explores a "resistance to technology" explanation. In particular, the paper attempts to understand why some industries, like the construction industry, have had continued success in blocking new methods, while others have met failure, like the dairy industry's recent attempt to block bST. We develop a model which shows that how easily goods move between areas determines in part the extent of resistance to new methods in an area.

PD April 1995. TI Localization of Industry and Vertical Disintegration. AA Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 190; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 44. PR no charge. JE L22, R12. KW Vertical Integration. Agglomeration. Suppliers.

AB This paper considers Marshall's argument that geographic concentration of industry facilitates specialization. I use Census data on manufacturing plants to examine the relationship between localization of industry and vertical disintegration. I find that establishments located near other establishments within the same industry tend to make more intensive use of purchased inputs than establishments without own- industry neighbors. This relationship only holds among industries that are geographically concentrated; having neighbors makes no difference in geographically dispersed industries. I argue that this pattern is consistent with a model in which increased opportunity for specialization is the reason some industries localize.

Horridge, J. Mark

PD April 1995. TI The Macroeconomic, Industrial, Distributional and Regional Effects of Government Spending Programs in South Africa. AU Horridge, J. Mark; Parmenter, Brian R.; Cameron, Martin; Joubert, Riaan; Suleman, Areef; de Jongh, Dawie. AA Horridge and Parmenter: Monash University. Cameron, Joubert and Suleman: Industrial Corporation South Africa Limited. de Jongh: French Bank of Southern Africa and Witwatersrand University. SR Centre of Policy Studies and the Impact Project Working Paper: G-109; Centre of Policy Studies and the Impact Project. Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 38. PR not available. JE C68, D31, D48, E62, O55. KW Government Spending. Income Distribution. Industrial Effects. South Africa.

AB A computable general equilibrium model of the South African economy (IDC-GEM) is outlined. The model is used to analyse the effects on the economy of increases in government

spending such as are at the core of the new government's Reconstruction and Development Program. The analysis concentrates on the implications of alternative methods of finance for the program. Results are reported for macroeconomic variables, for the prospects of industries and regions, and for income distribution.

Horvath, Michael T.

PD December 1994. TI Testing for Cointegration when some of the Cointegrating Vectors are Known. AU Horvath, Michael T.; Watson, Mark W. AA Horvath: Stanford University. Watson: Northwestern University and National Bureau of Economic Research. SR National Bureau of Economic Research: 171; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C32, F31. KW Cointegration. Foreign Exchange. Forward Spot Premium. VAR. Vector Autoregression.

AB Many economic models imply that ratios, simple differences, or "spreads" of variables are $I(0)$. In these models, cointegrating vectors are composed of 1s, 0s, and -1s, and contain no unknown parameters. In this paper we develop tests for cointegration that can be applied when some of the cointegrating vectors are known under the null or under the alternative hypotheses. These tests are constructed in a vector error correction model (VECM) and are motivated as Wald tests in the version of this Gaussian model. When all of the cointegrating vectors are known under the alternative, the tests correspond to the standard Wald tests for the inclusion of error correction terms in the VAR. Modifications of this basic test are developed when a subset of the cointegrating vectors contains unknown parameters. The asymptotic null distribution of the statistics are derived, critical values are determined, and the local power properties of the test are studied. Finally, the test is applied to data on foreign exchange future and spot prices to test the stability of forward-spot premium.

Hosek, James R.

PD 1994. TI Military Pay Gaps and Caps. AU Hosek, James R.; Peterson, Christine E.; Heilbrunn, Joanna Zorn. AA Hosek and Peterson: Rand Corporation. Heilbrunn: Office of the Assistant Secretary of Defense for Personnel and Readiness, United States. SR Rand Report: MR-368-P&R; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 17. PR \$13.00. JE H56, H57, J21, J31, J45. KW Compensation. Defense. Military Recruitment.

AB This report investigates the military/civilian pay gap and its implications for capping military pay increases. The pay gap is defined as the percent difference in military versus civilian pay growth as measured from a given starting point. The index currently used for civilian pay growth is the Employment Cost Index (ECI), which reflects pay growth in the civilian labor force at large. The authors instead recommend measuring civilian pay growth for the subset of civilian workers whose composition by age, education, occupation, gender, and race/ethnicity represents that of active duty military personnel. The authors do so via construction of a Defense Employment Cost Index (DECI). They compare pay gaps based on the ECI vs. the DECI, and present DECI-based pay gaps for officer and enlisted personnel by gender and seniority and for occupational and age categories. The authors then consider the implications of these pay gaps for capping military pay.

Hossain, Shahabuddin M.

PD October 1994. TI The Equity Impact of the Value-Added Tax in Bangladesh. AA University of Cambridge and International Monetary Fund. SR International Monetary Fund Working Paper: 94125; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 14. PR not available. JE H22, H23. KW Income Distribution, Value-Added Tax, Households.

AB This paper investigates the income distributional implications of different value-added tax (VAT) schemes in Bangladesh. The results indicate that a revenue-neutral uniform VAT is regressive in its impact on the income of different households. This paper explores an alternative policy package, consisting of a basic rate of VAT with exemptions for certain commodity groups, chosen on the basis of their distributional characteristics. The welfare consequences of the alternative package are found to be superior to those of the uniform VAT.

Hougardy, Stefan

TI A Conjecture of Kauffman on Amphicheiral Alternating Knots. AU Dasbach, Oliver T.; Hougardy, Stefan.

Howarth, Dolly

TI Did Depreciation of the Dollar Render the Steel VRAs Nonbinding? AU Grawe, Oliver; Howarth, Dolly; Morkre, Morris.

Hu, Zu-Liu

PD October 1994. TI Social Protection, Labor Market Rigidity, and Enterprise Restructuring in China. AA International Monetary Fund. SR International Monetary Fund Papers on Policy Analysis and Assessment: 9422; International Monetary Fund, Washington, DC 20431. PG 27. PR not available. JE I31, J62, J63 P21. KW Economies in Transition, Restructuring, Enterprise Reform, China.

AB A major obstacle for enterprise restructuring in economies in transition is labor market rigidity, closely associated with the social protection arrangements put in place in the central planning era. This paper reviews the interaction between social protection and labor market flexibility in China, and evaluates China's experiments with social security reform, labor market reform, and enterprise reform.

Huff, Karen M.

PD April 1995. TI Medium-Run Consequences for Australia of an APEC Free-Trade Area: CGE Analyses using the GTAP and Monash Models. AU Huff, Karen M.; McDougall, Robert; Pearson, K.R.; Powell, Alan A. AA Huff Purdue University. McDougall and Powell: Monash University. Pearson: Monash University and LaTrobe University. SR Centre of Policy Studies and the Impact Project Working Paper: G-111; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 12. PR not available. JE C68, F02, F14. KW Trade Liberalization, Australia.. General Equilibrium.

AB The inauguration of APEC in October 1994 raises the prospect of large reductions to impediments to trade within the Asia-Pacific region. The global trade analysis model GTAP (see Hertel [6]) is a research tool well suited to the analysis of such developments. Recent work with GTAP by Young and Huff explores the consequences for ten regions of the development

of APEC in the post-NAFTA era. The present paper amplifies this GTAP work (by using a 37 rather than a 3 commodity desegregation) and focuses it on Australia (by treating Australia as a separate region). The consequences for Australia of the development of APEC are explored in detail by feeding results from GTAP into a highly disaggregated (115 commodity) national model of Australia, MONASH. The latter is regularly used as the basis for medium and long range forecasts of the Australian economy (Adams, Dixon and McDonald [1]). APEC is good news for Australia, causing a 3 per cent improvement in its terms of trade, and allowing real expenditure to increase by about one half of one per cent at a fixed setting of the trade balance and with fixed total endowments of capital labour. However some industries producing internationally traded goods run into major structural pressures: the black coal industry reduces output by almost 14 per cent relative to base case, while non-ferrous metals, some food products, and some suppliers to the textiles sector experience falls in output of about half this magnitude.

Hyslop, Dean

PD December 1994. TI The Covariance Structure of Intrafamily Earnings, Rising Inequality and Family Labor Supply. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 338; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 34. PR \$2.00. JE D31, J22. KW Earnings Inequality, Labor Supply.

AB This paper uses longitudinal survey data to analyze the relationship between recent increases in individual wage inequality, and individual and family earnings inequality. The analysis compares the implications of a model of intertemporal family labor supply, to those of a model with no behavior content. The results imply that the fraction of family earnings variance attributable to permanent wage differences is about 70 percent, and remained constant as the total variance of earnings increased during the 1980's. The parameter estimates imply the intertemporal labor supply for males is zero, and for females is about 0.4. The net contribution of behavior responses to increasing wage inequality reduced the level of family earnings inequality by 14 percent.

Ikenberry, D.

TI The Option to Repurchase Stock. AU Vermaelen, T.; Ikenberry, D.

Inder, Brett

TI A Diagnostic Test for Structural Change in Cointegrated Regression Models. AU Hao, Kang; Inder, Brett.

Ingberman, Daniel E.

TI Extending Liability: Should the Sins of the Producer Be Visited Upon Others? AU Boyd, James.; Ingberman, Daniel E.

Jackson, Bill

TI Orthogonal A-Trails in Medial Graphs in Surfaces of Low Genus. AU Andersen, Lars; Bouchet, Andre; Jackson, Bill.

Jaffe, Adam B.

PD October 1994. TI Environmental Regulation and Innovation: A Panel Data Study. AU Jaffe, Adam B.; Palmer,

Karen. AA Jaffe: Brandeis University. Palmer: Resources for the Future. SR Resources for the Future Discussion Paper: 95-03; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 30. PR \$6.00 (prepaid, U.S. funds only). JE Q28, O31. KW Environmental Regulation. Innovation. Patents. R&D.

AB Since the publication in 1991 of an essay in *Scientific American* suggesting that environmental regulation has a positive effect on the performance of domestic firms relative to their foreign competitors, the relationship between the stringency of environmental regulation and the level of innovative activity by firms has been the subject of much debate. The evidence offered in support of a positive relationship tends to be anecdotal in nature. In this paper we use an econometric model to describe the relationship between environmental compliance expenditures (our measure of stringency) and (1) R&D expenditures and (2) successful patent applications in a cross-section of manufacturing industries. We find that lagged environmental compliance expenditures have a significant positive effect on R&D expenditures when we control for unobserved industry-specific effects. However, we find little evidence that industries' inventive output is related to compliance costs.

Jeanne, Olivier

TI Investing in Social Norms. AU Corneo, Giacomo; Jeanne, Olivier.

TI Snobs, Bandwagons and the Origin of Social Customs in Consumer Behavior. AU Corneo, Giacomo; Jeanne, Olivier.

TI Conspicuous Consumption and the Existence of Upward Sloping Demand Curves. AU Corneo, Giacomo; Jeanne, Olivier.

Jensen, J. Bradford

TI Exporters, Skills Upgrading, and the Wage Gap. AU Bernard, Andrew B.; Jensen, J. Bradford.

Johnston, R. Barry

PD December 1994. TI *The Speed of Financial Sector Reform: Risks and Strategies*. AA International Monetary Fund and Brookings Institute. SR International Monetary Fund Papers on Policy Analysis and Assessment: 9426; International Monetary Fund, Washington, DC 20431. PG 23. PR not available. JE E44, E52, F32, G28, O16. KW Balance of Payments. Risk. Financial System. Reform.

AB This paper discusses some of the macroeconomic and microeconomic issues in the transition from a repressed to a market oriented financial system. Emphasizing the risks, the literature on the sequencing of reforms tends to place financial sector reform, and the opening of the capital account of the balance of payments, relatively late in the reform process. However, if account is also taken of the costs of delaying financial sector reform, a more rapid approach to financial sector reform could be desirable. The approach would require anticipating and preparing for the risks of a more rapid financial sector reform.

Jordan, J.S

PD December 1994. TI Management Accounting in Activity Networks. AA University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 277; Department of Economics, 1035

Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. PG 66. PR no charge. JE M41, L20. KW Management Accounting. Networks.

AB Modern management accounting information systems trace cost to a greater level of detail than did their product costing predecessors. Nonetheless, the basic ingredient of accounting information continues to be the measurable transaction, actual or budgeted, rather than the more subjective concepts of marginal cost or opportunity cost favored by economic theory. This paper studies the design of a management accounting information system as a mechanism design problem for a decentralized firm, where the mechanism is constrained to use messages consisting of actual or proposed transactions, or reports compiled exclusively from such messages. The firm is modeled as a network of productive activities, some of which produce revenue while others produce goods or services used by other activities. The firm seeks a budget, that is, a proposed action for each activity, that maximizes profit. An accounting information system includes a performance measure for each activity, and each activity manager is assumed to act to maximize measured performance. Several accounting information systems are constructed and compared according to the profitability of the budgets they generate. Although accounting information is not sufficient to ensure profit-maximization, activity-based costing (ABC) is shown to be useful in identifying products that should be dropped and internally produced inputs that should be purchased from external sources. An extension of ABC that includes a measure of internal opportunity cost is constructed and shown to be useful in allocating internally produced inputs.

PD December 1994. TI Activity-Based Costing for Economic Value Added. AU Jordan, J.S.; Anctil, Regina; Mukherji, Arijit. AA Jordan and Mukherji: University of Minnesota. Anctil: University of California Berkeley. SR University of Minnesota Center for Economic Research Discussion Paper: 278; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. PG 61. PR no charge. JE M41, L02. KW Managerial Accounting. Economic Value Added. Activity-Based Costing.

AB Economic value added (EVA), which is the currently popular term for the traditional accounting concept of residual income, subtracts from operating income an interest charge for invested capital. This paper provides both a normative justification for EVA and an activity-based cost system that supports EVA maximization. We construct a model of participatory budgeting for a multi-activity firm in which we show that, if investment decisions are made myopically each period to maximize EVA, the resulting path of plant and equipment vectors asymptotically approximates the path that maximizes discounted cash flows. The cost system allocates plant and equipment cost to products using a formula that includes the interest charge.

Jouneau, F.

TI Multivariate Distributions for Limited Dependent Variable Models. AU Gourieroux, Christian; Jouneau, F.

Jovanovic, Boyan

PD August 1994. TI The Transfer of Human Capital. AU Jovanovic, Boyan.; Nyarko, Yaw. AA New York University. SR New York University, C.V. Starr Center

Economic Research Report: 94- 25; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Analytic Economics, 269 Mercer Street, New York, NY 10003. PG 40. PR no charge. JE J24, D82. KW Training, Learning by Doing, Human Capital.

AB Most of our productive knowledge was handed down to us by previous generations. The transfer of knowledge from the old to the young is therefore a cornerstone of productivity growth. We study this process in a model in which the old sell knowledge to the young--old agents train the young, and charge them for this service. We take an information theoretic approach in which training occurs if a young agent watches an old agent perform a task. Equilibrium is not constrained Pareto optimal. The old have private information, and this gives rise to an adverse selection problem: some old agents manage to sell skills that the planner would prefer to extinguish so as to allow more young agents to start new technologies. In this sense, there is too much resistance to change.

Juann, Hung

PD April 1994. TI The Exchange Rate and Overseas Profits of U.S. Corporations. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9405; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 29. PR no charge. JE F23. KW Multinational Corporations, Exchange Rate.

AB This paper uses an econometric model to assess the effect of exchange rate changes on the dollar profits of foreign affiliates of U.S. corporations. The estimation results suggest that a 1 percent dollar appreciation leads to a 1.3 percent decrease in overseas profits through price/volume and translation effects. Simulation results suggest that the high dollar in the first half of the 1980's cut U.S. overseas profits substantially. Over 1981-90, the cumulative dollar overseas loss due to the dollar's movement is estimated to have reached about \$110 billion (in 1987 constant dollars), a loss equivalent to 28 percent of net overseas profits or 5 percent of net U.S. corporate profits.

Jullien, B.

TI National versus European Industrial Policies: A Contract Theory Approach. AU Caillaud, Bernard; Jullien, B.; Picard, Pierre.

TI Towards a Theory of Self Restraint. AU Caillaud, Bernard; Cohen, Daniel; Jullien, B.

Kallich, Joel D.

TI Designing a Capitation Payment Plan for Medicare end Stage Renal Disease. AU Farley, Donna O.; Kallich, Joel D.; Carter, Grace M.; Lucas, Thomas W.; Spritzer, Karen L.

Kambhu, John

TI Options Positions: Risk Measurement and Capital Requirements. AU Estrella, Arturo; Hendricks, Darryll; Kambhu, John; Shin, Soo; Walter, Stefan.

Kantor, Shawn Everett

TI A Prelude to the Welfare State: Compulsory State Insurance and Workers' Compensation in Minnesota, Ohio, and Washington, 1911-1919. AU Fishback, Price V.; Kantor, Shawn Everett.

Karp, Larry S.

TI Wetlands Mitigation Banks: A Developer's Investment Problem. AU Fernandez, Linda; Karp, Larry S.

PD October 1994. TI Labor Adjustment and Gradual Reform: Is Commitment Important? AU Karp, Larry S.; Thierry, Paul. AA Karp: University of California Berkeley. Thierry: University of Southampton. SR Department of Agricultural and Resource Economics, University of Berkeley: 731; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 42. PR \$10.50 Domestic \$21.00 International Surface Rate. JE J58. KW Adjustment Costs, Dynamic Tariffs, Time Inconsistency, Markov Perfection.

AB We analyze a model in which a government uses a second best policy to affect the reallocation of labor, following a change in relative prices. We consider two extreme cases, in which the government has either unlimited or negligible ability to commit to future actions. We explain why the ability to make commitments may be unimportant, and we illustrate this conjecture with numerical examples. For either assumption about commitment ability, the equilibrium policy involves gradual liberalization. The dying sector is protected during the transition to a free market, in order to decrease the amount of unemployment. Our results are sensitive to the assumptions about migration.

PD October 1994. TI Monopoly Power Can Be Disadvantageous in the Extraction of a Durable Nonrenewable Resource. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 732; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 29. PR \$7.25 Domestic \$14.50 International Surface Rate. JE L12. KW Disadvantageous Market Power, Durable Good, Nonrenewable Resources, 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 also occurs in a finite horizon, discrete model. This result is compared to previous examples of disadvantageous market power, obtained using two-period models.

PD October 1994. TI The Optimal Suppression of a Low-Cost Technology by a Durable Goods Monopoly. AU Karp, Larry S.; Perloff, Jeffrey M. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 733; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 49. PR \$12.25 Domestic \$24.50 International Surface Rate. JE L12, O31, O32, O33. KW Low-Cost Technology, Durable-Good Monopoly.

AB If a durable-good monopoly can use either of two technologies whose properties are known to consumers, the monopoly uses only the technology that has the lowest average cost at low levels of production. That is, the monopoly may use an inferior technology at some levels of output. If consumers only know about technologies that are currently in use or have previously been used, the monopoly may switch between the

two technologies. The monopoly may choose to use an inferior technology initially to increase its profits, keeping the new technology secret and effectively suppressing the efficient technology for a while. Thus, in either case, an inferior technology may be used; however, switching between technologies only occurs if consumers are not fully informed.

PD January 1995. **TI** Depreciation Erodes the Coase Conjecture. **AA** University of California Berkeley. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 684; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 30. **PR** \$7.50 Domestic \$15.00 International Surface Rate. **JE** 021, D42, L12, O39. **KW** Coase Conjecture. Depreciation. Multiple Markov Equilibria.

AB If a durable good monopolist produced at constant marginal costs and the good depreciates, there exists a family of Strong Markov Perfect Equilibrium (SMPE) with a 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. Other SMPE in the family entail steady state production at a stock level lower than in the competitive equilibrium. In these equilibria, there may be a jump to the steady state, or the steady state may be approached asymptotically. Monopoly profits are positive in these equilibria, and the Coase Conjecture fails. We contrast this result to other papers which use non-Markov strategies to construct multiple equilibria.

Keane, Frank

TI The Market for Collateralized Mortgage Obligations (CMOs). **AU** Fernald, Julia; Keane, Frank; Mair, Martin.

TI Mortgage Security Hedging and the Yield Curve. **AU** Fernald, Julia; Keane, Frank; Mosser, Patricia C.

Keating, Edward G.

TI Army Morale Military. Morale, Welfare and Recreation Programs in the Future: Maximizing Soldier Benefits in Times of Austerity. **AU** Way-Smith, Susan; Keating, Edward G.; Morrison, Peter A.; Childress, Michael T.

Kennedy, Michael

PD 1994. **TI** A Simple Economic Model of Cocaine Production. **AU** Kennedy, Michael; Reuter, Peter; Riley, Kevin Jack. **AA** Rand Corporation. **SR** Rand Report: MR-201-USDP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 56. **PR** \$13.00. **JE** F14, H59. **KW** Cocaine. Contraband. Crop Substitution. Drug Interdiction.

AB This report presents a simple equilibrium model of the cocaine industry in Peru, Bolivia, and Colombia. The purpose of the model is to represent the fundamental economic relations that determine the size of cocaine output and the price of cocaine, and to simulate the effects of policy initiatives or other changes in the surrounding environment. Model results include: "Crop substitution" programs will have a negligible effect on the world cocaine market. Cocaine supply control strategies that seize the destroy 70% or less of production, without limiting the total level of production, will have little effect on the market. Changes in the size of the world cocaine market have a relatively modest long-run effect on the standard

of living of average workers in Peru, Bolivia, and Colombia.

Kim, Harold Y.

PD December 1994. **TI** Political Risk and Stock Returns: The Case of Hong Kong. **AU** Kim, Harold Y.; Mei, Jianping. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: 94-30; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 30. **PR** not available. **JE** G12, G15, G18. **KW** Jump-Diffusion Process. Volatility. Democracy. Trade Status. Hong Kong.

AB Little work has been done to characterize the empirical effects of political events on financial markets. In this paper we attempt to measure the impact of political risk on asset prices, focusing on the Hong Kong equity market. Hong Kong serves as the ideal case study for two reasons: the political situation is fluid, unpredictable, and characterized by the occurrence of definitive events, and the market movements are volatile, partially reflecting the political event risk. We focus on the 1989-1993 period, during which political issues such as the question of Hong Kong's democracy after 1997, China's most-favored-nation trade status, and China's human rights development and political reform movements have all contributed to Hong Kong's stock price movements. Modeling market volatility of the benchmark Hang Seng Index is driven by a highly persistent component, punctuated by large jumps which are highly related to political events. These results suggest that the Hong Kong market is affected by both economic and political factors which impact future profitability and investor confidence.

Kim, Se-jik

TI Human Capital Flight: Impact of Migration on Income and Growth. **AU** Haque, Nadeem U.; Kim, Se-jik.

Kinsman, John D.

TI Managing Carbon Via Forestry: Assessment of Some Economic Studies. **AU** Sedjo, Roger A.; Wisniewski, Joe; Sample, Al; Kinsman, John D.

Kleijn, Henk

TI A Demonstration Policy evaluation of the Dutch Second Transport Structure Plan (SVV). **AU** Walker, Warren E.; Abrahamse, Allan F.; Kleijn, Henk.

Kochhar, Kalpana

TI China's Imports: An Empirical Analysis Using Johansen's Cointegration Approach. **AU** Yuan, Mingwei; Kochhar, Kalpana.

Koen, Vincent

TI How Large Was the Output Collapse in Russia? Alternative Estimates and Welfare Implications. **AU** Gavrilencov, Evgeny; Koen, Vincent.

Kofman, Paul

PD July 1994. **TI** Stock Margins and the Conditional Probability of Price Reversals. **AU** Kofman, Paul; Moser, James T. **AA** Kofman: Monash University. Moser: Federal Reserve Bank of Chicago. **SR** Monash Department of Econometrics Research Working Paper: 8/94; Department of

Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 15. PR no charge. JE C25, G14. KW Stock-Price Reversals. Margin Levels. Fad Trading. Overreactions. Logit Specifications.

AB Levels of required margin are shown to be positively related to autocorrelations in stock returns, a result which implies that the probability of nontrading increases when margin levels increase. Frequencies of stock-price reversals are studied to determine the effect of margin requirements on participation by information traders. If price reversals are negatively (positively) related to high levels of margins, then relative proportions of information traders increase (decrease). We find that reversals occur more frequently prior to the regulation of margin in 1934. This date coincides with a general increase in the level of margins. Our logit specifications indicate that reversal probabilities are conditional on the level of margin. Controls for the effects of time and the introduction of regulation do not alter this conclusion. The results suggest that margin costs reduce stock market participation with a lesser effect of information-based trading.

PD July 1994. TI Is There LIFE(F)E After DTB? Competitive Aspects of Cross Listed Futures Contracts on Synchronous Markets. AU Kofman, Paul; Bouwman, Tony; Moser, James T. AA Kofman: Monash University, Bouwman: Erasmus University, Moser: Federal Reserve Bank of Chicago. SR Monash Department of Econometrics Research Working Paper: 9/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 21. PR no charge. JE G13, C32. KW Vector Error Correction. GARCH Errors. Bid-Ask Spreads. Market Microstructure. Financial Market Competition.

AB This paper analyzes the interaction between exchanges trading identical assets. Issues like price leadership, market spreads and activity/volume are related to different trading systems. Bid-ask spread estimation is conducted for each market individually taking account of conditional expectations. A VECM-GARCH (vector error correction with generalized autoregressive conditional heteroskedasticity) model incorporates the modeling implications of these findings when extending the analysis to a multivariate setting. Both univariate and multivariate tools are applied to the competition in BUND futures trading between LIFFE (London International Financial Futures Exchange) and DTB (Deutsche Terminborse). At the same time, a computerized dealer system (DTB) is compared to an open outcry system (LIFFE). In a broader context, this paper therefore has implications for the survival potential of duplicative contracts traded at simultaneous markets under different trading systems.

PD July 1994. TI Tailing the Bid-Ask Spread. AU Kofman, Paul; Vorst, Ton C. F. AA Kofman: Monash University, Vorst: Erasmus University. SR Monash Department of Econometrics Research Working Paper: 10/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 14. PR no charge. JE D82, C13, G10. KW Extreme Value Theory. Tail Parameter. Bid-Ask Spread. Transaction Data.

AB This paper discusses an application of a rather novel technique for the estimation of the tails of return distributions for financial assets. This extreme value approach proves to be particularly useful when assessing characteristics of high frequency (tick-by-tick) transaction data. These probabilities improve optimal setting of bid-ask spreads based on the order processing component of the bid-ask spread. Estimates for

optimal levels are compared to 'observed' bid-ask spreads. The latter, which are estimates in itself, are based on recently developed methods in the literature.

TI Volatility Patterns and Spillovers in Bund Futures. AU Franses, Philip Hans; Van Ieperen, Reinoud; Kofman, Paul; Martens, Martin; Menkveld, Bert.

TI Volatility Patterns and Spillovers in Bund Futures. AU Franses, Philip Hans; Van Ieperen, Reinoud; Kofman, Paul; Martens, Martin; Menkveld, Bert.

Kolstad, Charles D.

TI Foreign Direct Investment, Exchange Rate Variability and Demand Uncertainty. AU Goldberg, Linda S.; Kolstad, Charles D.

Kovanen, Arto

PD September 1994. TI Foreign Exchange Auctions and Fixings: A Review of Performance. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94119; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 24. PR not available. JE F31, G15, O16. KW Developing Countries. Floating Exchange Rates. Auction Markets. Foreign Exchange.

AB Flexible exchange rate regimes have become more apparent in developing countries during the 1980's, and a number of developing countries have adopted floating exchange rates within the context of interbank markets, but occasionally auction markets have been used. This study concentrates on developing countries where floating exchange rate regimes have been implemented in the form of auction markets. Its purpose is to assess how these arrangements have performed and whether they have provided a useful means of facilitating further development of foreign exchange markets. We also review the official fixing systems used by some countries with floating exchange rates.

Kovenock, Dan

TI Capacity Precommitment as a Barrier to Entry: A Bertrand-Edgeworth Approach. AU Allen, Beth; Deneckere, Raymond; Faith, Tom; Kovenock, Dan.

Kramer, Charles

PD October 1994. TI Noise Trading, Transaction Costs, and the Relationship of Stock Returns and Trading Volume. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94126; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 17. PR not available. JE G12, G14. KW Stock Returns. Volume. Transaction Costs.

AB The relationship of stock returns and trading volume is the focus of much recent interest. I examine an economic model of a rational trader who operates in a market with transactions costs and noise trading. The level of trading affects the rational trader's marginal cost of transacting; as a result, trading volume is a source of risk. This engenders an equilibrium relationship between returns and volume. The model also provides a simple way to scrutinize this relationship empirically. Empirical evidence supports the implications of the model.

Kramkov, Dimitri O.

PD October 1994. TI Optional Decomposition of Supermartingales and Hedging Contingent Claims in

Incomplete Security Markets. AA Steklov Mathematical Institute. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 294; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 26. PR no charge. JE G13. KW Doop-Meyer Decomposition. Optional Decomposition. Martingale Measure. Stochastic Integral. Semimartingale Topology. Incomplete Market. Hedging. Options. AB not available.

Kroner, Kenneth F.

TI Common Persistence in Conditional Variances: Implications for Dynamic Hedging. AU Ghose, Devajyoti; Kroner, Kenneth F.

Krop, Cathy S.

TI The Effects of the California Voucher Initiative on Public Expenditures for Education. AU Shires, Michael A.; Krop, Cathy S.; Rydell, C. Peter; Carroll, Stephen J.

Kroszner, Randall S.

TI Much Ado About Nothing? Capital Market Reactions to Changes in Antitrust Precedent Concerning Exclusive Territories. AU Glied, Sherry A.; Kroszner, Randall S.

PD November 1994. TI The Role of Firewalls in Universal Banks: Evidence from Commercial Bank Securities Activities Before the Glass-Steagall Act. AU Kroszner, Randall S.; Rajan, Raghuram G. AA University of Chicago. SR University of Chicago Center for the Study of the Economy and the State Working Paper: 103; Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. PG 41. PR \$3.00; make check payable to "The University of Chicago.". JE G21, G24, N22. KW Universal Banking. Firewalls. Glass-Steagall Act.

AB This paper analyzes the trade-off between the potential for conflicts of interest and the possible improvements in information flows and monitoring that may arise when commercial lending and securities underwriting are united in a universal bank. We examine the two ways in which U.S. commercial banks structured their investment banking activities before the Glass-Steagall Act of 1933 forced them to leave the securities business: as an internal securities department within the bank and as a separately incorporated and capitalized securities affiliate. For the two organizational forms, we contrast the types of securities and firms underwritten, the initial market pricing and rating of the securities, and the ex post performance of the issues. Our results suggest that the costs of close ties between the commercial bank operations and underwriting activities outweigh the benefits. Consistent with this, during the 1920s commercial banks almost uniformly moved towards the affiliate structure where there was greater separation between lending and underwriting. We conclude by discussing the implications for bank regulatory policy.

Krueger, Alan B.

TI A Living Wage? The Effects of the Minimum Wage on the Distribution of Wages, the Distribution of Family Earnings, and Poverty. AU Card, David; Krueger, Alan B.

TI The Economic Return to School Quality: A Partial Survey. AU Card, David; Krueger, Alan B.

TI The Effect of the Minimum Wage on Shareholder Wealth. AU Card, David; Krueger, Alan B.

Krupnick, Alan

TI Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan. AU Alberini, Anna; Cropper, Marueen; Fu, Tsu-Tan; Krupnick, Alan; Liu, Jin-Tan; Shaw, Daigee; Harrington, Winston.

TI Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan. AU Alberini, Anna; Cropper, Marueen; Fu, Tsu-Tan; Krupnick, Alan; Liu, Jin-Tan; Shaw, Daigee; Harrington, Winston.

Kumar, Manmohan S.

TI Trade Reform and Inflation Stabilization. AU Arora, Vivek B.; Kumar, Manmohan S.

Kwok, Siu-Kit Claudian

PD September 1994. TI Endogenous Asset Specificity in a Principal-Agent Model: An Interpretation of Managerial Myopia. AA University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 275; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. PG 31. PR no charge. JE G30. KW Asset Specificity. Principal-Agent. Managerial Myopia.

AB This paper studies the implications of an agency problem for the optimal asset specificity of a firm. The main result is that there exists a region in the parameter space such that the optimum in the presence of an agency problem has less specific assets and more frequent liquidation than in the absence of an agency problem. This result provides an interpretation of so-called managerial myopia. That is, the firm seems to be so concerned about the liquidation value its investment that it is willing to sacrifice the expected output of its investment by using a less specific asset.

Kyle, Albert S.

PD January 1994. TI Speculation Duopoly with Agreement to Disagree. AU Kyle, Albert S.; Wang, F. Albert. AA Kyle, Albert S.; Wang, F. Albert. SR Columbia University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-24; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 43. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE not available. KW not available. AB not available.

Lach, S.

PD October 1994. TI R&D, Investment and Industry Dynamics. AU Lach, S.; Rob, R. AA Lach, S.; Rob, R. SR INSEAD Working Papers: 94/66; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 22. PR not available. JE O31, O32. KW Industry Evolution. Innovation. Research and Development.

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 that 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. This causality pattern, which is supported by the data, also explains the observed higher volatility of physical investment relative to R&D expenditures.

Laffont, Jean-Jacques

PD July 1994. TI Access Pricing and Competition. AU Laffont, Jean-Jacques; Tirole, Jean. AA Laffont: Institut Universitaire de France and Institut d'Economie Industrielle (IDEI). Tirole: Institut d'Economie Industrielle (IDIE), CERAS, Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-31; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 27. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE L51. KW Regulation. Natural Monopoly. Access Pricing. Networks. Bypass.

AB In many industries (electricity, telecommunications, railways), the network can be described as a natural monopoly. A central issue is how to combine the necessary regulation of the network with the organization of competition in activities which use the network as an input and are potentially competitive (generation of electricity, value-added services, road transportation). In this paper we derive access-pricing formulas in the framework of an optimal regulation under incomplete information. First, we study how access-pricing formulas take into account the fixed costs of the network and the incentive constraints of the natural monopoly over the network. Second, we examine the difficulties coming from the accounting impossibility to disentangle costs of the network and costs of the monopoly's competitive goods. Third, the analysis is extended to the cases where governmental transfers are prohibited, where the competitors have market power, and where competitors are not regulated. Fourth, the possibility some consumers bypass the network is taken into account. Finally the role of access pricing for inducing the best market structure is assessed. The conclusion summarizes our results and suggests avenues of further research.

Lambelet, Jean-Christian

PD November 1994. TI Reflexions Sur L'Etat Social. AA Universite de Lausanne. SR University of Lausanne, Cahiers de Recherches Economiques: 9416; Department d'econometrie et d'economie politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, Switzerland. PG 15. PR no charge. JE D60, I30. KW Redistribution. AB not available.

Lanjouw, Jean Olson

PD June 1995. TI Information and the Operation of Markets: Tests Based on a General Equilibrium Model of Land Leasing in India. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 727; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG 37. PR \$2.00. JE D58, Q15. KW Agricultural Household Models. Information.

Sharecropping. Land Markets. General Equilibrium.

AB This paper develops an estimable general equilibrium model of land leasing to test the extent to which information is commonly held in a village and whether village markets are efficient. The results have ramifications for the estimation of agricultural household models and for our understanding of rural institutions. The model is derived from the primitives of the production technology, the extent of information and the distributions of assets and several household unobservables. Simultaneity and selection issues are dealt with explicitly in a two-stage maximum likelihood estimation procedure using panel data from India.

Laxton, Douglas

PD November 1994. TI Asymmetric Effects of Economic Activity on Inflation: Evidence and Policy Implications. AU Laxton, Douglas; Meredith, Guy; Rose, David. AA Rose: Bank of Canada and International Monetary Fund. Laxton and Meredith: International Monetary Fund. SR International Monetary Fund Working Paper: 94139; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 20. PR not available. JE C51, E31, E52. KW Inflation. Asymmetries. Demand Shocks.

AB This paper examines the evidence on asymmetries in the effects of activity on inflation. Data for the G-7 countries are found to strongly support the view that the inflation-activity relationship is nonlinear, with high levels of activity raising inflation by more than low levels decrease it. In the face of such asymmetries, the average level of output in an economy subject to demand shocks will be below the level of output at which there is no tendency for inflation to rise or fall, contrary to the implications of linear models. One implication of these results is that policymakers can raise the average level of output over time by responding promptly to demand shocks, thus reducing the variance of output around trend.

Lee, William

PD September 1994. TI Changes in the Relationship Between the Long-Term Interest Rate and its Determinants. AU Lee, William; Prasad, Eswar. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94124; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 11. PR not available. JE E42, E43, E52, E58. KW Interest Rates. Monetary Policy. Term Structure.

AB This paper assesses the relative importance of alternative explanations for the rise in long-term interest rates in the United States from October 1993 to April 1994. Standard econometric models of the term structure are shown to have a structural break in the early 1980's. An important reason for this change in the traditional term structure relationship appears to be an increase in the responsiveness of long-term rates to changes in the stance of monetary policy. Augmented term structure models that explicitly incorporate the role of monetary policy in determining the level of long-term rates are then constructed. These models track variations in the long-term rate better than traditional term structure models, but still leave a significant fraction of the recent increase in long-term rates unexplained.

Leff, Nathaniel H.

PD November 1994. TI Trust, Envy, and the Political Economy of Industrial Development: Economic Groups in

Developing Countries. AA Columbia University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-20; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 22. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE L13, O12, O14. KW Developing Countries. Economic Groups. Political System.

AB In middle-income developing countries, economies of scale and scope imply that establishment of large firms will facilitate economic progress. Emergence and effective operation of such firms requires a modicum of interpersonal trust. Unfortunately, in many developing countries, trust is not easily available, either via the market or as a public good. In this context, the economic groups--multi-enterprise firms akin to the Japanese zaibatsu--present in the industrial sectors of many LDC's play a special role. Deriving from the same communal, ethnic, or tribal group, group members have relatively low costs for obtaining information and enforcing sanctions in the event of non-compliance. Accordingly, group members face special incentives that make for reliable and trustworthy behavior. The economic success of group firms, however, incites envy on the part of those excluded. Moreover, for reasons discussed in the paper, the groups generally fail to control their countries' political system. The conjunction of the groups' economic success, social hostility, and political weakness leads to a special political-economic dynamic.

Leibowitz, Arleen

TI Public Policies, Private Support and Single Mothers' Schooling, Work, and Child Care. AU Hao, Lingxin; Leibowitz, Arleen.

Lempert, Robert

TI The Decline of the U.S. Machine Tool Industry and Prospects for Its Sustainable Recovery: Volume 1. AU Finegold, David; Brendley, David; Lempert, Robert; Henry, Donald; Cannon, Peter; Boultinghouse, Brent; Nelson, Max.

Lev, Baruch H.

TI Value-Relevance of Nonfinancial Information: The Wireless Communications Industry. AU Amir, Eli; Lev, Baruch H.

Levy, Joaquim V.

TI Public Education Expenditure and Other Determinants of Private Investment in the Caribbean. AU Clements, Benedict; Levy, Joaquim V.

TI Household Saving in France: Stochastic Income and Financial Deregulation. AU Ostry, Jonathan D.; Levy, Joaquim V.

Levy, Philip I.

PD June 1994. TI Lobbying and International Cooperation in Tariff Setting. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 717; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG 28. PR \$2.00. JE C78, D72, D78, F13. KW Lobbying. Cooperation. Protection. Tariff.

AB This paper develops a theory of tariff protection that

incorporates cooperative behavior and interest-group lobbying. Governments are assumed to use import tariffs or subsidies to maximize a weighted sum of lobbying contributions and general welfare. It is assumed that governments do not use export taxes or subsidies and thus balance the interests of export and import-competing lobbies in setting tariff levels. In a symmetric model, governments interact in a stationary infinitely repeated game in which cooperation is sustained by threats of punishment in future periods. Unless governments place too much weight on the future, the result is a cooperative tariff; export lobbies succeed in lowering but not eliminating protection. If governments place too much weight on the future, the result is a reciprocal import subsidy.

Li, David D.

TI Corruption and Reform. AU Basu, Susanto; Li, David D.

Libecap, Gary D.

TI An Analysis of Property Rights, Land Rents, and Agricultural Investment on Two Frontiers in Brazil. AU Alston, Lee J.; Libecap, Gary D.; Schneider, Robert.

TI An Experimental Investigation of the Incentives to Form Agricultural Marketing Pools. AU Hoffman, Elizabeth; Libecap, Gary D.; Shachat, Jason M.

Lieberman, Offer

PD July 1994. TI A Laplace Approximation to the Moments of a Ratio of Quadratic Forms. AA Monash University. SR Monash Department of Econometrics Research Working Paper: 13/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 12. PR no charge. JE C10. KW Approximate Mean-Bias. Boundary Point. Generalized Cumulant. Invariant Polynomial. Saddlepoint Approximation.

AB The Laplace method for approximating integrals is applied to give a general approximation for the k th moment of a ratio of quadratic forms in random variables. The technique utilizes the existence of a dominating peak at the boundary point on the range of integration. As closed form and tractable formulae do not exist in general, this simple approximation, which only entails basic algebraic operations, has evident practical appeal. We exploit the approximation to provide an approximate mean-bias function for the least squares estimator of the coefficient of the lag dependent variable in a first order stochastic difference equation.

PD July 1994. TI Saddlepoint Approximation for the Least Squares Estimation in First-Order Autoregression. AA Monash University. SR Monash Department of Econometrics Research Working Paper: 14/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 6. PR no charge. JE C32. KW Autoregression. Branch Point. Quadratic Forms. Saddlepoint Approximation.

AB In an earlier article, Phillips (1978) extended Daniels' (1956) approximation to the density of a modified correlation coefficient to obtain a saddlepoint approximation to the density of the least squares estimator in the first order non-circular autoregression. It was demonstrated that the resulting approximation is undefined in a substantial part of the tails. In this note, we establish that a suitable deformation of the contour of integration leads to a different type of saddlepoint

approximation which is defined everywhere on the support of the density. It is further shown that the relative error of this approximation is bounded in the extreme tails.

PD July 1994. **TI** Improved Estimation Procedures for Nonlinear Panel Data Models. **AU** Lieberman, Offer; Matyas, Laszlo. **AA** Lieberman: Monash University. Matyas: Monash University and Budapest University. **SR** Monash Department of Econometrics Research Working Paper: 15/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 12. **PR** no charge. **JE** C23. **KW** Panel Data. Nonlinear Models. Laplace Approximation. Solomon-Cox Method. Probit Model. Duration Model.

AB The paper proposes two different estimation procedures for nonlinear panel data models with a general parametric heterogeneity distribution. Using small-sigma and the Laplace approximation, easily computable analytical solutions to the marginal likelihood are presented.

Ligon, Ethan

PD August 1994. **TI** Risk-Sharing Under Varying Information Regimes: Theory and Measurement in Village Economies. **AA** University of California Berkeley. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 727; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 40. **PR** \$10.00 Domestic \$20.00 International Surface Rate. **JE** D11, D12, D82. **KW** Risk-Sharing. Village Economies. Consumption. Income. Technology.

AB This paper attempts to characterize and test the behavior of consumption in a class of private information models. My interest in this case of models is motivated by the failure of 'permanent income' models and complete markets models, two workhorses of economic theory, to adequately account for the role which individual income plays in determining consumption, both in the U.S. and more particularly in the village economies of developing countries.

Liuksila, Claire

PD November 1994. **TI** Fiscal Policy Sustainability in Oil-Producing Countries. **AU** Liuksila, Claire; Garcia, Alejandro; Bassett, Sheila. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94137; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 31. **PR** not available. **JE** E61, Q38. **KW** Fiscal Policy. Exhaustible Resources. Permanent Income.

AB Assessing the sustainability of a given fiscal policy is especially important for countries that depend on income from exhaustible resources. Political and growth pressures may push governments to raise expenditure when revenue from exhaustible resources rises, but cutting outlays when price swings reduce income is often difficult. Traditional fiscal accounting may give a misleading view of policy sustainability. This paper argues that for countries in which a significant proportion of government revenue is derived from the exploitation of an exhaustible natural resource, fiscal policy sustainability can best be assessed within a permanent income framework that takes into account total government wealth, including the imputed wealth from reserves of natural resources. Using this framework, the paper takes a sample of six countries where government revenue from petroleum extraction is significant and draws conclusions about the

sustainability of their fiscal policies during 1980-92.

Lott, John R. Jr

TI The Bias Towards Zero in Aggregate Perceptions: An Explanation Based on Rationally Calculating Individuals. **AU** Fremling, Gertrud M.; Lott, John R. Jr.

Loufir, Rahim

PD March 1994. **TI** The Long Run of Macroeconomic Models: The Case of Multimod. **AU** Loufir, Rahim; Malgrange, Pierre. **AA** Loufir: OFCE. Malgrange: CEPREMAP and CNRS. **SR** CEPREMAP Discussion Paper: 9413; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 16. **PR** 25 F.F. **JE** C53, C63. **KW** Macroeconomic Models. Simulation. Steady State. Growth Path.

AB The purpose of the paper is to implement a methodology to exhibit the long-run structure, behind a given model, to the case of the multinational model MULTIMOD. The first step is to look for the existence of such an underlying structure. We find that the way the model is written is indeed consistent with a well specified steady state growth path equilibrium. The simulation of the whole (long-run) model and the computation of basic multipliers gives satisfactory results in line with medium-run results of the dynamic model. However, in a few cases, the peculiar nature of the baseline solution implies the absence of any solution.

Lowell, Julia

PD 1994. **TI** Pricing and Markets: U.S. and Japanese Responses to Currency. **AU** Lowell, Julia; Yager, Loren. **AA** Rand Corporation. **SR** Rand Report: MR-438-CAPP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 72. **PR** \$13.00. **JE** F11, F14, F31. **KW** Japan. Commerce. Foreign Exchange Rates. United States.

AB This study examines the pricing strategies of Japanese and American firms in response to the sharp movements in the yen/dollar exchange rate in the 1980's. Export/domestic wholesale price ratios at the industry level are examined as a measure of firms' ability to "price discriminate" between national markets when faced with changes in exchange rates or domestic production conditions. A formal model of an exporting firm is used to assess the importance of exchange rate movements as opposed to other factors in determining pricing behavior.

Lucas, Thomas

TI Designing a Capitation Payment Plan for Medicare end Stage Renal Disease. **AU** Farley, Donna O.; Kallich, Joel D.; Carter, Grace M.; Lucas, Thomas W.; Spritzer, Karen L.

MacDonald, Ronald

TI Consumption, Income, and International Capital Market Integration. **AU** Bayoumi, Tamim; MacDonald, Ronald.

MacKie-Mason, Jeffrey K.

PD November 1994. **TI** Pricing Congestible Network Resources. **AU** MacKie-Mason, Jeffrey K.; Varian, Hal R. **AA** University of Michigan. **SR** Department of Economics---CREST Working Paper Series: 94-09; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. **PG** 20.

PR \$4.00. JE D43, L86, L96. KW Networks. Congestion. Internet. Computer. World Wide Web.

AB We describe the basic economic theory of pricing a congestible resource such as an ftp server, a router, a Web site, etc. In particular, we examine the implications of "congestion pricing" as a way to encourage efficient use of network resources. We explore the implications of flat pricing and congestion pricing for capacity expansion in centrally planned, competitive, and monopolistic environments.

Macquarie, Lachlan R.

TI A Comparative Study of Introductory and Undergraduate Econometric Textbooks. AU Harris, Mark N.; Macquarie, Lachlan R.

Maharaj, Elizabeth A.

PD September 1994. TI A Significance Test for Classifying ARMA Models. AA Monash University. SR Monash Department of Econometrics Research Working Paper: 18/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 11. PR no charge. JE C12, C22. KW Autoregressive Expansions. Stationary Time Series. Cluster Analysis.

AB Given that the Euclidean distance between the parameter estimates of autoregressive expansions of autoregressive moving average models can be used to classify stationary time series into groups, a test is proposed to determine whether or not two stationary time series in a particular group have significantly different generating processes. The results of computer simulations are given.

Mair, Martin

TI The Market for Collateralized Mortgage Obligations (CMOs). AU Fernald, Julia; Keane, Frank; Mair, Martin.

Maldonado-Bear, Rita M.

PD July 1994. TI The Rate of Return on a Woman's Investment in an MBA at Stern. AA New York University. SR New York University Salomon Brothers Working Paper: 94-15; 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 7. PR not available. JE I21, I22. KW Schooling. Technological Change. MBA. Foreign Trade.

AB Current research suggests that increased financial benefits from schooling throughout the 1980's stems from a steadily rising relative demand for educated labor, fueled by skill-biased technological change and foreign trade. An MBA degree represents a skill biased technological education and has commanded higher salaries than degrees in other fields. Even though the rate of growth in MBA graduates salaries has eased in the very recent past, and is likely to continue at this relatively lower growth rate, an MBA degree will still continue to command higher salaries than most graduate degrees. What is true for an MBA graduate in general is also true for women MBA graduate's, except that the average salary of a female MBA graduate is between \$5,000 and \$10,000 lower than the average salary of a male MBA graduate. At Stern the gap tends to be at the lower limit of this range. This differential is due to no apparent reason other than gender. Within this general framework we set out to determine the rationality for a female to embark (read invest) in an MBA degree at Stern. We approached the task just as one would approach any real or

financial investment decision utilizing one of the techniques that we teach our MBA students, namely, the Internal Rate of Return (IRR). This technique is taught in all basic finance courses and it is used by most corporations today, together with two or three similar techniques, to evaluate their potential investment projects.

Malgrange, Pierre

TI The Long Run of Macroeconometric Models: The Case of Multimod. AU Loufir, Rahim; Malgrange, Pierre.

Manning, Alan

PD December 1994. TI Labour Markets with Company Wage Policies. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 214; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 72. PR no charge. JE J31. KW Labor Markets. Wage Determination.

AB In the conventional perfectly competitive model of the labour market, wage-setting is individualistic in the sense that identical workers should receive identical wages in different firms and different workers should receive different wages in the same firm. But, in reality, wages often seem to be attached to the job than the worker, with identical workers receiving different wages in different firms and different workers receiving the same wage in a single firm. There is what we call a Company Wage Policy. In this paper we explore the consequences of assuming that the labour market is characterised by company wage policies. We consider a number of issues; the nature of wage dispersion and unemployment, the effects of benefits, minimum wages and union, and the incentives to acquire skills. We show that, in general, company wage policies imply labour market behaviour that is very different from the perfectly competitive model, and seems more in line with empirical evidence. Finally, we consider why company wage policies might exist.

Manwaring, Robert L.

PD October 1994. TI The Effects of Education Equalization Litigation on the Levels of Funding: An Empirical Analysis. AU Manwaring, Robert L.; Sheffrin, Steven M. AA University of California at Davis. SR University of California, Davis Department of Economics Working Paper: 94-14; Department of Economics, University of California, Davis, Davis, CA 95616-8578. PG 29. PR \$3.00 U.S. and Canada. \$4.00 International. JE I22. KW Educational Finance. Equalization Litigation.

AB In the United States, elementary and secondary schools have traditionally been funded through local property taxation. There has been litigation in many states, some of which have been successful, challenging the traditional school funding mechanisms on the grounds that they fail to provide equal educational opportunities. While litigation has led to a decrease in inequality in funding across districts in many states, there has been concern that it also adversely affects the overall funding levels in the state. This paper addresses the consequences of litigation on total spending. Using panel data, it shows that equalization litigation has led to increased educational funding on average.

Margo, Robert A.

PD November 1994. TI The Price of Housing in New

York City, 1830-1860. AA Vanderbilt University. SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 63; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG not available. PR \$5.00. JE L74, N11. KW Antebellum Prices. Antebellum Wages. Housing. Housing Prices.

AB The trend in the price of housing before the Civil War is one of many unsolved mysteries of American economic history. The reasons for the mystery are simple. Existing time series of antebellum housing prices are either not true price indices, or else do not extend back in time before 1850. This paper presents new archival evidence on the rental price of housing before the Civil War. The evidence pertains to the New York City metropolitan area over the period 1830 to 1860, and is drawn from newspaper advertisements. The advertisements are sufficiently detailed to construct price indices that control for some housing characteristics as well as location within the metropolitan area. The most important finding is that the relative price of housing increased between 1830 and 1860. Incorporating the new housing price indices into existing antebellum cost-of-living deflators (which generally exclude housing) suggests that economic historians have over-estimated real wage growth before the Civil War.

Mariano, Roberto S.

TI Comparing Predictive Accuracy. AU Diebold, Francis X.; Mariano, Roberto S.

Masson, Paul R.

PD December 1994. TI The Credibility of the United Kingdom's Commitment to the ERM: Intentions Versus Actions. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94147; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 16. PR not available. JE E43, F31, F33. KW EMS. Monetary Policy. Exchange Rates.

AB The paper presents estimates of a model of the credibility of the U.K. commitment to its central parity against the Deutsche mark during the period of U.K. ERM membership (1990-92). The measure of credibility used is the long-term interest differential with Germany. Credibility is decomposed into two aspects: an assessment of whether the government was truly committed to the ERM, and the probability that even a committed government would be able to continue to bear the unemployment costs. Doubts about the first aspect--which could lead to a self-fulfilling crisis--are shown to have declined steadily during the period of ERM membership, while the second aspect is estimated to have become increasingly important, due to rising unemployment.

Mattei, Aurelio

PD November 1994. TI Estimation de Fonctions de Demande Desagregees en Utilisant Les Donnees des Budgets des Menages. AA Universite de Lausanne. SR University of Lausanne, Cahiers de Recherches Economiques: 9417; Department d'econometrie et d'economie politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, Switzerland. PG 140. PR no charge. JE D12. KW Disaggregated Demand Functions. Family Budget Data.

AB This paper uses family budget data (a 188-commodity disaggregation of monthly consumers' expenditure for the years 1975-1989) to estimate monthly and quarterly detailed demand

functions. The results show that the use of specific variables for each good increases the goodness of fit. Short-run and long-run elasticities indicate that income and price effects can be very different within a given commodity group.

Matyas, Laszlo

TI Improved Estimation Procedures for Nonlinear Panel Data Models. AU Lieberman, Offer; Matyas, Laszlo.

Maxwell, K.

PD December 1994. TI Software Development Productivity of European Space, Military and Industrial Applications. AU Maxwell, K.; Van Wassenhove, L. N.; Dutta, S. AA INSEAD. SR INSEAD Working Papers: 94/74; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 23. PR not available. JE D24, L11, L86, O32. KW Software Development. Europe. Productivity.

AB The identification, combination and interaction of the many factors which influence software development productivity makes the measurement, estimation, comparison and tracking of productivity rates very difficult. Through the analysis of a European Space Agency database consisting of 99 software development projects from 37 companies in 8 European countries, this paper seeks to provide significant and useful information about the major factors which influence the productivity of European space, military and industrial applications, as well as to determine the best metric for measuring the productivity of these projects. Several key findings emerge from the study. The results indicate that some organizations are obtaining significantly higher productivity than others. Some of this variation is due to the differences in the application category and programming language of projects in each company; however, some differences must also be due to the ways in which these companies manage their software development projects. The use of tools and modern programming practices were found to be major controllable factors in productivity improvement. Finally, the lines-of-code productivity metric is shown to be superior to the process productivity metric for projects in our database.

Mayer, Thomas

PD September 1994. TI Should China Tolerate High Inflation? AA University of California at Davis. SR University of California, Davis Department of Economics Working Paper: 94-12; Department of Economics, University of California, Davis, Davis, CA 95616-8578. PG 48. PR \$3.00 U.S. and Canada. \$4.00 International. JE E31, E51, E52, E58. KW China. Appropriate Inflation Rate.

AB This paper is a non-technical, policy-oriented discussion of the various policy options on inflation that are open to China, and evaluates of their pro's and con's. An appendix assess the cross-country econometric evidence on the effect of inflation on growth, and concludes that little can be learned from it.

PD November 1994. TI Where There Is Much Light There Is Also Much Shade: The Dark Side of Economic Modeling. AA University of California at Davis. SR University of California, Davis Department of Economics Working Paper: 94-15; Department of Economics, University of California, Davis, Davis, CA 95616-8578. PG 16. PR \$3.00 U.S. and Canada. \$4.00 International. JE B41. KW Methodology. Models. Formalism.

AB Formal modeling provides some substantial benefits. But that should not blind us to its costs. Like other forms of linear thinking its intense concentration on the interaction of a few variable detracts attention from other relevant variables. Assumptions that are set out at the start of analysis are hard to evaluate. Modeling is also conducive to confusing an explanation with the explanation. We often lack a way of choosing among models, and an overemphasis on modeling has deleterious effect of graduate education.

McCallum, Bennett T.

PD December 1994. **TI** A Monetary Impulse Measure for Medium-Term Policy Analysis. **AU** McCallum, Bennett T.; Hargraves, Monica. **AA** McCallum: Carnegie-Mellon University and International Monetary Fund. Hargraves: International Monetary Fund. **SR** International Monetary Fund Working Paper: 94146; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 14. **PR** not available. **JE** E52, E31, E37. **KW** Inflation. Monetary Impulse. Monetary Policy.

AB The paper presents a measure of monetary impulse that is intended to reflect the medium-term inflationary implications of a nation's current monetary policy. The measure consists of the growth rate of the monetary base, adjusted for reserve requirement changes and augmented by an implicit forecast of future growth rates of base velocity. Time series plots of the impulse measure for the G-7 countries are presented, and are compared with plots of inflation and of two alternative monetary indicators--the yield curve slope and the growth rate of a broad monetary aggregate. The impulse measure serves well as a medium-term indicator of future inflation, and on balance matches or outperforms the alternative indicators.

McCarthy, Ian S.

TI The Coordination of Domestic Public Debt and Monetary Management in Economies in Transition--Issues and Lessons from Experience. **AU** Sundararajan, V.; Dattels, Peter; McCarthy, Ian S.; Castello-Branco, Marta; Blommestein, Hans J.

TI The Coordination of Domestic Public Debt and Monetary Management in Economies in Transition--Issues and Lessons from Experience. **AU** Sundararajan, V.; Dattels, Peter; McCarthy, Ian S.; Castello-Branco, Marta; Blommestein, Hans J.

McDougall, Robert

TI Medium-Run Consequences for Australia of an APEC Free-Trade Area: CGE Analyses using the GTAP and Monash Models. **AU** Huff, Karen M.; McDougall, Robert; Pearson, K.R.; Powell, Alan A.

McGrattan, Ellen

PD May 1995. **TI** An Equilibrium Model of the Business Cycle with Household Production and Fiscal Policy. **AU** McGrattan, Ellen; Rogerson, Richard; Wright, Randall. **AA** McGrattan: Federal Reserve Bank of Minneapolis. Rogerson: University of Minnesota and Federal Reserve Bank of Minneapolis. Wright: University of Pennsylvania and Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 191; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 28. **PR** no charge.

JE C51, D13, E62. **KW** Maximum Likelihood. Household Production. Taxation.

AB We estimate a dynamic general equilibrium model of the U.S. economy that includes an explicit household production sector and stochastic fiscal variables. We use our estimates to investigate two issues. First, we analyze how well the model accounts for aggregate fluctuations. We find that household production has a significant effect and reject a nested specification in which changes in the home production technology do not matter for market variables. Second, we study the effects of some simple fiscal policy experiments and show that the model generates different predictions for the effects of tax changes than similar models without home production.

TI On the Mechanics of Forming and Estimating Dynamic Linear Economies. **AU** Anderson, Evan; Hansen, Lars; McGrattan, Ellen; Sargent, Thomas.

McLaughlin, Kenneth J.

PD December 1994. **TI** Individual Compensation and Firm Performance: The Economics of Team Incentives. **AA** Hunter College and University of Rochester. **SR** University of Chicago Center for the Study of the Economy and the State Working Paper: 104; Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. **PG** 31. **PR** \$3.00; make check payable to "The University of Chicago.". **JE** D82, J33. **KW** Incentives. Teams. Executive Compensation.

AB This paper analyzed the properties of a simple performance contract that bases individual compensation on the performance of the firm. With risk neutrality, optimal team incentives promote cooperation among workers, generate efficient effort supply, and economize on measurement costs. Risk aversion, signals of personal performance, large firm size, sabotage, collusion, and adverse selection cast this potentially powerful incentive contract in a minor role in the labor market. However, the optimal contract retains the principle feature of linking individual pay and firm performance. In an application to executive compensation, the model with noisy personal performance evaluation fits the estimated magnitude of team incentives with strong overall incentives.

Mei, Jianping

PD September 1994. **TI** A BMWTV Approach to the Conditional Arbitrage Pricing Model. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: 94-29; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 18. **PR** not available. **JE** C13, G12. **KW** Factor Premiums. Risk. APT. Business Cycle.

AB This paper develops a BMWTV approach to the estimation of factor premiums by integrating the APT model of Burmeister and McElroy (1988) with time-varying risk premiums. It provides premium estimates for macro-factors over time under a unified APT framework which allows for both observable and latent factors. We find significant negative risk premiums for the market factor and the size factor during the sample period. We discover that risk premium and sensitivity estimates for the observable factors are quite sensitive to omitted latent factors, suggesting the importance of accounting for missing latent factors in conditional multi-factor

models. We also find the mispricings under the APT model and CAPM model are relatively small, but the results are quite sensitive to omitted factors. Our study shows that the variation of the size premium appears to be related to business cycles.

TI Political Risk and Stock Returns: The Case of Hong Kong. **AU** Kim, Harold Y.; Mei, Jianping.

Mendoza, Enrique G.

PD December 1994. **TI** Terms-of-Trade Uncertainty and Economic Growth: Are Risk Indicators Significant in Growth Regressions? **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 491; Board of Governors of the Federal Reserve System, Division of International Finance, Washington, DC 20551. **PG** 23. **PR** no charge. **JE** F41, F43. **KW** Terms-of-Trade. Growth. Uncertainty.

AB This paper examines a neoclassical stochastic endogenous growth model in which terms-of-trade uncertainty affects savings and consumption growth. The model explains the positive link between growth and the average rate of change of terms of trade found in recent empirical studies. In addition, terms-of-trade variability, as an indicator of risk, is found to be a key determinant of growth. This implies that welfare costs of uncertainty are much larger than conventional measures of costs of consumption instability. The model's key predictions are strongly supported by results of panel regressions.

Menon, Jayant

PD June 1994. **TI** Trade Liberalization and Intra-Industry Specialization: The Australian experience. **AA** Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: G-107; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 17. **PR** not available. **JE** F14, F13, F15. **KW** Intra-Industry Trade. Trade Liberalization.

AB Much of the growth in trade among the industrialised countries, and more recently among countries in the Asia-Pacific region, has taken the form of intra-industry trade (IIT). Australia has historically had one of the lowest shares of IIT among OECD countries. This paper examines how Australia's IIT has changed in the 1980s in response to the process of trade liberalization and completion of the CER pact with New Zealand. IIT indexes are estimated for Australia's multilateral and trans-Tasman trade for 1981 and 1991 for 132 industries using data at the 3 and 4-digit level of the SITC. The results point to a sharp increase in the share of IIT for both multilateral and trans-Tasman trade. The industries that had undergone the largest reductions in protection levels also increased their shares of IIT quite considerably. These findings suggest that the short to medium run adjustment costs associated with trade liberalization are likely to be lower than expected as a result of increased intra-industry specialization. If IIT continues to grow in response to the on-going process of internationalisation of the Australian economy, then Australia's prospects for expanding its share in world trade, and particularly in the Asia-Pacific region, are likely to be significantly boosted.

PD June 1994. **TI** Flexible Exchange Rates and Traded Goods Prices: A Theory of the Short-Run. **AA** Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: G-108; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168,

AUSTRALIA. **PG** 15. **PR** not available. **JE** F11, F31. **KW** Exchange Rates. Forward Exchange Cover. Menu Costs. Pass-Through. Volatility.

AB The volatility displayed by floating exchange rates has revived interest in the relationship between exchange rates and traded goods prices. This paper aims to provide a theory of exchange rates and traded goods prices in the short-run. In particular, it examines how various factors can cause exchange rate pass-through to be incomplete in the short-run but not in the long-run. These include (i) menu costs, (ii) the costs of changing supply, (iii) the dynamics of demand response to price changes, (iv) order-delivery lags, (v) forward exchange cover, and (vi) the currency denomination of trade contracts. From a policy perspective, the presence of these factors could account for the often prolonged adjustment of trade balances to exchange rate changes, and the failure of exchange rate volatility to perceptibly affect the volume of international trade flows.

PD June 1994. **TI** How Important is Intra-Industry Trade in Australia's Rapid Trade Growth? **AU** Menon, Jayant; Dixon, Peter B. **AA** Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: G-110; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 15. **PR** not available. **JE** F31, F32. **KW** Intra-Industry Trade. Trade Decomposition Formulas.

AB Empirical work on intra-industry trade (IIT) is almost 30 years old. Initial research sought to identify if IIT was a significant share of total trade (TT). The Grubel-Lloyd (GL) index was widely used for this purpose, since it provides a relatively reliable measure of the importance of IIT at any point in time. Interest has since shifted to the changing importance of IIT over time, particularly with the emergence of regional trading blocks. Previous researchers have used movements in the GL index to infer the importance of IIT over time. This approach is vague and can be misleading. In this paper, we show how to measure the contributions of net trade (NT) and IIT to the growth in TT. To understand changes in IIT over time, we also derive the contributions of imports and exports to the manufacturing industries defined at the 3- and 4-digit level of the SITC for the periods 1981 to 1986 and 1986 to 1991. The results show that while almost all the growth in TT was driven by NT between 1981 and 1986, IIT contributes almost half the sharp growth in TT between 1986 and 1991. The dominant contribution of NT between 1981 and 1986 was mainly a result of import growth, while the increase in the contribution of IIT between 1986 and 1991 was almost solely due to export growth.

TI Modelling Manufactured Imports: Methodological Issues with Evidence from Australia. **AU** Athukorala, Premachandra; Menon, Jayant.

TI Measures of Intra-Industry Trade as Indicators of Factor Market Disruption. **AU** Dixon, Peter B.; Menon, Jayant.

PD April 1995. **TI** Regional Trading Arrangements and Intra-Industry Trade: The Case of ANZCERTA. **AU** Menon, Jayant; Dixon, Peter B. **AA** Monash University. **SR** Centre of Policy Studies and the Impact Project Working Paper: G-114; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 25. **PR** not available. **JE** F32, F17. **KW** Intra-Industry Trade. Regional Trading Agreements. Adjustment Costs.

AB Empirical work on intra-industry trade (IIT) is almost 30 years old. From the earliest analyses of IIT, the phenomenon has been associated with Regional Trading Agreements (RTAs). An important motivation for this research is associated with the issue of adjustment costs; if most of the growth in trade resulting from the RTA is attributable to IIT, then the resource re-allocation costs in the short to medium term are likely to be lower. This is because IIT does not require inter-industry factor movements. In attempting to determine whether RTAs are associated with increases in IIT, previous researchers have looked at two questions: (i) whether IIT has increased following the formation of the RTA, and (ii) whether IIT is more important in intra versus extra RTA trade. To answer the first question, researchers have used movements in the value of the Grubel and Lloyd (1975, GL) index over time, while the second has been dealt with by comparing the value of the GL index for intra versus extra RTA trade. Employing the GL index in these ways to answer these questions can lead to error. In this paper, we develop a new methodology for analysing both of these questions which overcomes the problems associated with using the GL index. First, we derive a formula which decomposes the growth in total trade (TT) into the contributions of growth in IIT and net trade (NT). Second, we show how to measure the contributions of intra and extra RTA trade to the growth in a country's total multilateral IIT and NT. The focus of our study is on the effects of the Australia-New Zealand Closer Economic Relations Trading Agreement (ANZCERTA) on Australian and New Zealand trade. All our formulas are computed with data for 130 Australian and New Zealand manufacturing industries defined at the 3-digit level of the Standard International Trade Classification (SITC) for the periods 1981 to 1986 and 1986 to 1991.

Mercenier, Jean

PD March 1995. **TI** On Sunk Costs and Trade Liberalization in Applied General Equilibrium. **AU** Mercenier, Jean; Schmitt, Nicolas. **AA** Mercenier: Federal Reserve Bank of Minneapolis and University de Montreal. Schmitt: Simon Fraser University. **SR** Federal Reserve Bank of Minneapolis Staff Report: 188; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 28. **PR** no charge. **JE** C68, D58, F12, F17. **KW** Applied General Equilibrium. Sunk Costs. Market Structure. Trade Liberalization.

AB We argue that the rationalization gains often predicted by static applied general equilibrium models with imperfect competition and scale economies are artificially boosted by an unrealistic treatment of fixed costs. We introduce sunk costs into one such model calibrated with real-world data. We show how this changes the oligopoly game in a way significant enough to affect, both qualitatively and quantitatively, the outcome of a trade liberalization exercise.

Meredith, Guy

TI Asymmetric Effects of Economic Activity on Inflation: Evidence and Policy Implications. **AU** Laxton, Douglas; Meredith, Guy; Rose, David.

Merlo, Antonio

TI Gender Differences in Education in a Dynamic Household Bargaining Model. **AU** Echevarria, Cristina; Merlo, Antonio.

Meyer, Bruce D.

PD December 1994. **TI** Natural and Quasi-Experiments in Economics. **AA** Northwestern University. **SR** National Bureau of Economic Research: 170; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** not available. **PR** not available. **JE** C80, C93. **KW** Experiment. Natural Experiment. Outcome Measure. Quasi-Experiment.

AB Using research designs patterned after randomized experiments, many recent economic studies examine outcome measures for treatment groups and comparison groups that are not randomly assigned. By using variation in explanatory variables generated by changes in state laws, government draft mechanisms, or other means, these studies obtain variation that is readily examined and is plausibly exogenous. This paper describes the advantages of these studies and suggests how they can be improved. It also provides aids in judging the validity of inferences they draw. Design complications such as multiple treatment and comparison groups and multiple pre- or post-intervention observations are advocated.

Mihara, H. Reiju

PD November 1994. **TI** Arrow's Theorem and Turing Computability. **AA** University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 276; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. **PG** 23. **PR** no charge. **JE** D71, C69, D89. **KW** Arrow Impossibility Theorem. Hayek's Knowledge Problem. Algorithms. Recursion Theory. Ultrafilters.

AB A social welfare function for an infinite society satisfies Pairwise Computability if for each pair (x,y) of alternatives, there exists an algorithm that can decide from a description of a profile on {x,y} whether the society prefers x to y. I prove that if a social welfare function satisfying Unanimity and Independence also satisfies Pairwise Computability, then it must be dictatorial. This result severely limits on practical grounds Fishburn's resolution (1970) of Arrow's impossibility. An interpretation of an infinite "society" is also given.

Miller, Danny

PD July 1994. **TI** Nonconformity in Competitive Repertoires. **AU** Miller, Danny; Chen, Ming-Jer. **AA** Miller: Ecole des Hautes Etudes Commerciales and McGill University. Chen: Columbia University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-15; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 33. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** D43, L11. **KW** Competition. Rivalry. Nonconformity.

AB Some organizations adhere very closely to industry norms in the way they compete. Others, for better or worse, deviate by engaging in more unusual forms of rivalry. Such differences have been largely ignored by a literature on competition that is dominated by economic perspectives. Here we propose a more encompassing, but largely sociological framework for studying competitive repertoires. We argue that the extensiveness and continuity of a company's market interactions very much influence its level of nonconformity. Market level factors that might influence nonconformity include market diversity and the continuity of traditions; and

firm level factors include the size and resources of an organization and its length of experience in the industry. Nonconformity, we argue, will also be driven by economic factors: incentives to deviate in the form of market growth levels and poor current returns. Most of these sources of nonconformity were confirmed in a study of the competitive repertoires of the major U.S. airlines. The findings also show that competitive nonconformity was associated with subsequent declines in financial performance, especially for small airlines operating homogeneous markets. This study generated support for some of the very central notions of the sociology of markets and of institutional theory, as well as for the more traditional ideas borrowed from economics.

PD August 1994. **TI** The Simplicity of Competitive Repertoires: An Empirical Analysis. **AU** Miller, Danny; Chen, Ming-Jer. **AA** Miller: Ecole des Hautes Etudes Commerciales and McGill University. Chen: Columbia University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-16; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 36. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** D21, D24, L21, L22, L23. **KW** Organizational Simplicity. Advertising. Market Scope. **AB** This research explores the notion of organizational simplicity: a tendency of some firms to concentrate intensely on just a few central activities. Our focus here is the simplicity inherent in the repertoire of concrete, market-oriented actions used by companies to compete. These actions include product introductions, pricing or advertising decisions, and changes in market scope. The simplicity of a competitive repertoire can be assessed by its range of actions and its degree of concentration on one or a few dominant kinds of actions. We argue that firms may "learn" to become more simple because they have performed well, face munificent or homogenous markets, lack a diversity of competitive experiences, or are lulled by the complacency that typically accompanies age and size. These stimuli influence simplicity by restricting search, biasing managerial attributions, or limiting manager's awareness of action alternatives. Paradoxically, although good past performance may contribute to simplicity, simplicity can hurt subsequent performance, especially during periods of uncertainty and growth. Many of these ideas were borne out in a study of the major carriers of the post-deregulation domestic airline industry.

Miller, Preston

PD July 1995. **TI** The Jointly Optimal Inflation Tax, Income Tax Structure, and Transfers. **AA** Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 193; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 34. **PR** no charge. **JE** E50, E62, C61. **KW** Optimal Income Tax Structure. Optimal Inflation. Social Security. Dynamic General Equilibrium.

AB The welfare-maximizing income tax structure, rate of money creation, and amounts of intergenerational transfers are jointly determined for given rates of government consumption. When government consumption is zero, it is found for the parameter values examined that the income tax structure is progressive, the rate of money change is negative, and positive transfers are made to the old. As government consumption

increases, the tax structure's progressivity declines and turns increasingly regressive, the rate of money change rises, and transfers decrease. It is found that the bulk of the increase in government consumption is optimally financed by a cut in transfers.

TI Fixed vs. Floating Exchange Rates: A Dynamic General Equilibrium Analysis. **AU** Chin, Dan; Miller, Preston.

Miller, Ronald I.

TI The Limits to Land Reform: The Land Acts in Ireland 1870-1909. **AU** Guinnane, Timothy W.; Miller, Ronald I.

Milner, Simon

PD December 1994. **TI** Charting the Coverage of Collective Pay Setting Institutions: 1895-1990. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 215; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 53. **PR** no charge. **JE** I53. **KW** Collective Bargaining. Britain.

AB Fewer than 50 percent of British employees now have their pay and conditions affected by collective pay setting institutions - collective bargaining or wages councils. This paper provides an historical context to the current picture of a decollectivised Britain, constructing a time series on coverage from 1895-1990. Extant estimates and sources of coverage data are presented and discussed alongside estimates drawn from a source used only sparingly before now - the number of workers affected by changes in wage rates of national agreements or wage orders. The various manipulations required to convert these data into coverage estimates are detailed at length. The recent decline in collective bargaining coverage is the longest period ever recorded and has been noticeably steeper than the fall in union density, such that the proportion of British workers covered is lower now than in the 1940s. Given the abolition of wages councils in 1993, collective pay setting machinery now affects the pay and conditions of less workers than it did in the 1930s.

Minehart, Deborah

TI Loss Aversion in a Consumption/Savings Model. **AU** Bowman, David; Minehart, Deborah; Rabin, Matthew.

Mishkin, Frederic S.

TI The Decline of Traditional Banking: Implications for Financial Stability and Regulatory Policy. **AU** Edwards, Franklin R.; Mishkin, Frederic S.

Moghadam, Reza

PD December 1994. **TI** Unemployment Hysteresis, Wage Determination, and Labor Market Flexibility: The Case of Belgium. **AU** Moghadam, Reza; Rijckeghem, Caroline Van. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94150; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 17. **PR** not available. **JE** E65, I30, P21. **KW** Unemployment. Labor Market. Wage Determination. Hysteresis.

AB This paper examines the potential contribution of unemployment hysteresis theories to the understanding of the Belgian labor market. It estimates models of wage

determination using aggregate and firm-level panel data. Two main conclusions emerge: (i) the long-term unemployed do not exert a negative impact on wages; and (ii) there is some evidence that the incumbent workers, the "insiders," exercise market power in wage determination, taking greater account of their own interests than those of the unemployed "outsider." In addition, it is argued that the automatic indexation of wages to prices in Belgium can cause a downward rigidity in real wages, given the multi-tier real wage bargaining process. Recent initiatives, including the introduction of a competitiveness norm for indexation, and labor market programs aimed at the long-term unemployed and the young, such as the plan d'accompagnement and the plan d'embauche des jeunes, are appropriate in view of the existence of insider power in wage determination.

Monfort, Alain

TI Testing, Encompassing and Simulating Dynamic Econometric Models. AU Gourieroux, Christian; Monfort, Alain.

TI Kernel M-Estimators: Non Parametric Diagnostics for Structural Models. AU Gourieroux, Christian; Monfort, Alain; Tenreiro, C.

Moore, Michael R.

TI Racing for the Water: Laboratory Evidence on Subgame Perfection. AU Gardner, Roy; Moore, Michael R.; Walker, James M.

Morkre, Morris

TI Did Depreciation of the Dollar Render the Steel VRAs Nonbinding? AU Grawe, Oliver; Howarth, Dolly; Morkre, Morris.

Morrison, Peter A.

TI Army Morale Military. Morale, Welfare and Recreation Programs in the Future: Maximizing Soldier Benefits in Times of Austerity. AU Way-Smith, Susan; Keating, Edward G.; Morrison, Peter A.; Childress, Michael T.

TI Army Morale Military. Morale, Welfare and Recreation Programs in the Future: Maximizing Soldier Benefits in Times of Austerity. AU Way-Smith, Susan; Keating, Edward G.; Morrison, Peter A.; Childress, Michael T.

Moser, James T.

TI Stock Margins and the Conditional Probability of Price Reversals. AU Kofman, Paul; Moser, James T.

TI Is There LIFE(F)E After DTB? Competitive Aspects of Cross Listed Futures Contracts on Synchronous Markets. AU Kofman, Paul; Bouwman, Tony; Moser, James T.

Mosser, Patricia C.

TI Mortgage Security Hedging and the Yield Curve. AU Fernald, Julia; Keane, Frank; Mosser, Patricia C.

Mueller, Johannes

PD October 1994. TI Dollarization in Lebanon. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94129; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 26. PR not available. JE E41, E50, F41, O53.

KW Currency. Dollarization. Lebanon.

AB Lebanon has experienced large-scale dollarization during and after its 15-year long civil war. This paper analyzes the driving forces behind the dollarization of the Lebanese economy, using two econometric models that, apart from determinants commonly included in empirical studies on the dollarization phenomenon, also specifically take into account the limited reversibility of the dollarization process. The latter is modeled through the inclusion on a ratchet variable, which implies an asymmetric substitution process between domestic and foreign currency. The ratchet effect, in the different definitions applied, is found to be significant. In addition, the expected depreciation, a stock adjustment variable and, when cross-border deposits of Lebanese residents are included in the analysis, also the interest rate differential are other statistically significant determinants of the dollarization process in Lebanon.

Mukherji, Arijit

TI Activity-Based Costing for Economic Value Added. AU Jordan, J.S.; Anctil, Regina; Mukherji, Arijit.

Mulligan, Casey B.

TI A Labor-Income-Based Measure of the Value of Human Capital: An Application to the States of the United States. AU Sala-i-Martin, Xavier; Mulligan, Casey B.

TI Measuring Aggregate Human Capital. AU Sala-i-Martin, Xavier; Mulligan, Casey B.

Murota, Kazuo

PD October 1994. TI Finding Optimal Minors of Valuated Bimatroids. AA University of Bonn. SR Univeritaet Bonn, Sonderforschungsbereich 303 Discussion Papers: 94834; Sonderforschungsbereich 303 an der Univeritaet Bonn Lennestrassse 37, D-53113 Bonn, Germany. PG 6. PR no charge. JE C44. KW Valuated Maroid. Concavity. Degree of Subdeterminant. Rational Function Matrix.

AB As a variant of "valuated matroid" of Dress and Wenzel we define the notion of "valuated imatroid" to investigate the combinatorial properties possessed by the degree of subdeterminants of a rational function matrix. Two algorithms are developed for computing the maximum degree of a minor of specified order; the algorithms are valid also for "valuated bimatroids" in general.

Muzyka, D. F.

TI Entrepreneurial Management: A Converging Theory for Large and Small Enterprises. AU Churchill, N. C.; Muzyka, D. F.

Mwabu, Germano

TI Household Composition and Expenditures on Human Capital Formation in Kenya. AU Evenson, Robert E.; Mwabu, Germano.

Naitoh, Takeshi

TI A Greedy Algorithm for Minimizing a Separable Convex Function over a Finite Jump System. AU Ando, Kazutoshi; Fujishige, Saturo; Naitoh, Takeshi.

Naqvi, Farzana

PD April 1995. TI Notes on the Implementation of MONASH-MFR: A Multiregional Model of Australia. AU Naqvi, Farzana; Peter, Matthew W. AA Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: OP-82; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 72. PR not available. JE C68, R13. KW Multiregional. CGE. GEMPACK. Forecasting. Computer Implementation.

AB This paper presents the computer implementation of the MONASH-MRF model. MONASH-MRF is a multiregional multisectoral model of the Australian Economy. Included is a complete documentation of the model in the TABLO language, consisting of the specification of the model's equation system, variables and coefficients. The paper also provides a step-by-step guide to the conventions of the TABLO language to allow the reader to interpret the specification of the model. Finally, the paper contains instructions and files necessary to generate a forecasting solution of the model.

Narayanan, H.

PD October 1994. TI Fast Algorithm for Principal Partition of Graph. AU Narayanan, H.; Patkar, Sachin B. AA University of Bonn. SR Univeritaet Bonn, Sonderforschungsbereich 303 Discussion Papers: 94835; Sonderforschungsbereich 303 an der Universitaet Bonn Lennestrasse 37, D-53113 Bonn, Germany. PG 20. PR no charge. JE C44. KW Principal Partition. Algorithm.

AB In this paper we present a new and more efficient approach for computing the well known structure called Principal Partition of a graph. The Principal Partition Problem is to find for each k , the collection of all sets X which maximize $\sum_{i \in X} r(i)$ over the subsets of the edges of a graph whose rank is given by $r(\cdot)$. Our approach is based on implicitly finding a suitable partition of the vertex set, this differs from the conventional approaches reported in the literature to date. This approach results in an algorithm for this problem, which runs in $O(n^3)$ time for unweighted graphs and $O(n^4)$ for weighted graphs. These time bounds are the best obtained so far.

Nellor, David C.L.

PD November 1994. TI Fiscal Regimes for Natural Resource Producing Developing Countries. AU Nellor, David C.L.; Sunley, Emil M. AA International Monetary Fund. SR International Monetary Fund Papers on Policy Analysis and Assessment: 9424; International Monetary Fund, Washington, DC 20431. PG 18. PR not available. JE H25, Q38. KW Taxation. Economies in Transition. Fiscal Instruments. Natural Resources.

AB In many developing countries and economies in transition, a variety of fiscal instruments should be used to tax mining and petroleum projects. They should be subject to the income tax like other activities in the economy; import duties can provide revenue early in the life of a project; royalties should be used to ensure a minimum return that varies with project cash flow; and a resource rent tax may be used but not relied upon as part of the fiscal package. These conclusions are based on the observations that: (i) the government has a dual fiscal role in relation to natural resource projects; it is the sovereign tax power and often the natural resource owner, and (ii) the property rights to natural resources and the associated fiscal arrangements are often not stable.

Nelson, Daniel B.

PD August 1994. TI Asymptotically Optimal Smoothing with Arch Models. AA University of Chicago and National Bureau of Economic Research. SR National Bureau of Economic Research: 161; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C22. KW ARCH. Filtering. Specification. Time Series. Volatility.

AB Suppose an observed time series is generated by a stochastic volatility model--i.e., there is an unobservable state variable controlling the volatility of the innovations in the series. As shown by Nelson (1992), and Nelson and Foster (1994), a misspecified ARCH model will often be able to consistently (as a continuous time limit is approached) estimate the unobserved volatility process, using information in the lagged residuals. This paper shows how to more efficiently estimate such volatility process using information in both lagged and led residuals. In particular, this paper expands the optimal filtering results of Nelson and Foster (1994) and Nelson (1994) to smoothing.

PD August 1994. TI Asymptotic Filtering Theory for Multivariate Arch Models. AA University of Chicago and National Bureau of Economic Research. SR National Bureau of Economic Research: 162; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C22. KW ARCH. Heterokurtosis. Specification. Time Series.

AB ARCH models are widely used to estimate conditional variances and covariances in financial time series models. How successfully can ARCH models carry out this estimation when they are misspecified? How can ARCH models be optimally constructed? Nelson and Foster (1994) employed continuous record asymptotics to answer these questions in the univariate case. This paper considers the general multivariate case. Our results allow us, for example, to construct an asymptotically optimal ARCH model for estimating the conditional variance or conditional beta of a stock return given lagged returns on the stock, volume, market returns, implicit volatility from options contracts, and other relevant data. We also allow for time-varying shapes of conditional densities.

TI Continuous Record Asymptotics for Rolling Sample Variance Estimators. AU Foster, Dean P.; Nelson, Daniel B.

Newberry, David M.

PD December 1994. TI The Distributional Impact of Price Changes in Hungary and the UK. AA University of Cambridge. SR University of Cambridge Discussion Papers on Economic Transition: DPET 9402; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 26. PR \$5.00 (L2.50); checks payable to University of Cambridge. JE D12, D63, H23, I32, P52. KW Hungary. Income Distribution. Inequality. Prices. Social Welfare. UK.

AB In Soviet-type economies, commodity prices were distorted as part of the redistributive system of the state, but with reform, prices have been liberalised and taxes made more uniform. The paper develops a new method measuring the distributional effect of price changes by computing the distributional characteristics of commodities with household budget survey data, and applies it to Hungary and the UK, finding that the distributional effects over the past decade were

negligible and not significantly different from zero in both cases.

Newhouse, Joseph P.

PD 1994. TI Reimbursement Under Uncertainty: What To Do If One Cannot Identify An Efficient Hospital. AA Rand Corporation and Health Care Financing Administration. SR Rand Report: MR-309-HCFA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 56. PR \$13.00. JE I11, I12, I18. KW Efficiency Measurement. Health Care. Hospital Care.

AB A direct approach to the task of identifying an efficient hospital is to estimate frontier cost or production functions; i.e., determine hospitals that, for a given output, seem to be minimizing cost. The existing literature usually assumes that the output of hospitals is simply patient days or stays or both, neglecting both case mix variation and the quality of the services delivered. The author concludes that the prospects for identifying efficient hospitals through direct estimation of cost and production functions are not good and that reimbursement should be partly a function of the firm's observed cost and not purely prospective.

Nickell, Stephen

PD December 1994. TI Wages, Restrictive Practices and Productivity. AU Nickell, Stephen.; Nicolitsas, Daphne. AA Oxford University. SR London School of Economics Centre for Economic Performance Discussion Paper: 219; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 42. PR no charge. JE J31. KW Wages. Productivity. Restrictive Practices.

AB Empirical analyses of longitudinal data on some 66 manufacturing companies in Britain lead us to the following conclusions. First, agreed reductions in restrictive work practices lead to increases in productivity. Second, controlling for such agreed reductions, there is some weak evidence that both relative pay and aggregate labour market slack have some positive effect on productivity. Third, falls in market share or declines in the financial health of companies lead to both lower pay rises and reductions in restrictive practices.

Nicolitsas, Daphne

TI Wages, Restrictive Practices and Productivity. AU Nickell, Stephen.; Nicolitsas, Daphne.

Nilles, Delia

PD November 1994. TI Le Monetarisme Helvetique est-il mort en 1988? AA University of Lausanne. SR University of Lausanne, Cahiers de Recherches Economiques: 9415; Department d'ometrie et d'economie politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, Switzerland. PG 29. PR no charge. JE E52, E58. KW Monetary Policy. Monetarism.

AB not available.

Nyarko, Yaw

TI The Transfer of Human Capital. AU Jovanovic, Boyan.; Nyarko, Yaw.

O'Brien, Daniel P.

PD November 1994. TI Nonlinear Supply Contracts,

Foreclosure, and Exclusive Dealing. AU O'Brien, Daniel P.; Shaffer, Greg. AA University of Michigan. SR Department of Economics---CREST Working Paper Series: 94-15; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI 48109-1220. PG 16. PR \$4.00. JE D43, L13. KW Exclusive Dealing. Nonlinear Pricing. Market Foreclosure.

AB We examine the incentives for market foreclosures when two upstream firms contract with a retail monopolist. We find that if nonlinear supply contracts are feasible, an exclusive dealing arrangement offers an upstream firm no advantage it would not have had without the arrangement. If a fully integrated (horizontally and vertically) firm would sell only one product, an upstream firm can foreclose its rival with a nonlinear supply contract and achieve the same profit it would receive if required exclusive dealing. If a fully integrated firm would sell both products, the feasibility of nonlinear supply contracts renders it unprofitable to foreclose, with or without exclusive dealing.

Oates, Wallace E.

PD March 1995. TI The Impact of Urban Land Taxation: The Pittsburgh Experience. AU Oates, Wallace E.; Schwab, Robert M. AA University of Maryland. SR Resources for the Future Discussion Paper: 95-15; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 47. PR \$6.00 (prepaid, U.S. funds only). JE H24, H25, H71, R51. KW Land Taxation. Urban Fiscal Problems. Local Taxation. Property Taxes.

AB In 1979-80, Pittsburgh restructured its property tax system by raising the rate on land to more than five times the rate on structures. Following some background on the theory of land taxation and Pittsburgh's historical setting, the paper presents an empirical analysis of the effect of the tax reform. Pittsburgh experienced in the 1980s a dramatic increase in building activity, far in excess of other cities in the region. The analysis suggests that, while a shortage of commercial space was a primary driving force behind the expansion, the reliance on increased land taxation played an important supporting role by enabling the city to avoid rate increases in other taxes that could have impeded development.

Obstfeld, Maurice

PD November 1994. TI The Intertemporal Approach to the Current Account. AU Obstfeld, Maurice; Rogoff, Kenneth. AA Obstfeld: University of California Berkeley. Rogoff: Princeton University. SR Center for International and Development Economics Research: C94-044; University of California Berkeley, Department of Economics, Berkeley, CA 94720. PG 65. PR not available. JE F21, F32, F34, G15. KW Current Account. Intertemporal Approach. International Financial Markets.

AB The intertemporal approach views the current-account balance as the outcome of forward-looking dynamic saving and investment decisions. This paper, a chapter in the forthcoming third volume of the Handbook for International Economics, surveys the theory and empirical work on the intertemporal approach as it has developed since the early 1980's. After reviewing the basic one-good, representative-consumer model, the paper considers a series of extended models incorporating relative prices, complex demographic structures, consumer durables, asset-market incompleteness, and asymmetric

information. We also present a variety of empirical evidence illustrating the usefulness of the intertemporal approach, and argue that intertemporal models provide a consistent and coherent foundation for open-economy policy analysis. As such, the intertemporal approach should supplant the expanded versions of the Mundell-Fleming IS-LM model that currently furnish the dominant paradigm used by central banks, finance ministries, and international economic agencies.

Orszag, Peter

PD October 1994. TI Dumping on Free Trade: The US Import Trade Laws. AU Orszag, Peter.; Stiglitz, Joseph. AA Orszag: Centre for Economic Performance. Stiglitz: Council of Economic Advisors, Washington. SR London School of Economics Centre for Economic Performance Discussion Paper: 210; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 36. PR no charge. JE F13. KW Trade Laws. Uruguay Round.

AB The passage of the Uruguay Round trade agreement represents a natural opportunity for us to review the policy goals of the US import trade laws, to assess how well current laws achieve those objectives, and to explore possible reforms. We argue that there are a variety of policy concerns that militate for a circumscribed set of import trade statutes. The relevant US laws, however, have largely become divorced from such national welfare considerations and are now too often a mechanism for furtive protectionism. The Uruguay Round effected some (marginal) improvements, but left the fundamental structure of the laws unchanged. We discussed possible reforms in the final section of the paper.

Osler, Carol L.

TI Evaluating Chart-Based Technical Analysis: The Head-and-Shoulders Pattern in Foreign Exchange Markets. AU Chang, Kevin; Osler, Carol L.

Ostry, Jonathan D.

PD November 1994. TI Household Saving in France: Stochastic Income and Financial Deregulation. AU Ostry, Jonathan D.; Levy, Joaquim V. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94136 ; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 17. PR not available. JE D11, D81, E21. KW Savings. Income Growth. Uncertainty. France.

AB The household saving ratio in France has undergone very sharp changes over the past two decades, falling dramatically in the first part of the 1980's before rising in more recent years. This paper emphasizes two factors in the evolution of private saving in France. The first relates to perceptions of household income growth and uncertainty, which are likely to have been affected by deteriorating labor market conditions, and which may therefore help to account for the recent increases in saving. The second factor relates to financial deregulation which may have lowered saving and increased its sensitivity to interest rate changes. It is argued that both factors have played some role in the evolution of French household saving.

Oswald, Andrew J.

TI Is Job Satisfaction U-Shaped in Age? AU Clark, Andrew E.; Oswald, Andrew J.; Warr, Peter B.

TI Satisfaction and Comparison Income. AU Clark, Andrew E.; Oswald, Andrew J.

Packer, Frank

PD January 1994. TI Venture Capital, Bank Shareholding, and the Certification of Initial Public Offerings: Evidence from the OTC Market. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9401; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 43. PR no charge. JE G15, G24, G32. KW Initial Public Offering. Venture Capital. Certification. Japan. Bankshareholding.

AB This paper asks whether the existence of bank shareholding affects the pricing of initial public offerings in Japan. First, the paper describes the environment for IPO's in Japan in the late 1980's and early 1990's, giving special attention to the rapid growth of the OTC market, and the emergence of the pre-issue auction system. After examining the types of pre-IPO investment in company stock by venture capital and banks, supportive evidence is found for the hypothesis that bank shareholding, either direct or through venture capital subsidiaries, reduces new issue underpricing. This is consistent with the interpretation that recruiting bank shareholders prior to the IPO alleviates the costs of asymmetric information in raising funds in the capital market. By contrast, other forms of venture capital shareholding are not associated with a reduction in new issue underpricing.

Palmer, Karen

PD October 1994. TI Materials Use and Solid Waste Disposal: An Evaluation of Policies. AU Palmer, Karen; Walls, Margaret. AA Resources for the Future. SR Resources for the Future Discussion Paper: 95-02; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 49. PR \$6.00 (prepaid, U.S. funds only). JE Q28. KW Solid Waste. Recycling. Virgin Materials. Deposit-Refund.

AB All fifty states have established policies to promote recycling and reduce the volume of municipal solid waste going to landfills. A wide range of policies include stated recycling goals, deposit-refund systems for beverage containers and lead-acid batteries, government purchasing preferences for products with a minimum recycled content, and minimum recycled content standards for particular products sold within a state. The federal government is considering similar actions. In this paper, we assess the efficiency implications of several different policies including virgin materials taxes, recycling subsidies, an investment tax credit (ITC) for recycling equipment, recycled content standards, and taxes or subsidies on final products. Our general finding is that policies focusing only on input use can be set to generate the optimal mix of virgin and recycled inputs for a given amount of output and solid waste; however, none of these policies by itself can generate the optimal amounts of output and solid waste. Production and waste generation will be optimal only if these policies are combined with a tax or subsidy on the final product. Our analysis suggests that the recycling subsidy/product tax combination--i.e., a deposit-refund system--should be preferred, in most cases, to the other three options. The recycling ITC/product tax combination is our next most preferred option, followed by the virgin materials tax policy and, lastly, by the recycled content standard policy.

TI Environmental Regulation and Innovation: A Panel Data Study. AU Jaffe, Adam B.; Palmer, Karen.

Park, Jin Heum

PD October 1994. **TI** Returns to Schooling: A Peculiar Deviation from Linearity. AA Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 335; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 17. **PR** \$1.50. **JE** I21, J31. **KW** Wage Level. Wage Structure. Training. Occupation.

AB Results reported in this paper indicate that the returns-to-schooling profile exhibits a peculiar departure from log-linearity. In particular, for white males, the return to the 15th year of schooling (the third year of college) seems to be much smaller than that predicted by log-linearity. That is, people with 15 years of schooling do not appear to earn any more than those with 14 years of schooling. I discuss several theories and evidence that may explain the peculiarity. Amongst them, measurement error in schooling seems the most plausible.

PD December 1994. **TI** Estimation of Sheepskin Effects and Returns to Schooling Using the Old and the New CPS Measures of Educational Attainment. AA Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 338; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 9. **PR** \$1.00. **JE** I21, I22. **KW** Returns to Schooling. Sheepskin Effects. Education.

AB This study uses direct information on years of schooling and degree attainment taken from a special Current Population Survey (CPS) to test for sheepskin effects. I find significant earnings gains of approximately 9, 11, and 21 percent for achieving a high school diploma, an associate's degree, and a bachelor's degree, respectively. I also use the data to impute a traditional measure of years of schooling (corresponding to the education information on the CPS prior to 1992) from the new CPS question on degrees. The imputation is found to be relatively accurate and to lead to similar estimates of return to schooling.

Parker, Douglas D.

PD December 1994. **TI** The Adoption and Use of Information Services: The Case of CIMIS. AU Parker, Douglas D.; Zilberman, David. AA University of California Berkeley. **SR** Department of Agricultural and Resource Economics, University of Berkeley: 736; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. **PG** 28. **PR** \$7.00 Domestic \$14.00 International Surface Rate. **JE** H42, H43, O31, O32, O33. **KW** Technology Adoption. Weather Information. Irrigation Management. Cimis.

AB This paper considers technology adoption of public good. The use of weather information for irrigation management will affect both timing of irrigations and quantities of water used. A model explaining technological adoption of more efficient irrigation management methods is used to examine adoption and use of the California Irrigation Management Irrigation System (CIMIS).

Parker, P. M.

PD November 1994. **TI** An Integrated and Cross-Cultural Study of Diffusion Theory. AU Parker, P. M.; Sarvary, M. AA INSEAD. **SR** INSEAD Working Papers: 94/70;

INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 25. **PR** not available. **JE** D11, L63, M11, M31. **KW** Consumer Theory. Product Adoption.

AB Motivated by the comprehensive review in Gatignon and Robertson (1985), this paper simultaneously tests various prevailing consumer theories of new product adoption. It puts special emphasis on the impact of culture on adoption, a topic that has been largely neglected in previous research. We study ten home-office and high-end consumer electronics innovations using a sample of some 900 individuals from over 30 countries. In addition to uncovering new aspects of consumer innovativeness, this paper represents a first attempt to gauge the relative importance of all relevant forces driving individual adoption timing for new products, as hypothesized in the extant literature.

TI Modelling Global Diffusion. AU Dekimpe, M. G.; Parker, P. M.; Sarvary, M.

Parmenter, Brian R.

TI Computable General Equilibrium Modelling. AU Dixon, Peter B.; Parmenter, Brian R.

TI ORANI-F and Monash: General Equilibrium Models of the Australian Economy for Medium-Run Forecasting. AU Adams, Philip D.; Parmenter, Brian R.

TI The Macroeconomic, Industrial, Distributional and Regional Effects of Government Spending Programs in South Africa. AU Horridge, J. Mark; Parmenter, Brian R.; Cameron, Martin; Joubert, Riaan; Suleman, Areef; de Jongh, Dawie.

Patkar, Sachin B.

TI The Orthant Non-Interaction Theorem for Certain Combinatorial Polyhedra and Its Implications in the Intersection and the Dilworth Truncation of Bisubmodular Functions. AU Fujishige, Saturo; Patkar, Sachin B.

TI Fast Algorithm for Principal Partition of Graph. AU Narayanan, H.; Patkar, Sachin B.

Peach, Richard W.

PD October 1994. **TI** Health Care Reform: The Issues and the Options. AA Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9419; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 75. **PR** no charge. **JE** I11. **KW** Health Care. Output. Insurance.

AB This paper surveys the health care literature to provide a primer on the health care reform debate. Aggregate data suggest that rapid growth of health care spending has been associated with the growth of third-party payment-public and private insurance. The majority of cases of lack of coverage are of relatively short duration and tend to be associated with job changes or involuntary unemployment. The chronically uninsured are a relatively small part of the total who generally have no attachment to the labor force. Under the traditional fee-for-service or "retrospective payment" approach to financing health care, neither patients nor providers face an effective budget constraint. As a result, there is a tendency to consume health care services until their incremental benefits are well below the cost of providing those services. Furthermore, private health insurance markets are inherently

unstable and susceptible to "adverse selection" which has led to "experience rating" of premiums and a breakdown of the small group insurance market. The often-mentioned causes of high and rising health care spending--demographics, administrative costs, and defensive medicine--likely play a limited role in the in medicine and the rapid incorporation of those advances into the "prevailing standard of care". With regard to reducing the rate of increase of health care spending, the main distinction between the competing models of reform is reliance on increased government control, in the form of price controls and/or global budgets, versus modifying market incentives by increasing copayments and deductibles and thereby increasing patient's out-of-pocket costs. Increased government control is the option selected by most other major industrialized countries. Available evidence suggests that increased cost sharing would reduce the quantity of health care demanded, primarily by reducing the likelihood that an individual will seek medical care. With regard to access, there are efficiency as well as equity grounds for universal coverage. The most direct route to universal coverage is national health insurance. Reforms of the private health insurance market by themselves are unlikely to significantly reduce the cost of private health insurance and may actually cause it to increase. For private market reforms to be most effective, virtually all individuals must be continuously insured; an outcome difficult to achieve through market mechanisms alone.

Pearson, K.R

TI Computing Solutions for Large General Equilibrium Models Using GEMPACK. AU Harrison, W. Jill; Pearson, K.R.

TI Multiregional and Intertemporal Age Modelling Via GEMPACK. AU Harrison, W. Jill; Pearson, K.R.; Powell, Alan A.

TI Medium-Run Consequences for Australia of an APEC Free-Trade Area: CGE Analyses using the GTAP and Monash Models. AU Huff, Karen M.; McDougall, Robert; Pearson, K.R.; Powell, Alan A.

Peled, Dan

TI Social Insurance and Taxation under Sequential Majority Voting and Utilitarian Regimes. AU Aiyagari, S. Rao; Peled, Dan.

Peracchi, Franco

TI The Conditional Distribution of Excess Returns: An Empirical Analysis. AU Foresi, Silverio; Peracchi, Franco.

Perloff, Jeffrey M.

TI Hiring and Managing Labor for Farms in California. AU Rosenberg, Howard R.; Perloff, Jeffrey M.; Pradhan, Vijaykumar S.

TI The Optimal Suppression of a Low-Cost Technology by a Durable Goods Monopoly. AU Karp, Larry S.; Perloff, Jeffrey M.

Peter, Matthew W.

TI Notes on the Implementation on MONASH-MFR: A Multiregional Model of Australia. AU Naqvi, Farzana; Peter, Matthew W.

PD May 1995. TI The Effects of Immigration on

Residents' Incomes in Australia: Some Issues Reconsidered. AU Peter, Matthew W.; Verikios, George. AA Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: G-115; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 18. PR not available. JE F22, D33, D60. KW Berry-Soligo Effect. Capital Mobility. Government Equity. Immigration.

AB This paper outlines the standard neoclassical model of the effect of immigration on the incomes of the resident (pre-immigration) population. We augment the standard model to allow for foreign ownership of and government equity in the capital stock. Using the expanded model, four back-of-the-envelope calculations are made. The calculations reveal that the size of the Berry-Soligo welfare triangle is small and is dominated by the effects of foreign ownership of capital and government equity in capital. In our preferred scenario, the BOTE (back-of-the-envelope) calculation indicates that the 1991-92 Australian immigrant intake reduced residents' income. We believe that the results of the calculations justify a more comprehensive study incorporating a range of other influential factors determining the effect of work done in these specific areas. Essential to a comprehensive study are the integration of results from studies in specific areas, and the devotion of resources to the tasks of further data collection and model development.

Peterson, Christine E.

TI Military Pay Gaps and Caps. AU Hosek, James R.; Peterson, Christine E.; Heilbrunn, Joanna Zorn.

Petit, Pascal

PD April 1994. TI Les Modalites De La Croissance Des Services Au Japon. AA CEPREMAP and CNRS. SR CEPREMAP Discussion Paper: 9417; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 20. PR 25 F.F. JE L80, O41. KW Japan. Growth. Services.

AB Japan has become a tertiary economy where services account for two thirds of employment and value added as in every developed economy. This does not mean uniformization. Japan has in this field as in industrial activities its own characteristics. This paper tries to identify what could be called a Japanese way of service expansion, which differs from what can be observed in the US or in Europe. In the first section we recall the magnitude and time phases of the expansion of services in Japan. In the second section we appreciate at the level of the branch how sectoral adjustments have taken place as measured by shifts in current value added per head. The third part tries to tie these changes with those observed in profit and wage rates. We end with some conclusions identifying the case of Japan among various patterns of tertiary growth.

Picard, Pierre

TI National versus European Industrial Policies: A Contract Theory Approach. AU Caillaud, Bernard; Jullien, B.; Picard, Pierre.

PD June 1994. TI Auditing Claims in Insurance Market With Fraud: The Credibility Issue. AA CEPREMAP and THEMA. SR CEPREMAP Discussion Paper: 9420; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 27. PR 25 F.F. JE D81, D82, K41, K42. KW Insurance. Fraud. Audit. Credibility. Commitment.

AB This paper characterizes the equilibrium of an insurance

market where opportunist policyholders may submit fraudulent claims. We assume that insurance policies are traded in a competitive market where insurers cannot distinguish honest policyholders from opportunists. The insurer-policyholder relationship is modeled as an incomplete information game, in which the insurer decides to audit or not. The market equilibrium depends on whether insurers can credibly commit or not to their audit strategies. We show that a no-commitment equilibrium results in a welfare loss for honest individuals that may even be so large that the insurance market completely shuts down. Finally, we show that transferring monitoring costs to a budget-balanced common agency would mitigate the commitment problem.

Pill, Huw

PD October 1994. TI A Reconciliation of Theory and Central Bank Practice. AU Pill, Huw; Pradhan, Mahmood. AA Pill: Bank of England; Stanford University; and International Monetary Fund. Pradhan: Bank of England and International Monetary Fund. SR International Monetary Fund Working Paper: 94118; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 13. PR not available. JE C30, E51, E52, E58. KW Monetary Assets. Central Bank. Monetary Aggregates.

AB Monetary assets have different characteristics which make them more or less useful in facilitating transactions. Academic economists have consistently argued that these differences should be incorporated in monetary aggregates by assigning assets different weights. However, central banks continue to use conventional aggregates with equal weights for all assets. For a transactions model of money, which the academic view implicitly embodies, weighted aggregates, although imperfect, are certainly superior. However, once this structural model is abandoned in favor of alternatives where monetary assets play a different role, central banks' continued use of measures of money may be justified.

Pint, Ellen M.

PD 1994. TI Financial Condition of U.S. Military Aircraft Prime. AU Pint, Ellen M.; Schmidt, Rachel. AA Rand Corporation and United States Air Force. SR Rand Report: MR-372-AF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 98. PR \$9.00. JE L69. KW Aerospace Industry. Aircraft Industry. Defense Industry.

AB Declining defense budgets have prompted concern about the financial health of the prime contractors for military aircraft. In this report, the authors examine financial indicators for the seven contractors active in the 1980's. The financial data come from publicly available sources and cover the past 20-30 years, ending in 1992. The authors find that firms that are less dependent on the U.S. government have higher sales, higher profitability, lower debt/capital ratios, and higher spending for research and development relative to sales. During earlier downturns in defense spending, declining shareholder equity, debt/sales ratios over 20 percent, and debt/capital ratios over 50 percent signaled future financial weakness.

Platen, Eckhard

PD December 1994. TI On Smile and Skewness. AU Platen, Eckhard; Schweizer, Martin. AA Platen: Australian National University Canberra. Schweizer: TU Berlin. SR Universitat Bonn Sonderforschungsbereich 303 -

Discussion Paper: B-302; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 26. PR no charge. JE G12, G13. KW Option Pricing. Black-Scholes Formula. Implied Volatility. Smile. Skewness. Stochastic Volatility.

AB This paper proposes a new explanation for the smile and skewness effects in implied volatilities. Starting from a microeconomic equilibrium approach, we develop a diffusion model for stock prices explicitly incorporating the technical demand induced by hedging strategies. This leads to a stochastic volatility endogenously determined by agents' trading behavior. Using numerical methods for stochastic differential equations, we quantitatively substantiate the idea that option price distortions can be induced by feedback effects from hedging strategies.

Powell, Alan A.

TI Engel Flexibility in Household Budget Studies: Non-parametric Evidence versus Standard Functional Forms. AU Rimmer, Maureen T.; Powell, Alan A.

TI Multiregional and Intertemporal Age Modelling Via GEMPACK. AU Harrison, W. Jill; Pearson, K.R.; Powell, Alan A.

TI Medium-Run Consequences for Australia of an APEC Free-Trade Area: CGE Analyses using the GTAP and Monash Models. AU Huff, Karen M.; McDougall, Robert; Pearson, K.R.; Powell, Alan A.

Pradhan, Mahmood

TI A Reconciliation of Theory and Central Bank Practice. AU Pill, Huw; Pradhan, Mahmood.

Pradhan, Vijaykumar S.

TI Hiring and Managing Labor for Farms in California. AU Rosenberg, Howard R.; Perloff, Jeffrey M.; Pradhan, Vijaykumar S.

Prasad, Eswar

TI Changes in the Relationship Between the Long-Term Interest Rate and its Determinants. AU Lee, William; Prasad, Eswar.

TI Shocks and Structural Breaks: Labor Market Reforms in the United Kingdom. AU Ramaswamy, Ramana; Prasad, Eswar.

Puga, Diego

PD November 1994. TI The Dynamics of Urbanization. AA Centre for Economic Performance. SR London School of Economics Centre for Economic Performance Discussion Paper: 212; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 32. PR no charge. JE F12, F15, R12. KW Urban Dynamics. Industrial Location. Imperfect Competition.

AB This paper considers the urbanisation dynamics induced by the migration decision of workers and the locational choice of monopolistically competitive vertically linked firms. With high interregional transport costs, manufacturing and agriculture take place in the two regions. With lower transport costs there are multiple equilibria, some involving a unique manufacturing metropolis. In a time of regional integration, the

level of urban development of European countries is preserving its balanced system of cities. The emerging urban sector of less developed countries is lead instead into disproportionate metropolitan growth, converging in relative size but diverging in pattern to that of European countries.

Quirk, Peter J.

PD November 1994. TI Fixed or Floating Exchanging Regimes: Does It Matter for Inflation? AA International Monetary Fund. SR International Monetary Fund Working Paper: 94134; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 20. PR not available. JE E52, F31. KW Exchange Regimes. Foreign Exchange. Inflation. Central Bank.

AB This paper review recent experience with the choice of floating or fixed ("anchor") exchange regimes in industrial and developing countries. It concludes that desirable differences between the two sets of regimes have narrowed, owing to the useful operational role of exchange rate margins and unavoidable medium-term rate adjustments in the context of fixed regimes. A survey of recent empirical cross-country literature also suggests little unambiguous association of the choice of exchange regime with macroeconomic performance, inflation in particular. Stability of the exchange rate has generally been a by-product of other policy choices. Even announcement effects of the regime on inflation-fighting credibility depend on the country-specific assignments of policy instruments to more than one institution-central bank, government, or regional and multilateral institutions.

Rabin, Matthew

TI Loss Aversion in a Consumption/Savings Model. AU Bowman, David; Minehart, Deborah; Rabin, Matthew.

Rajan, Raghuram G.

TI The Role of Firewalls in Universal Banks: Evidence from Commercial Bank Securities Activities Before the Glass-Steagall Act. AU Kroszner, Randall S.; Rajan, Raghuram G.

Ramaswamy, Ramana

PD December 1994. TI Shocks and Structural Breaks: Labor Market Reforms in the United Kingdom. AU Ramaswamy, Ramana; Prasad, Eswar. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94152; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 15. PR not available. JE E23, J31, J38, J64. KW Labor Productivity. Inflation. Unemployment. Manufacturing.

AB This paper analyzes the effects of the labor market reforms in the United Kingdom launched in the early 1980s by the Conservative government led by Mrs. Thatcher. It is argued that the increase in the growth of labor productivity in manufacturing after 1980, as well as the improvement in the responsiveness of employment to variations in output, can be largely attributed to the success of the reforms in reducing industrial disputes and removing a number of structural impediments in the labor market. However, the reforms did not succeed in moderating real wage growth or improving the tradeoff between wage inflation and unemployment. This is attributed to certain aspects of the wage bargaining system and the influence of relative wage norms in the process of wage determination.

Ranis, Gustav

PD December 1994. TI V-Goods and the Role of the Urban Informal Sector in Development. AU Ranis, Gustav; Stewart, Frances. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 724; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG not available. PR \$2.00. JE J61, R11. KW Informal Sector. Rural-Urban Migration. Linkages.

AB This paper analyzes the role of the urban informal sector in a developing country in relation to the performance of agriculture and other rural activities, on the one hand, and that of urban formal sector activities, on the other. It decomposes the sectors into traditional and modernizing components, traceable to production and consumption linkages with the rest of the economy as well as the character of government interventions over time. The paper contrasts success cases a la Taiwan in which the overall size of the urban informal sector remains modest, the modernizing sub-sector grows in relative importance and the end of overall labor surplus is reached rather early, with non-success cases a la the Philippines in which rapid rural-urban migration enhances the overall size of the urban informal sector, the traditional sub-sector grows relatively and the end of the labor surplus condition is substantially delayed.

Rausser, Gordon

PD December 1994. TI Political-Economic Processes and Collective Decision Making. AU Rausser, Gordon; Simon, Leo; Van't Veld, Klaas. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 718; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 16. PR \$5.00 Domestic \$10.00 International Surface Rate. JE C78, D71, D72, H11. KW Game Theory. Decision-Making. Bargaining Theory. Political-Economic Processes.

AB This paper explores the limitations of axiomatic approaches to bargaining theory.

Reinelt, Peter

TI Alternatives for Managing Drought: A Comparative Cost Analysis. AU Fisher, Anthony; Fullerton, David; Hatch, Nile; Reinelt, Peter.

Reinhart, Carmen M.

PD November 1994. TI Devaluation, Relative Prices, and International Trade: Evidence from Developing Countries. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94140; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 15. PR not available. JE F11, F14, F31, F32. KW Developing Countries. Trade Balance. Devaluation.

AB Devaluation is an integral part of adjustment in many developing countries, particularly relied upon by countries facing large external imbalances. A devaluation can only reduce trade imbalances if it translates to a real devaluation and if trade flows respond to relative prices in a significant and predictable manner. However, a recent strand in the empirical trade literature has questioned the existence of a stable relationship between trade flows and its traditional determinants. This paper re-examines the relationship between relative prices and imports and exports in a sample of 12 developing countries.

Relles, Daniel A.

TI An Approach to Understanding the Value of Parts.
 AU Brauner, Marygail K.; Hodges, James S.; Relles, Daniel A.

Reuter, Peter

TI A Simple Economic Model of Cocaine Production.
 AU Kennedy, Michael; Reuter, Peter; Riley, Kevin Jack.

Revesz, Tamas

PD December 1994. TI An Analysis of the Representativity of the Hungarian Household Budget Survey Samples. AA University of Cambridge. SR University of Cambridge Discussion Papers on Economic Transition: DPET 9403; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 45. PR \$5.00 (L2.50); checks payable to University of Cambridge. JE D31, C81, C42, I32, P24. KW Household Budget Survey. Income Distribution. Inequality. Hungary.

AB This paper examines the extent to which the Hungarian Budget Surveys each of 12,000 households for the years 1987m 1989, and 1991 represent the socio-economic characteristics of the whole population. After outlining the sampling method, the paper compares the data of the full samples and the (panel) subsamples of the 1989 and 1991 HBS with corresponding data from other statistical sources, while highlighting the methodological differences which partly explain their differences.

Rey, Patrick

TI Strategic Aspects of Delegation. AU Caillaud, Bernard; Rey, Patrick.

Rijkeghem, Caroline Van

TI Unemployment Hysteresis, Wage Determination, and Labor Market Flexibility: The Case of Belgium.
 AU Moghadam, Reza; Rijkeghem, Caroline Van.

Riley, Kevin Jack

TI A Simple Economic Model of Cocaine Production.
 AU Kennedy, Michael; Reuter, Peter; Riley, Kevin Jack.

Rimmer, Maureen T.

PD June 1994. TI Engel Flexibility in Household Budget Studies: Non-parametric Evidence versus Standard Functional Forms. AU Rimmer, Maureen T.; Powell, Alan A. AA Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: OP-79; Centre of Policy Studies and the Impact Project. Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 44. PR not available. JE D12, C14, D11. KW Demand System. Engel Flexibility. Non-Parametric.

AB At least since 1980, the emphasis in applied demand analysis has been on flexible specification of substitution effects. Recent theoretical work by Cooper and McLaren (1992a&b) and Cooper, McLaren and Parameswaran (1993) has put more emphasis on effectively globally regular systems which allow greater flexibility in the treatment of Engel effects. Current empirical work (e.g., Chatterjee and Ray, 1992) continues to use a relatively inflexible treatment of Engel effects. Following Lewbel's (1991) lead, in the present paper

we attempt to evaluate the need for a more flexible treatment by examining Engel effects in the Australian Household Expenditure Survey for 1988-89 from an agnostic position in which the form of the Engel response is entirely data-determined. We do this using non-parametric procedures in the statistical package S-Plus. Contrary to common practice (and confirming Lewbel's empirical results for U.K. and U.S. data), we find evidence of non-monotonic responses of budget shares with increasing income. This argues in favour of more flexible forms for Engel curves such as those explored by Rimmer and Powell (1992a&b) (or more generally, in recent work by Cooper and McLaren). Using the same methodology, we also carry out a brief exploration of the influence of demographic effects on household Engel responses.

PD April 1995. TI Development of a Multi-Household Version of the Monash Model. AA Monash University. SR Centre of Policy Studies and the Impact Project Working Paper: OP-81; Centre of Policy Studies and the Impact Project, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 42. PR not available. JE D12, D31, D58. KW General Equilibrium. Multi-Household. Income Distribution.

AB This paper is ongoing work by the Centre of Policy Studies and the Impact Project that integrates the ideas of micro simulation with Computable General Equilibrium (CGE) modelling. In micro simulation the behaviour of individuals or households is modelled directly, typically using unit record data, whereas CGE models place an emphasis on market interactions and can take account of the indirect effect on households of changes in market conditions. For many policy issues (such as taxation reform), a combination of the two approaches is desirable so that both the direct and the indirect effects of such reform can be addressed. What is needed is for unit record data to be used in combination with a CGE model; that is, for the modelling of households to be combined with the modelling of markets. This can be achieved by embedding a detailed household sector in an CGE model. The solution of the model then provides distributional results for the representative households directly. In this paper a detailed household sector comprising 100 types of households - differentiated by income and demographic grouping - is developed and embedded in the MONASH Model. Simulations are conducted that measure the economy wide effects of redistributing income across these households.

Rob, R.

PD January 1994. TI The Durability of Information, Market Efficiency and the Size of Firms. AU Rob, R.; Fishman, A. AA Rob: INSEAD. Fishman: Tel-Aviv University. SR INSEAD Working Papers: 94/67; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 26. PR not available. JE D11, D21, D43, D82. KW Search. Consumers. Productive Efficiency. Pricing.

AB We analyze a search-theoretic framework in which consumers buy the product repeatedly and firms' costs vary over time. We show the cross-sectional correlation between profits and firm size, the persistence of profits over time, and the role of consumers' immobility in determining firms' profits. In contrast with previous explanations of these phenomena, which are based on differences in inherent productive efficiencies, firms in our model have the same efficiencies but some firms are more successful ex-post which affects their

subsequent (pricing) behavior and enables them to sustain their 'privileged' position. In particular, large and more profitable firms raise their prices more moderately when their costs increase.

TI R&D, Investment and Industry Dynamics. AU Lach, S.; Rob, R.

Roberts, Mike

TI Natural Resource Prices: Will They Ever Turn Up?
AU Berck, Peter; Roberts, Mike.

Robertson, T. S.

TI Incumbent Defense Strategies Against New Product Entry. AU Gatignon, H.; Robertson, T. S.; Fein, A. J.

Robinson, Peter

PD August 1994. TI Is There an Explanation for Rising Pay Inequality in the UK? AA Centre for Economic Performance. SR London School of Economics Centre for Economic Performance Discussion Paper: 206; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 34. PR no charge. JE J21. KW Pay Inequality. Demand and Supply. Unemployment.

AB This paper uses the Census, the General Household and New Earnings Surveys, and OECD data, to look at trends in the dispersion of pay and the returns to education, the supply of and demand for different types of labour and the supply of qualifications. It casts doubt on the ability of a simple demand and supply framework to explain much of the widening in pay inequality in Britain since the late 1970s. Instead it argues that Britain has witnessed a unique set of institutional changes which, in combination with the non-competitive functioning of labour markets, may have generated greater pay inequality. Some of these same institutional changes may have also contributed significantly to rising aggregate unemployment. Rising unemployment or rising pay inequality may not then be alternative options.

Robinson, Sherman

PD May 1994. TI Defense Spending Reductions and the California Economy: A Computable General Equilibrium Model. AU Robinson, Sherman; Hoffman, Sandra A.; Subramanian, Shankar. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 688; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 113.C68.. PR \$28.25 (U.S.) \$56.50 (For.). JE C68, H56. KW Defense Spending Reductions. California. CGE Models.

AB This study uses a multisector, computable general equilibrium model to analyze the effect of cutbacks in federal defense expenditures on the California economy. Growth in government expenditures at all levels was clearly one of the driving forces behind the rapid economic growth of the state in the past, and the decline in such expenditures has been a major contributing factor to the slowdown of the state economy. The results indicate that the California economy is sensitive to cutbacks in federal defense expenditures, and increasingly so as state labor and capital markets are linked to national markets. Assuming both labor and capital are mobile, the labor is mobile yields a multiplier of around one. In this case, defense cutbacks

of 40-60 percent lead to significant migration of skilled labor categories out of the state (2-9 percent) and to decreases in state product of 2-3 percent. These results indicate that labor and capital mobility are very important to the state economy. Policies that make the state more desirable to investors and labor will significantly lower the negative effect of reductions in defense and other government expenditures.

Rock, M.

TI Reengineering and Organizational Change: Lessons From a Comparative Analysis of Company Experiences. AU Ascari, A.; Rock, M.; Dutta, S.

Rogerson, Richard

TI On the Political Economy of Education Subsidies. AU Fernandez, Raquel; Rogerson, Richard.

TI Estimating Substitution Elasticities in Household Production Costs. AU Rupert, Peter; Rogerson, Richard; Wright, Randall.

TI An Equilibrium Model of the Business Cycle with Household Production and Fiscal Policy. AU McGrattan, Ellen; Rogerson, Richard; Wright, Randall.

Rogoff, Kenneth

TI The Intertemporal Approach to the Current Account. AU Obstfeld, Maurice; Rogoff, Kenneth.

Rojas-Suarez, Liliana

PD October 1994. TI Financial Market Fragilities in Latin America: From Banking Crisis Resolution to Current Policy Challenges. AU Rojas-Suarez, Liliana; Weisbrod, Steven R. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94117; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 65. PR not available. JE E44, E58, G21, G28, G32. KW Financial Sector. Developing Countries. Latin America.

AB This paper has two objectives: first, by reviewing the recent experience of five Latin American countries with the restructuring of their financial sectors, it derives lessons regarding the most effective ways to resolve banking difficulties in developing countries. Second, the paper analyzes current policy challenges associated with the health of financial systems in Latin America, including: (a) designing policies to respond to the recent large inflows of capital that maintain long-run macroeconomic stability and a healthy financial system; and (b) evaluating the impact of capital market competition on the soundness of banking systems.

Rose, David

TI Asymmetric Effects of Economic Activity on Inflation: Evidence and Policy Implications. AU Laxton, Douglas; Meredith, Guy; Rose, David.

Rosen, Sherwin

PD September 1994. TI Managerial Compensation, Control, and Investment. AA University of Chicago. SR University of Chicago Center for the Study of the Economy and the State Working Paper: 100; Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. PG 17. PR \$3.00; make check payable to "The University of

Chicago." JE D23, L22. KW Competition. Organizations. Market for Control. Managerial Compensation.

AB This paper considers some market implications of organizational design. Recent literature has analyzed incentive structures within organizations. Here it is argued that open market competition between organizations and free entry are essential for efficient adoption of innovations and efficient decentralization of new information in the economy as a whole, as well as for disciplining managers and providing survival incentives of more efficient production units. The competitive battle of survival also serves as an information filter that reveals talent and helps move resources to their highest valued uses. The nature of the market for control is seen to include product market competition and potential entry of new products, in addition to the more commonly discussed financial devices. Elements of the optimal decentralization of information of executive talent and the market for control are discussed in terms of the workings of the labor market for business executives.

Rosenberg, Howard R.

PD October 1994. TI Hiring and Managing Labor for Farms in California. AU Rosenberg, Howard R.; Perloff, Jeffrey M.; Pradhan, Vijaykumar S. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 730; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 121. PR \$30.25 Domestic \$60.50 International Surface Rate. JE J31, J33, Q12. KW Agricultural Labor. California. Labor Management. Personnel Management.

AB This report describes how California farmers engage and manage the labor they need to operate their businesses. Based on a statewide survey, it discusses recruitment, hiring, supervision, communication, pay, legal compliance and reporting practices on a broad cross-section of farms. Labor management in agriculture is complicated and highly regulated, and farmers adjust their approaches to it over time.

Rosenbloom, Joshua L.

PD October 1994. TI Was There a National Labor Market at the End of the Nineteenth Century? Intercity and Interregional Variation in Male Earnings in Manufacturing. AA University of Kansas. SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 61; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG not available. PR \$5.00. JE J21, J31, J61, N11, N31. KW Earnings. Interregional Wage Variation. Labor Market.

AB Recent studies of late nineteenth century labor market integration have found that despite high rates of geographic mobility relatively large inter- and intra-regional differentials in real wages persisted with little tendency toward convergence. These results point to the absence of a unified national labor market, but the scope of these studies is limited by their reliance on comparisons of wage quotations for narrowly defined occupations. Such data are available for only a small and possibly unrepresentative segment of the labor force, and cover only a limited sample of cities and time periods. This paper uses an alternative source of data--average annual earnings calculated from the Census of Manufactures--to extend the examination of labor market integration to all male

manufacturing workers in 114 cities from 1879 through 1919. In contrast to earlier research, the average earnings data indicate that a well integrated labor market had emerged in the Northeast and North Central regions of the country by 1879. They also reveal a strong tendency toward earnings convergence within the South Atlantic and South Central regions, suggesting the emergence of a unified southern labor market. Large and persistent North-South, and West-East differentials in earnings indicate, however, that despite the integration of regional labor markets after the Civil War, a unified national labor market had not yet developed.

Rostowski, Jacek

PD November 1994. TI The Yugoslav Hyperinflation and Stabilization of 1992-4. AA School of Slavonic and East European Studies, London University and Centre for Economic Performance, London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 213; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 42. PR no charge. JE E31, E42, E63. KW Hyperinflationary Acceleration. Stabilization Programme. Yugoslavia.

AB The process of hyperinflationary acceleration in Serbia-Montenegro in 1992-3 is found to lie in a massive Tanzi effect and collapse in real money balances. The mechanism through which the hyperinflation caused widespread shortages in spite of an absence of price control is modeled, and other microeconomic effects of the hyperinflation--in particular the fall in output--are analysed. The 1994 stabilization programme is found to have been initially successful in spite of almost exclusive reliance on remonetization resulting from the fixing of the exchange rate, and no commitment whatever to balancing the budget (there was also no price control). Subsequent changes have made the programme somewhat more orthodox, but a large deficit is still programmed.

Rouse, Cecilia

TI Intraschool Variation in Class Size: Patterns and Implications. AU Boozer, Michael; Rouse, Cecilia.

Rumpel, J. David

TI Cost estimates for Cost Outlier Cases Under Medicare's Prospective Payment System. AU Carter, Grace M.; Rumpel, J. David.

Rupert, Peter

PD December 1994. TI Estimating Substitution Elasticities in Household Production Costs. AU Rupert, Peter; Rogerson, Richard; Wright, Randall. AA Rupert: Federal Reserve Bank of Cleveland. Rogerson: University of Minnesota and Federal Reserve Bank of Minneapolis. Wright: University of Pennsylvania and Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 186; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 27. PR no charge. JE J21, D11. KW Household Production. Labor Supply.

AB Dynamic general equilibrium models that include explicit household production sectors provide a useful framework within which to analyze a variety of macroeconomic issues. However, some implications of these models depend critically on parameters, including the elasticity

of substitution between market and home consumption goods, about which there is little information in the literature. Using the PSID, we estimate these parameters for single males, single females, and married couples. At least for single females and married couples, the results indicate a high enough substitution elasticity that including home production will make a significant difference in applied general equilibrium theory.

Rydell, C. Peter

TI Three Strike and You're Out: estimated Benefits and Costs of California's New Mandatory-Sentencing Law. AU Greenwood, Peter; Rydell, C. Peter; Abrahamse, Allan F.; Caulkins, Jonathan P.; Chiesa, James R.; Model, Karyn E.; Klein, Stephen P.

PD 1994. TI Controlling Cocaine: Supply Versus Demand. AU Rydell, C. Peter.; Everingham, Susan M. Sohler. AA Rydell; Rand Corporation. Everingham; Rand Corporation and Office of National Drug Control Policy. SR Rand Report: MR-331-ONDCP/A/DPRC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 50. PR \$15.00. JE H59. KW Cocaine. Contraband. Drug Interdiction. Illicit Drugs. Narcotics.

AB This report analyzes the relative cost-effectiveness of various available drug interventions. Four such interventions analyzed in this document are (1) source country control; (2) interdiction; (3) domestic enforcement; and (4) treatment of heavy users. The first three of these programs focus on "supply-control," whereby the cost of supplying cocaine is increased by seizing drugs and assets and by arresting and incarcerating dealers and their agents. The fourth program is a "demand-control" program because it reduces consumption directly, without going through the price mechanism. This study states that an estimated \$13 billion are being spent in the United States each year on the four drug programs listed above and that the bulk of those resources are spent on domestic enforcement. Treatment of heavy users has only a small percentage of this budget, even when privately funded treatment is included. Given the high cost of "supply control" programs, this report concludes that treatment of heavy users may be a more cost-effective way of dealing with drug interventions.

TI The Effects of the California Voucher Initiative on Public Expenditures for Education. AU Shires, Michael A.; Krop, Cathy S.; Rydell, C. Peter; Carroll, Stephen J.

TI The Effects of the California Voucher Initiative on Public Expenditures for Education. AU Shires, Michael A.; Krop, Cathy S.; Rydell, C. Peter; Carroll, Stephen J.

Sadoulet, Elisabeth

PD July 1994. TI Efficient Share Tenancy Contracts Under Risk: The Case of Two Rice-Growing Villages in Thailand. AU Sadoulet, Elisabeth; Fukui, Seiichi; de Janvry, Alain. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 507; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 29. PR \$7.25 Domestic \$14.50 International Surface Rate. JE O53, Q16, Q18, Q15. KW Share Tenancy Contracts. Risk. Rice. Villages. Thailand.

AB Two categories of Thai sharecroppers are observed to be

efficient: those under high poverty and high risk, and those in long-term relation of gift exchange with their landlord. Econometric estimates show that use of variable factors by these sharecroppers is insignificantly different from that by owner-operators and significantly higher than that by generic sharecroppers. Interpretations for this behavior are provided by models of sharecropping under safety-first and of repeated contracts with gift exchange.

PD July 1994. TI Political Constraints on the Development State: Alternative Theoretical Explanations. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 722; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 24. PR \$6.00 Domestic \$12.00 International Surface Rate. JE C78, D71, D72, H11. KW Economic Development. Decision-Making Policy. Rent-Seeking Theory. AB Since the very beginnings of development economics the state has been given a prominent role in development strategies. However, this role had not been defined in the context of a theory of the political economy of state intervention that could satisfactorily endogenize the state behavior and the strategic responses of the private sector. We review recent theoretical contributions made by the "new" political economy of the state, with particular emphasis on he theories of government behavior under lobbying by interest groups and of time consistency and credibility in policy making. These theories offer both positive interpretations of state behavior and a set of normative options. We conclude by discussing the recent theories of games with imperfect information which only can explain the observed delays, stalemates, active oppositions, and ex-post accommodations that are so frequent along the path of economic policy making.

TI The Challenge of Uuling Over Diversity: An Extension of Pinhas Zusman's Modeling of Social Power. AU de Janvry, Alain; Fafchamps, Marcel; Sadoulet, Elisabeth.

TI Project Evaluation For Sustainable Rural Development: Plan Sierra in the Dominican Republic. AU de Janvry, Alain; Sadoulet, Elisabeth; Santos, Blas.

TI NAFTA and Mexico's Corn Producers. AU de Janvry, Alain; Sadoulet, Elisabeth; de Anda, Gustavo Gordillo.

PD July 1994. TI The Meaning of Kinship in Sharecropping Contracts. AU Sadoulet, Elisabeth; Fukui, Seiichi; de Janvry, Alain. AA de Janvry and Sadoulet: University of California Berkeley. Fukui: Kyushu University. SR Department of Agricultural and Resource Economics, University of Berkeley: 726; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 31. PR \$7.75 Domestic \$15.50 International Surface Rate. JE C71, D59, O53, Q12. KW Sharecropping Contracts. Land Reform. Philippines.

AB Analysis of a household survey from the Philippines shows that the behavior of sharecroppers with a kinship relationship with their landlord is not affected by the terms of the contract, while the behavior of the other sharecroppers responds to the contract terms. We characterized the meaning of this family tie through a survey of opinion conducted among tenants. It shows that kin landlords indeed help or are expected to help more frequently in case of emergency than the other landlords, and they do so with a wider range of instruments,

providing the incentive for cooperative behavior in sharecropping contracts among kin.

Saint-Paul, Gilles

TI Uneven Technical Progress and Job Destructions.
AU Cohen, Daniel; Saint-Paul, Gilles.

Sala-i-Martin, Xavier

PD December 1994. TI A Labor-Income-Based Measure of the Value of Human Capital: An Application to the States of the United States. AU Sala-i-Martin, Xavier; Mulligan, Casey B. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 722; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG not available. PR \$2.00. JE C33, J24, O41. KW Human Capital. Panel Data Sets. Two-Sector Models of Growth.

AB We argue that a sensible measure of the aggregate value of human capital is the ratio of total income per capita to the wage of a person with zero years of schooling. Total labor income not only incorporates human capital, but also physical capital: given human capital, regions with higher physical capital will tend to have higher wages for all workers and, therefore, higher labor income. We find that one way to net-out the effect of aggregate physical capital on labor income is to divide labor income by the wage of a zero-schooling worker. For the average U.S. state, our measure suggests that the value of human capital during the 1980's grew at a much larger rate than schooling. The reason has to do with movements in the relative productivities of the different workers: in some sense, some workers and some types of schooling became a lot more relevant in the 1980's and, as a result, measured human capital increased.

PD January 1995. TI Measuring Aggregate Human Capital. AU Sala-i-Martin, Xavier; Mulligan, Casey B. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 723; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG not available. PR \$2.00. JE C33, C61, J24, O41. KW Human Capital. Index Numbers. Divisia Index. Multilateral Comparisons. Traveling Salesman Problem.

AB In this paper we construct a set of human capital indexes for the states of the United States for each census year starting in 1940. In order to do so, we propose a new methodology for the construction of index numbers in panel data sets. Our method is based on an optimal approach by which we choose the "best" set index numbers by minimizing the expected estimation error subject to some search constraints. Some of the empirical findings are that the stock of human capital in the United States grew twice as rapidly as the average years of schooling and that human capital inequality across states went up during the 1980's (while the dispersion of schooling actually fell). We conclude that using the average years of schooling for the empirical study of existing growth models may be misleading.

Sametz, Arnold

PD May 1994. TI Reconfiguring Corporate Governance Activity of Private Pension Funds. AA New York University. SR New York University Salomon Brothers Working Paper: 94-26; 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 not available. JE G23, G28, G31.

KW Corporate Governance. Pension Funds.
AB not available.

Samiei, Hossein

PD November 1994. TI Exchange Rate Fluctuations and U.K. Manufacturing Exports. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94132; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 10. PR not available. JE C51, F31. KW Exchange Rates. Manufacturing. United Kingdom.

AB This paper examines the impact of exchange rate fluctuations on U.K. manufacturing exports. The results indicate a recursive structure in the long run, wherein prices influence the volume of exports demanded but are not influenced by it. They also indicate that U.K. exporters only partially offset the impact on foreign consumers of fluctuations in the effective exchange rate of the pound. During the ERM period, however, the extent of pass-through to foreign prices weakened, a process that appears to have reversed after exit from the ERM. Hysteresis in the form of limited exchange rate pass-through is supported by the results, but that arising from regime switches in supply is not.

Sample, Al

TI Managing Carbon Via Forestry: Assessment of Some Economic Studies. AU Sedjo, Roger A.; Wisniewski, Joe; Sample, Al; Kinsman, John D.

Santaella, Julio A.

PD December 1994. TI Unemployment in Ireland: A Survey of Features and Causes. AA International Monetary Fund. SR International Monetary Fund Papers on Policy Analysis and Assessment: 9427; International Monetary Fund, Washington, DC 20431. PG 19. PR not available. JE E24, J64. KW Unemployment. Ireland.

AB This paper examines the problem of unemployment in Ireland. A brief description of the main distinctive features of the structure of Irish unemployment is presented. Based on up to date literature, the possible causes behind unemployment are reviewed. Empirical studies that have quantified the contributions of different determinants to the increase in Irish unemployment are also surveyed. The paper concludes with some policy suggestions.

Santos, Blas

TI Project Evaluation For Sustainable Rural Development: Plan Sierra in the Dominican Republic. AU de Janvry, Alain; Sadoulet, Elisabeth; Santos, Blas.

Sarel, Michael

PD November 1994. TI On the Dynamics of Economic Growth. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94138; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 15. PR not available. JE E13, O11, O41. KW Economic Growth. Capital Flows. Savings. Labor Supply.

AB This paper examines the dynamics of economic growth. First, it demonstrates that the standard neoclassical growth model with constant elasticity of intertemporal substitution is not consistent with the patterns of development we observe in the real world, once we consider the initial conditions. Second,

it examines an alternative growth model, which is consistent with endogenously determined initial conditions and also generates dynamics that are in accord with the historical patterns of growth rates, capital flows, savings rates and labor supply. The alternative model is a generalized version of the neoclassical growth model, with increasing rates of intertemporal substitution due to a Stone-Geary type of utility.

PD December 1994. **TI** Demographic Dynamics and the Empirics of Economic Growth. **AA** International Monetary Fund and Harvard University. **SR** International Monetary Fund Working Paper: 94143; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 10. **PR** not available. **JE** J11, J21, O47. **KW** Demographic Dynamics. Production. Labor Supply.

AB This paper examines the effects of demographic dynamics on the measured rates of economic growth. First, it develops a model of production with labor productivity that varies with age. Second, it uses macroeconomic and demographic data to estimate the relative productivity of different age groups. Third, it constructs a panel database of effective labor supply in order to reflect the changing age-structure of the population. Fourth, it decomposes the historical measured growth rates into effects of demographic dynamics and into "real" growth rates, net of demographic effects.

Sargent, Thomas

TI On the Mechanics of Forming and Estimating Dynamic Linear Economies. **AU** Anderson, Evan; Hansen, Lars; McGrattan, Ellen; Sargent, Thomas.

Sarvary, M.

TI An Integrated and Cross-Cultural Study of Diffusion Theory. **AU** Parker, P. M.; Sarvary, M.

TI Modelling Global Diffusion. **AU** Dekimpe, M. G.; Parker, P. M.; Sarvary, M.

Saunders, Anthony

PD June 1994. **TI** Bank Capital Structure: An Analysis of the Charter Value Hypothesis. **AU** Saunders, Anthony; Wilson, Berry. **AA** Saunders: New York University. Wilson: Georgetown University. **SR** New York University Salomon Brothers Working Paper: 94-14; 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** 29. **PR** not available. **JE** G21, G28. **KW** Banking Industry. Charter Value. Capitalization.

AB Recent profitability and recapitalization trends in the banking industry appear to be consistent with a hypothesis advanced by Keeley (1990) termed the "charter value" hypothesis. Under this hypothesis banks with greater charter value voluntarily hold higher capital ratios to self-insure against its loss under regulatory enforced closure. This paper utilizes a one hundred year history of individual bank market and accounting data to test the hypothesis. Our results indicate that, while there is empirical support for the hypothesis in some subperiods, we do not find that the charter value hypothesis holds over the full one hundred years of the study.

Scaillet, O.

TI Estimation of the Term Structure From Bond Data. **AU** Gourieroux, Christian; Scaillet, O.

Schaller, Huntley

TI Irreversible Investment and Costs of Adjustment. **AU** Demers, Fanny S.; Demers, Michel; Schaller, Huntley.

Schinasi, Garry J.

TI Asset Prices, Financial Liberalization and the Process of Inflation in Japan. **AU** Hoffmaister, Alexander W.; Schinasi, Garry J.

Schlag, Karl

PD November 1994. **TI** Why Imitate, and if so, how? Exploring a Model of Social Evolution. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 296; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 37. **PR** no charge. **JE** C79. **KW** Random Matching. Learning. Imitation. Replicator Dynamics.

AB In consecutive rounds, each agent in a finite population chooses an action, is randomly matched, obtains a payoff and then observes the performance of another agent. An agent determines future behavior based on the information she receives from the present round. She chooses among the behavioral rules that increase expected payoffs in any specifications of the matching scenario. The rule that outperforms all other such rules specifies to imitate the action of an agent that performed better with probability proportional to how much better she performed. The evolution of a large population in which each agent uses this rule can be approximated in the short run by the replicator dynamics.

PD December 1994. **TI** Evolution in Partnership Games, an Equivalence Result. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 298; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 25. **PR** no charge. **JE** C79. **KW** Evolutionarily Stable Set. Strict Equilibrium Set. Local Efficiency. Replicator Dynamics. Asymptotic Stability.

AB A partnership game is a two person game in which both players necessarily receive the same payoff. For symmetric partnership games it is shown that asymptotic stability with respect to the replicator dynamics, evolutionary stability (Maynard Smith and Price [1973], Thomas [1985]) and equilibrium evolutionary stability (Swinkels [1992]) are equivalent concepts. This equivalence result is also derived for asymmetric partnership games, both in the asymmetric contest (Selten [1980]) and in the two population setting (Balkenborg and Schlag [1994]). A side result shows for general games that equilibrium evolutionary stability is weaker than evolutionary stability.

PD December 1994. **TI** When Does Evolution Lead to Efficiency in Communication Games? **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 299; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 29. **PR** no charge. **JE** C79. **KW** Cheap Talk. Efficiency. Common Interest. Evolutionarily Stable Set. Asymptotic Stability. Replicator Dynamics.

AB The evolutionary selection of outcomes (modeled using the replicator dynamics) in games with costless communication depends crucially on the structural assumptions made on the underlying population. (1) In conflicts between two interacting

populations, common interest implies that the set of efficient outcomes is the unique evolutionarily stable set. Lack of common interest prevents sets with minimal stability properties to exist. (2) For conflicts within one population, inefficient evolutionarily stable strategies may exist independent of whether there is common interest or not. This is no longer true when there is a dominant strategy, in this case the efficiency result of the two population setup is recovered.

Schlogl, Erik

PD October 1994. TI On Short Rate Processes and Their Implications for Term Structure Movements. AU Schlogl, Erik; Sommer, Daniel. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 293; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 26. PR no charge. JE G13. KW Arbitrage. Interest Rates. Term Structure. Option Pricing. AB We compare short rate diffusion models with respect to their implications for term structure movements, the plausibility of which serves us as a criterion for evaluating the models. Analytically for Gauss-Markov models and numerically for a broader collection of models prevalent in the literature, we isolate the deformations of the term structure generated endogenously. Among other analytical tools we use spread options on the forward rate curve as an aggregate measure of term structure shapes across states. On the basis of our analysis we conclude that the Ho/Lee model should be discarded, since it cannot explain the emergence of downward sloping term structures, that the introduction of mean reversion is essential in order to generate downward sloping term structures in any substantial proportion, that the models typically favor upward sloping term structures for short maturities and downward sloping term structures for longer maturities, and that there is a surprisingly strong similarity among many of the models prevalent in the literature. A model which allows arbitrary boundaries for the short rate realizations to be fixed exogenously completes our analysis.

Schmidt, Rachel

TI Financial Condition of U.S. Military Aircraft Prime. AU Pint, Ellen M.; Schmidt, Rachel.

Schmitt, Nicolas

TI On Sunk Costs and Trade Liberalization in Applied General Equilibrium. AU Mercenier, Jean; Schmitt, Nicolas.

Schmitz, James

TI Resistance to Technology and Trade Between Areas. AU Holmes, Thomas; Schmitz, James.

Schneider, Robert

TI An Analysis of Property Rights, Land Rents, and Agricultural Investment on Two Frontiers in Brazil. AU Alston, Lee J.; Libecap, Gary D.; Schneider, Robert.

Schneider, Ryan

TI Labor Income Indices Designed for Use in Contracts Promoting Income Risk Management. AU Shiller, Robert J.; Schneider, Ryan.

Schuerger, Klaus

PD November 1994. TI On the Existence of Equivalent Tau-Measures in Finite Discrete Time. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 297; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 19. PR no charge. JE G12. KW Equivalent Martingale Measure. No-Arbitrage. Security Market. AB not available.

Schuknecht, Ludger

PD October 1994. TI Political Business Cycles and Expenditure Policies in Developing Countries. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94121; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 20. PR not available. JE F41, E62, O19, H62. KW Fiscal Cycles. Expenditure Policies. Elections. AB The paper studies empirically fiscal policies around elections in 35 developing countries. It finds that governments try to improve their reelection prospects with the help of expansionary expenditure policies. Rising fiscal deficits before elections are followed by fiscal consolidation afterwards. These cycles can be found particularly in countries which are less trade-oriented or which pursue fixed exchange rate policies. Certain IMF-supported programs (SAF/ESAF and EFF arrangements) contribute to fiscal stabilization, but they do not appear to affect the incidence of fiscal cycles. The paper concludes that policy advice and macroeconomic projections should not overlook election constraints, and political feasibility of reforms should be strengthened particularly before elections.

Schultz, T. Paul

PD January 1995. TI Integrated Approaches to Human Resource Development. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 719; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG not available. PR \$2.00. JE J24, J28. KW Education. Health. Labor Productivity. Development.

AB Development priorities among human resource programs should be determined primarily on the basis of expected productive returns on these investment activities, arrived at in much the same manner as among nonhuman resource development programs. What distinguishes human resource development programs are the special problems of calculating the value added by the programs over the life of an individual and assessing the opportunity and direct costs of the private and public resources allocated to produce these enduring stocks of human capital. This paper seeks to integrate conceptually knowledge of the economic contribution of human resource investment programs. First it is argued that human resource programs will contribute more to development if they are allocated to those activities that have the highest internal rates of return. Although high private rates of return may be necessary to attract the investment of private resources of participating individuals and families, public subsidies to human resource programs should also be based on a clear superiority of social returns over private returns or a palpable market failure that prevents private individuals activities. The paper outlines how the private and social returns are calculated.

and how the personal distribution of benefits from programs may be quantified to inform decision makers.

PD February 1995. **TI** Evaluation of Integrated Human Resource Programs. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 720; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. **PG** not available. **PR** \$2.00. **JE** J24, J28. **KW** Human Capital. Program Evaluation. Education. Nutrition. Health.

AB Human resource programs are evaluated by comparing the productivity of individuals who have benefited from a specific program to the productivity of similar individuals who have not had this benefit. To implement such an evaluation may require a model of the demand of households and individuals for several distinct forms of human capital, of how public agencies and private firms work with households to produce these forms of human capital, and of how these investments increase the lifetime productivity of individuals and thereby contribute to economic growth and socio-demographic development. This paper proposes to estimate an integrated wage function that provides the policymaker with a basic tool for simulating the private and social returns to human resource stocks, specifically those in schooling, vocational experience, child nutrition, migration, adult health and nutrition and family planning.

PD June 1995. **TI** Immigrant Quality and Assimilation: A Review of the Literature. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 729; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. **PG** 20. **PR** \$2.00. **JE** F22. **KW** Immigrants. Cohort Quality. Assimilation.

AB This paper reviews what has been learned in recent years from empirical research on U.S. immigrants: their productivity and assimilation; their contribution and use of public services; and their effect on native Americans. The first section discusses the characteristics of cohorts of immigrants that enter the United States at different times. The second section describes studies that quantify the assimilation of immigrants, typically in terms of economic productivity of immigrants compared with natives. The social consequences of legal and illegal immigration on native welfare has attracted many researchers, who have found few quantifiable negative effects of immigrants on native wages or unemployment in local labor markets. But this third task calls for a more general analytical approach than has been empirically implemented and consequently current conclusions on this topic should be treated with some caution.

Schwab, Robert M.

TI The Impact of Urban Land Taxation: The Pittsburgh Experience. **AU** Oates, Wallace E.; Schwab, Robert M.

Schweizer, Martin

TI On Smile and Skewness. **AU** Platen, Eckhard; Schweizer, Martin.

Sedjo, Roger A.

PD November 1994. **TI** Managing Carbon Via Forestry: Assessment of Some Economic Studies. **AU** Sedjo, Roger A.; Wisniewski, Joe; Sample, Al; Kinsman, John D. **AA** Sedjo: Resources for the Future. Wisniewski: Wisniewski & Associates, Inc. Sample: American Forests. Kinsman: Edison Electric Institute. **SR** Resources for the Future Discussion

Paper: 95-06; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. **PG** 40. **PR** \$6.00 (prepaid, U.S. funds only). **JE** Q20, Q23, Q29. **KW** Forests. Carbon. Global Warming. Forest Management. Economics. Energy.

AB The purpose of this paper is to assess the existing studies on the economics of using forests as a means of mitigating carbon build-up. This assessment addresses conceptual and empirical issues and provides a basis for a comprehensive and cost efficient forest management strategy. Critical needs and opportunities for future research are identified.

PD December 1994. **TI** The Potential of High-Yield Plantation Forestry for Meeting Timber Needs: Recent Performance and Future Potentials. **AA** Resources for the Future. **SR** Resources for the Future Discussion Paper: 95-08; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. **PG** 30. **PR** \$6.00 (prepaid, U.S. funds only). **JE** Q21, Q23. **KW** Forest Plantations. Global Wood Financial. Environmental.

AB This study examines the performance and potential of intensively managed plantation forests as a source of industrial wood and their environmental implications. The perspective of the study is global; much of the focus is on what are called the emerging plantation regions-- countries largely in the semi-tropical areas of the Southern Hemisphere-- which have not historically been important wood producers but are growing in importance due to the productivity of their planted forests. The first section of this paper documents the growing importance of plantations as a source of industrial wood since the late 1970s, with particular attention given to plantations in the Southern Hemisphere and semi-tropics. The second section of the paper examines the likely role of plantation forests in the future and includes an assessment of financial, political and environmental considerations. This section pays particular attention to the frequent concerns expressed by environmentalists regarding plantations.

Selten, Reinhard

PD February 1994. **TI** Experimental Sealed Bid First Price Auctions with Directly Observed Bid Functions. **AU** Selten, Reinhard; Buchta, Joachim. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 270; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 22. **PR** no charge. **JE** C78, D44. **KW** Price Options. Bidding. Bid Functions. Learning Direction Theory.

AB Nine groups of three subjects each repeatedly interacted in sealed bid first price auctions for fifty periods. In every period each subject specified a piecewise linear bid function shown on the computer screen. Then random values were drawn for each subject and bids were determined according to the bid functions. The object was sold to the highest bidder at the price of his bid. Many bid functions were almost linear but a substantial fraction of them were non-monotonous. The subjects changed their bid functions considerably during the fifty periods of play. The direction of change exhibits marked regularities which can be explained by a "learning direction theory". The bid at last period's value tends to be lowered or not to be increased after the object has been obtained; it tends to be increased or not to be lowered if the object was not obtained but the price was below the value. Analysis shows that subjects conform to the predictions of learning direction theory the more strongly they are typical.

PD August 1994. **TI** Descriptive Approaches to Cooperation. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 292; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 35. **PR** no charge. **JE** C71, C72, C91, C92. **KW** Cooperation. Descriptive Theories. Game Experiments.

AB The paper presents an expository account of several experimentally based descriptive theories of cooperation in interactive decision situations. First the equity principle (Selten 1988), prominence in the decimal system (Albers and Albers 1983), and the difference measure of predictive success (Selten 1991) are explained. Then the theory of equal division payoff bounds (Selten 1987) for zero-normalized three-person games in characteristic function form is presented and its predictive success is compared to that of the bargaining set (Aumann and Maschler 1964) and its modifications (Maschler 1978). The theory of the negotiation agreement area (Kuon and Uhlich 1993) for two-person characteristic function games with non-zero one-person coalition values is described and discussed with respect to its predictive success. The aspiration balance principle (Tietz and Weber 1972) and its dynamic elaborations, the planning difference theory and the dynamic balance aspiration theory (Tietz 1975, 1976) are explained and examined with respect to empirical support. The next topic is the empirical relevance of the minimal core for cooperatively played 3*3*3-games (Ostmann 1988). Finally, results of a strategy study on a repeated asymmetric Cournot duopoly (Selten, Mitzkewitz, and Uhlich 1988) are described and the structure of typical strategies programmed by subjects is discussed. This structure involves a cooperative goal and its active pursuit by what is called a measure-for-measure policy.

Sensenbrenner, Gabriel

PD November 1994. **TI** The Payments System and its Effects on Monetary Operations: Recent Experience in the Russian Federation. **AU** Sensenbrenner, Gabriel; Sundararajan, V. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94133; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 23. **PR** not available. **JE** E58, E52. **KW** Monetary Policy. Payments System. Central Bank. Russia.

AB Recent developments and reforms in the Russian payments system are discussed from the perspective of their impact on monetary policy. The large and highly variable payment float in the balance sheet of the central bank of Russia has complicated the conduct of monetary policy. However, reforms in late 1992 and early 1993 have been effective, as judged from their impact in reducing the level and variability of float, and have set the stage for medium-term reforms of the payments system. Rapid progress in the implementation of these reforms, and their appropriate coordination with monetary operations, remain critical to meet the emerging needs in money and foreign exchange markets, and to support the transition to indirect methods of monetary control.

Shabsigh, Ghiath

TI Monitoring Financial Stabilization in Moldova: The Role of Monetary Policy, Institutional Factors and Statistical Anomalies. **AU** Haley, James; Shabsigh, Ghiath.

Shachat, Jason M.

TI An Experimental Investigation of the Incentives to Form Agricultural Marketing Pools. **AU** Hoffman, Elizabeth; Libecap, Gary D.; Shachat, Jason M.

Shaffer, Greg

PD September 1994. **TI** Rendering Alternative Offerings Less Profitable with Resale Price Maintenance. **AA** University of Michigan. **SR** Department of Economics---CREST Working Paper Series: 94-16; Department of Economics, The University of Michigan, 611 Tappan Street/Lorch Hall, Ann Arbor, MI, 48109-1220. **PG** 17. **PR** \$4.00. **JE** D43, L13. **KW** Resale Price Maintenance. Two-Part Pricing. Vertical Control.

AB When it was legal, retail price maintenance was commonly observed on items such as aspirin, pens, pencils, toothpaste, soap, shaving cream, and milk. In providing a theory that is based on compensating retailers for their opportunity cost of shelf space, and that does not hinge on the existence of externalities in non-price competition, this article explains why a manufacturer might impose retail price maintenance on these and many other products. By contrast, the use of retail price maintenance on food, grocery, and drug store items is not easily explained by standard theories such as free-riding on pre-sale services and quality certification by high-priced retailers.

TI Nonlinear Supply Contracts, Foreclosure, and Exclusive Dealing. **AU** O'Brien, Daniel P.; Shaffer, Greg.

Shah, Chandra

PD July 1994. **TI** Model Selection in Univariate Time Series Forecasting. **AA** Monash University. **SR** Monash Department of Econometrics Research Working Paper: 12/94; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 38. **PR** no charge. **JE** C14, C22, C44. **KW** Forecasting. Model Selection. Linear Discrimination. Quadratic Discrimination. Nearest Neighbor Method. Nonparametric Density Estimation.

AB A number of studies in the last couple of decades has attempted to find, in terms of post-sample accuracy, the best forecasting procedure for a given set of time series; see Newbold and Granger (1974), Reid (1975), Makridakis and Hibon (1979), Makridakis et al. (1982) and Makridakis et al. (1993). A general conclusion, based on empirical studies, has been that no one forecasting procedure is better than all others for all time series. In other words the name of the game is horses for courses. In this paper, we investigate the possibility of using statistical discriminant analysis to do forecast model selection. Several techniques, both parametric and nonparametric, are considered. Their performance is compared using four sets of feature vectors and six error rate measures. The results on the quarterly time series of the M- Competition data set show that a number of these techniques are better, and some significantly so, at selecting the most accurate of three forecasting procedures than the within-sample-mean-squared-error criterion. Furthermore, there is strong evidence to suggest that, when an appropriate forecasting procedure is selected using one of these techniques for each time series, then any overall cost is likely to be substantially less than when a single forecasting procedure is selected for all time series.

Sheffrin, Steven M.

TI The Effects of Education Equalization Litigation on the Levels of Funding: An Empirical Analysis. AU Manwaring, Robert L.; Sheffrin, Steven M.

Shekelle, Paul G.

PD 1994. TI The Use and Costs of Chiropractic Care in the Health Insurance Experiment. AA Rand Corporation. SR Rand Report: MR-401-CCR/AHCPR; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 89. PR \$9.00. JE I11, I12. KW Chiropractic. Insurance. Medical Care. Cost Sharing.

AB In this report, data from the RAND Health Insurance Experiment (a population-based, randomized controlled trial that tracked the use of medical services and the health status of enrollees over a three- or five-year period) was analyzed to answer significant research questions about chiropractic health services. Information was taken directly from a claims form and combined with demographic and health status information collected on the participants at enrollment. Chiropractic users were more likely than nonusers to be white, between the ages of 18 and 50, high school graduates, and married. Cost-sharing decreased annual chiropractic expenditures by about one-half. Chiropractic episodes of care were among the lowest in total cost but were among the highest in outpatient costs.

Shiller, Robert J.

PD March 1995. TI World Income Components: Measuring and Exploiting International Risk Sharing Opportunities. AU Shiller, Robert J.; Athanasoulis, Stefano. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 725; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG not available. PR \$2.00. JE G13. KW Derivative Markets. National Incomes. Risk Management.

AB We provide methods of decomposing the variance of world national incomes into components in such a way as to indicate the most important risk-sharing opportunities, and, therefore, the most important missing international risk markets to establish. One method uses a total variance reduction criterion, and identifies risk-sharing opportunities in terms of eigenvectors of a variance matrix of residuals produced when country incomes are regressed on world income. Another method uses a mean-variance utility-maximizing criterion and identifies risk-sharing opportunities in terms of eigenvectors of a variance matrix of deviations of country incomes from their respective contract-year shares of the world income. The two methods are applied using Summers-Heston (1991) data on national incomes for large countries 1950-1990, each using two different methods of estimating variances. While these data are not sufficient to provide accurate estimates of the requisite variance matrices of (transformed) national incomes, the results are suggestive of important new markets that could actually be created, and show that there may be large welfare gains to creating some of these markets.

PD August 1995. TI Labor Income Indices Designed for Use in Contracts Promoting Income Risk Management. AU Shiller, Robert J.; Schneider, Ryan. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 730; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. PG 38. PR \$2.00. JE C23, J31. KW Indexes. Employment Costs. Labor Contracts. Cost of Living.

AB Labor income indices are created for groupings of individuals, using data from the Panel Study of Income Dynamics. People are grouped by a clustering algorithm based on an estimated transition matrix between jobs, by education level, and by skill category. The groupings are defined so that relatively few people move between them. For each of the groupings, we generate a labor income index using a hedonic repeated-measures regression method. Similarities between pairs of indices and between indices and individual labor incomes are described. It is argued that indices like those presented here might someday be used in settlement formulae in contracts promoting income risk management.

Shin, Soo

TI Options Positions: Risk Measurement and Capital Requirements. AU Estrella, Arturo; Hendricks, Darryll; Kambhu, John; Shin, Soo; Walter, Stefan.

TI Options Positions: Risk Measurement and Capital Requirements. AU Estrella, Arturo; Hendricks, Darryll; Kambhu, John; Shin, Soo; Walter, Stefan.

Shires, Michael A.

PD 1994. TI The Effects of the California Voucher Initiative on Public Expenditures for Education. AU Shires, Michael A.; Krop, Cathy S.; Rydell, C. Peter; Carroll, Stephen J. AA Rand Corporation. SR Rand Report: MR-364-Le; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 42. PR \$15.00. JE D78, H42, I22, I28. KW Educational Vouchers. Education Finance.

AB This report summarizes the findings of an analysis of the fiscal effects of Proposition 174, a school-voucher initiative that appeared on the California November 1993 ballot. Although the proposition was defeated, school voucher plans are under discussion in several other states and may be revisited in California. Hence, the results of this analysis may be relevant to future policy debates in California and elsewhere. The authors found that the fiscal effects of the initiative were highly uncertain. If Proposition 174 had passed, the state, the courts, parents, and private schools would have been confronted with choices. The range of possible choices would have produced a wide range of outcomes. The report also found that, absent any changes in the rules instituted through Propositions 98 and 111, the state faces a significant fiscal crisis as mandated K-12 expenditures rise to 43% of General fund revenues in 2002-03.

Silvestre, Joaquim

PD September 1994. TI An Efficiency Argument for Sustainable Use. AA University of California at Davis. SR University of California, Davis Department of Economics Working Paper: 94-11; Department of Economics, University of California, Davis, Davis, CA 95616-8578. PG 29. PR \$3.00 U.S. and Canada. \$4.00 International. JE H41, H43, H82, Q23, Q38. KW Conservation. Sustainability. Natural Environments. Public Goods.

AB Sustainability is often viewed as a moral obligation to future generations. The paper adds an argument for sustainability that is entirely based on efficiency and is free from distributional considerations. Many natural environments admit two uses: (i) a destructive use, where the environment is converted into a private good, used by (a fraction of) the present generation; and (ii) a nondestructive use, where the environment is maintained in its natural form; the environment

is thus a public good, useful to both present efficiency grounds: this is made precise in a quasilinear model of a finite number of overlapping generations. Efficiency is there equivalent to the maximization of surplus, i.e., the maximization of the sum of the benefits over generations minus the sum of costs. Two qualifications. First, large transfers of wealth from future to present generations must be physically possible. Second, if individual discount the future, then efficiency requires the maximization, not of the sum of utilities, but of a discounted sum of utilities. Efficiency can dictate conservation in Society I and destruction in Society II for two societies that are identical except that individuals discount the future in Society. This is somewhat surprising in overlapping generation models.

PD November 1994. TI Market Power in Macroeconomic Models: New Developments. AA University of California at Davis. SR University of California, Davis Department of Economics Working Paper: 94-07; Department of Economics, University of California, Davis, Davis, CA 95616-8578. PG 57. PR \$3.00 U.S. and Canada. \$4.00 International. JE E24, E32, D43, D50. KW Macroeconomics. Market Power. Imperfect Competition. Business Cycles.

AB The text surveys some recent work on the market-power foundations of macroeconomics. Earlier efforts in the area, as represented in Silvestre (*Journal of Economic Literature*, 1993), built models that were static or that adopted the temporary equilibrium viewpoint. The more recent literature, on the contrary, is cast in general equilibrium models that are explicitly dynamic. A first group of papers adopts infinite overlapping generation models and addresses three topics. First, the possibility of unemployment at all wages, which had previously appeared in temporary equilibrium models. Second, the effects of a government policy that redistributes wealth from young to old, or supplies public output, financed by taxes or money creation. Third, the rationality of partial wage indexation. A second group of papers attempts to understand economic fluctuations as equilibrium phenomena in models with market power in the output markets and wage taking. Their method is the introduction of price-setting behavior in models of real business cycles, neoclassical growth, or overlapping generations.

Simard, Dominique

TI France and the Breakdown of the Bretton Woods International Monetary System. AU Bordo, Michael D.; Simard, Dominique; White, Eugene N.

Simon, Leo

TI Political-Economic Processes and Collective Decision Making. AU Rausser, Gordon; Simon, Leo; Van't Veld, Klaas.

Simpson, John D.

PD December 1994. TI When Does New Entry Deter Collusion? AA Federal Trade Commission. SR Federal Trade Commission Bureau of Economic Working Paper: 209; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Ave. NW, Washington, D.C. 20580. PG 17. PR no charge. JE K21, L41. KW Entry. Collusion. Merger Guidelines.

AB The U.S. Department of Justice and Federal Trade Commission Merger Guidelines assume that entry that is likely and sufficient will ultimately correct any anticompetitive harm resulting from a merger. If this anticompetitive harm takes the

form of collusion, then such entry will ultimately end the collusive agreement. If there are few opportunities to observe and to punish defection from the collusive agreement before this entry is expected to occur, then the prospect of this entry may deter collusion completely. Thus, entry that takes more than two years, if it is both likely and sufficient, may deter collusion in markets where the time required to observe and to punish cheating is lengthy. On the other hand, entry that takes less than two years may not deter collusion in industries where cheating can be quickly detected.

Simpson, R. David

PD January 1995. TI Environmental Policy in a Transitional Economy: Prospects for the Former Soviet Union. AU Simpson, R. David; Toman, Michael A. AA Resources for the Future. SR Resources for the Future Discussion Paper: 95-11; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 20. PR \$6.00 (prepaid, U.S. funds only). JE P27, Q25, Q28. KW Transitional Economies. Environmental Policy. Former Soviet Union.

AB The nations of the former Soviet Union inherited severe environmental problems from the communist regime. These states have very limited means with which to deal with these problems. They lack the technical wherewithal to monitor and enforce sophisticated environmental policies. On a deeper level, the problems are generally not environmental per se, but consequences of lagging industrial innovation in many sectors. At the most fundamental level, neither environmental improvement nor industrial restructuring will be achieved until the institutions of market economics develop in the nations of the former Soviet Union. Development assistance in forming and implementing environmental policies will be of some help, but foreign donors might take the most meaningful contributions to long-term environmental improvement by encouraging the development of stable social, legal, and economic institutions.

PD January 1995. TI Environmental Policy, Innovation, and Competitive Advantage. AA Resources for the Future. SR Resources for the Future Discussion Paper: 95-12; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 13. PR \$6.00 (prepaid, U.S. funds only). JE O31, Q28. KW Environmental Regulation. Competitiveness. Innovation.

AB This note illustrates in a simple model that, other things equal, the innovation incentives provided by stricter environmental regulation are reduced to the extent that innovations generate competitive advantage. This result may come as no surprise to economists—it arises from a straightforward application of the envelope theorem. It illustrates both that economists need to make themselves heard in the public debate on the benefits of environmental regulation, and that the anecdotal evidence on which many environmental advocates base their arguments is inconsistent with the assumption of profit-maximizing firms.

Simpson, Robert

TI The Impact of the Law on Industrial Disputes in the 1980s: Report of a Survey of Managers in the National Health Service. AU Elgar, Jane.; Simpson, Robert.

TI The Impact of the Law on Industrial Disputes in the 1980s: Report of a Survey of Public Sector Transport Employers. AU Elgar, Jane.; Simpson, Robert.

Smeaton, Deborah

TI An Aggregate Time Series Analysis of Non-Agricultural Self-Employment in the UK. AU Crouchley, Robert.; Abell, Peter.; Smeaton, Deborah.

Smith, Jeffrey

TI Accounting for Dropouts in Evaluations of Social Experiments. AU Heckman, James; Taber, Christopher; Smith, Jeffrey.

Smith, Lones

PD July 1994. TI Pathological Models of Observational Learning. AU Smith, Lones; Sorensen, Peter. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-24; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 32. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE D83. KW Learning. Herding.

AB This paper systematically analyzes the observational learning paradigm of Banerjee (1992) and Bikhchandani, Hirshleifer and Welch (1992). We first relax the informational assumption that is the linchpin of the 'herding' results, namely that individuals' private signals are uniformly bounded in their strength. We then investigate the model with heterogeneous preferences, and discover that a 'twin' observational pathology generically appears: optimal learning may well lead to a situation where no one can draw any inference at all from history! We also point out that counterintuitively, even with a constant background "noise" induced by trembling or crazy individuals, public beliefs generically converge to the true state of the world. All results are cast within a simple dynamic mathematical framework that is: (i) rich enough to describe a rich array of observational learning dynamics; and (ii) amenable to economic modifications that hinder or abet informational transmission, and sometimes permit full belief convergence to occur.

PD July 1994. TI An Example of Non-Martingale Learning. AU Smith, Lones; Sorensen, Peter. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-25; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 13. PR \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. JE D83. KW Martingales. Learning.

AB This paper abandons the universal assumption in models of observational learning that individuals can perfectly observe the order of past decisions. Only a worked example so far, we show that complete learning obtains under the same conditions as before. We try to underscore that the resulting analysis in no way exploits any martingales--which have been the lifeblood of optimal learning theory until now.

Smith, V. Kerry

PD December 1994. TI Finding the Story Behind the "Headlines": A Test of the Contributions Model for Contingent Valuation. AA Duke University. SR Resources for the Future Discussion Paper: 95-07; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 24. PR \$6.00 (prepaid, U.S. funds only). JE Q29, H40. KW Contingent Valuation. Stated Choices. Contributions.

AB This paper describes the results of a test of the

contributions model for respondents' answers to contingent valuation (CV) questions. The test uses a random sample with independent assignment of respondents to one of two different treatments that describe plans to either improve the landscape on interstate highways or support recycling of used automobile and truck tires. A discrete choice framework with the same fee structure was used for each plan. Four tests based on respondents' choices all suggest significantly different responses to the two plans. Moreover, all relevant economic variables were found to be statistically significant determinants of stated choices. Thus, for these two plans, the results indicate CV is able to distinguish respondents' choices to isolate significantly different implied economic values for each plan.

PD March 1995. TI Social Benefits of Education: Feedback Effects and Environmental Resources. AA Duke University. SR Resources for the Future Discussion Paper: 95-14; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. PG 78. PR \$6.00 (prepaid, U.S. funds only). JE I21, H41, D62. KW Environmental Quality. Education. Risk Communication.

AB This paper considers the ways that education might influence the environmental quality that people experience. Education could accomplish these effects by promoting private behavior that enhances environmental quality for everyone, or by increasing people's effectiveness in protecting themselves from environmental externalities. An important reason for addressing these questions is to consider complementarities between different public sector activities that create public or mixed public-private goods. After reviewing the conceptual issues associated with modeling these types of relationships, the paper reviews the available empirical literature to determine if there is support for this type of linkage and reports some new findings of a link between risk information programs and education. The paper closes with a discussion of the policy implications of these types of relationships.

Sokoloff, Kenneth L.

TI Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States. AU Engerman, Stanley L.; Sokoloff, Kenneth L.

Sommer, Daniel

TI On Short Rate Processes and Their Implications for Term Structure Movements. AU Schlogl, Erik; Sommer, Daniel.

Sorensen, Peter

TI Pathological Models of Observational Learning. AU Smith, Lones; Sorensen, Peter.

TI An Example of Non-Martingale Learning. AU Smith, Lones; Sorensen, Peter.

Spencer, Michael G.

TI Foreign Exchange Hedging with Synthetic Options and the Interest Rate Defense of a Fixed Exchange Rate Regime. AU Garber, Peter M.; Spencer, Michael G.

Spiegel, Matthew

PD October 1994. TI A Theory of "News Pending" Trading Suspensions. AU Spiegel, Matthew; Subrahmanyam, Avanihar. AA Spiegel: University of California, Berkeley. Subrahmanyam: University of California, Los Angeles and

Columbia University. **SR** Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-19; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. **PG** 22. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). **JE** D81, D82, G12, G14. **KW** Adverse Selection. Private Information.

AB When the imminence of firm-specific or macroeconomic announcements is not public knowledge, many traders will lack precise information regarding the severity of the adverse selection problem. Motivated by this observation, we characterize the equilibria in a market in which informed investors possess private information about both the mean and variance of a risky security's value. We analyze a rule which involves firms reporting to the exchange whenever the variance of private information exceeds a certain threshold, whereupon endogenous market closure occurs. We show under very general conditions that such a reporting rule may be necessary for the market to function at all. Thus, a properly designed rule can be welfare-enhancing for even an informed investor. We also analyze the effects of cross-sectional interdependencies in the degree of asymmetric information on optimal reporting policies. Empirical and policy implications of our results are discussed.

Srinivasan, T. N.

PD January 1995. **TI** Trade and the Environment: Does Environmental Diversity Detract From the Case for Free Trade? **AU** Srinivasan, T. N.; Bhagwati, Jagdish. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 721; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. **PG** not available. **PR** \$2.00. **JE** F11, F13, Q28. **KW** Free Trade. Environmental Standards. Diversity. Harmonization. Global Warming.

AB The argument that fair trade or level playing fields constitute a precondition for free trade and that, therefore, harmonization of domestic policies across trading countries is necessary before free trade can be beneficial is becoming increasingly salient in political debate. Its deceptive policy appeal is nowhere stronger than in the area of environmental standards. This paper reviews the factors that drive the demand for cross-country harmonization of standards by identifying and analyzing in detail the four main objections to diversity in standards: (i) lower standards (LS) in one country relative to its trading partner amount to implicit subsidization of its producers and provide them an unfair competitive advantage., (ii) free trade with a LS country threatens the maintenance of higher standards (HS) at home, (iii) LS are ethically inferior and (iv) in multilateral institutions LS countries could object to HS in other countries and by prevailing threaten their HS. Several analytical propositions are derived concerning optimal commercial and environmental policies under different circumstances when the environmental problem is purely domestic. The trade problems that differentially arise when the environmental problems are international (or "global"), i.e. they involve transborder externalities are sketched.

Stapleton, Richard C.

TI The Size of Background Risk and the Theory of Risk Bearing. **AU** Franke, Gunter; Stapleton, Richard C.; Subrahmanyam, Marti G.

TI Correlation Risk, Cross-Market Derivative Products, and

Portfolio Performance. **AU** Ho, T. S.; Stapleton, Richard C.; Subrahmanyam, Marti G.

Stavins, Robert N.

PD November 1994. **TI** Correlated Environmental Uncertainty and Policy Instrument Choice. **AA** Harvard University. **SR** Resources for the Future Discussion Paper: 95-04; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. **PG** 26. **PR** \$6.00 (prepaid, U.S. funds only). **JE** Q28, D81. **KW** Uncertainty. Efficient Policy Instruments. Environmental Taxes. Tradable Permits.

AB Since Weitzman's (1974) classic paper on "Prices vs. Quantities," it has been widely acknowledged that benefit uncertainty on its own has no effect on the identity of the optimal (efficient) control instrument, but that cost uncertainty can have significant effects, depending upon the relative slopes of the marginal benefit (damage) and marginal cost functions. But in the presence of simultaneous uncertainty in both benefits and costs and with some statistical dependence between them, benefit uncertainty can make a difference for identifying the more efficient policy instrument. In particular, we find that with plausible values of the relevant parameters, the conventional identification of a price (tax) instrument for environmental protection (based upon the usual relative-slopes rule) will be reversed, to favor instead a quantity instrument, such as tradable emission permits. The opposite reversal - from the choice of a quantity instrument to a price instrument - is much less likely to occur.

PD December 1994. **TI** Environmental Policy in a Transition Economy: Designing Tradeable Permits for Poland. **AU** Stavins, Robert N.; Zylicz, Tomasz. **AA** Stavins: Harvard University. Zylicz: Warsaw University. **SR** Resources for the Future Discussion Paper: 95-09; Resources for the Future, 1616 P Street, N.W., Washington, D.C. 20036. **PG** 20. **PR** \$6.00 (prepaid, U.S. funds only). **JE** Q28, P40. **KW** Environmental Policy Design. Tradeable Permits. Transition Economy.

AB The former centrally planned economies of Central and Eastern Europe and the Soviet Union were chronically poor performers not only economically, but environmentally as well. These emerging market economies could now benefit from application of market-based environmental instruments because of their potential cost effectiveness. Since it is unlikely that pollution charges could be raised to levels necessary to have desired incentive effects, systems of emissions trading could be a promising alternative. We examine the design of such systems for the special conditions of a transition economy.

Stein, Ernesto

PD August 1994. **TI** Political Stabilization Cycles in High Inflation Economies. **AU** Stein, Ernesto; Streb, Jorge. **AA** Stein: University of California Berkeley. Streb: Banco Central de la Republica Argentina. **SR** Center for International and Development Economics Research: C94-039; University of California Berkeley, Department of Economics, Berkeley, CA 94720. **PG** 29. **PR** not available. **JE** D72, D82, D84. **KW** Inflation. Political Cycle.

AB High inflation economies do not always exhibit smooth inflationary processes; sometimes stop-go cycles of inflation are observed. This paper relates these stop-go episodes to a political cycle: Governments can defer inflation until after elections to increase their chances of being re-elected. This is modelled as a two-period game of incomplete information

where voters try to pick the most competent candidate, and inflation (which is used as a signal of competency) can be lowered by the government in the short run through foreign debt accumulation.

Steindel, Charles

PD July 1994. TI Assessing Recent Trends in Manufacturing. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 9409; Public Information Division-13F, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG not available. PR no charge. JE C43, C82, O47. KW Manufacturing. Aggregation. Productivity. Capacity. Production.

AB Data released in 1993 sharply reduced estimates of the growth of the U.S. manufacturing sector over the last decade. It appears that the downward revision in the data released by the Bureau of Economic Analysis (BEA) for the mid-1980s is largely an artifact of the methods used to calculate aggregate manufacturing industrial production measures for the period since 1987 do reflect new information on the manufacturing sector; however, there is a significant chance that future revisions will show productivity growth (which is closely linked to the BEA output industrial production) to inflation shows a stronger connection for capacity utilization. This suggests that for some purposes industrial production may be the better indicator of underlying trends in the manufacturing sector.

Stevens, Guy V. G.

PD December 1994. TI Politics, Economics, and Investments: Explaining Plant and Equipment Spending by U.S. Direct Investors in Argentina, Brazil, and Mexico. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 490; Board of Governors of the Federal Reserve System, Division of International Finance, Washington, DC 20551. PG 39. PR no charge. JE E22, F23, D84, O19. KW Investment. Direct Investment. Political Factors.

AB Few economists or laymen would deny that political events can have an important, sometimes even overwhelming, impact on economic decisions in general, and investment decisions in particular. The first goal of this paper was to integrate a number of political and non-traditional economic variables into the standard theory of investment based on the maximization of the expected value of the firm. The second goal was to test this generalized investment theory on a particularly fertile field for gauging the interaction of political and economic factors: the plant and equipment spending of foreign manufacturing affiliates of U.S. multinationals in Argentina, Brazil, and Mexico. The results of these tests show that the generalized theory is far superior to the traditional alternatives in the explaining the real investment of the sample for the 1958-89 period.

Stewart, Frances

TI V-Goods and the Role of the Urban Informal Sector in Development. AU Ranis, Gustav; Stewart, Frances.

Stiglitz, Joseph

TI Dumping on Free Trade: The US Import Trade Laws. AU Orszag, Peter.; Stiglitz, Joseph.

Stock, James H.

PD September 1994. TI Evidence on Structural Instability in Macroeconomic Time Series Relations. AU Stock, James H.; Watson, Mark W. AA Stock: Harvard University and National Bureau of Economic Research. Watson: Northwestern University and National Bureau of Economic Research. SR National Bureau of Economic Research: 164; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR not available. JE C22, E17. KW Adaptive Forecasting. Instability. Macroeconomic Time Series.

AB An experiment is performed to assess the prevalence of instability in univariate and bivariate macroeconomic time series relations and to ascertain whether various adaptive forecasting techniques successfully handle any such instability. Formal tests for instability and out-of-sample forecasts from sixteen different models are computed using a sample of 76 representative U.S. monthly postwar macroeconomic time series, constituting 5700 bivariate forecasting relations. The tests indicate widespread instability in univariate and bivariate autoregressive models. However, adaptive forecasting models, in particular time varying parameter models, have limited success in exploiting this instability to improve upon fixed-parameter or recursive autoregressive forecasts.

Stratton, Leslie

PD September 1994. TI Are Involuntary Part-Time Workers Indeed Involuntary? AA University of Arizona. SR University of Arizona Economics Working Paper: 94-3; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 20. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE J21, J64, C31. KW Part-Time Work. Involuntary Employment.

AB Theoretically, involuntary part-time workers are individuals who would like to work full-time but who have been unable to obtain full-time employment. Simple probit models of employment preferences and employment opportunities estimated with data from March 1990 Current Population Survey are employed to test the empirical definition. The results support the hypothesis that those classified as involuntary part-time workers are indeed employed part-time 'involuntarily'. Furthermore, those classified as involuntary part-time workers in 1990 are at least 50 percent more likely to be in the full-time labor force in 1991 than those who were classified as voluntary part-time workers in 1990.

Streb, Jorge

TI Political Stabilization Cycles in High Inflation Economies. AU Stein, Ernesto; Streb, Jorge.

Subrahmanyam, Avanidhar

TI Market Microstructure and Asset Pricing: On the Compensation for Adverse Selection in Stock Returns. AU Brennan, Michael J.; Subrahmanyam, Avanidhar.

TI A Theory of "News Pending" Trading Suspensions. AU Spiegel, Matthew; Subrahmanyam, Avanidhar.

Subrahmanyam, Marti G.

TI The Size of Background Risk and the Theory of Risk Bearing. AU Franke, Gunter; Stapleton, Richard C.;

Subrahmanyam, Marti G.

TI Correlation Risk, Cross-Market Derivative Products, and Portfolio Performance. **AU** Ho, T. S.; Stapleton, Richard C.; Subrahmanyam, Marti G.

Subramaniam, Ramesh

PD September 1995. **TI** Gender-Bias in India: The Importance of Household Fixed-Effects. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 732; Economic Growth Center, Yale University, Box 208269 Yale Station, New Haven, CT 06520. **PG** 31. **PR** \$2.00. **JE** D12, D13. **KW** Intra-Household Allocation. Marginal Utility of Wealth. Wealth-Shock.

AB This paper presents an analysis of gender patterns in intra-household allocation of resources based on household level consumption data. Invoking the assumption that households seek to equalize the marginal utility wealth when they allocate resources over the life-cycle, the paper provides a rationale for parental behaviour pertaining to the intertemporal allocation of goods among children. Estimation results based on panel data from India show that controlling for the unobserved marginal utility (household fixed) effect is crucial. Once allowance is made for fixed effects, the results indicate that there is no longer any gender-differential in the allocation of resources.

Subramanian, Shankar

TI Defense Spending Reductions and the California Economy: A Computable General Equilibrium Model. **AU** Robinson, Sherman; Hoffman, Sandra A.; Subramanian, Shankar.

Sundararajan, V.

TI The Payments System and its Effects on Monetary Operations: Recent Experience in the Russian Federation. **AU** Sensenbrenner, Gabriel; Sundararajan, V.

PD December 1994. **TI** The Coordination of Domestic Public Debt and Monetary Management in Economies in Transition--Issues and Lessons from Experience. **AU** Sundararajan, V.; Dattels, Peter; McCarthy, Ian S.; Castello-Branco, Marta; Blommestein, Hans J. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94148; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 36. **PR** not available. **JE** E61, E52, E58. **KW** Fiscal Policy. Financial Markets. Public Debt. Economies in Transition.

AB In economies in transition, the development of financial markets is a common objective linking the monetary and fiscal authorities, while monetary and public debt management cannot be strictly separated. This calls for close coordination of objectives and instruments of monetary and debt management, and the development of supporting institutional and operational arrangements. Key aspects of these arrangements are surveyed.

Sunley, Emil M.

TI Fiscal Regimes for Natural Resource Producing Developing Countries. **AU** Nellor, David C.L.; Sunley, Emil M.

Svensson, Lars E.O

PD September 1994. **TI** Estimating and Interpreting Forward Interest Rates: Sweden 1992-1994. **AA** Stockholm

University; Centre for Economic Policy Research; National Bureau of Economic Research; and International Monetary Fund. **SR** International Monetary Fund Working Paper: 94114; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 24. **PR** not available. **JE** E50, E52, F31, G12. **KW** Interest Rates. Monetary Policy. Sweden.

AB The use of forward interest rates as a monetary policy indicator is demonstrated, using Sweden 1992-1994 as an example. The forward rates are interpreted as indicating market expectations of the time-path of future interest rates, future inflation rates, and future currency depreciation rates. They separate market expectations for the short-, medium-, and long-term more easily than the standard yield curve. Forward rates are estimated with an extended and more flexible version of Nelson and Siegel's functional form.

Symansky, Steven

PD December 1994. **TI** Financing the Transition of Previously Centrally Planned Economies: Macroeconomic Effects on Western Europe. **AU** Symansky, Steven; Bartolini, Leonardo. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94157; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** F34, O52. **KW** Capital Transfers. Business Cycle. Interest Rates.

AB Under alternative assumptions on the likely developments in external financing of PCPE transition, and based on a multi-country, forward-looking model that includes a simplified PCPE block, we simulate the response of PCPEs to a transfer of capital from the industrial countries, and assess the potential implications for Western Europe over the next ten years. Real interest rates in Western Europe are likely to experience only mild upward pressure, and most macroeconomic aggregates are likely to change by substantially smaller magnitudes than typical over the business cycle.

Taber, Christopher

TI Accounting for Dropouts in Evaluations of Social Experiments. **AU** Heckman, James; Taber, Christopher; Smith, Jeffrey.

Taylor, Alan D.

TI Old and New Moving-Knife Schemes. **AU** Brams, Steven J.; Taylor, Alan D.; Zwicker, William S.

Taylor, Alan M.

PD October 1994. **TI** Three Phases of Argentine Economic Growth. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 60; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. **PG** not available. **PR** \$5.00. **JE** E22, N16. **KW** Argentina. Capital Accumulation. Import Substitution. Investment. Savings.

AB Much of Argentina's decline in relative economic performance can be attributed to deleterious conditions for capital accumulation after 1913. In the first phase (pre-1913), the success of the Belle Epoque was due to spectacular rates of accumulation. In the second phase (1913- 1930s), low domestic savings rates constrained the rate of capital accumulation. In the third phase (1930s-1950s), import-substitution policies

were implemented and the relative price of key imported capital goods rose sharply. Retardation ensued: at first because of insufficient saving; later because price disincentives channeled funds away from investment activities which are the precursor of growth.

Telmer, Chris I.

TI The Forward Premium Anomaly: Three Examples in Search of a Solution. AU Backus, David K.; Foresi, Silverio; Telmer, Chris I.

Temin, Peter

PD November 1994. TI The Great Depression. AA Massachusetts Institute of Technology. SR National Bureau of Economic Research Working Paper Series on Historical Factors in Long Run Growth: 62; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PG 45. PR \$5.00. JE E31, E32, E51, N22, N24. KW Bank Failure. Business Cycle. Deflation. Depression. Gold Standard.

AB This history of the Great Depression was prepared for The Cambridge Economic History of the United States. It describes real and imagined causes of the Depression, bank failures and deflation, the Fed and the gold standard, the start of recovery, the first New Deal, and the second New Deal. I argue that adherence to the gold standard caused the Depression, that abandoning gold started recovery, and that several of the New Deal measures adopted in the recovery lasted in good order for half a century.

Templeton, Scott R.

PD July 1994. TI Economic Impacts of Urban Forestry in California-1992. AU Templeton, Scott R.; Goldman, George E. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 719; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 42. PR \$10.50 (U.S.) \$21.00 (For.). JE Q23. KW California. Urban Forestry. Economic Aspects. Cities and Towns. Trees.

AB This paper presents estimates of the economic effects of urban forestry in California.

PD August 1994. TI Economic Impacts of Urban Forestry in California-1992. AU Templeton, Scott R.; Goldman, George E. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 719rev; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 43. PR \$10.75 Domestic \$21.50 International Surface Rate. JE Q23. KW California. Urban Forestry. Economic Aspects. Cities and Towns. Trees.

AB This paper presents revised estimates of the economic effects of urban forestry in California.

Tenreiro, C.

TI Kernel M-Estimators: Non Parametric Diagnostics for Structural Models. AU Gourieroux, Christian; Monfort, Alain; Tenreiro, C.

Thierry, Paul

TI Labor Adjustment and Gradual Reform: Is Commitment

Important? AU Karp, Larry S.; Thierry, Paul.

Thomas, Alun H.

PD December 1994. TI The Response of Wages and Labor Supply Movements to Employment Shocks Across Europe and the United States. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94158; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 14. PR not available. JE C32, J61. KW Wages. Labor Force. Vector Autoregression.

AB This paper assesses the responsiveness of wages and labor force movements to employment shocks across British and U.S. regions and across Europe using a multivariate vector autoregression technique. The paper finds inflexible real wages in all three areas in that each area's real wage responds very little to employment shocks. However, the response of the labor force to employment shocks is much greater in the United States compared to Europe. The strong labor force response in the United States prevents any persistence in relative regional unemployment rates whereas the lack of mobility in Europe results in persistent unemployment rate differentials across British regions and European nations. Europe must therefore adopt measures to reduce barriers to immobility if it is to succeed in moderating the persistence in relative unemployment rates.

Tirole, Jean

TI Access Pricing and Competition. AU Laffont, Jean-Jacques; Tirole, Jean.

Tobin, James

TI Two Cases for Sand in the Wheels of International Finance. AU Eichengreen, Barry; Tobin, James; Wyplosz, Charles.

Toman, Michael A.

TI Environmental Policy in a Transitional Economy: Prospects for the Former Soviet Union. AU Simpson, R. David; Toman, Michael A.

Triesch, E.

PD September 1994. TI On the Recognition Complexity of Some Graph Properties. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 94832; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 10. PR no charge. JE C44. KW Monotone Graph Property. Elusive. Recognition Complexity. Girth. Matching.

AB By applying a topological approach due to Kahn, Saks and Sturtevant, we prove that all decreasing graph properties consisting of bipartite graphs only are elusive. This is an analogue to a well-known result of Yao.

PD September 1994. TI A Group Testing Problem for Hypergraphs of Bounded Rank. AA University of Bonn. SR Univeritaet Bonn, Sonderforschungsbereich 303 Discussion Papers: 94833; Sonderforschungsbereich 303 an der Univeritaet Bonn Lennestrasse 37, D-53113 Bonn, Germany. PG 4. PR no charge. JE C44. KW Group Testing. Search Problems. Hypergraphs. Krafts's Inequality.

AB not available.

Tryon, Ralph

TI A Distributed Block Approach to Solving Near-Block-Diagonal Systems with an Application to a Large Macroeconometric Model. AU Faust, Jon; Tryon, Ralph.

Tullock, Gordon

PD February 1994. TI Arrow and All That. AA University of Arizona. SR University of Arizona Economics Working Paper: 94-8; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 16. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE H00. KW Cyclical Majority. Arrow. Paradoxes.

AB This paper deals with a summary of what has been done with Arrow's paradox, and ends with a demonstration that it is of minor importance.

PD July 1994. TI Civilized Ants. AA University of Arizona. SR University of Arizona Economics Working Paper: 94-6; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 13. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE P40. KW Ants. Economic Organization. Organization.

AB The economic organization of large ant nests is examined and it is demonstrated that a rather simple economic theory can explain this coordinated behavior.

PD September 1994. TI Government Growth. AA University of Arizona. SR University of Arizona Economics Working Paper: 94-5; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 10. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE H11. KW Growth. Government.

AB Certain data indicate that government growth is far more complicated than was previously thought. Unfortunately, the data destroy existing explanations and do not suggest a new one.

PD October 1994. TI The Cost of Medical Progress. AA University of Arizona. SR University of Arizona Economics Working Paper: 94-7; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 14. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE I11, I12, I18. KW Cost. Progress. Medicine.

AB This paper points out that medical progress makes decisions on whether to spend money on specific treatments. Also, it asks what will be the criteria for such decisions in government health programs.

PD October 1994. TI Economics and Psychology: Mediating the Conflict. AA University of Arizona. SR University of Arizona Economics Working Paper: 94-9; Department of Economics, McClelland Hall-Room 401 University of Arizona, Tucson, AZ 85721. PG 13. PR \$2.00 U.S. and Canada; \$3.00 Overseas by air. JE D00. KW Psychology. Economics Conflict.

AB The debate which has recently developed between economics and psychology basically is unnecessary. If economics is changed slightly, the difference in opinion vanishes.

Utikal, Klaus

PD November 1994. TI Optimal Choice from Known Rewards with Uncertain Response. AU Utikal, Klaus;

Govindarajulu, Z. AA Utikal: University of Bonn. Govindarajulu: University of Kentucky. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-459; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 11. PR no charge. JE C44, C61. KW Optimal Stopping. Optimal Policy Approximations. Dynamic Programming. Uncertainty of Selection.

AB Consider a random permutation of a finite number n of known elements representing rewards. These rewards will be made or not made with certain known probabilities. At any stage a reward made can be accepted or rejected, there is no recall and only one reward can be accepted. The problem is to maximize the expected reward accepted. We propose a computationally feasible approximation to the solution of the dynamic programming equation of the problem. Estimates of the error of the approximation are given recursively as well as in explicit form. Recursively the error of the approximation at any stage of the game is obtained in terms of the approximation and its error estimate at the following stage. In numerical examples the goodness of the approximation and its error estimates are found by comparison with the optimal solution.

Van Ieperen, Reinoud

TI Volatility Patterns and Spillovers in Bund Futures. AU Franses, Philip Hans; Van Ieperen, Reinoud; Kofman, Paul; Martens, Martin; Menkveld, Bert.

Van Rijckeghem, Caroline

PD October 1994. TI Albania: Income Distribution, Poverty, and Social Safety Nets in the Transition, 1991-1993. AA International Monetary Fund. SR International Monetary Fund Working Paper: 94123; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 27. PR not available. JE E65, I30, P21. KW Income Distribution. Poverty. Consumption. Wages. Albania.

AB This paper examines developments in Albania's income distribution and poverty during the transition to a market-oriented economy. It pays particular attention to the impact of price liberalization on the agricultural terms of trade and production, the decline in state enterprise employment, emigrant remittances, and social safety nets. Income and consumption data produce conflicting results. Based on income data, including average presumptive agricultural incomes and state sector wages, there is a significant rise in real income in rural areas and a decline in real income in urban areas. Based on food consumption data, however, a large decline in urban real incomes is implausible. Poverty in both the urban and the rural population was mitigated by the presence of formal social safety nets, as well as informal arrangements in the form of emigrant remittances.

Van Wassenhove, L. N.

TI Concurrent Software Engineering: Prospects and Pitfalls. AU Blackburn, J. D.; Hoedemaker, G.; Van Wassenhove, L. N.

TI Software Development Productivity of European Space, Military and Industrial Applications. AU Maxwell, K.; Van Wassenhove, L. N.; Dutta, S.

Van't Veld, Klaas

TI Political-Economic Processes and Collective Decision

Making. AU Rausser, Gordon; Simon, Leo; Van't Veld, Klaas.

Vanasse, C.

TI Debt, Moral Hazard and Airline Safety: An Empirical Evidence. AU Dionne, G.; Gagne, R.; Gagnon, F.; Vanasse, C.

Varian, Hal R.

TI Pricing Congestible Network Resources. AU MacKie-Mason, Jeffrey K.; Varian, Hal R.

Verikios, George

TI The Effects of Immigration on Residents' Incomes in Australia: Some Issues Reconsidered. AU Peter, Matthew W.; Verikios, George.

Vermaelen, T.

PD September 1994. TI The Option to Repurchase Stock. AU Vermaelen, T.; Ikenberry, D. AA Vermaelen: INSEAD. Ikenberry: Rice University. SR INSEAD Working Papers: 94/73; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 19. PR not available. JE G12, G14, G32. KW Signaling. Repurchase Programs. Volatility. Exchange Options.

AB The signaling hypothesis is often used to explain the market reaction to the announcement of open market share repurchase programs. Yet these programs are not firm commitments. Although companies may announce their intention to reacquire shares, repurchase programs done via the open market, by design, give managers the flexibility to forego repurchasing stock. As such, these programs seemingly lack credibility as reliable information signals. We show that although these programs may be poor signals, they contain valuable options. We model this as an exchange option. Empirical evidence from 892 announcements between 1980 and 1990 is consistent with the predictions of the model. Announcements returns are positively related to the magnitude of the repurchase and to the return volatility of the stock. The average maturity implied by the option is 22 months, a result strikingly similar to what is observed in practice. Perhaps most interestingly, we find that as predicted by the model, announcement returns are negatively related to a proxy for the correlation between the firm's traded price and its "true" price, the difference of which is most fundamental to giving value to the option.

Vorst, Ton C. F.

TI Tailing the Bid-Ask Spread. AU Kofman, Paul; Vorst, Ton C. F.

Walker, James M.

TI Racing for the Water: Laboratory Evidence on Subgame Perfection. AU Gardner, Roy; Moore, Michael R.; Walker, James M.

Walker, Warren E.

PD 1994. TI A Demonstration Policy evaluation of the Dutch Second Transport Structure Plan (SVV). AU Walker, Warren E.; Abrahamse, Allan F.; Kleijn, Henk. AA Walker: Rand Corporation. Abrahamse: European-American Center for Policy Analysis. Kleijn: Ministerie van Verkeer en Waterstaat.

Netherlands. SR Rand Report: MR-275-eAC/VW; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 70. PR \$9.00. JE D78, H42, L91, R41, R48. KW Holland. Netherlands. Personal Mobility. Policy evaluation. Transportation Policy.

AB Describes a methodology for performing a policy evaluation of the Netherlands, and demonstrates the methodology in one policy area-- personal mobility. In addition to a description of the methodology, the report presents some conclusions about the transport policy and its implementation, recommendations about the next steps in the policy evaluation process, and results from the demonstration. In particular, the demonstration revealed that much essential data for policy evaluation are not available or are difficult to obtain. The report recommends creation of a data collection system, improving the quality of data in analysis files, and hiring an applied statistician for the Ministry to use the methodology and interpret the results.

Wallace, Tim L.

PD July 1994. TI Process Models and Techniques for Issue Resolution. AA University of California Berkeley. SR Department of Agricultural and Resource Economics, University of Berkeley: 717; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California Berkeley, CA 94720. PG 32. PR \$8.00 (U.S.) \$16.00 (For.). JE D71, D72, D74. KW Conflict Resolutions. Social Action.

AB Public issues arise because of value conflicts about a situation or event. Process models evolve because of a need to resolve these conflicts in some way that leads to effective resolution. Public issues education can entail education about the issue and/or the model(s) useful in conflict resolution. Be sure you know which you are undertaking. This section deals with a discussion of social action process models that can help groups resolve controversial public issues and problems.

Walls, Margaret

TI Materials Use and Solid Waste Disposal: An Evaluation of Policies. AU Palmer, Karen; Walls, Margaret.

Wang, F. Albert

TI Speculation Duopoly with Agreement to Disagree. AU Kyle, Albert S.; Wang, F. Albert.

PD October 1994. TI Strategic Trading with Heterogeneous Prior Beliefs: Variations in Volume and Volatility. AA Columbia University. SR Columbia PaineWebber Working Paper Series in Money, Economics and Finance: 94-25; PaineWebber Series, 6N Uris Hall, Columbia University, New York, NY 10027. PG 27. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside U.S., Canada and Puerto Rico). JE G12, G14, D81, D82, D84. KW Asymmetric Information. Sequential Auction Model. Liquidity. Speculation.

AB In this paper, we develop a sequential auction model incorporating three motives for trade--asymmetric information, liquidity, and heterogeneous prior beliefs--in speculative markets. The model shows that the aggressiveness of informed trading increases over time as trading goes on and accelerates near the end of trading primarily due to heterogeneous prior beliefs. The informed trader restricts his trading in early auctions because of the concern for adverse price impact later on. As trading approaches the last few auctions, most

asymmetric information is resolved and hence by then it is most cost effective for the informed trader to capitalize on the differences in belief as well as on symmetric information through aggressive trading. The trading pattern that emerges in the model is consistent with the concentration pattern in trading volume and price volatility observed near market closures and public information releases. This result suggests that the concentration pattern in the two seemingly unrelated occasions may be driven by the same force--heterogeneous prior beliefs. We also examine the limiting behavior of the sequential auction model. In continuous-time limit, the sequence of the sequential auction equilibria converges to the continuous auction equilibrium of Kyle (1985), except that at the last instant there is a large discrete informed trade. The continuous trading is induced only by asymmetric information, whereas the discrete trade is motivated only by heterogeneous prior beliefs. The discrete trade is generated by differences of opinion among traders who interpret the fully revealed signal differently. In general, the discrete order at the last instant is bounded because of finite liquidity, despite the fact that the asymmetry of information vanishes eventually at the end of trading. However, the volume of this discrete trade can explode with infinite liquidity if the informed trader becomes excessively overconfident.

Warr, Peter B.

TI Is Job Satisfaction U-Shaped in Age? AU Clark, Andrew E.; Oswald, Andrew J.; Warr, Peter B.

PD October 1994. TI Training for Older Managers. AA University of Sheffield. SR London School of Economics Centre for Economic Performance Discussion Paper: 211; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 24. PR no charge. JE L23. KW Age. Managers. Training.

AB In the context of projected aging of the working population, this paper draws upon the Labour Force Survey and a study of members of the Institute of Management to provide detailed information about the incidence and duration of training undertaken by managers at different ages. Associated with declines in training with increasing age, age-differences in the nature of that training are found. For instance, although older managers attend fewer courses, they are more likely to undertake study visits and report professional meetings with a training element. Level of management, independently of age, is shown to predict time spent in training. Recommendations are made at three levels: encouraging adaptability through organisational norms, developing and applying training procedures which are effective for older learners, and through the creation of national training targets for managers.

Waterson, Michael

TI Tendering, Auctions and Preparation Costs. AU Canoy, Marcel; Waterson, Michael.

Watson, Mark W.

TI Evidence on Structural Instability in Macroeconomic Time Series Relations. AU Stock, James H.; Watson, Mark W.

TI Estimating Deterministic Trends in the Presence of Serially Correlated Errors. AU Canjels, Eugene; Watson, Mark W.

TI Testing for Cointegration when some of the Cointegrating Vectors are Known. AU Horvath, Michael T.; Watson, Mark W.

Way-Smith, Susan

PD 1994. TI Army Morale Military. Morale, Welfare and Recreation Programs in the Future: Maximizing Soldier Benefits in Times of Austerity. AU Way-Smith, Susan; Keating, Edward G.; Morrison, Peter A.; Childress, Michael T. AA Rand Corporation. SR Rand Report: MR-491-A; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 77. PR \$15.00. JE H56, H57, J31, J45. KW Alienation. Army. Defense. Financial Management. Military. Morale.

AB This report considers the future of Army Morale, Welfare, and Recreation (MWR) programs. Continued budgetary pressures are forcing changes in Army MWR provision. At the same time, times on station for soldiers are increasing, more spouses are working outside the home, and funds for on-post housing are shrinking. All these factors push toward more provision of MWR services by the off-post private sector. This paper develops a costing methodology to more accurately compare the costs of different MWR provision methods.

Weidmann, Jens

TI The French-German Interest Rate Differential Since German Unification: The Impact of the 1992 and 1993 EMS Crisis. AU Henry, Jerome; Weidmann, Jens.

Weisbrod, Steven R.

TI Financial Market Fragilities in Latin America: From Banking Crisis Resolution to Current Policy Challenges. AU Rojas-Suarez, Liliana; Weisbrod, Steven R.

Werner, Hans Joachim

PD TI On Inequality Constrained Generalized Least Squares Selections in the General Possibly Singular Gauss-Markov Model: A Projector Theoretical Approach. AU Werner, Hans Joachim; Yapar, Cemil. AA Werner: University of Bonn. Yapar: Karadeniz Technical University. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-300; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 23. PR no charge. JE C20. KW Gauss-Markov Model. Singular Model. Perfect Multicollinearity. Linear Inequality Constraints. Inequality Constrained Generalized Least Squares Problem. Oblique Projectors. Generalized Inverses.

AB This paper deals with the general possibly singular linear model. It is assumed that in addition to the sample information we have some nonstochastic prior information concerning the unknown regression coefficients that can be expressed in the form of linear independent inequality constraints. Since these constraints are part and parcel of the model the inequality constrained generalized least squares (ICGLS) problem arises that contains some unknown aspects up to now. Based on a projector theoretical approach we show in this paper how the set of ICGLS selections under the constrained model is related to the set of GLS selections under the associated unconstrained model. As a by-product we obtain an interesting method for determining an ICGLS selection from a GLS selection. The insights gained from our considerations might also be useful in

a future study of the statistical properties of ICGLS estimators. Certain special model cases are also considered.

PD 1994. **TI** More on Partitioned Possibly Restricted Linear Regression. **AU** Werner, Hans Joachim; Yapar, Cemil. **AA** Werner: University of Bonn. Yapar: Karadeniz Technical University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 301; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** no charge. **JE** C20. **KW** Gauss-Markov Model. Singular Model. Perfect Multicollinearity. Partitioned Linear Regression. Linear Inequality Constraints. Oblique Projectors. Generalized Inverses.
AB not available.

Weston, J. F.

TI Financial Distress and Restructuring Models. **AU** Chen, Yehning; Weston, J. F.; Altman, Edward I.

White, Eugene N.

TI France and the Breakdown of the Bretton Woods International Monetary System. **AU** Bordo, Michael D.; Simard, Dominique; White, Eugene N.

Whitt, Ward

TI Portfolio Choice and the Bayesian Kelly Criterion. **AU** Browne, Sid; Whitt, Ward.

Wilson, Berry

TI Bank Capital Structure: An Analysis of the Charter Value Hypothesis. **AU** Saunders, Anthony; Wilson, Berry.

Wisniewski, Joe

TI Managing Carbon Via Forestry: Assessment of Some Economic Studies. **AU** Sedjo, Roger A.; Wisniewski, Joe; Sample, Al; Kinsman, John D.

Wright, Randall

TI Estimating Substitution Elasticities in Household Production Costs. **AU** Rupert, Peter; Rogerson, Richard; Wright, Randall.

TI An Equilibrium Model of the Business Cycle with Household Production and Fiscal Policy. **AU** McGrattan, Ellen; Rogerson, Richard; Wright, Randall.

Wyplosz, Charles

TI Two Cases for Sand in the Wheels of International Finance. **AU** Eichengreen, Barry; Tobin, James; Wyplosz, Charles.

Yager, Loren

TI Pricing and Markets: U.S. and Japanese Responses to Currency. **AU** Lowell, Julia; Yager, Loren.

Yapar, Cemil

TI On Inequality Constrained Generalized Least Squares Selections in the General Possibly Singular Gauss-Markov Model: A Projector Theoretical Approach. **AU** Werner, Hans Joachim; Yapar, Cemil.

TI More on Partitioned Possibly Restricted Linear Regression. **AU** Werner, Hans Joachim; Yapar, Cemil.

Younes, Yves

PD February 1994. **TI** Geo-Economie Politique De La Transformation De L'Economie Americaine. **AA** CNRS-CEPREMAP. **SR** CEPREMAP Discussion Paper: 9409; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 108. **PR** 25 F.F. **JE** F00. **KW** International Political Economy. Income Distribution. Immigration.
AB This paper is written in a language other than English.

Yuan, Mingwei

PD December 1994. **TI** China's Imports: An Empirical Analysis Using Johansen's Cointegration Approach. **AU** Yuan, Mingwei; Kochhar, Kalpana. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 94145; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 16. **PR** not available. **JE** C22, C49, F14, F31. **KW** Foreign Exchange. Cointegration. Imports. China.

AB In this paper, the behavior of China's imports during the period 1980-92 is studied. The estimation of cointegration and error correction mechanisms enables the separation of the long-run and short-run determinants of imports in China. The estimated cointegrating vector using Johansen's cointegration approach shows that, in the long run, China's imports are sensitive to changes in output, relative prices, and foreign exchange reserves. It also shows that the short-run output elasticity of imports is much greater than that in the long-run, suggesting that import substitution may have been an important factor over the sample period. The forecasting ability of a conventional partial adjustment import function is then compared with that of the Johansen cointegration model; the Johansen model is shown to outperform the conventional one in forecasting accuracy.

Zenner, Markus

PD December 1994. **TI** Prediction Error Learning and Rational Expectations in Autoregressive Models with Forecast Feedback. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B- 303; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 36. **PR** no charge. **JE** C22, C40, C62, D83. **KW** Rational Expectations. Learning. Model Specification.

AB The rational expectations hypothesis is supported if rational expectations are stable with respect to reasonable learning procedures. We consider the Stochastic Gradient-Algorithm as a boundedly rational learning procedure in an univariate ARX-Model with forecast feedback. We prove that whenever there exists a stable rational expectations equilibrium and the influence of the forecast feedback is limited the learning agents cannot destabilize the model and learn to form rational expectations with probability one.

Zhang, Xiaodong

TI An Efficient Cost Scaling Algorithm for the Independent Assignment Problem. **AU** Fujishige, Saturo; Zhang, Xiaodong.

Zhou, Guofu

TI Measuring the Pricing Error of the Arbitrage Pricing Theory. **AU** Geweke, John; Zhou, Guofu.

Zilberman, David

TI The Adoption and Use of Information Services: The Case of CIMIS. AU Parker, Douglas D.; Zilberman, David.

Zin, Stanley E.

TI Arbitrage Opportunities in Arbitrage-Free Models of Bond Pricing. AU Backus, David K.; Foresi, Silverio; Zin, Stanley E.

TI Arbitrage Opportunities in Arbitrage-Free Models of Bond Pricing. AU Backus, David K.; Foresi, Silverio; Zin, Stanley E.

Zwicker, William S.

TI Old and New Moving-Knife Schemes. AU Brams, Steven J.; Taylor, Alan D.; Zwicker, William S.

Zylicz, Tomasz

TI Environmental Policy in a Transition Economy: Designing Tradeable Permits for Poland. AU Stavins, Robert N.; Zylicz, Tomasz.