

## 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)

### **Adu-Nyako, Kofi**

TI Economics, Politics, and Ethics of Primary Commodity Development: How Can Poor Countries in Africa Benefit the Most? AU Lele, Uma; Gockowski, James; Adu-Nyako, Kofi.

### **Ahmed, Shaghil**

PD April 1994. TI The Importance of the Tax System in Determining the Marginal Cost of Funds. AU Ahmed, Shaghil; Croushore, Dean. AA Ahmed: Pennsylvania State University. Croushore: Federal Reserve Bank of Pennsylvania. SR Federal Reserve Bank of Philadelphia Research Working Paper: 94-7; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. PG 7. PR no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. JE H21, H23, J40. KW Marginal Cost of Public Funds, Progressive Taxation, Rotated Taxation, Labor-Supply Elasticity.

AB This paper examines the effect on the marginal cost of public funds of two alternative ways in which the tax schedule can be altered: one that maintains the progressivity of the tax schedule and another that rotates the tax schedule. The authors calculate values of these marginal-cost-of-funds concepts for plausible ranges of key parameters. Their results point to the considerable importance of specifying the exact manner in which the tax schedule is altered when calculating the marginal cost of public funds.

### **Aiyagari, S. Rao**

PD March 1994. TI Interpreting Monetary Stabilization in a Growth Model With Credit Goods Production. AU Aiyagari, S. Rao; Eckstein, Zvi. AA Aiyagari: Federal Reserve Bank of Minneapolis. Eckstein: Tel Aviv University and Boston University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 8/94; The Eitan Berglas School of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 31. PR no charge. JE E13, E41, E44. KW Money, Inflation, Growth, Stabilization.

AB This paper is motivated by observations concerning the size of the banking sector and the growth rate of the economy before and after successful stabilizations of high inflations. The facts suggest that the relative size of the banking sector increased during a period of accelerating inflation and decreased immediately following a successful monetary stabilization. Furthermore, the GDP growth rate is lower during the high inflation period than after stabilization. The goal of this paper is to develop a monetary growth model which is qualitatively consistent with these observations. The model we use is a variant of the Lucas and Stokey (1987) model of cash and credit goods. The main innovation in our model is that

while cash goods and credit goods are perfect substitutes in consumption we posit different technologies for their production. We show that the model's predictions on the impact of a permanent stabilization are consistent with the main real and monetary observations on high inflation countries.

### **Allan, Bill**

TI Core Functional Requirements for Fiscal Management Systems. AU Hashim, Ali; Allan, Bill.

### **Anderlini, Luca**

PD July 1993. TI Incomplete Written Contracts: Endogenous Agency Problems. AU Anderlini, Luca; Felli, Leonardo. AA Anderlini: St. John's College, Cambridge. Felli: London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TE/93/267; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 39. PR no charge. JE C63, L14, J41. KW Compatibility, Incomplete Contracts, Agency Contracts, Contracts.

AB This paper suggests a reason, other than asymmetric information, why agency contracts are not explicitly contingent on the contracting parties' performances or actions. This reason is the formal nature of contracts: the form, usually written, that contracts are required to take to be enforceable in a court of law by legal prescription, common practice, or simply the contracting parties' will. We model the formal nature of contracts as the requirement that the mapping from the domain of the contract into the corresponding remunerations must be of an algorithmic nature. We show that there exists situations in which the chosen contract cannot be explicitly contingent on the parties' performance although, in principle, such performances are contractible and observable to all parties to the contract, court included. This approach allows us to interpret agency contracts as incomplete contracts. We relate this incompleteness either to the form of the parties' preferences or to the shape of the technological relationship through which the parties' contractible performances are transformed in contractible outcomes.

### **Anderson, Gerard F.**

TI Uncertain Demand, The Structure of Hospital Costs, and the Cost of Empty Hospital Beds. AU Gaynor, Martin; Anderson, Gerard F.

### **Anderson, Robert M.**

PD January 1994. TI Convergence of the Aumann-Davis-Maschler and Geanakoplos Bargaining Sets. AA University of California at Berkeley and John Hopkins

University. **SR** University of California at Berkeley Working Paper in Economics: 94-223; **IBER**, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 37. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** C71, C78. **KW** Bargaining Set. Walrasian Equilibrium. General Equilibrium.

**AB** Geanakoplos (14) defined a notion of bargaining set, and proved that his bargaining set is approximately competitive in large finite transferable utility (TU) exchange economies with smooth preferences. Shapely and Shubik (20) showed that the Aumann-Davis-Maschler bargaining set is approximately competitive in replica sequences of TU exchange economies with smooth preferences. Geanakoplos' result is extended to nontransferable utility (NTU) exchange economies without smooth preferences, the Shapley and Shubik result is extended to non-replica sequences of NTU exchange economies with smooth preferences.

**PD** January 1994. **TI** Nonconvergence of the Mas-Colell and Zhou Bargaining Sets. **AU** Anderson, Robert M.; Trockel, Walter; Zhou, Lin. **AA** Anderson: University of California at Berkeley. Trockel: Universitat Biefeld. Zhou: Yale University. **SR** University of California at Berkeley Working Paper in Economics: 93-224; **IBER**, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 18. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** C71, C78. **KW** Walrasian Equilibrium. Continuum Economics. Utility Exchange Economy.

**AB** In a nontransferable utility (NTU) exchange economy with a continuum of agents, the Mas-Colell bargaining set coincides with the set of Walrasian equilibria. In this paper, it is shown that the Mas-Colell bargaining set, as well as a smaller bargaining set due to Zhou, may fail to converge to competitive outcomes in large finite NTU exchange economies.

### Armendariz de Aghion, Beatriz

**PD** November 1993. **TI** The World Bank and the Analysis of the International Debt Crisis. **AU** Armendariz de Aghion, Beatriz; Ferreira, Francisco. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/51; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 32. **PR** no charge. **JE** F33, F34, N20. **KW** Debt Crisis. World Bank.

**AB** This paper assesses the intellectual contribution of the World Bank to the understanding of the debt crisis of the 1980's by comparing the published view of the Bank with the academic debate taking place simultaneously. Three main conclusions are presented: (a) the Bank's endorsement of large scale borrowing as late as 1981 cannot be seen in a very positive light in retrospect; (b) between 1982 and 1985 the Bank was unoriginal in its pursuit of solutions to the crisis, but stayed in line with the general view amongst academics; (c) from 1985 to the Brady Plan the Bank lagged further behind, by failing to address the issue of debt reduction.

### Asilis, Carlos M.

**PD** February 1994. **TI** Geography, Trade Patterns, and Economic Policy. **AU** Asilis, Carlos M.; Rivera-Batiz, Luis A. **AA** Asilis: International Monetary Fund. Rivera-Batiz: Universitat Pompeu Fabra and University of Florida. **SR** International Monetary Fund Working Paper: WP/94/16; International Monetary Fund, 700 19th Street, Washington, DC

20431. **PG** 25. **PR** not available. **JE** D50, Q10, J61. **KW** Location. Transportation Costs. Market Access. Trade.

**AB** This paper presents a geographical theory of location and interregional trade. Location is treated as an endogenous variable by firms, consumers, and perfectly mobile workers in a two-sector economy. Space plays a central role owing to transportation costs, market access, and distance from polluting industrial centers. The model is used to examine: (1) aspects of a compensating-differential theory of regional unevenness, (2) the theoretical formulation of a gravity theory of trade patterns, (3) the geographic basis for industrial and environmental policy, and (4) the interaction between reductions in transportation costs, location patterns, and technological improvements.

### Atkinson, A. B.

**PD** October 1993. **TI** Capabilities, Exclusion, and the Supply of Goods. **AA** University of Cambridge. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/97; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 24. **PR** no charge. **JE** D63, J24. **KW** Poverty. Product Quality.

**AB** The main theme of this paper is that the extent of poverty cannot be seen independently of the working of the economy. Starting from the concept of deprivation in the space of capabilities, due to Amarty Sen, the paper examines the link between the achievement of a specified capability (ability to participate in the formal labor market) and the distribution of income. It asks whether rising living standards in society as a whole can lead to increased risk of social exclusion. It distinguishes between increases in average income and the introduction of new products. Do improvements in product quality mean that the cheaper goods bought by the poor are no longer available? Does competition ensure the supply of a sufficiently wide range of products?.

**PD** December 1993. **TI** The Institution of an Official Poverty Line and Economic Policy. **AA** University of Cambridge. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/98; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 29. **PR** no charge. **JE** I32, D63, H53. **KW** Poverty. Economic Policy.

**AB** In Britain there is no official poverty line. In discussing benefit levels, reference has been made to standards of minimum incomes, notably in the Beveridge Report, but benefit rates have been largely influenced by cost and incentive considerations. In the United States, in contrast, there is an official poverty line. The role played by such an official standard is, however, little discussed. The aim of this paper is to examine the implications of the existence of an official poverty line. It first considers the matter from the standpoint of the classic Tinbergen theory of economic policy. It is argued that the poverty objective is a flexible, rather than a fixed, target, and that this poses the question as to the trade-off between poverty alleviation and other objectives. Standard welfare economics provides little guidance as to this trade-off. The second part of the paper considers the new theory of economic policy. The public choice aspects are treated in a simple model of two-party competition, where it is argued that considerations of credibility may lead a conservative party to be more likely to

adopt an official poverty standard. The final section of the paper turns to the question as to whether Britain should adopt an official poverty line.

**PD** December 1993. **TI** On Targeting Social Security: Theory and Western Experience with Family Benefits. **AA** University of Cambridge. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/99; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 69. **PR** no charge. **JE** I38, H55. **KW** Targeting. Poverty. Family. Social Security. Welfare.

**AB** The idea of greater "targeting" of social security benefits features in much of public debate about the welfare state and it is superficially attractive. However, the present paper cautions against drawing over-simplified conclusions. Social security has other important functions besides poverty alleviation. Even if we focus attention solely on efficiency in reducing poverty, this can only be assessed in the context of an explicit formulation of objectives of policy, and on how much agreement there is about the form of those objectives. Whereas the choice of policy is frequently represented in gladiatorial terms, with "universal" benefits opposed to "targeted" benefits, in reality most transfers involve a degree of conditionality. As is illustrated by reference to family policy, Western experience shows that conditional transfers can take a variety of forms and offer scope for "fine-tuning". Both income-tested and conditional transfers face the problem of imperfect information and of work incentives, but there are reasons to suppose that they are more serious in the former case.

**PD** June 1994. **TI** State Pensions for Today and Tomorrow. **AA** University of Cambridge. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/104; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 32. **PR** no charge. **JE** H55, I38. **KW** Pensions. Old Age. Poverty.

**AB** This paper argues that present pension provisions in Britain cannot guarantee an adequate minimum standard of income in old age, and that, unless there is a change in policy with regard to state pensions, then the problem of poverty in old age is likely to remain. The abolition of the earnings indexation of the basic flat-rate pension means that it will fall increasingly short of fulfilling its original intention. The second tier of pensions also cannot provide a guarantee of an adequate income in old age. The State Earnings Related Pension has been scaled down; occupational pensions cannot be expected to provide full coverage; and both occupational and personal pensions involve risks. Some advocate reliance on means-tested benefits, but these are open to serious objections, not least the savings trap for pensioners. The paper suggests an alternative way forward based on the reestablishment of earnings indexation for the basic pension and three main reforms of the second-tier: mandatory membership of a defined benefit pension plan, restoration of the original State Earnings Related Pension formula, and the introduction of a new Minimum Pension Guarantee.

**Ayres, R.U**

**PD** 1994. **TI** Entropy, Physical Information and Economic Values. Waste Potential Entropy: The Ultimate Ecotoxic. **AU** Ayres, R.U.; Martin, K. **AA** INSEAD.

**SR** INSEAD Working Papers: 94/05/EPS; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 14. **PR** not available. **JE** D11. **KW** Thermodynamics. Entropy. Physical Information.

**AB** We show that the second law of thermodynamics for a general non-equilibrium system can be expressed as a relationship between physical information change over time, entropy production, and physical information fluxes. It follows that a steady state system far from thermodynamic equilibrium must embody some structural information. Nevertheless, the Second Law is also consistent with an accumulation of physical information in the form of increasingly complex ordered structures ("order out of chaos"). We display a corresponding but contrasting axiom for evolutionary biological and economic systems. This sheds light on the role of purposive decision-making (selection) behavior and/or human preferences as a determinant of the direction of evolutionary change. It also sheds light on the role of selection in biological evolution. The information balance condition has significant implications as regards the environmental impact of human economic activity. We explore some economic implications in three simple ideas. These are as follows: (1) all resource flows and all economic goods and services can be categorized as stocks or flows of "useful" embodied information, (2) the economy is an information processor, in the sense that large quantities of low grade "physical" information are converted, by intention, into smaller quantities of higher grade "morphological" and "symbolic" information and (3) the most general pollutant is the physical information in the waste. Production, in the economic system, is the conversion of low economic value information-content raw materials into high economic value information-content goods and services. We point out in this paper that entropy generated in the creation of economic goods or services is not a priori damaging to the environment.

**PD** March 1994. **TI** Economics, Thermodynamics and Process Analysis. **AA** INSEAD. **SR** INSEAD Working Papers: 94/11/EPS; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 17. **PR** not available. **JE** Q25. **KW** Thermodynamics. Pollution. Industrial Structure.

**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 they can be used to generate scenarios by linking them to econometric "macro-drivers". Either CGE or I-O models can be explicitly developed to trace the indirect material/energy requirements, as well as waste emissions, associated with an assumed pattern of final demand.

**Babcock, Linda**

PD January 1994. TI Forming Beliefs about Adjudicated Outcomes: Risk Attitudes, Uncertainty, and Reservation Values. AU Babcock, Linda; Farber, Henry S.; Fobian, Cynthia; Shafir, Eldar. AA Babcock: Carnegie Mellon University. Farber and Shafir: Princeton University. Fobian: Starr Litigation Services. SR Princeton Industrial Relations Section Working Paper: 325; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 24. PR \$2.00. JE K41, D81. KW Dispute Resolution. Litigation. Uncertainty. Risk.

AB In negotiations where disputes are resolved via adjudication (as in the courts or arbitration), beliefs about a potential adjudicated outcome are central in determining the bargaining environment. The present research investigates how negotiators (trial attorneys and students) involved in a hypothetical product liability case use information about adjudicated outcomes regarding the amount of damages in previous similar cases in forming beliefs about their own case. In particular, we examine two parameters of the distribution of previous outcomes (variance and range) contribute to the differences between the expected outcome and the parties' reservation values. We find that the range of earlier outcomes has no significant effect on subjects' reservation values but that the variance does have a systematic effect, particularly on plaintiffs' behavior. A pair of separate findings may have important implications for the negotiation process. First, whether or not subjects exhibited risk averse behavior depended on the role to which they were assigned in a way that is consistent with the risk attitudes framing notion implied by Kahneman and Tversky's prospect theory (1979). Second, only subjects assigned to roles for which they had extensive experience exhibited over-optimism about the likely outcome.

**Bagwell, Kyle**

PD November 1993. TI Multilateral Tariff Cooperation During the Formation of Customs Unions. AU Bagwell, Kyle; Staiger, Robert W. AA Bagwell: Northwestern University. Staiger: University of Wisconsin and National Bureau of Economic Research. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1070; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG 55. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE F13. KW Repeated Games. Customs Union. Multilateral Tariff Cooperation.

AB We study the implications of customs union formation for multilateral tariff cooperation. We model cooperation in multilateral trade policy as self-enforcing, in that it involves balancing the current gains from deviating unilaterally from an agreed-upon trade policy against the future losses from forfeiting the benefits of multilateral cooperation that such a unilateral defection would imply. The early stages of the process of customs union formation are shown to alter this dynamic incentive constraint in a way that leads to a temporary "honeymoon" for liberal multilateral trade policies. We find, however, that the harmony between customs unions and multilateral liberalization is temporary. Eventually, as the full impact of the emerging customs union becomes felt, a less favorable balance between current and future conditions reemerges, and the liberal multilateral policies of the honeymoon phase cannot be sustained. We argue that this is

compatible with the evolving implications of the formation of the European Community customs for the ability to sustain liberal multilateral trade policies under the General Agreement on Tariffs and Trade.

**Baily, Martin Neil**

PD April 1994. TI Downsizing and Productivity Growth: Myth or Reality? AU Baily, Martin Neil; Bartelsman; Eric J.; Haltiwanger, John. AA Baily and Haltiwanger: University of Maryland and National Bureau of Economic Research. Bartelsman: Board of Governors of the Federal Reserve System Bureau. SR University of Maryland Department of Economics Working Paper: 94-07; University of Maryland, Department of Economics, College Park, MD 20742. PG 20. PR no charge. JE J21, J23. KW Downsizing. Labor Productivity. Productivity and Employment.

AB The conventional wisdom is that the rising productivity in the U.S. manufacturing sector in the 1980s has been driven by the apparently pervasive downsizing over this period. Aggregate evidence clearly shows falling employment accompanying the rise in productivity. In this paper, we examine the microeconomic evidence using the plant level data from the Longitudinal Research Database (LRD). In contrast to the conventional wisdom, it is found that plants that increased employment as well as productivity contribute almost as much to overall productivity growth in the 1980's as the plants that increased productivity at the expense of employment. Further, there are striking differences by sector (defined by industry, size, region, wages, and ownership type) in the allocation of plants in terms of whether they upsize or downsize and whether they increase or decrease productivity. Nevertheless, in spite of the striking differences across sectors defined in a variety of ways, most of the variance of productivity and employment growth is accounted for by idiosyncratic factors.

**Baldwin, John**

PD April 1994. TI A Comparison of Job Creation and Job Destruction in Canada and the United States. AU Baldwin, John; Dunne, Timothy; Haltiwanger, John. AA Baldwin: Statistics Canada and Canadian Institute for Advanced Research. Dunne: University of Oklahoma and the Center for Economic Studies, U.S. Census Bureau. Haltiwanger: University of Maryland and U.S. Census Bureau. SR University of Maryland Department of Economics Working Paper: 94-6; University of Maryland, Department of Economics, College Park, MD 20742. PG 20. PR no charge. JE C81, E24, J21, J63. KW U. S. Labor Market. Canadian Labor Market. Job Flow Patterns.

AB In recent years a growing number of countries have constructed data series on job creation and job destruction using establishment-level data sets. This paper provides a description and detailed comparison of these new data series for the United States and Canada. First, the Canadian and United States industry-level job creation and destruction rates are remarkably similar. Industries with high (low) job creation in the U.S. exhibit high (low) job creation in Canada. The same is true for job destruction. In addition, the overall magnitude of gross job flow in the two countries is comparable. Second, the time-series patterns of creation and destruction are qualitatively similar but differ in a number of important respects. In both countries, job destruction is much more cyclically volatile than job creation. This cyclical asymmetry is, however, more pronounced in the United States. The paper finishes with a

characterization of the job flow patterns using a modified Blanchard and Diamond (1992) model.

### Barer, Morris L.

**TI** Charging Peter To Pay Paul: Accounting for the Financial Effects of User Charges. **AU** Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L.

**TI** It's Not the Money, It's the Principle: Why User Charges for Some Services and Not Others? **AU** Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L.; Bhatia, Vandna.

### Barr, Nicholas

**PD** October 1993. **TI** Paying for Learning. **AU** Barr, Nicholas; Falkingham, Jane. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/94; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 68. **PR** no charge. **JE** I22, D60, H41, H52. **KW** Education. Lifetime Income. Welfare. Public Expenditure.

**AB** Both the quantity and quality of education and training in Britain are being compared unfavorably with arrangements in other countries at a time when public expenditure is facing the most stringent constraints. Assuming that improvements in the quality and quantity of education and training will not primarily be financed by increased public expenditure, mechanisms are necessary to facilitate additional private spending. Income-contingent loans offer just such a mechanism. The paper compares different income contingent schemes with the current government scheme for higher education, and also investigates the long-run yield of a graduate tax and of an employer user charge for skilled labor. The results suggest that it would be possible for the private sector to make student loans on the basis of a guarantee of between 10 and 20 percent of total lending. Such an arrangement would result in immediate public expenditure savings, on plausible assumptions, of around 3.5 billion pounds per year.

**PD** March 1994. **TI** The Social Safety Net During Economic Transition in Central and Western Europe. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/9; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 26. **PR** no charge. **JE** D60, H55, I38. **KW** Social Safety Net. Economic Transition.

**AB** The decision to move to a market economy in Central and Eastern Europe (CEE) sets in train two major forces. 1) Declining output is not an inherent part of the reform, but a by-product. It aggravates poverty and unemployment, and in most of the CEE countries, creates a fiscal crisis. 2) A widening earnings and income distribution leads inter alia to increased unemployment and poverty, requiring a major adjustment in the system of income transfers. There are also major administrative implications. Under the former, fairly flat distribution, benefits could be targeted at specific groups, e.g. families. With a widening distribution, benefits must also be targeted by income level. The resulting system has greater coverage and more complex targeting, thus requiring more sophisticated administration. Reforming the benefit system and strengthening administration are both aspects of restructuring the CEE economies. Thus, by its very nature, the reform process creates

forces which require a major reshaping of the social safety net.

### Barrett, Garry F.

**PD** October 1993. **TI** The Asymptotic Distribution of the S-Gini Indices of Inequality: An Application to Male and Female Hourly Earnings Differences. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 93-35; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 26. **PR** **JE** D31, J31. **KW** S-Gini. Inequality Indices. Standard Errors.

**AB** This paper presents the asymptotic distribution of the S-Gini class of inequality indices. The S-Gini indices are redefined in terms of Lorenz curve ordinates and results on the asymptotic distribution of Lorenz ordinates are then used to derive the large sample properties of the S-Gini indices. The methods are implemented in analyzing male-female hourly earnings inequality by occupational class in Canada. Even in cases where the Lorenz curves cross, the more inequality averse S-Gini indices reveal that the male hourly earnings distributions are at least as unequal as the female distributions.

### Bartelsman

**TI** Downsizing and Productivity Growth: Myth or Reality? **AU** Baily, Martin Neil; Bartelsman; Eric J.; Haltiwanger, John.

### Bartlett, Christopher A.

**TI** The Changing Role of Top Management (Part 1): Beyond Designing Strategy to Shaping Purpose. **AU** Ghoshal, Sumantra; Bartlett, Christopher A.

**TI** The Changing Role of Top Management (Part 2): Beyond Framing Structure to Building Processes. **AU** Ghoshal, Sumantra; Bartlett, Christopher A.

**TI** The Changing Role of Top Management (Part 3): Beyond Managing Systems to Developing People. **AU** Ghoshal, Sumantra; Bartlett, Christopher A.

### Basu, Kaushik

**PD** January 1994. **TI** The Algebra of Knowledge: Critique and Reformulation. **AA** Delhi School of Economics and London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TE/94/272; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 30. **PR** no charge. **JE** C71, C72, D81. **KW** Knowledge. Game Theory. Algebra.

**AB** The standard algebra for expressing knowledge and common knowledge in game theory is critically examined. It is argued that this algebra is flawed because it assumes implicitly that information partitions of individuals are common knowledge, and that all individuals know all the truths of science, medicine, and other disciplines. A reformulation of the standard algebra is developed. In the context of this new algebra, it is demonstrated that the well-known formalization of Lewis' definition of common knowledge in terms of the meet of partitions is not an accurate depiction of Lewis' idea. The paper also comments on the meaning of "states of the world" and on the agreeing-to-disagree type of claims.

**PD** April 1994. **TI** Rural Credit and Interlinkage:

Implications for Rural Poverty, Agrarian Efficiency and Public Policy. AA Delhi School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/54; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 25. PR no charge. JE O12, Q15. KW Rural Credit. Interlinkage. Share Tenancy. Moral Hazard.

AB The paper critically examines recent theories of factor market interlinkage and land tenure and tries to bring some evidence from a village in Bihar, India, to bear on the assumptions and implications of the theoretical models. Aversion of Braverman and Stiglitz's theory of interlinkage as an instrument of monitoring labor input is presented; and it is argued that in some situations poor laborers may be worse off by virtue of not having the right to give up some rights. Using conversational evidence from the village, a model of land tenure in the presence of limited liability is developed. It is shown that share tenancy can, in some situations, be the dominant tenurial contract. The policy implications of such a theory are examined. The paper also comments on some general issues of public intervention in agriculture.

#### Bayoumi, Tamim

PD February 1994. TI Robustness of Equilibrium Exchange Rate Calculations to Alternative Assumptions and Methodologies. AU Bayoumi, Tamim; Clark, Peter; Symansky, Steve; Taylor, Mark. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/94/17; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 40. PR not available. JE F31, F32, F41. KW Exchange Rates. Bretton Woods. Macroeconomic Equilibrium.

AB This paper explores a number of methodological issues that arise in the calculation of equilibrium exchange rates, which are identified in this paper as those real effective exchange rates consistent with macroeconomic equilibrium, i.e., internal and external balance. A partial equilibrium, comparative static analysis is presented and the methodology is applied to the break-up of the Bretton Woods exchange rate system. Then the dynamic interaction between the current account and the stock of net foreign assets is examined. Finally, the analysis uses a more general equilibrium approach by relying on simulations using MULTIMOD, a multicountry econometric model. The paper demonstrates the extent to which the equilibrium exchange rate calculations depend upon alternative assumptions regarding factors that affect internal and external balance. In addition, results obtained using the comparative static and dynamic macroeconomic approaches are compared.

#### Beach, Charles M,

PD April 1994. TI Polarization of Earnings in the Canadian Labour Market: A Non-Microdata Approach. AU Beach, Charles M.; Slotsve, George A. AA Beach: Queen's University. Slotsve: Vanderbilt University. SR John Deustch Institute Discussion Paper: 17; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 90. PR \$3.00 Canada and U.S.; \$3.50 Foreign. JE D31, J31. KW Polarization. Earnings Inequality. Income Inequality.

AB This paper looks at polarization of earnings of Canadian workers over 1967-91 and of full-time full-year (FTFY)

workers over 1984-91. Alternative measures of polarization are examined, along with earnings differentials among skill groups (by education and age). It is found that, for FTFY workers, earnings polarization generally increased over the 1980's, though at only half the rate among women as among men, and for men polarization increases were only about one-third as strong as in the U.S. Also, education differentials between university educated and others increased since 1984 for FTFY men, and age differentials between those 45-54 vs. younger workers rose substantially for both genders.

#### Beaudry, Paul

PD December 1993. TI Estimating the Effects of Monetary Shocks: An Evaluation of Different Approaches. AU Beaudry, Paul; Saito, Makoto. AA Beaudry: Boston University and C.R.D.E. Saito: University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-47; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 23. PR JE E52. KW Monetary Shocks. Identification. Liquidity Effect.

AB This paper compares several methods for estimating the effects of monetary innovations on key macroeconomic variables and, in passage, clarifies issues related to the use of instrumental variables in the identification of structural impulse responses. In particular, we make explicit the properties that a measure of monetary policy must satisfy in order to identify the effects of monetary shocks. Within our framework we find that none of the currently popular methods of identifying the effects of monetary shocks are supported by the data. We also indicate how current approaches can be combined to provide unbiased estimates of the effects of monetary disturbances.

#### Bencivenga, Valerie R.

PD October 1993. TI Liquidity of Secondary Capital Markets, Capital Accumulation, and the Term Structure of Asset Yields. AU Bencivenga, Valerie R.; Smith, Bruce D.; Starr, Ross M. AA Bencivenga and Smith: Federal Reserve Bank of Minneapolis and Cornell University. Starr: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 93-44; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 27. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE E13, E44. KW Secondary Capital Markets. Neoclassical Growth Model. Transaction Costs.

AB This paper investigates the allocative functions of secondary capital markets, and the implications of the transaction costs for capital accumulation and per capita income, rates of return to savings, the term structure of asset yields, and steady-state welfare. It posits a model in which the typical productive asset is long-lived relative to the period over which it is owned by the marginal holder. The role of secondary capital markets in this case is to mediate between competing claims on capital: much of the most productive capital is long-lived and activity-specific, but investors desire liquidity in asset holdings. The Diamond (1965) neoclassical growth model with two added features is used. It is found that: a reduction in transaction costs or increase in efficiency of secondary capital markets raises the equilibrium rate of return on savings; and reductions in transactions costs favor the holding of long

relative to short-gestation capital increases.

**Bennett, Robert J.**

PD October 1993. TI Investing in Skills: Responses to Learning Should Pay and Paying for Learning. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/96; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 66. PR no charge. JE J24, H52. KW Skills. Vocational Training. Education. Rates of Return.

AB Fewer young people in Britain obtain vocational qualifications and more young people finish formal schooling earlier than in most other industrialized countries. The discussion in this paper seeks to assess why this is so, and how changes can be made to improve Britain's position in the future. The LSE research in Learning Should Pay has shown that the returns to education and training for low level skills are low or, in some cases, negative. Only qualifications at NVQ 3 or higher produce significant advantages for the trainee in economic returns. In Paying for Learning a number of alternative options to finance further education and training are examined. The contributors to this discussion paper assess these two LSE research papers from different points of view: the employer, the college provider, and a research critique. The discussion contributions are focused around the four themes of vouchers, loans, employer changes, and the quality of training.

**Bergemann, Dirk**

PD March 1994. TI Learning and Strategic Pricing. AU Bergemann, Dirk; Valimaki, Juuso. AA University of Pennsylvania. SR University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 94-04; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. PG 44. PR no charge. JE C72, D11, D43. KW Learning. Experimentation. Dynamic Oligopoly. Markov Perfect Equilibrium.

AB We consider the situation where a single consumer buys a stream of goods from different sellers over time. The true value of each seller's product to the buyer is initially unknown. Additional information can be gained only by experimentation. For exogeneously given prices the buyer's problem is a multi-armed bandit problem. The innovation in this paper is to endogenize the cost of experimentation to the consumer by allowing for price competition between the sellers. The role of prices is then to allocate intertemporally the costs and benefits of learning between buyer and sellers. We examine how strategic aspects of the oligopoly model interact with the learning process. All Markov Perfect Equilibria (MPE) are efficient. We identify an equilibrium which, besides its unique robustness properties, has a strikingly simple, seemingly myopic pricing rule. Prices below marginal cost emerge naturally to sustain experimentation. Intertemporal exchange of the gains of learning is necessary to support efficient experimentation. We analyze the asymptotic behavior of the equilibria.

**Bernstein, Jeffrey I.**

PD May 1994. TI International R&D Spillovers Between U.S. and Japanese R&D Intensive Sectors. AU Bernstein, Jeffrey I.; Mohnen, Pierre. AA Bernstein: Carleton

University. Mohnen: University of Quebec at Montreal. SR New York University, C.V. Starr Center Economic Research Report: 94-20; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 35. PR no charge. JE O30, C51. KW Spillovers. Research and Development. Intensive Sectors.

AB A great deal of empirical evidence shows that a country's production structure and productivity growth depend on its own R&D capital formation. With the growing role of international trade, foreign investment, and international knowledge diffusion, domestic production and productivity also depend on the R&D activities of other countries. The purpose of this paper is to empirically investigate the bilateral link between the U.S. and Japanese economies in terms of how R&D capital formation in one country affects the production structure, physical and R&D capital accumulation, and productivity growth in the other country. We find that production processes become less labor intensive as international R&D spillovers grow. In the short-run, R&D intensity is complementary to the international spillover. This relationship persists in the long-run for the U.S., but the Japanese decrease their own R&D intensity. In addition, U.S. R&D capital directly contributes to Japanese total factor productivity growth by three and a half times more than Japanese R&D capital directly contributes to U.S. productivity gains. International spillovers cause social rates of return to be around ten times the private returns.

**Betancourt, Roger R.**

PD February 1994. TI Growth Capabilities and Development for Transition Processes in Cuba. AA University of Maryland. SR University of Maryland Department of Economics Working Paper: 94-2; University of Maryland, Department of Economics, College Park, MD 20742. PG 23. PR no charge. JE O10, P52. KW Standard of Living. Household Production Model. Capabilities Approach.

AB This paper analyzes the capabilities view of the standard of living and its relationship to the household production model in a context that permits a distinction between growth and development in terms of the duration of the process. This analysis provides the basis for an evaluation of different alternatives for implementing the capabilities approach. It proceeds by evaluating the performance of the Cuban economy from the perspective of the capabilities approach and draws the implications of this perspective for the transition processes under way. It also points out the implications of this experience for applications of the capabilities approach.

**Betts, Caroline M.**

PD November 1993. TI A Small Open Economy in Depression: Lessons From Canada in the 1930's. AU Betts, Caroline M.; Bordo, Michael D.; Redish, Angela. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-38; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 69. PR JE E32, F41, N12. KW Great Depression. Supply Shocks. Transmission Mechanism.

AB This paper tests the hypothesis that idiosyncratic U.S. disturbances and their international propagation can account for the global Depression. Exploiting common stochastic trends in U.S. and Canadian interwar data, we estimate a small

open economy model for Canada that decomposes output fluctuations into sources identifiable with world and country-specific disturbances. We find that the onset, depth, and duration of output collapse in both Canada and the U.S. are attributable to a common, permanent output shock leaving no significant role for idiosyncratic disturbances originating in either economy.

### Betts, Julian R.

PD October 1993. TI What do Students Know About Wages? Survey Evidence on Mechanisms of Occupation Choice. AA University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 93-45; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 16. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE J30, J31. KW Student Salary Knowledge. Education. Occupation Choice.

AB The paper presents results from a survey examining undergraduates' knowledge of salaries by type of education. The median student made absolute errors of approximately 20%, but the mean signed error was only 6%. Regression analysis revealed systematic variations in students' knowledge of the labor market, related to parents' income, year of study, and proximity of the occupation to the student's own field. Regressions showed that knowledge improved monotonically with the year of study, but over half of learning occurred during the fourth year. Logit analyses of students' use of information sources supported this conclusion. Implications for human capital theory are considered.

PD October 1993. TI Technological Change, Sectoral Shifts and the Distribution of Earnings: A Human Capital Model. AA University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 93-46; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 26. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE J41, J23, O31. KW Innovation. Invention. Skill Requirements.

AB The paper studies the long-run effect of technological change on a heterogeneous labor market. The innovation's impact on the allocation of workers between industries and on the distribution of earnings depends critically on how the technical change alters skill requirements. Skill-using inventions, which raise productivity and skill requirements, increase inequality and tend to shift labor out of the innovating sector. Skill-neutral inventions cause neither changes in equality nor, in general, sectoral shifts; skill-saving inventions reduce inequality and tend to shift labor toward the innovating sector. Only a skill-neutral invention can lead to a Pareto improvement.

### Bhatia, Vandna

TI It's Not the Money, It's the Principle: Why User Charges for Some Services and Not Others? AU Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L.; Bhatia, Vandna.

### Bhattacharya, Sudipto

TI Knowledge as a Public Good: Efficient Sharing and Incentives for Development Effort. AU D'Aspremont, Claude; Bhattacharya, Sudipto; Gerard-Varet, Louis-Andre.

### Bhattacharya, Utpal

PD September 1993. TI Destructive Interference in an Imperfectly Competitive Multi-Security Market. AU Bhattacharya, Utpal; Reny, Philip J.; Spiegel, Matthew. AA Bhattacharya: University of Iowa. Reny: University of Western Ontario. Spiegel: University of California at Berkeley. SR University of Western Ontario Department of Economics Research Report: 9318; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 54. PR \$7.00 Canada; \$9.00 Elsewhere. JE C72, G12, G14. KW Securities Trading. Insider Information. Hedging.

AB A general equilibrium framework is employed to illustrate how the advent of trading in new securities, about which an "insider" has private information, might cause a collapse of prevailing security markets. Roughly, securities that allow the insider to hedge his portfolio risk interfere with one other, and in some cases, so much so that these securities cannot simultaneously trade in any equilibrium.

### Biggs, Norman

PD February 1994. TI Exchange Rates and the Matrix-Tree Theorem. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TE/94/273; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 22. PR no charge. JE C69, F31. KW Exchange Rates. Purchasing Power Parity. Potential Theory.

AB Classical theories of exchange rates, such as Mint Par and Purchasing Power Parity (PPP), have the desirable property that they define a network of exchange rates in which no profit by "compound arbitration" or "cyclic arbitrage" is possible. Conversely, it will be shown that any network of exchange rates, satisfying the condition that no profit by cyclic arbitrage is possible, can be defined by a "potential quotient" analogous to the one used in PPP theory. Given a network with specified cash flows between countries, the balance of payments determines a unique system of exchange rates for which no cyclic arbitrage is possible. An explicit formula for the potential of a currency in this situation is obtained by using the matrix-tree theorem. This provides us with a "universal" form of PPP theory, in which the potential of a currency is defined in terms of the totality of cash flows in the network.

### Bilodeau, Marc

PD February 1994. TI Toilet Cleaning and Department Chairing: Volunteering a Public Service. AU Bilodeau, Marc; Slivinski, Alan. AA Bilodeau: University of Sherbrooke. Slivinski: University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9402; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 10. PR \$7.00 Canada; \$9.00 Elsewhere. JE C70, C71, C78. KW Volunteering. Public Service. Free Rider. Complete Information Game.

AB Who will do a job that nobody wants but that someone has to do? The search for a volunteer is modelled as a war of attrition in which everyone is tempted to just wait for someone else to do it. The authors show that the volunteer will be, *ceteris paribus*, the individual for whom the benefit/cost ratio of performing the public service is largest, the one most impatient to consume it, or the one who stands to benefit from it the



longest.

### Blackorby, Charles

PD October 1993. TI Market-Surplus Functions and Economic Efficiency. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-36; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 20. PR JE D71, D51, D63. KW Welfare Economics. Partial Equilibrium. Economic Efficiency.

AB The use of partial equilibrium models is common; however, it is difficult to interpret the results of these models without appealing to some notion of economic efficiency. Typically, efficiency is characterized by maximizing a market-surplus function (or consumer surplus). Such analysis appeals to the concept of efficiency derived from general equilibrium models. This paper examines one aspect of this exercise. I take a simple general equilibrium model where one sector is monopolized. The second-best outcome derived by maximizing the utility of the single consumer subject to the usual resource constraints is, in fact, a first-best outcome. Using the same model, I replace the utility function of the consumer with market-surplus functions and repeat the above exercise. There are no conditions under which these solutions are first-best, that is, satisfy both production and consumption efficiency. These results are discussed briefly in concluding.

PD March 1994. TI Quasi-Orderings and Population Ethics. AU Blackorby, Charles; Bossert, Walter; Donaldson, David. AA Blackorby and Donaldson: University of British Columbia. Bossert: University of Waterloo. SR University of British Columbia Department of Economics Discussion Paper: 94-10; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 27. PR JE O24, O25. KW Ethics. Population. Quasi-Ordering.

AB Population ethics contain several principles that avoid the repugnant conclusion. These rules rank all possible alternatives, leaving no room for moral ambiguity. Building on a suggestion of Parfit, this paper characterizes principles that provide incomplete but ethically attractive rankings of alternatives with different population sizes. All of them rank same-size alternatives with generalized utilitarianism.

### Boettke, Peter J.

PD May 1994. TI Hayek's Serfdom Revisited: Government Failure in the Argument Against Socialism AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-18; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 37. PR no charge. JE A10, B00. KW Hayek. Serfdom. Socialism.

AB F.A. Hayek's *The Road to Serfdom* is generally recognized as a classic in modern economic/political philosophy. First published in 1944, the book became a "best seller" and transformed Hayek from a technical economic theorist into a broad social philosopher in the eyes of many readers. *The Road to Serfdom*, however, is often misunderstood by friends and foes alike as mainly a critique of the theory of socialist economic planning. This paper argues that Hayek's argument in the book is not predominantly about establishing the theoretical weaknesses of the socialist model--to Hayek that

was established elsewhere in the theoretical debate over socialist economic calculation and in the historical experience of the Bolsheviks. *The Road to Serfdom* sought to explore the negative consequences of pursuing socialist planning even when sanctioned by democratic voting. In this sense, Hayek's work was as much a demonstration of the limits of democracy as it was an examination of the foibles of socialism. Yet, this aspect of Hayek's work is often ignored within the contemporary public choice literature. The paper makes the case that Hayek, along with the scholars more frequently recognized in the literature such as Knoght, Schumpeter, Downs, and Black, should be considered a founder of the economic analysis of politics.

PD May 1994. TI Notes on Ideology and Austrian Economics. AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-19; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 37. PR no charge. JE A10, B00. KW Austrian Economics.

AB Developments in post-Positivist philosophy of science have challenged the epistemological status of "objective" and "value-free" knowledge. The doctrine of *wertfreiheit*, however, has traditionally been a central tenet of Austrian economics as well as mainstream economic theory. This paper examines the traditional Austrian doctrine of *wertfreiheit* to clarify the subtle differences in the doctrine as understood in the writings of this tradition from that provided in mainstream writing. The epistemological status of the Austrian version of the doctrine is tested against the philosophical developments of post-Positivism. The paper concludes that while the epistemological argument implied in the Austrian non-positivist positive economics is not as susceptible to the philosophical criticisms developed in the philosophy of science literature of more positivistic treatments, it nevertheless is ultimately not sustainable in the wake of philosophical argument. Rather than reject the notion of *wertfreiheit* completely, however, a case is made for a more pragmatic understanding of the doctrine rather than as an epistemological position on the nature of scientific knowledge.

### Boldrin, Michele

PD October 1993. TI Political Equilibria with Social Security. AU Boldrin, Michele; Rustichini, Aldo. AA Boldrin: Northwestern University. Rustichini: CORE-Louvain-La-Neuve. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1068; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG not available. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE C73, D31, D72, D91, H55. KW Pensions. Sequential Equilibrium. Voting.

AB not available.

### Bollerslev, Tim

PD November 1993. TI Arch Models. AU Bollerslev, Tim; Engle, Robert F.; Nelson, Daniel B. AA Bollerslev, Engle, and Nelson: National Bureau of Economic Research. Bollerslev: Northwestern University. Engle: University of California at San Diego. Nelson: University of Chicago. SR University of California, San Diego Department of Economics Working Paper: 93-49; Working Paper Coordinator,

Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 71. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C32, C13. KW ARCH. GARCH. Volatility. Asset Returns.

AB This paper, prepared for the Handbook of Econometrics Vol. 4, presents an overview of econometric techniques using ARCH and GARCH models. A discussion of the empirical properties of asset returns including: thick tails, volatility clustering, leverage effects, non-trading periods, forecastable events, volatility and serial correlation, co-movements in volatilities, and macroeconomic variables and volatility is used to motivate the discussion of volatility models. Estimation and inference procedures such as Lagrange Multiplier Tests, BDS tests, MLE and QMLE methods as well as specification testing are covered. Other topics covered include: stationary and ergodic properties, continuous time methods, aggregation and forecasting, multivariate specifications, model selection, alternative sources of information about volatility, and empirical examples.

#### Bordo, Michael D.

TI A Small Open Economy in Depression: Lessons From Canada in the 1930's. AU Betts, Caroline M.; Bordo, Michael D.; Redish, Angela.

#### Borgers, Tilman

PD October 1993. TI Learning Through Reinforcement and Replicator Dynamics. AU Borgers, Tilman; Sarin, Rajiv. AA Borgers: University College London. Sarin: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 93-47; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 22. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C73, C70. KW Learning Models, Stochastic Learning Theory. Stochastic Games.

AB This paper considers Cross' (12) model of learning. This model is a special case of Bush and Mosteller's ((5),(6)) stochastic learning theory. Cross' model is compared to a model of biological evolution. It is shown that, in the continuous time limit, the two models both coincide with the deterministic, continuous time replicator process. It is emphasized that the result concerns only finite points in time, it does not concern the infinite time horizon. Specifically, the asymptotics of the learning model differ substantially from the asymptotics of the biological model. Several conditions on which the result depends are discussed. One is that all payoffs are positive, i.e. that all experiences which a player makes are reinforcing. Another is that the game is played by individuals, not by randomly matched populations. The paper describes what happens if these conditions are violated. The mathematical techniques which are employed, and which are due to Norman (23), may be of wider use. They show how a Markov process that is stochastic in discrete time may converge to a deterministic process if the continuous time limit is considered.

#### Bossert, Walter

TI Quasi-Orderings and Population Ethics. AU Blackorby, Charles; Bossert, Walter; Donaldson, David.

#### Bramley, Glen

PD April 1993. TI Who Benefits From Local Services? Comparative Evidence From Different Local Authorities. AU Bramley, Glen; Smart, Gavin. AA University of Bristol. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/91; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 103. PR no charge. JE H72, H41, D12. KW Local Government. Public Goods. Social Services.

AB This paper examines the question of who benefits from local government services, through a comparative analysis of empirical data from a number of local and national surveys. The analysis concentrates on the distributions in terms of demographic and socio-economic status. Earlier findings that a wide range of services in the fields of education, transport, environment, leisure, and information tend to be used somewhat more by the better off are confirmed, while it is shown that even social care services are not always strongly targeted on the poor. In general, the distributional outcomes are similar between contrasting local authorities, but local policies and other factors can make a difference in some cases. It is also shown that data on spending preferences can be related to usage in order to highlight external or "public good" benefits, that is benefits to non-users. Allowing for these wider benefits does tend to reduce the skewed distributions emerging from examining only direct usage, but again strong demographic differences emerge.

#### Brams, Steven J.

PD February 1994. TI When is Size a Liability? Bargaining Power in Minimal Winning Coalitions. AU Brams, Steven J.; Fishburn, Peter C. AA Brams: New York University. Fishburn: AT&T Bell Laboratories. SR New York University, C.V. Starr Center Economic Research Report: 94-07; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 24. PR no charge. JE C78. KW Bargaining. Coalitions. Power. Game Theory.

AB Riker's "size principle" predicts that only minimal winning coalitions (MWC's) will form in n-person zero-sum games that satisfy certain conditions. After summarizing the logic of this principle, a model is proposed in which n players can be ordered from most to least weighty. No player has more than half the weight, so only coalitions of at least two players can be MWC's (with more than half the total weight). Two different kinds of MWC's can be distinguished: those in which every member is "critical" (member-MWC's); and member-MWC's that have the smallest weight (weight-MWC's). A member is critical when its defection causes an MWC to become losing. A listing of the possible categories of member-MWC's indicates that their numbers rapidly increase with the number of players (2,6,20, and 103 for n=3,4,5, and 6 players). Two quantitative measures of bargaining power in member-MWC's and weight-MWC's, and one of the "essentiality" of members in weight-MWC's, relate weight to bargaining power in the different cases, showing that less weighty players may, on occasion, be more powerful than more weighty players. In fact, the weightiest player is never the common--and hence the indispensable--member of all member-MWC's or of all weight MWC's unless its weight is equal to that of all other players combined (i.e., half the total weight). The latter finding, and the

quantitative measures for weight-MWC's, suggest conditions under which large size may be more of a liability than an asset. Possible empirical manifestations of the inverse relationship between weight and power in parliamentary coalitions and international politics are discussed.

**PD** March 1994. **TI** The Rationality of Surprise: Unstable Nash Equilibria and the Theory of Moves. **AA** New York University. **SR** New York University, C.V. Starr Center Economic Research Report: 94-10; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. **PG** 44. **PR** no charge. **JE** C72. **KW** Surprise. Prediction. Nash Equilibrium. Dominance.

**AB** By definition, Nash equilibria in noncooperative game theory lead to stable outcomes, from which no player would depart unilaterally because it would do worse--or at least not better--if it did. It argued, nevertheless, that even unique Nash equilibria associated with dominant, or unconditionally best, strategies may be unstable in the sense that a player may do better by moving first and not choosing its dominant strategy. In six of the 78 2 X 2 strict ordinal games, the choice by a first-moving player (say, row) of its dominated, or unconditionally worst, strategy yields it a better outcome in the resulting 2 X 4 game than does the Nash equilibrium in the 2 X 2 game. In three of these games, this outcome is also better for the column player. It is proved that there is a one-to-one correspondence between 2 X 2 games with unstable Nash equilibria and those in which players, starting at these equilibria, would move to a different state-called a "nonmyopic equilibrium" (NME)--based on the "theory of moves" (TOM). By making endogeneous which, if either player, would move first from a state, TOM highlights when it is rational for one player to seize the initiative. The Japanese attack on Pearl Harbor in 1941, and Anwar Sadat's peace initiative to Israel in 1977, illustrate this rationality, and the surprise caused by the choice of a dominated strategy by the first-moving player. But this surprise is only apparent, according to TOM, which predicts precisely the moves and countermoves of each player in these cases. Thereby it offers a more dynamic view of the actions of players who think ahead, and choose NME's, than does standard game theory, suggesting its use as a policy aid.

#### Braun, R. Anton

**PD** March 1994. **TI** Seasonality and Equilibrium Business Cycle Theories. **AU** Braun, R. Anton; Evans, Charles. **AA** Braun: Federal Reserve Bank of Minneapolis. Evans: Federal Reserve Bank of Chicago. **SR** Federal Reserve Bank of Minneapolis Staff Report; 168; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 41. **PR** no charge. **JE** E32, C32. **KW** Business Fluctuations. Time Series. Seasonality.

**AB** We consider a dynamic, stochastic equilibrium business cycle model which is augmented to reflect seasonal shifts in preferences, technology, and government purchases. Our estimated parameterization implies implausibly large seasonal variation in the state of technology: rising at an annual rate of 24% in the fourth quarter and falling at an annual rate of 28% in the first quarter. Furthermore, our findings indicate that variation in the state of technology of this magnitude is required if the model is to explain the main features of the seasonal cycle.

#### Brewer, Paul J.

**PD** June 1994. **TI** A Binary Conflict Ascending Price (BICAP) Mechanism for the Decentralized Allocation of the Right to Use Railroad Tracks. **AU** Brewer, Paul J.; Plott, Charles R. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 887; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 22. **PR** no charge. **JE** C93, L91. **KW** Transportation. Railroads. Centralized Management.

**AB** The questions posed for study are motivated by controversies over how Sweden might change from a centralized system of railroad management to a decentralized system. The central rail administration, Banverk, will retain ownership and maintenance responsibility of the tracks, but will sell access to the tracks to private firms. The questions are about the mechanism that might accomplish this task. Parties to the controversy have claimed that the technical aspects of networks will, as a matter of principle, preclude the operation of any decentralized method. This paper explores the properties of a mechanism developed as a challenge to that claim. The mechanism is examined in the context of a testbed experimental environment that contains many potential problem causing elements. In the tests performed the mechanism operated to efficiently allocate access to the network and it did so for behavioral reasons that are understandable in terms of theory. The paper closes with suggestions for further study of environments that might present additional challenges to a mechanism.

#### Broll, Udo

**PD** March 1994. **TI** Indirect Hedging of Exchange Rate Risk. **AU** Broll, Udo; Wahl, Jack E.; Zilcha, Itzhak. **AA** Broll: University of Osnabruck. Wahl: University of Dortmund. Zilcha: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 7/94; The Eitan Berglas School of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. **PG** 18. **PR** no charge. **JE** F31, F33, G15. **KW** Hedging. Exchange Rate. Forward Market. Risk.

**AB** The purpose of this study is to investigate the impact of exchange rate risk upon export production when the firm cannot engage in a direct forward hedge in the exchange rate. However, there exists a forward market for a domestic financial asset correlated to the exchange rate in question. Exporting firms using such an indirect hedging device to reduce foreign exchange risk do not necessarily increase their output when such an unbiased hedging market becomes available. This contrasts with the well-known result in the case of direct hedging.

#### Broseta, Bruno

**PD** August 1993. **TI** Strategic Uncertainty and Learning in Coordination Games. **AA** University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-34; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 40. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C71, D81. **KW** ARCH. Subjective Uncertainty. Coordination Game. Adaptive Learning.

**AB** This paper analyzes an adaptive learning model of the

process by which players learn to play coordination games. Strategic uncertainty is explicitly taken into account, and the stochastic structure of players' beliefs is modelled through an Autoregressive Conditional Heteroscedasticity (ARCH) process. We find that the model explains the systematic patterns of equilibrium discrimination detected in Van Huyck, Battalio and Beil's (1990,1991) experiments on coordination.

**PD** August 1993. **TI** Estimation of a Game-Theoretic Model of Learning: An Autoregressive Conditional Heteroskedasticity Approach. **AA** University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-35; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 21. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C71, D81. **KW** ARCH. Coordination Game. Multivariate Ordered Probit. Adaptive Learning.

**AB** This paper estimates the theoretical learning model in Broseta (1993) in order to explain the patterns of equilibrium selection detected in Van Huyck, Battalio and Beil's (1990,1991) experiments on coordination. It introduces an econometric model extending time-series ARCH (1) processes to a multivariate ordered probit model. The empirical results support the conclusions of the learning model and show that it can predict observed behavior.

#### **Brown, Donald J.**

**PD** January 1994. **TI** Walrasian Comparative Studies. **AU** Brown, Donald J.; Matzkin, Rosa L. **AA** Brown: University of California at Berkeley. Matzkin: Stanford University and Northwestern University. **SR** University of California at Berkeley Working Paper in Economics: 94-226; IBER, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 30. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** D51, D50. **KW** General Equilibrium. Comparative Statics. Quantifier Elimination.

**AB** This paper presents finite system of polynomial inequalities in unobservable endogenous variables and market data, that observations on market prices, individual incomes, and aggregate endowments must satisfy to be consistent with the equilibrium behavior of some pure exchange economy. A corresponding family of polynomial inequalities is derived for production economies. For these economies, necessary and sufficient conditions in terms of observations on market prices, aggregate endowments, individual profit shares, and individuals' income from their endowments for these observations to be consistent with the equilibrium behavior of some production economy are given. Qualifier elimination is used to derive for both the two-person model of pure exchange and the two-sector general equilibrium model comparative statics relationships between two observations on market data that are necessary and sufficient for the existence of utility functions and production functions which are consistent with equilibrium behavior in the pure exchange economy and the two-sector model.

#### **Brueckner, Jan K.**

**PD** March 1994. **TI** Housing Ownership and the Business Cycle. **AU** Brueckner, Jan K.; Pereira, Alfredo M. **AA** Brueckner: University of Illinois. Pereira: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 94-02;

Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 22. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** D40, R21. **KW** Housing Consumption. Capital Accumulation. Housing Prices.

**AB** This paper investigates how an unanticipated productivity shift affects capital accumulation and the relative asset price in an overlapping generations economy with two assets: capital and housing. It is shown that a positive shift leads to an increase in both the capital stock and the price of the housing asset, and therefore, to an increase in non-housing consumption. It is also shown that the inclusion of a relative price effect increases the short-term responsiveness of non-housing consumption to the productivity shift. For the younger generation, who are not homeowners, the immediate effects of a productivity shift in non-housing consumption are the same regardless of relative asset price effects. For the older generation, who are homeowners at the time of the shift, the presence of a housing capitalization effect increases the responsiveness of non-housing consumption.

#### **Buiter, W.H**

**PD** April 1994. **TI** Ponzi Finance, Government Solvency and the Redundancy or Usefulness of Public Debt. **AU** Buiter, W.H.; Kletzer, K.M. **AA** Buiter: Yale University and National Bureau of Economic Research and CEPR. Kletzer: University of California at Santa Cruz. **SR** Yale Cowles Foundation Discussion Paper: 1070; Yale University, Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 46. **PR** no charge. **JE** H60, H63. **KW** Dynamic Inefficiency. Government Budget Constraint. OLG Growth Model.

**AB** The paper studies how the government's ability to borrow depends on its capacity to tax. Using the Allais-Samuelson-Diamond two-period OLG growth model, the following propositions are established. When lump-sum taxes and transfers are unrestricted, Ponzi finance is possible, regardless of whether the economy is dynamically inefficient and regardless of the relationship between the interest rate and the growth rate. Under these conditions, Ponzi finance, and government debt generally, is inessential or redundant: it does not enlarge the set of allocations that can be supported as competitive equilibria. When lump-sum taxes are restricted, Ponzi finance (and public debt generally) may be essential. Central to the paper is the characterization of feasible government fiscal-financial plans for an infinite-lived government facing a sequence of finite-lived overlapping private generations, for each of whom a conventional life-time budget constraint holds. The central idea is that the government does not bankrupt private agents. The authors contrast their criterion with the conventional government solvency constraint, that the present value of future government debt be non-positive in the limit as the future data recedes into the infinite distance. The conventional solvency constraint is neither necessary nor sufficient for the feasibility criterion. When the government must use distortionary taxes and/or transfers and the long-run interest rate exceeds the long run growth rate of efficiency labor, the feasibility criterion implies the conventional solvency constraint.

**Burgess, Robin**

**PD** July 1993. **TI** Tax Reform in India. **AU** Burgess, Robin; Stern, Nicholas. **AA** Burgess: Oxford University and London School of Economics. Stern: London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/45; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 82. **PR** no charge. **JE** H20, H62, H63, H71. **KW** Fiscal Federalism. Tax Structure. Tax Reform. **AB** The paper traces the development and structure of tax revenues in India since independence. An understanding of the background to India's current severe fiscal problems is crucial to the design of policy to overcome them. At an aggregate level the surges in deficits and debts took place in the 1950's and 1980's. These were decades both of faster growth and of more ambitious economic policies, although the direction of the policies was rather different in the two decades. The structure of taxation appears to have been influenced both by centre-state allocations and relations and by development policy. India has seen a number of valuable reports by government commissions on taxation, and the major ones are reviewed. The most recent report, by Chechelliah Committee, has been of particular comprehensiveness and value. Prominent amongst all the reports has been a recognition of the absence of progress in collecting the personal income tax. The paper concludes by specifying a number of topics for further research, emphasising political economy, income distribution, centre-state relations and allocations, and the integration of tax policy with changing views of the role of the state and towards trade and industrial policy.

**PD** July 1993. **TI** A VAT in India, Problems and Options. **AU** Burgess, Robin; Stern, Nicholas. **AA** Burgess: Oxford University and London School of Economics. Stern: London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/4; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 72. **PR** no charge. **JE** H21, H26, H30, H71. **KW** India. Fiscal Federalism. Tax Reform.

**AB** The Indian tax system has yielded substantial revenue increases in the last two decades but these have been outstripped by expenditure growth. A weak budgetary position, the desire for trade and domestic liberalization, the complexity and anomalies in the existing system, and the weakness of direct taxation together point to the need for a major reform in indirect taxation. An obvious candidate is a VAT. While the benefits of a VAT in terms of economic efficiency are well known, its introduction in a federal context, such as India, poses problems. We review some conceptual issues and international experience with VAT. Careful consideration of questions relating to the choice of bases and rates, revenue sharing, and tax administration will be required. A number of possible versions of a VAT in a federal context are identified. Each has its advantages and disadvantages and further research will investigate particular issues that arise.

**PD** November 1993. **TI** The Reform of Indirect Taxes in India. **AU** Burgess, Robin; Howes, Stephen; Stern, Nicholas. **AA** Burgess: London School of Economics and Oxford University. Howes and Stern: London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines

Working Paper: EF/7; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 77. **PR** no charge. **JE** H21, H26, H30, H71. **KW** India. Fiscal Federalism. Tax Reform.

**AB** The pressures of aggregate revenue, the requirement of a reduced role for customs duties for the liberalization of the economy, and the complexity and strains of the current system together point clearly towards the desirability of tax reform in India. Since domestic indirect taxes provide the major source of revenue, they deserve special attention. This paper argues that India would benefit from moving towards a system of value-added taxation (VAT) and focuses on the way in which a VAT (or VATs) can be best introduced into India given its federal structure. Three different options are distinguished: a central VAT, dual VAT, and states' VAT. We argue that the first is politically infeasible; that the second represents the best way forward in the short-term; and that the third deserves consideration as a long-run option. Special attention is paid to the problems which would arise under either a states' or a dual VAT with regard to taxing interstate trade. Different mechanisms for this purpose are considered and three are put forward as options.

**Calem, Paul S.**

**PD** June 1994. **TI** Financing Constraints and Investment: New Evidence from Hospital Industry Data. **AU** Calem, Paul S.; Rizzo, John A. **AA** Calem: Federal Reserve Bank of Philadelphia. Rizzo: Yale University School of Medicine. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 94-9; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 15. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** I19, D24. **KW** Hospital Financing. Liquidity. Investment Relationship. U. S. Hospital Industry.

**AB** This paper tests for evidence of financing constraints in the U.S. hospital industry. The authors hypothesize that small hospitals and free-standing hospitals are more likely to face financing constraints than, respectively, large hospitals and members of hospital chains. They estimate the relationship between liquidity and investment within each cohort, controlling for a variety of factors that might affect the marginal profitability of hospital investment. One limitation of existing empirical work is its almost exclusive reliance on panel data from the manufacturing sector. Their study expands upon this literature in two main respects. First, they demonstrate that financing constraints affect firms outside of the manufacturing sector. Second, by focusing on a single, narrowly defined industry rather than examining a cross-section of industries, they avoid the problem of attributing observed differences in liquidity/investment relationships to financing constraints or industry differences. The results provide strong evidence that small hospitals and free-standing hospitals face borrowing constraints due to agency costs. This supports earlier work that found evidence of financing constraints in other contexts.

**Calvo, Guillermo A.**

**PD** February 1994. **TI** Targeting the Real Exchange Rate: Theory and Evidence. **AU** Calvo, Guillermo A.; Reinhart, Carmen M.; Vegh, Carlos A. **AA** not available. **SR** International Monetary Fund Working Paper: WP/94/22;

International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 32. PR not available. JE E52, F40. KW Exchange Rates. Inflation. Capital Mobility.

AB This paper presents a theoretical and empirical analysis of policies aimed at setting a more depreciated level of the real exchange rate. An intertemporal optimizing model suggests that, in the absence of changes in fiscal policy, a more depreciated level of the real exchange can only be attained temporarily. This can be achieved by means of higher inflation and/or higher real interest rates, depending on the degree of capital mobility. Evidence for Brazil, Chile, and Colombia supports the model's prediction that undervalued real exchange rates are associated with higher inflation.

### Card, David

PD January 1994. TI Changing Wage Structure and Black-White Differentials: A Longitudinal Analysis. AU Card, David; Lemieux, Thomas. AA Card: Princeton University and National Bureau of Economic Research. Lemieux: University of Montreal and National Bureau of Economic Research. SR Princeton Industrial Relations Section Working Paper: 322; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 25. PR \$1.00. JE J31, J71. KW Wage Inequality. Human Capital.

AB Despite several decades of research there is still widespread disagreement over the interpretation of the wage differences between black and white workers. Do the differences reflect productivity differences, discrimination or both? If lower black earnings reflect a productivity reference, then an economy-wide increase in the relative wages of more highly-skilled workers should lead to a parallel increase in the black-white earnings gap. We evaluate this hypothesis using longitudinal data for men and women from the Panel Study of Income Dynamics. Longitudinal data enable us to identify changes in the returns to both observed and unobserved skills, and to measure the black-white wage gap for a fixed cohort of workers. Our findings suggest that returns to observed and unobserved skills of male workers rose by 5-10 percent between 1979 and 1985. For female workers, the return to observed skills was relatively constant while the return to unobserved skill increased by 15 percent. The evidence that black-white differentials rise with the return to skill is mixed. Among female workers the black-white gap widened in the early 1980's -- consistent with the premise that racial wage differences reflect a productivity difference. For men in our sample the black-white gap declined between 1979 and 1985 -- a change that is inconsistent with the rise in return for skills.

PD April 1994. TI Is Workers' Compensation Covering Uninsured Medical Costs? Evidence from the "Monday Effect." AU Card, David; McCall, Brian P. AA Card: Princeton University. McCall: University of Minnesota. SR Princeton Industrial Relations Section Working Paper: 327; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 36. PR \$1.50. JE J28. KW Workers Compensation. Health Insurance.

AB A growing fraction of U.S. workers face a dual system of medical insurance, with generous coverage through the Workers' Compensation system for work-related injuries, but limited or non-existent coverage for off-the-job illnesses or injuries. Uninsured workers have an economic incentive to report off-the-job injuries as work accidents. Many analysts have interpreted the high rate of Monday injuries--especially

for hard-to-detect injuries like back sprains--as evidence of this incentive. We combine administrative data on workplace injury claims with Current Population Survey data on medical insurance coverage to compute the fraction of Monday injury claims for workers who are more and less likely to have medical insurance. We find that workers with lower medical coverage rates are no more likely to report a Monday injury than other workers.

### Carment, David

PD July 1994. TI Internal Constraints and Interstate Ethnic Conflict: Toward a Crisis-Based Assessment of Irredentism. AU Carment, David; James, Patrick. AA Carment: Carleton University. James: Florida State University. SR Stanford Hoover Institute International Studies Working Paper: I-94-8; The Hoover Institution, Stanford University, Stanford, CA 94305. PG 20. PR no charge. JE F00, F01. KW Irredentist Crisis. Foreign Policy Crisis. Interstate Behavior.

AB Two theoretical orientations, instrumental and affective, have purported to explain interstate ethnic conflict. Among the instrumental arguments put forward to account for the goals of external actors that become involved in ethnic strife, domestic and international political considerations, economic gain and military interests are prominent. Since these factors seldom provide a full explanation of interstate behavior in ethnic conflicts, affective motivations also are cited. This investigation provides an initial assessment of the ability of affective motivations to account for properties of international crises. The point of departure is a review of literature on international aspects of ethnic conflict. This exercise provides a context for comparison of the traits of irredentist and non-irredentist foreign policy crises. International Crisis Behavior Project data from 1945 to 1988 is used to test three propositions about this important type of interstate conflict. Initial results are favorable: crises within irredentist conflicts differ from others with respect to perceived gravity of threat, crisis management techniques and severity of violence. Two of the differences become greater when internal constraint on a crisis actor's regime is introduced as an interactive variable. The investigation concludes with suggestions for further research.

### Carson, Richard T.

PD August 1993. TI Sequencing and Nesting in Contingent Valuation Surveys. AU Carson, Richard T.; Mitchell, Robert Cameron. AA Carson: University of California at San Diego. Mitchell: Clark University. SR University of California, San Diego Department of Economics Working Paper: 93-36; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 26. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE D11, H80, Q20, Q30. KW Embedding. Survey Design. Contingent Valuation.

AB The term "embedding" is ill-defined and has been applied to distinct phenomena, some predicted by economic theory and others not. This paper lays out a clear theoretical framework for looking at these phenomena and provides a set of well-defined terms. Included is a discussion of survey design problems which may induce spurious evidence in favor of the hypothesis that respondents are insensitive to the scope of the good being valued. An empirical example of the component sensitivity test is provided. This test rejects the hypothesis that respondents

are not sensitive to the scope of the good being valued.

**PD** August 1993. **TI** The Issue of Scope in Contingent Valuation Studies. **AU** Carson, Richard T.; Mitchell, Robert Cameron. **AA** Carson; University of California at San Diego. Mitchell; Clark University. **SR** University of California, San Diego Department of Economics Working Paper: 93-37; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 10. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** D11, H80, Q20, Q30. **KW** Contingent Valuation. Scope. Survey Design. **AB** This paper is about a consistency check suggested by the recent NOAA Blue Ribbon Panel as one basis for evaluating contingent valuation (CV) surveys. This check relates to the responsiveness of valuation estimates to changes in scope or size of the environmental commodity. This paper challenges the claims that the CV method is incapable of demonstrating sensitivity to scope and is therefore too unreliable to obtain useful information for natural resource damage assessments. These claims are questioned on the basis of evidence from the larger CV literature and a re-analysis of the studies conducted by the critics. Findings indicating that CV is sensitive to issues of scope.

**TI** Current Issues in the Design, Administration, and Analysis of Contingent Valuation Surveys. **AU** Mitchell, Robert Cameron; Carson, Richard T.

**PD** May 1994. **TI** Contingent Valuation and Revealed Preference Methodologies: Comparing the Estimates for Quasi-Public Goods. **AU** Carson, Richard T.; Flores, Nicholas E.; Martin, Kerry M.; Wright, Jennifer L. **AA** Carson; University of California at San Diego. Flores, Martin, and Wright: not available. **SR** University of California, San Diego Department of Economics Working Paper: 94-07; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 14. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** H80, D11. **KW** Contingent Valuation. Statistical Evaluation. Consumer Value Methodologies.

**AB** A literature search provides 83 studies from which 616 comparisons of contingent valuation (DV) to revealed preference (RP) estimates are made. Summary statistics of the CV/RP ratios are provided for the complete dataset, a 5% trimmed dataset, and a weighted dataset that gives equal weight to each study rather than each CV/RP ratio is 0.89 with a 95% confidence interval (0.81-0.96) and a median of 0.75. For the trimmed and weighted datasets, these summary statistics are (0.77;(0.74-0.81);0.75) and (0.92;(0.81-1.03);0.94), respectively. The Spearman rank coalition coefficients between the CV and RP estimates for the three datasets are 0.78, 0.88, and 0.92, respectively, with the Pearson correlations a bit larger. Non-parametric density estimates are provided, as well as the results of regressions of the observed CV/RP ratios on the basic RP technique used and the broad class of goods valued.

**PD** June 1994. **TI** Valuing the Preservation of Australia's Kakadu Conservation Zone. **AU** Carson, Richard T.; Wilks, Leanne; Imber, David. **AA** Carson; University of California at San Diego. Wilks and Imber: Resource Assessment Commission. **SR** University of California, San Diego Department of Economics Working Paper: 94-09; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508.

**PG** 25. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** Q28, D11. **KW** Contingent Valuation. Economic Benefits of Preservation.

**AB** The Australian Resource Assessment Commission conducted a large contingent valuation study to estimate the economic benefits of preserving Kakadu Conservation Zone (KCZ) by incorporating it into Kakadu National Park rather than allowing mining in it. Different subsamples were presented, with scenarios representing the environmentalist (major) and mining industry (minor) views of the impacts. Willingness to pay to prevent the major impact scenario was twice as high for the minor impact scenario. For both scenarios, benefit-cost analysis indicates that preservation should be chosen over mining. A valuation function to predict the willingness to pay responses is estimated.

### Celentani, Marco

**PD** December 1993. **TI** Maintaining a Reputation Against a Patient Opponent. **AU** Celentani, Marco; Fudenberg, Drew; Levine, David K.; Pesendorfer, Wolfgang. **AA** Celentani: Universidad Carlos III de Madrid. Fudenberg: Harvard University. Levine: University of California, Los Angeles. Pesendorfer: Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1075; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 20. **PR** \$3.00 in U.S. and Canada; \$5.00 via international mail. **JE** C72, C73. **KW** Reputation. Repeated Games.

**AB** We analyze reputation in a game between a patient player and a non-myopic but less patient opponent. The patient player's type is private information and he may be a "commitment type" who is locked into playing a particular strategy. We assume that players do not directly observe each other's action but rather see an imperfect signal of it. In particular, we assume that the support of the distribution of signals is independent of how the less patient player plays. We show that in any Nash equilibrium of the game the patient player will get a payoff close to the largest payoff consistent with the less patient player choosing a best response in a finite truncation of the game. Moreover, we show that if the discount factor of the less patient player is sufficiently large then the patient player will essentially get the maximum payoff consistent with the less patient player getting at least his pure strategy minmax payoff in any Nash equilibrium.

### Chadha, Sumir

**PD** January 1994. **TI** Betting Bias and Market Equilibrium. **AU** Chadha, Sumir; Quandt, Richard E. **AA** Chadha and Sumir: Princeton University. **SR** Princeton Financial Research Center Memorandum: 143; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544-1021. **PG** 8. **PR** \$3.00 for U.S. mailings. \$6.00 for foreign mailings. **JE** D58, D81. **KW** Cournot-Nash Equilibrium. Racetrack Betting. Paramutuel Betting.

**AB** The paper considers the well-known anomaly that in paramutuel betting, favorites tend to be underbet and longshots tend to be overbet, in that the objective probability that a favorite will win tends to be higher than the percentage of moneys bet on it at the track (the subjective probability) and the reverse for longshots. Several explanations have been offered for this phenomenon, and the present paper casts this

problem in the framework of a Cournot-Nash equilibrium of bettors at the track. Bettors are assumed to have perceptions of the winning probabilities, which are perturbations of the true probabilities. Each risk-neutral bettor solves the nonlinear programming problem that yields his or her own optimal bets given the bets of all other bettors. A Cournot-Nash equilibrium is found, which has the property that each bettor is optimizing, and each bettor's actions are compatible with those of the others. At the equilibrium, the over/underbetting bias manifests itself in nearly every case, and while one cannot completely rule out the possibility that the bias is due to the bias in bettors' perception, on the whole it appears that the over/underbetting bias is a consequence of, or is at least compatible with, Cournot-Nash equilibrium at the racetrack.

### Chakrabarti, Subir K.

PD August 1993. TI Equilibria in Discounted Stochastic Games with Weak Continuous Transition Probabilities. AA Johns Hopkins University and Indiana University-Purdue University. SR Johns Hopkins Department of Economics Working Paper: 292R; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 29. PR no charge. JE C72, C70. KW Markovian Transition Probabilities. Perfect Equilibrium. Finite Horizon. Stochastic Game.

AB The paper shows that a finite horizon stochastic game which has transition probabilities that are markovian and continuous in the weak topology on measures, where the space of measures is treated as a subset of the dual of the set of bounded measurable functions, has a Markov perfect equilibrium point. It is shown that if these transition probabilities are absolutely continuous with respect to a given measure  $V_t$  every period and are norm continuous on past decisions but only weak continuous on yesterday's states, then the infinite horizon stochastic game will have a Markov perfect equilibrium point.

PD November 1993. TI Stationary Equilibrium Strategies in Stochastic Games. AA Johns Hopkins University and Indiana University-Purdue University. SR Johns Hopkins Department of Economics Working Paper: 309R; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 14. PR no charge. JE C73, C70. KW Stochastic Games. Transition Probabilities. Markov Strategies.

AB This paper discusses the existence of stationary Markov perfect equilibrium strategies for stochastic games. The finding is that if the transition probabilities, which are functions from past history to probability measures over the current states, are continuous in the weak topology on the space of probability measures, then one can always find a stationary equilibrium strategy under very general conditions. Aside from the conditions that the state space is a complete, separable metric space, the action spaces are compact metric spaces and the payoff functions are continuous and uniformly bounded functions of states and actions, the only other conditions on the transition probabilities are that these are markovian and absolutely continuous with respect to some fixed non-atomic measure on the state space.

TI Political Structure, Taxes, and Trade. AU Kami, Edi; Chakrabarti, Subir K.

### Chakravarthy, Balaji S.

PD 1994. TI Organizing for Hyper Competition: The Legitimation of Corporate Leadership. AU Chakravarthy, Balaji S.; Gargiulo, Martin. AA INSEAD. SR INSEAD Working Papers: 94/16/OB/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 18. PR not available. JE M10, D21. KW Corporate Transformation. Entrepreneurial Organization.

AB Competing in a hyper competitive environment requires a flat entrepreneurial organization, with its attendant administrative processes. The two key attributes of such an organization are its ability to generate trust and to empower its employees. This paper argues that top management's concern for stakeholder participation during the process of transformation to the new organization creates new senses of legitimacy for its leadership. These in turn help build trust in the organization. Trust is the platform on which empowerment can take place in an organization. The current wisdom of a two stage transformation process, where restructuring (sour) precedes revitalization (sweet), is thus challenged. The trust lost in the first stage takes a long time to rebuild. The paper is based on intensive field work in a large European telecommunications equipment manufacturer, called Temco in this paper. The CEO of Temco chose to follow a more evolutionary model of change. He then built more participation in the process, thus building trust. He is now engaged in the third phase of the transformation which seeks to empower the firm's employees in preparation for the transition to an entrepreneurial organization.

PD 1994. TI Flexible Commitments: Coping with Chaos. AA INSEAD. SR INSEAD Working Papers: 94/17/SM/ENT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 24. PR not available. JE L51, L63. KW Technological Change. Strategic Flexibility.

AB Technological change and deregulation have made possible the congruence of fifty erstwhile distinct industries to form one mega INFOCOM (information and communications) industry. This paper describes some of the major changes driving this congruence for the competitive context of this emerging industry. The resulting complexity and dynamics will force parts of the industry to drift toward chaos from time to time. The paper examines critically the relevance of existing strategy concepts for coping with near chaos conditions of the INFOCOM industry, and offers an alternative framework anchored around flexible commitments.

### Christiano, Lawrence J.

PD March 1994. TI Algorithms for Solving Dynamic Models With Occasionally Binding Constraints. AU Christiano, Lawrence J.; Fisher, Jonas D.M. AA Christiano: Northwestern University. Fisher: University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9404; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 56. PR \$7.00 Canada; \$9.00 Elsewhere. JE C06, C63, C68. KW Numerical Approximation. Parameterized Expectations.

AB The authors describe several methods for approximating the solution to a model in which inequality constraints occasionally bind, and they compare their performance. They apply the methods to a particular model economy which satisfies two criteria: it is similar to the type of model used in



actual research applications, and it is sufficiently simple that we can compute what we presume is virtually the exact solution. The authors have two results. First, all the algorithms are reasonably accurate. Second, on the basis of speed, accuracy and convenience of implementation, one algorithm dominates the rest. They show how to implement this algorithm in a general multidimensional setting, and discuss the likelihood that the results based on our example economy generalize.

### Chung, Tai-Yeong

PD April 1994. TI Rent-Seeking Contest when the Prize Increases with Aggregate Efforts. AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9407; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 20. PR Cdn \$10.00; cheques payable to The University of Western Ontario. JE C72, C70, D72. KW Rent Seeking. Endogenous Rent. Social Waste.

AB The objective of this article is to investigate contests in which efforts are productive. Tullock's standard rent-seeking model is extended by making the rent itself increase with aggregate efforts. A positive externality is thereby introduced into the contest, because a contender's private effort in quest of the rent generates a benefit for other contenders. Coupled with a negative externality presented in the standard rent-seeking model, the net effect on the social efficiency of the contest is a priori ambiguous. It is shown that the extended contest generates socially wasteful, excessive aggregate efforts.

### Clark, Peter

TI Robustness of Equilibrium Exchange Rate Calculations to Alternative Assumptions and Methodologies. AU Bayoumi, Tamim; Clark, Peter; Symansky, Steve; Taylor, Mark.

### Coady, David

PD August 1993. TI The Raising and Allocation of Public Revenues in LDC's: The Contribution of the World Bank. AA University College London. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/46; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 53. PR no charge. JE D61, E62, F32, H21, O12. KW World Bank. Fiscal Design. Fiscal Reform. Project Lending.

AB In this paper we discuss the contribution of the World Bank to our understanding as to what constitutes "appropriate" fiscal policy in developing countries. We highlight the contribution of the academic profession and show that theoretical models have provided useful practical insights concerning the "appropriate" structure of fiscal incentives. We discuss how the Bank's perception of the role of fiscal policy in the development process has changed over time and has been reflected in a change in emphasis from project to policy lending. Reform of the fiscal system and of pricing policy have played an important role in structural and sectoral lending programs. Although the rate of absorption and dissemination of advances made in the profession in the area of techniques for social cost-benefit analysis improved over time, these techniques were never fully applied in a systematic manner and seem to have been allocated low priority--a situation which is

hard to justify. Also, the Bank has not adequately absorbed advice from the profession concerning the adverse implications of "distortions" (pricing and institutional) in markets in developing countries for efficient resource allocation. Greater recognition of the restrictions on government policy instruments, especially in the areas of revenue raising and income distribution, is also needed. Fortunately, although belatedly, the implications of structural adjustment for poverty and income distribution are now being addressed. However, its contributions in the field of public-sector pricing has been more prominent; research and experience at the Bank has been very valuable in identifying important issues which were not adequately incorporated into theoretical models and in generating practical policy advice.

PD October 1993. TI Changes Over Time in Input-Output Coefficients for China. AU Coady, David; Jie, Li. AA Coady: University College London. Jie: London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: CP/28; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 46. PR no charge. JE C67, L60, O20. KW China. Time Series. Coefficient Changes.

AB In this paper we discuss the nature of Chinese national input-output tables for the years 1981, 1983 and 1987. We identify and compare the degree and direction of changes in coefficients over time and highlight some possible reasons for these changes. In order to capture the change in input-output structure over time, we calculate how the outputs of various products would have to change to meet the 1981 final demand structure and level. As expected, we find that averages hide a great deal of variability across sectors.

### Copeland, Brian R.

PD November 1993. TI Process Standards, Pollution Content Taxes, and the Control of Cross-Border Pollution. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-42; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 27. PR JE F13, Q28. KW Environment. International Externality. Pollution.

AB This paper considers the optimal unilateral policy for a country which imports a good from a neighboring country, and which is harmed by pollution generated during the production of that good. Markusen (1975) showed that if foreign pollution is directly proportional to foreign output, then the optimal unilateral policy for the home country is an import tariff. This paper shows that if the pollution intensity of foreign production is variable, then the home country should target imports with both a tariff and either a pollution content tax or a process standard.

PD December 1993. TI Trade and Transboundary Pollution. AU Copeland, Brian R.; Taylor, M. Scott. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-46; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 38. PR JE F13, H41, Q25. KW Trade. Environment. Pollution. Externalities.

AB This paper examines how differences in national income and trading opportunities interact to determine the level and

incidence of world pollution. We adopt a static, two region, many country, general equilibrium model in which each government regulates emissions of pollution within its jurisdiction, taking foreign pollution as given. We find: (1) a movement from autarky to free trade raises world pollution if incomes differ substantially across countries, but has no effect on world pollution if all countries have similar incomes; (2) when trade equalizes factor prices, the human-capital-abundant countries lose from trade, while the human-capital-scarce countries gain from trade; (3) international trade in pollution permits can lower global pollution even when countries are not restricted in the number of permits they issue; and (4) untied international transfers of income may have no effect on prices, world pollution, or welfare in any country.

**PD** February 1994. **TI** Product Quality and the Theory of Comparative Advantage. **AU** Copeland, Brian R.; Kotwal, Ashok. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 94-08; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 25. **PR** **JE** F12, L22, D11. **KW** Product Quality. Comparative Advantage.

**AB** We show that if consumers care about product quality, then absolute advantage can play a significant role in determining the possibility of gains from trade between two countries. We consider two countries with identical preferences and different technologies. There are two goods: one homogeneous, and one quality-differentiated. We show that if one country has an absolute advantage in both goods, then no trade may be possible between the two countries, despite differences in relative autarky prices.

### Corradi, Valentina

**PD** October 1993. **TI** Consistent Nonparametric Estimation and Testing for the Variance of a Diffusion from Discretely Sampled Observations. **AU** Corradi, Valentina; White, Halbert. **AA** Corradi and White: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-42; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 40. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C12, C14. **KW** Diffusion Process. Conditional Heteroskedasticity. Banach Test. Nonparametric Estimation.

**AB** The object of this paper is to propose a consistent nonparametric estimator of the variance of a diffusion to suggest some statistics for testing for the functional form of the variance, in the case of discretely sampled observations, with discrete interval approaching zero as the sample size increases. In the unconditional heteroskedasticity case, the limiting distribution, evaluated at finitely many points, is a pure normal. We also provide an easily computable consistent Banach type test for testing the null  $SUP SUB(t) Element of [0,1] | Sigma-Square(t)-Sigma-Square Sub(0)(t)|=0$ . In the conditional heteroskedasticity case the limiting distribution, evaluated at a single point, is a mixture normal. For the finitely many points case we propose a statistic that has unitary power against general alternatives and whose critical values, under the null, can be simulated. Though we do not provide a distributional result for the multidimensional conditional heteroskedasticity case, we extend the consistency results

already available for the fixed time span case to the case of a span increasing with the sample size.

### Cottarelli, Carlo

**PD** March 1994. **TI** Financial Structure, Bank Lending Rates, and the Transmission Mechanism of Monetary Policy. **AU** Cottarelli, Carlo; Kourelis, Angeliki. **AA** not available. **SR** International Monetary Fund Working Paper: WP/94/39; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 32. **PR** not available. **JE** E43, E44, E52, E58. **KW** Lending Rates. Rate Stickiness. Monetary Policy.

**AB** The stickiness of bank lending rates with respect to money market rates is often regarded as an obstacle to the smooth transmission of monetary policy impulses. Yet, no systematic measure of the different degree of lending rate stickiness across countries has been attempted. This paper provides such a measure. It also relates the different degree of lending rate stickiness to structural features of the financial systems, such as the existence of barriers to competition, the degree of development of financial markets, and the ownership structure of the banking system. Thus, the paper provides further evidence on the relationship between structural financial policies and monetary policy, as well as on the relevance of credit markets for the monetary policy transmission mechanism. The role of administered discount rates in speeding up the adjustment of lending rates is also discussed.

### Coughlin, Peter J.

**PD** April 1994. **TI** Redistribution via Government and Distributive Justice. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 94-5; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 19. **PR** no charge. **JE** H23, H20, D72. **KW** Buchanan. Public Choice. Voter Choice.

**AB** This paper investigates the assertion by Buchanan and other public choice economists that redistribution via government in a representative democracy does not reflect an identifiable and defensible principle of redistributive justice. The assertion is specifically examined in the context of the models of representative democracy that have been developed in the public choice literature. The first major conclusion in the paper is that, when it is assumed that voting is fully determined by candidates' redistributive strategies, the assertion is valid. The second major conclusion is that when (instead) it is assumed that candidates are uncertain about voters' choices and use an econometric model like the logit model, the assertion is not valid. This establishes that public choice theory does not lead us inexorably to the dismal conclusions about redistribution via government that have been asserted by Buchanan and others.

### Cowell, Frank

**PD** October 1993. **TI** Robustness Properties of Inequality Measures. **AU** Cowell, Frank; Victoria-Feser, Maria-Pia. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DARP/1; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 43. **PR** no charge. **JE** D63, C13. **KW** Inequality Measurement. Transfer Principle.

**Influence Function.**

**AB** Inequality measures are often used to summarize information about empirical income distributions. However, the resulting picture of the distribution and of the changes in the distribution can be severely distorted if the data are contaminated. The nature of this distortion will in general depend upon the underlying properties of the inequality measure. We investigate this issue theoretically using a technique based on the influence function, and illustrate the magnitude of the effect using a simulation. We consider both direct nonparametric estimation from the sample, and the indirect estimation using a parametric model; in the latter case we demonstrate the application of a robust estimation procedure.

**Cragg, John G.**

**PD** November 1993. **TI** On Several Criteria for Estimating the Rank of a Matrix. **AU** Cragg, John G.; Donald, Stephen G. **AA** Cragg: University of British Columbia. Donald: Boston University. **SR** University of British Columbia Department of Economics Discussion Paper: 93-43; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 41. **PR** **JE** C10, C63. **KW** Rank. Model Selection. Monte Carlo.

**AB** We consider the problem of estimating the rank of a matrix for which asymptotically normally distributed estimates with a standard form of covariance matrix are available. The methods of estimation are based on model-selection procedures, testing criteria, and a new pseudo asymptotic maximum likelihood estimator. Asymptotic local power considerations suggest dangers of underestimation when the matrix is almost of a lower rank in a specified sense. A set of Monte Carlo simulations is conducted which reveals that performance of the estimators considered depends on the matrix being estimated as well as on the number of observations, and that the underestimation danger is real. It is found that consistency is in itself a weak guide to choice of estimator.

**Crauwels, H.A.J.**

**PD** 1994. **TI** Local Search Heuristics for Single Machine Scheduling with Batch Set-Up Times. **AU** Crauwels, H.A.J.; Potts, C.N.; Van Wassenhove, L.N. **AA** Crauwels: KIHND. Potts: University of Southampton. Wassenhove: INSEAD. **SR** INSEAD Working Papers: 94/07/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 12. **PR** not available. **JE** D83, D24. **KW** Scheduling. Batches. Set-up Time. Local Search.

**AB** Local search heuristics are developed for a problem of scheduling jobs on a single machine. Jobs are partitioned into batches, and a set-up time is necessary when there is a switch in processing jobs from one batch to jobs of another batch. The objective is to minimize the total weighted completion time. Three alternative neighborhood search methods are developed: multi-start descent, simulated annealing, and tabu search. The performance of these heuristics is evaluated based on a large set of test problems, and the results are also compared with those obtained by a genetic algorithm.

**Cremer, Jacques**

**PD** April 1994. **TI** In or Out?: Centralization by Majority Vote. **AU** Cremer, Jacques; Palfrey, Thomas R. **AA** Cremer: Universite de Toulouse. Palfrey; California

Institute of Technology. **SR** Caltech Social Science Working Paper: 879; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 18. **PR** no charge. **JE** D72, H11. **KW** Centralization. Voting. Political Organization.

**AB** We present a positive theory of centralization of political decisions. Voters choose centralization or decentralization depending on their forecast of the political organization that will favor the policies they prefer. We study the induced preferences for centralization as well as results of different forms of referenda.

**Croushore, Dean**

**TI** The Importance of the Tax System in Determining the Marginal Cost of Funds. **AU** Ahmed, Shaghil; Croushore, Dean.

**D'Aspremont, Claude**

**PD** November 1993. **TI** Knowledge as a Public Good: Efficient Sharing and Incentives for Development Effort. **AU** D'Aspremont, Claude; Bhattacharya, Sudipto; Gerard-Varet, Louis-Andre. **AA** D'Aspremont and Bhattacharya: Universite Catholique de Louvain. D'Aspremont: CORE. Bhattacharya: University of Delhi. Gerard-Varet: GREQUE and Ecole des Hautes Etudes en Sciences Sociales. **SR** University of California, San Diego Department of Economics Working Paper: 93-50; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 15. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** O31, H41. **KW** Joint Ventures. moral Hazard. Knowledge Sharing.

**AB** This paper considers Research-Development joint ventures where adverse selection arises in knowledge sharing, while there is moral hazard involved in the choice of private development efforts aimed at translating privately acquired and/or shared knowledge into valuable marketable innovations. We extend earlier work by Bhattacharya, Glazer and Sappington (1992) to situations where one cannot identify a "most knowledgeable" partner, by giving conditions under which there exist transfers implementing both efficient first best knowledge sharing and subsequent development efforts.

**Dardanoni, Valentino**

**PD** June 1994. **TI** Income Distribution Dynamics: Monotone Markov Chains Make Light Work. **AA** Dardanoni: Universita di Palermo and University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 94-16; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 17. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** D31, C35. **KW** Markov Chains. Income Distribution. Monotone Matrices.

**AB** This paper considers some of the aspects of the dynamics of income distributions by employing a simple Markov chain model of income mobility. The main motivation of the paper is to introduce the techniques of "monotone" Markov chains to this field. The transition matrix of a discrete Markov chain is called monotone if each row stochastically dominates the row above it. It will be shown that by embedding the dynamics of the income distribution in a monotone Markov chain, a number

of interesting results may be obtained in a straightforward and intuitive fashion.

### Dargay, Joyce

PD December 1993. TI The Imperfect Price-Reversibility of Non-Transportation Oil Demand in the OECD. AU Dargay, Joyce; Gately, Dermot. AA Dargay: Oxford University. Gately: New York University. SR New York University, C.V. Starr Center Economic Research Report: 93-45; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 23. PR no charge. JE Q41. KW Oil Demand. Price Reversibility. Hysteresis. Asymmetry.

AB This paper examines the price-reversibility of OECD non-transportation oil demand and its largest components: residual (heavy) fuel oil, and non-transportation distillates. Our purpose is to determine the extent to which the reductions in demand following the oil price increases of the 1970's have been--and will be--reversed by the price cuts of the 1980's. The analysis is based on an econometric model which utilizes price-decomposition methods to measure separately the effects of price increases and price decreases. These methods allow empirical testing of irreversibility and hysteresis, and should be applicable in other areas of economics where asymmetry of response or persistence of effect are evident. Based on the statistical evidence, we reject the conventional specification of demand being perfectly price-reversible. We conclude that the response to the price cuts of the 1980's has been significantly smaller than to the price increases of the 1970's. Demand has followed a ratchet process: price increases reduced demand substantially when demanders conserved and switched away from oil, but price cuts did not reverse this process completely, if at all. This has important implications for projections of oil demand, especially under low-price assumptions: the OECD's dependency on oil will not increase as much as some analysts may have feared. There is, however, another aspect of imperfect price-reversibility: the possibilities of adjusting to future price rises may not be as great as they had been in the past. The easiest and least costly demand savings have already been made, and oil has been replaced by other energy sources in many uses: what's done is done.

PD February 1994. TI The Changing World Petroleum Market: Demand in the Industrialized Countries. AU Dargay, Joyce; Gately, Dermot. AA Dargay: Oxford University. Gately: New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-02; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 24. PR no charge. JE Q41. KW World Petroleum Market. Oil Demand.

AB This paper surveys OECD energy and oil demand over the past three decades, analyzing the different paths of transportation oil, non-transportation oil, and non-oil energy--both over time, and relative to income growth. We review both the OECD as a whole, and make regional comparisons within the OECD. We focus especially on the price-irreversibility of oil demand: why oil demand has not surged now that oil prices have returned to pre-1974 levels. Among our conclusions are the following. 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. 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 not be 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.

### Dasgupta, Partha

PD September 1993. TI Poverty, Institutions, and the Environmental-Resource Base. AU Dasgupta, Partha; Maler, Karl-Goran. AA Dasgupta: University of Cambridge, Beijer International Institute of Ecological Economics and World Institute for Development Economics Research. Maler: Beijer International Institute of Ecological Economics, Stockholm School of Economics and World Institute for Development Economics Research. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/48; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 93. PR no charge. JE D13, D23, D31, H43, J16. KW Poverty Environment. Optimal Growth. Property Rights.

AB This paper appeals to empirical material drawn from anthropology, demography, economics, and the environmental sciences for the purposes of identifying possible links between rural poverty, fertility behavior, and the local environmental resource base in poor countries. We argue that poverty and institutional failure are both moot causes of environmental degradation, and that the latter may well be a cause (as well as an effect) of high fertility rates. Part I of the article provides the background to the discussion. Part II and the Appendices provide the capital theory that is necessary for any exploration into the economics of environment and development. We summarize and extend the literature on optimal development, intertemporal accounting prices, and the idea of net national product in both first-best and second-best economies. In Part III we apply the ideas developed in the earlier parts to address our main theme.

### Davis, E.P

PD March 1994. TI The Use of Financial Spreads as Indicator Variables: Evidence for the U.K. and Germany. AU Davis, E.P.; Henry, S.G.B. AA Davis: EC Governors' Secretariat. Henry: International Monetary Fund. SR International Monetary Fund Working Paper: WP/94/31; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 14. PR not available. JE C51. KW Financial Spreads. Vector Autoregression. Advance Indicators.

AB There has been growing interest in the use of financial spreads as advance indicators of real activity and inflation. Empirical evidence is marshalled on a range of spreads when these are used in vector autoregressive models of the UK and German economies. It is found that they do have significant information, even after allowing for the effects of other influences upon macroeconomic activity.

### de Bartolome, Charles A.M

PD December 1993. TI Adjustment Rates and the Second Best Level of Government Spending. AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 93-48; New York University,

Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 27. PR no charge. JE H20, H30, H40. KW Adjustment Rates. Government Spending.

AB The level of public service, financed by a commodity tax, is compared with the efficient level. The rate at which the tax base adjusts to a price change is a critical--and previously ignored--parameter. If the tax based adjusts rapidly to a change in the tax rate, the "second best" public service level is likely to be less than the efficient level (Pigou (1928)). However, if the tax base adjusts to a change in the tax rate, the public service level in the steady state exceeds the efficient level.

#### De Gregorio, Jose

PD March 1994. TI International Evidence on Tradables and Nontradables Inflation. AU De Gregorio, Jose; Giovannini, Alberto; Wolf, Holger C. AA not available. SR International Monetary Fund Working Paper: WP/94/33; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 23. PR not available. JE F41, F43. KW Inflation. Factor Productivity. Exchange Rates.

AB Using 1970-85 sectoral data for the OECD we find that inflation in nontradable good exceeds inflation in tradables. We identify a demand shift towards nontradables and faster growth of total factor productivity in the tradable goods sector as the prime causes of the differential inflation. In addition, disinflation attempts and the exchange rate regime appear to have exerted significant influence on the relative inflation rate.

#### De la Fuente, Angel

PD September 1993. TI Expenditure Levels and Incentives in Public R&D. AA Universidad Autonoma de Barcelona. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TIDI/159; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 42. PR no charge. JE H50, O38, D82. KW R&D. Growth. Incentives.

AB This paper investigates two aspects of public R&D policy. In the first section, I develop and estimate a model in which tax-financed public research contributes to productivity growth. The results suggest that current research expenditure in most OECD countries is far below optimal levels, and that increased funding could yield significant welfare gains. In the second section, I extend the model to incorporate informational asymmetries and show that optimal research contracts must provide incentives to induce adequate levels of effort. On the basis of a simple calibration exercise I argue that greater reliance on incentive schemes could increase research productivity significantly.

#### De Lima, Pedro J.F

PD May 1994. TI Nuisance Parameter Free Properties of Correlation Integral Based Statistics. AA Johns Hopkins University. SR Johns Hopkins Department of Economics Working Paper: 328; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 19. PR no charge. JE C12, C22. KW BDS Test. Correlation Integral. Residuals. U-Statistics.

AB This paper presents conditions under which statistics based on the correlation integral are invariant to the use of estimated residuals from dynamic models. The methods are applied to the so-called BDS test for nonlinearity, under a

variety of data-generating processes.

#### De Meyer, A.

PD 1994. TI The Development of Scientific Networks and Multinational Research Projects: Who Plays the Key Role? AU De Meyer, A.; Saab, W.; Tabet, J. AA INSEAD. SR INSEAD Working Papers: 94/12/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 14. PR not available. JE B41. KW Scientific Networks. Research Projects.

AB The aim of the research presented here is to understand more clearly the factors that encourage international projects to take place, and influence the creation or extension of European scientific networks in particular. The study focuses on two European scientific communities. A questionnaire was designed based on a literature review and on preliminary interviews with scientists. The analysis of the results provides us with an understanding concerning the process of information search by researchers, and some other behavioral aspects of researchers. We also analyze the communication process among scientists which reveals the existence of scientific networks.

#### Demekas, Dimitri G.

PD March 1994. TI Labor Market Institutions and Flexibility in Italy: A Critical Evaluation and Some International Comparisons. AA not available. SR International Monetary Fund Working Paper: WP/94/30; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 35. PR not available. JE J40, J50, J60. KW Labor Markets. Employment Protection. Wage Bargaining.

AB The paper surveys three broad categories of labor market institutions in Italy: employment protection legislation, unemployment benefit systems, and wage bargaining arrangements. In each case, the recent evolution and current state of Italian institutions are evaluated and compared with those in other major European countries.

#### Den Haan, Wouter J.

PD April 1994. TI Heterogeneity, Aggregate Uncertainty and the Short Term Interest Rate: A Case Study of Two Solution Techniques. AA not available. SR University of California, San Diego Department of Economics Working Paper: 94-03; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 33. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C63, D52. KW Heterogeneous Aggrtn. Incomplete Markets. Solution Techniques.

AB This paper discusses the difficulties in solving models of incomplete markets economies with aggregate uncertainty and a finite number of agents, and shows how to deal with these difficulties for two algorithms. First a result from previous literature that in models of two agent, incomplete market economies without either borrowing constraints, or transaction costs, the predicted asset prices are similar to those of the complete market case is confirmed. Second, it is found that the amount of wealth dispersion has a downward effect on interest rates especially at high unemployment rates. Third the paper examines the relationship between the number of types in the economy and the behavior of interest rates. It is found that there is little aggregate uncertainty, an increase in the number of types has a positive effect on the average interest rate. If

interest movements are mainly influenced by aggregate dynamics, the number of types has little effect on the results.

#### **Dermine, J.**

PD April 1994. TI EC Banking Regulation, Centralization or National Autonomy. AA INSEAD. SR INSEAD Working Papers: 94/13/FIN/EPS; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 26. PR not available. JE F02, E58, G28. KW Banking Regulation. Financial Integration.

AB The EC internal banking market has been operative since January 1993. Early evidence on the effects of European financial integration shows that major driving forces in the industry's restructuring are competitive deregulation and taxation. Additional legislative work is needed to achieve open and stable financial markets. Home country control of international banks needed to be complemented by host country control. The deposit guarantee schemes should be modified by rendering insured deposits "first order claim". A European authority is needed to ensure that banks do not exploit domestic rents to subsidize international activities. Finally, tax evasion is an issue that remains to be addressed by the EC authorities.

#### **Detragiache, Enrica**

PD March 1994. TI Fiscal Adjustment and Official Reserves in Sovereign Debt Negotiation. AA Johns Hopkins University. SR Johns Hopkins Department of Economics Working Paper: 325; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 27. PR no charge. JE F34, F35. KW Government Debt. Official Reserves. Credit Worthiness. Distortionary Taxation.

AB Empirical studies indicate that official reserves increase the creditworthiness of highly indebted countries. This evidence cannot be explained by existing bargaining models of sovereign debt, because sovereign immunity shelters official reserves from creditors' seizure. In the model proposed here, to service foreign debt, the government must raise the revenue through distortionary taxation. Large reserves reduce the fiscal burden of debt service, weakening the bargaining position of the debtor, and resulting in larger transfers to foreign creditors. In these circumstances, the debtor country may be better off repurchasing debt on the secondary market rather than accumulating official reserves.

PD May 1994. TI Debt Restructuring with Multiple Debtors. AU Detragiache, Enrica; Garella, Paolo G. AA Detragiache: Johns Hopkins University. Garella: Universita' di Bologna. SR Johns Hopkins Department of Economics Working Paper: 329; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 30. PR no charge. JE G34, G33, D82. KW Debt Forgiveness. Liquidation. Winners Curse.

AB This paper studies a situation in which restructuring the debt of a financially distressed firm is Pareto-improving, but it must be unanimously approved by a multiplicity of creditors who have private information about the liquidation value of the debtor. Using a mechanism designed approach, it is found that too little debt forgiveness is granted in equilibrium, as expected. More interestingly, it is shown that exchange offers, similar to those used in U.S. corporate debt workouts, are an optimal restructuring scheme for the debtor, as they allow creditors to contribute to debt forgiveness at different levels. Also, creditors are more willing to offer debt forgiveness when their liquidation values are correlated. This is the opposite of

the "winner's curse" phenomenon in auction theory.

#### **Devereux, Michael B.**

PD January 1994. TI Monopolistic Competition, Increasing Returns, and the Effects of Government Spending. AU Devereux, Michael B.; Head, Allen C.; Lapham, Beverly J. AA Devereux: University of British Columbia. Head and Lapham: Queen's University. SR University of British Columbia Department of Economics Discussion Paper: 94-03; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 28. PR JE E62, D51, H31, H32. KW Government Spending. General Equilibrium. Fiscal Policy.

AB We investigate the effects of fiscal spending policies in a dynamic general equilibrium economy with monopolistic competition and increasing returns. Government spending shocks generate an endogenous response in aggregate factor productivity leading to a number of results which contrast with the effects of government spending policies in constant returns economies. In particular, government spending multipliers are substantially higher than those in previous literature. Furthermore, government spending shocks can simultaneously raise output, consumption, and investment. Finally, both employment and the real wage may increase in response to a government spending shock.

#### **Diamond, Larry**

PD July 1994. TI Civil Society and Democratic Development: South Africa in Comparative Perspective. AA Hoover Institution. SR Stanford Hoover Institute International Studies Working Paper: I-94-9; The Hoover Institution, Stanford University, Stanford, CA 94305. PG 30. PR no charge. JE O55, H11. KW Democratic Consolidation. Civil Society. South Africa.

AB This paper examines the process of democratic consolidation in South Africa. With the election of a democratic government in South Africa, the transition to democracy is completed, but the consolidation of those institutions must begin. This paper examines the process of democratic consolidation and the importance of developing an open civil society as a foundation for democracy. Conclusions are made about the adaptations required for existing civic organizations to play a role in the formation of a civil society in South Africa. The contribution of civil society to the fostering of a democratic culture is also discussed.

#### **Diewert, W. E.**

PD November 1993. TI A "New" Approach to the Smoothing Problem. AU Diewert, W. E.; Wales, T. J. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-44; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 62. PR JE C14, C61. KW Nonparametric Smoothing. Convexity. Concavity.

AB The paper develops a method for nonparametrically smoothing a function of one variable. The investigator decides on the maximal number of regions of convexity and concavity (or bumps and dips),  $k$ , that the underlying true function can exhibit and subject to this constraint, a smooth is fitted to the data, using a modification of Hildreth's method for fitting a concave function. Since the smooth is constructed by solving

numerous quadratic programs (subject to non-negativity constraints only), a new efficient algorithm for this class of problems is developed. The paper also considers alternative definitions of smoothness and an axiomatic approach to choosing a smoothing method is developed. Finally, an F test approach and a runs test approach to choosing the smoothing parameter  $k$  are suggested.

#### Ding, Zhuixin

TI Some Properties of Absolute Return an Alternative Measure of Risk. AU Granger, Clive W.J.; Ding, Zhuixin.

PD May 1994. TI Modeling Volatility Persistence of Speculative Returns: A New Approach. AU Ding, Zhuixin; Granger, Clive W.J. AA Ding and Granger: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 94-05; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 24. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C32, C13, C15. KW ARCH. Long Memory. Autocorrelation. Aggregation. Power Transformation.

AB This paper extends the work by Ding, Granger and Engle (1993) and further examines the long memory property for various speculative returns. The long memory property found for S&P 500 returns is also found to exist for four other different speculative returns. One significant difference is that for foreign exchange rate returns, this property is strongest when  $d=1/4$  instead of at  $d=1$  for stock returns. The theoretical autocorrelation functions for various GARCH (1,1) models are also derived and found to be exponentially decreasing, which is rather different from the sample autocorrelation for the real data. A general class of long memory models that has no memory in returns themselves but long memory in absolute returns and their power transformations is proposed. The issue of estimation and simulation for this class of models is discussed. The Monte-Carlo simulation shows that the theoretical model can mimic the stylized empirical facts strikingly well.

#### Doiron, Denise J.

PD November 1993. TI Layoffs as Signals: The Canadian Evidence. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-40; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 32. PR JE J64, D12, D21. KW Signalling. Layoffs. Displacement Costs.

AB In a recent paper, Gibbons and Katz (1991) study the signalling content of layoffs and the resulting costs to the displaced worker. They find evidence of this signalling effect in data on displaced workers in the U.S. In this paper, a similar exercise is conducted using Canadian data. There are several advantages in using the Canadian data: they provide information on union status, search activity, and better measures of the salaries following displacement and the length of unemployment. The results show evidence of a signalling effect in white collar occupations but not in the blue collar jobs regardless of the union status. Also, the signalling effect persists for the first three years in the (first) postdisplacement job. Finally, an effect of layoffs similar to that in the Gibbons and Katz study is found with respect to the duration of

unemployment. This additional cost to laid off workers is robust to the inclusion of search variables.

#### Dolton, Peter

PD May 1994. TI The Turnover of UK Teachers: A Competing Risks Analysis. AU Dolton, Peter; van der Klaauw, Wilbert. AA Dolton: University of Newcastle. van der Klaauw: New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-21; 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 32. PR no charge. JE J45, J63, C41, I21. KW Recruitment. Duration. Education.

AB Persistent shortages of qualified school teachers in the UK continue to generate concern among policy makers and the media. The extent to which these market problems are due to the lack of retention associated with poor relative earnings rather than the lack of recruitment of qualified teachers is one of considerable importance. In this paper we study turnover decisions of teachers and show that increases in teacher salaries can be used to induce qualified teachers to remain longer in the profession. The econometric modelling approach adopted in this paper is shown to yield important insights into the appropriateness of adopting a flexible, semi-parametric specification of the duration dependence structure and of the unobserved heterogeneity distribution in duration models. Moreover, the estimates exemplify the insight gained from distinguishing between multiple destinations or exit types.

#### Donald, Stephen G.

TI On Several Criteria for Estimating the Rank of a Matrix. AU Cragg, John G.; Donald, Stephen G.

PD December 1993. TI Identification, Estimation, and Testing in Empirical Models of Auctions Within the Independent Private Values Paradigm. AU Donald, Stephen G.; Paarsch, Harry J. AA Donald: Boston University. Paarsch: University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9319; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 61. PR \$7.00 Canada; \$9.00 Elsewhere. JE C72, C70, C13, D44. KW Independent Private. Values Paradigm. Game Theory. Auction Models.

AB Recent advances in the application of game theory to the study of auctions have spawned a growing empirical literature involving both experimental and field data. In this paper, the authors focus upon four different mechanisms (the Dutch, English, first-priced sealed-bid, and Vickrey auctions) within one of the most commonly used theoretical models (the independent private values paradigm) to investigate issues of identification, estimation, and testing in structural econometric models of auctions.

#### Donaldson, David

TI Quasi-Orderings and Population Ethics. AU Blackorby, Charles; Bossert, Walter; Donaldson, David.

#### Doz, Yves

PD 1994. TI Organizing the European Operation: One Size Does Not Fit All. AU Doz, Yves; Ghoshal, Sumantra. AA INSEAD. SR INSEAD Working Papers: 94/18/SM;

INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 18. PR not available. JE F23. KW European Strategy. Management.

AB American multinational companies have been hit by a triple whammy in Europe. First, as the deep European recession has sharply cut and, for some, reversed the comfortable growth rates they enjoyed as late as two years ago, companies are facing the need for radical cost reduction. Second, there is an increasing need for aligning European strategy with corporate thrusts around specific products and businesses. Finally, these companies are also recognizing the urgent need to improve the quality of their market coverage. Different companies are dealing with this triple whammy in different ways. Some are making the matrix work, retaining its flexibility while, at the same time, designing-in clearer accountability of individuals. Some others have adopted an "aligned organization", focusing on one single dominant dimension--typically around products but, in some cases, around customer industries or geography--at national, regional and corporate levels. Finally, some companies like Apple computers have found a hybrid solution.

PD 1994. TI Managing Core Competency for Corporate Renewal: Towards a Managerial Theory of Core Competencies. AA INSEAD. SR INSEAD Working Papers: 94/23/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 21. PR not available. JE M11, M12, M14. KW Core Competency. Managerial Theory. AB Competence cultivation, competence diffusion, competence aggregation, competence leverage, and competence renewal, constitute the key processes in the management of core competencies. This paper seeks to define the key managerial issues and the tasks involved in the successful performance of these five processes. In that sense it constitutes a modest attempt to move in the direction of a managerial theory of core competencies.

### Dreze, Jean

PD September 1993. TI Primary Education and Economic Development in China and India: Overview and Two Case Studies. AU Dreze, Jean; Saran, Mrinalini. AA Dreze: London School of Economics. Saran: Delhi School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/47; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 87. PR no charge. JE H41, H52, I31, J16, O15. KW India. China. Primary Education. Economic Reform.

AB This paper begins with an examination of literacy achievements in rural China and rural India, based on recent Census data. China turns out to be well ahead of India in this field: while nearly 40 percent of rural Indian children fail to learn to read and write, the corresponding proportion in rural China is only around 5 percent. Internal diversities within each country (relating to region, age, sex, etc.) are also discussed. A comparative assessment of educational policies and achievements in two particular villages (Palanpur in North India and She Tan in Eastern China) helps to identify some determinants of these contrasts. In rural North India, the poor functioning of the public schooling system (reflecting, inter alia, a lack of accountability) appears to be a major constraint on the rapid expansion of male education. In the case of female education, there is an additional problem of extremely low

parental motivation, itself relating to the nature of gender relations in North India. In rural Eastern China, there is a much stronger public as well as private commitment to primary education. However, the transition to the household responsibility system, combined with fiscal decentralization, has eroded the financial basis of local public services, and poses a new challenge for the widespread and equitable provision of elementary education.

### Duclos, Jean-Yves

PD February 1994. TI Poland's Socialist Reforms: 1970-1989. AA Universite Laval, Canada. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/6; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 41. PR no charge. JE E60, N14, O11, O52. KW Polish Economy. Socialism. Economic Transition. Economic Reform.

AB We examine here the most important economic and political events of the two decades preceding the start of Poland's ongoing economic and institutional transition. In particular, we appraise the nature, the impact, and the fate of major past socialist attempts in Poland at relaxing macroeconomic and fiscal crises and in generating higher growth. A substantial display of aggregate data helps support the analysis. It is hoped that this will contribute to a greater understanding of the recent and current experience of Eastern and Central European countries in reforming their economies and in engineering macroeconomic stability.

### Dunne, Timothy

TI A Comparison of Job Creation and Job Destruction in Canada and the United States. AU Baldwin, John; Dunne, Timothy; Haltiwanger, John.

### Eaton, Jonathan

PD February 1994. TI Cities and Growth: Theory and Evidence From France and Japan. AU Eaton, Jonathan; Eckstein, Zvi. AA Eaton: Boston University and National Bureau of Economic Research. Eckstein: Tel Aviv University and Boston University. SR Tel Aviv Sackler Institute of Economic Studies: 4/94; Department of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 64. PR no charge. JE R11, D24, F43. KW Cities. Agglomerations. Human Capital. Growth.

AB The relative distribution of the populations of the top 40 urban areas of France and Japan remained very constant during these countries' periods of industrialization and urbanization. Moreover, projection of their future distributions based on past growth indicates that their size-distributions in steady state will not differ essentially from what they have been historically. Urbanization consequently appears to have taken the form of the parallel growth of cities, rather than convergence to an optimal city size or the divergent growth of the largest cities. We develop a model of urbanization and growth based on the accumulation of human capital consistent with these observations. Our model predicts that larger cities will have higher levels of human capital, higher rents, and higher wages per worker, even though workers are homogeneous and free to migrate between cities. Cities grow at a common growth rate, with relative city size depending upon the environment that they provide for learning.



**Eckstein, Zvi**

**TI** Cities and Growth: Theory and Evidence From France and Japan. **AU** Eaton, Jonathan; Eckstein, Zvi.

**TI** Interpreting Monetary Stabilization in a Growth Model With Credit Goods Production. **AU** Aiyagari, S. Rao; Eckstein, Zvi.

**Edlin, Aaron S.**

**PD** October 1993. **TI** Efficient Standards of Due Care: Should Courts Find More Parties Negligent Under Comparative Negligence? **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 93-218; **IBER**, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 22. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** H00, K41, K13, K00. **KW**

**AB** The paper shows that negligence standards should differ under comparative and contributory negligence regimes. If due care standards are allowed to vary with the laws of a jurisdiction, then comparative and contributory negligence may be equally efficient, even in a model with evidentiary uncertainty. It is commonly observed that jurors are naturally inclined to be more lenient to plaintiffs on the issue of plaintiff on the issue of plaintiff negligence in contributory negligence jurisdictions. It is shown that such lenience may actually be efficient in addition to satisfying jurors' senses of equity. A similar conclusion applies to defendants.

**Eichengreen, Barry**

**PD** September 1993. **TI** Institutional Prerequisites for Economic Growth: Europe After World War II. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 93-216; **IBER**, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 9. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** E10, N00. **KW** Europe. Economic Growth. Catch-Up.

**AB** This paper attempts to explain why the quarter century that ended around 1973 was for Western Europe a golden age of economic growth. Real GDP rose nearly twice as rapidly as over any comparable period before or since. Understanding the sources of t.Ip hi 5

admirable performance will shed important light on the causes of the growth slowdown through which Europe has suffered subsequently.

**Elbaz, Gilad**

**TI** Economies of Scale, Natural Monopoly and Imperfect Competition in an Experimental Market. **AU** Plott, Charles R.; Sugiyama, Alexandre B.; Elbaz, Gilad.

**Engle, Robert F.**

**PD** October 1993. **TI** Index-Option Pricing with Stochastic Volatility and the Value of Accurate Variance Forecasts. **AU** Engle, Robert F.; Kane, Alex; Noh, Jaesun. **AA** Engle, Kane, and Noh; University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-43; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 14. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** G10, G12. **KW** Pricing Options. **ARCH**. Financial Forecasts.

**AB** In pricing primary-market options and in making secondary markets, financial intermediaries depend on the quality of forecasts of the variance of the underlying assets. Hence, the gain from improved pricing of options would be a measure of the value of a forecasts of underlying asset returns. NYSE index returns over the period of 1968-1991 are used to suggest that pricing index options of up to 90-days maturity would be more accurate when: (1) using ARCH specifications in place of a moving average of squared returns; (2) using Hull and White's (1987) adjustment for stochastic variance in Black and Schole's (1973) formula; (3) accounting explicitly for weekends and the slowdown of variance whenever the market is closed.

**TI** Arch Models. **AU** Bollerslev, Tim; Engle, Robert F.; Nelson, Daniel B.

**TI** Non-Synchronous Common Cycles. **AU** Vahid, Farshid; Engle, Robert F.

**Eric J.**

**TI** Downsizing and Productivity Growth: Myth or Reality? **AU** Baily, Martin Neil; Bartelsman; Eric J.; Haltiwanger, John.

**Evandrou, Maria**

**PD** April 1993. **TI** Informal Carers and the Labour Market in Britain. **AU** Evandrou, Maria; Winter, David. **AA** Evandrou: University College London and London School of Economics. Winter: University of Bristol and London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/89; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 66. **PR** no charge. **JE** C50, J22. **KW** Carers. Labor Market.

**AB** This paper examines the labor market experience of individuals who provide consistent care for sick, handicapped, or elderly people in Britain. It explores the economic impact of having caring responsibilities by comparing the labor force participation, earnings, and wage rates of carers versus non-carers. The paper provides an empirical analysis using data from the 1985 General Household Survey employing both descriptive and multi-variate modelling techniques. The findings indicate that careers are less likely to be employed than their non-carer counter parts, and if they are employed, they are more likely to be in part-time jobs. Furthermore, carers are faced with lower wages and even after taking into account receipt of social security benefits, carers tend to have lower disposable incomes. The adequacy of current welfare benefits for carers is discussed and the major issues for future policy reform are drawn out.

**Evans, Charles**

**TI** Seasonality and Equilibrium Business Cycle Theories. **AU** Braun, R. Anton; Evans, Charles.

**Evans, Martin**

**PD** May 1994. **TI** Not Granted? An Assessment of the Change From Single Payments to the Social Fund. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/101; London School of Economics, Houghton Street, London WC2A 2AE,

UNITED KINGDOM. PG 60. PR no charge. JE I38, H55. KW Social Security. Means Test. Social Fund.

AB The Social Fund represents a radical change in the assessment and payment of means-tested single payments, social security payments for one-off needs. The previous system of grants was replaced by a regime which gave fewer awards, and which gave the majority of these awards as loans. This paper argues that this change in policy should be seen as a part of wider change in the commitment to a means-tested minimum income guarantee. A comparison is made of the outputs of the old and new systems using consistent measures of spending levels, claimant populations, and numbers of awards. This analysis quantifies the aggregate losses in the new scheme and identifies how these are divided between types of claimants and areas of help.

#### Evans, Robert G.

PD January 1994. TI Charging Peter To Pay Paul: Accounting for the Financial Effects of User Charges. AU Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L. AA Evans and Barer: University of British Columbia. Stoddart: McMaster University. SR University of British Columbia Department of Economics Discussion Paper: 94-04; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 45. PR JE I11, I18, H51, H71. KW Health Care. Health Insurance. User Charges.

AB This paper outlines a formal and comprehensive analytic framework for tracing income transfers between groups in the population (e.g., the healthy and the sick, the rich and the poor), between payers and health care providers, and among providers. Such income transfers are deemed to be the principal effects of user charges. The accounting relationships in this framework, expressed as equations, are a subset of those underlying the economy-wide national income and product accounts. They make it clear that "it is impossible to do only one thing" when charges are imposed--or removed. The framework is used to analyze the patterns of income transfers associated with different types of user charges.

PD January 1994. TI It's Not the Money, It's the Principle: Why User Charges for Some Services and Not Others? AU Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L.; Bhatia, Vandna. AA Evans and Barer: University of British Columbia. Stoddart: McMaster University. Bhatia: Durham Regional District Health Council, Whitby, Ontario. SR University of British Columbia Department of Economics Discussion Paper: 94-06; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 45. PR JE I11, I18, H51, H71. KW Health Care. Health Insurance. User Charges.

AB This paper examines why user charges exist for some health care services and not for others. It analyzes the characteristics of services which appear to, or might, underlie decisions to charge in part or in whole for specific types of services. We propose a framework for evaluating the justification for, and feasibility of, user charges for particular types of services in particular situations.

#### Fair, Ray C.

PD April 1994. TI Is Monetary Policy Becoming Less Effective? AA Yale University. SR Yale Cowles Foundation Discussion Paper: 1071; Yale University, Cowles

Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. PG 17. PR no charge. JE E52, E50. KW Large Scale Macroeconomic Model. Monetary Policy. Policy Analysis.

AB This paper estimates the amount by which the effectiveness of monetary policy in changing real output has declined due to the increased size of the federal government debt.

#### Falkingham, Jane

PD March 1993. TI William Beveridge versus Robin Hood: Social Security and Redistribution over the Lifecycle. AU Falkingham, Jane; Hills, John; Lessof, Carli. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/88; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 48. PR no charge. JE H55, D31, I38. KW Social Security. Lifecycle. Income Distribution.

AB Most analyses of the distributional effects of social security are made on a cross-sectional basis, using data for a single year. However, social security systems are designed not just to redistribute between rich and poor at one moment, but also to move resources between different periods of the same individuals' lives. This paper uses results from a simulation model of the complete life histories of 4,000 individuals to investigate the 1985 British social security and direct taxation systems. It suggests that redistribution across the life-cycle is a more important effect than redistribution between different individuals. It shows that changes to the systems between 1985 and 1991 substantially reduced the net lifetime gains received by women and by the "lifetime poor".

PD April 1993. TI A Unified Funded Pension Scheme (UFPS) for Britain. AU Falkingham, Jane; Johnson, Paul. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/90; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 58. PR no charge. JE H55, H20. KW Public Pensions. Taxation. Pension Reform.

AB This paper presents a radical proposal for a new type of pension scheme--we call it a unified funded pension scheme or UFPS--which is designed to combine earnings-related funded pensions with tax-financed minimum pension provision in a unified system which will facilitate saving for old age and prevent pensioner poverty. We argue that a UFPS would be an improvement on the current pension mix in terms of adequacy and comprehensiveness of coverage, portability, distributional transparency, and stability. We show that a UFPS could provide higher pensioner income at lower levels of public expenditure than at present. We also show that any transition from the current pay-as-you-go public pension to a funded pension system will involve very large costs which will need to be spread over several decades, and we indicate how changes in the tax regime for pension contributions could cover these costs.

TI Paying for Learning. AU Barr, Nicholas; Falkingham, Jane.

#### Farber, Henry S.

PD January 1994. TI Politics and Peace. AU Farber,

Henry S.; Gowa, Joanne. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 324; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 36. PR \$1.50. JE P51. KW Democracy. War. International Relations. Disputes.

AB We review the central claim of a growing literature: that democratic states rarely, if ever, wage war against other democratic states. We first examine the microfoundation of this claim, and we conclude that they are tenuous. Next, we examine the existing evidence. We find that no statistically significant relationship exists between regime type and the probability of war before World War I. Our analysis shows that a significant relationship prevails only after World War II. This suggests that the relationship we observe between democracy and war is the product of common interests rather than of common politics. An analysis of the relationship between regime type and the probability of alliance-formation supports this interpretation.

TI Forming Beliefs about Adjudicated Outcomes: Risk Attitudes, Uncertainty, and Reservation Values. AU Babcock, Linda; Farber, Henry S.; Fobian, Cynthia; Shafir, Eldar.

PD May 1994. TI Learning and Wage Dynamics. AU Farber, Henry S.; Gibbons, Robert. AA Farber: Princeton University. Gibbons: Cornell University. SR Princeton Industrial Relations Section Working Paper: 328; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 63. PR \$2.00. JE J31. KW Wage Dynamics. Learning. Ability.

AB We develop a dynamic model of learning and wage determination. Education may convey initial information about ability, but subsequent performance observations also are informative. Although the role of schooling in the labor market's inference process declines as performance observations accumulate, the estimated effect of schooling on the level of wages is predicted to be independent of labor-market experience. The model also predicts that time-invariant variables correlated with ability but unobserved by employers should be increasingly correlated with wages as experience increases and that wage residuals should be a martingale. We present evidence from the National Longitudinal Survey of Youth that is generally consistent with the role model's predictions, but a chi-squared goodness-of-fit test does reject the martingale prediction for wage residuals even after accounting for classical measurement error. We investigate alternative specifications and find that a modification of the learning model that allows for worker ability to evolve as an AR(1) process fits the data quite well.

### Felli, Leonardo

TI Incomplete Written Contracts: Endogenous Agency Problems. AU Anderlini, Luca; Felli, Leonardo.

### Ferreira, Francisco

TI The World Bank as "Intellectual Actor". AU Stern, Nicholas; Ferreira, Francisco.

TI The World Bank and the Analysis of the International Debt Crisis. AU Armendariz de Aghion, Beatriz; Ferreira, Francisco.

### Fey, Mark

PD May 1994. TI An Experimental Study of Constant-Sum Centipede Games. AU Fey, Mark; McKelvey, Richard D.; Palfrey, Thomas R. AA California Institute of Technology. SR Caltech Social Science Working Paper: 877; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 31. PR no charge. JE C91, C72. KW Game Theory. Experiments. Bounded Rationality.

AB In this paper, we report the results of a series of experiments on a version of the centipede game in which the total payoff to the two players is constant. Standard backward-induction arguments lead to a unique Nash equilibrium outcome prediction, which is the same as the prediction made by theories of "fair" or "focal" outcomes. We find that subjects frequently fail to select the unique Nash outcome prediction. While this behavior was also observed in McKelvey and Palfrey (1992) in the "growing pie" version of the game they studied, the Nash outcome was not "fair", and there was the possibility of Pareto improvement by deviating from Nash play. Their finding could therefore be explained by small amounts of altruistic behavior. There are not Pareto improvements available in the constant-sum games we examine, hence explanations based on altruism cannot account for these new data.

### Fiorentini, Gianluca

PD September 1993. TI A Model of Electoral Competition With Pressure Groups. AA Università di Firenze. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TIDI/161; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 35. PR no charge. JE D72, D78. KW Voting Behavior. Elections. Rent Seeking. Legislative.

AB In this paper we show how to derive a reduced form probabilistic model of electoral competition. Such a reduced-form model is then used as the institutional setting in which pressure groups compete for getting favorable legislation. The equilibrium in the competition among pressure groups depends not only on the distribution of agents across pressure groups, and on the transaction costs of participating pressure groups' activities, but also on the features of the electoral rules in which such competition takes place. Due to free-riding effects, and especially for large groups, the influence of pressure groups in collective decision making depends on the possibility of undertaking intragroup cooperation in collecting contributions. Moreover, constitutional rules which increase the transaction costs of financing pressure groups or the costs of reaching political representation in the legislative body can affect differentially groups of different size.

### Fischer, Jeffrey H.

PD December 1993. TI Product Variety and Firm Agglomeration. AU Fischer, Jeffrey H.; Harrington, Joseph E., Jr. AA Fischer: Federal Trade Commission. Harrington: Johns Hopkins University. SR Johns Hopkins Department of Economics Working Paper: 318; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 37. PR no charge. JE L11, R30, R32. KW Product Differentiation. Spatial Location. Clustered and Unclustered Firms.

AB For the purpose of explaining inter-industry variation in

the geographic distribution of firms, this paper explores the incentives for firms to cluster in the presence of a ubiquitous "periphery" of unclustered firms. The main results of the paper are (1) the likelihood that a cluster exists and the size of an established cluster are both generally increasing in the degree of product heterogeneity; and (2) a greater degree of heterogeneity makes clustered and unclustered firms more profitable, inducing entry. The key insight is that increasing product heterogeneity increases consumer search, making cluster shopping more attractive but giving periphery firms a greater degree of local monopoly power.

#### Fishburn, Peter C.

TI When is Size a Liability? Bargaining Power in Minimal Winning Coalitions. AU Brams, Steven J.; Fishburn, Peter C.

#### Fisher, Jonas D.M

PD February 1994. TI Relative Prices, Complementarities and Co-movement Among Components of Aggregate Expenditures. AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9405; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 42. PR \$7.00 Canada; \$9.00 Elsewhere. JE E13, E23, E32. KW Real Business Cycle. Business and Household Investment. Relative Price Variability.

AB Recent work suggests the standard real business cycle framework has difficulty accounting for co-movement among aggregate expenditure components when they are disaggregated even slightly to include business and household investment. I report that introducing empirically plausible relative price variability exacerbates this difficulty. The possibility that complementarities in production may help account for observed co-movement is considered. The results of formal estimation and testing suggest that complementarities improve the framework's empirical performance.

TI Algorithms for Solving Dynamic Models With Occasionally Binding Constraints. AU Christiano, Lawrence J.; Fisher, Jonas D.M.

#### Fishman, Arthur

PD November 1993. TI Standardization and the Rate of Technological Progress. AU Fishman, Arthur; Gandal, Neil. AA Tel Aviv University. SR Tel Aviv Sackler Institute of Economic Studies: 19/93; Department of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 20. PR no charge. JE O31. KW Standardization. Network Externalities. Technological Progress.

AB In this paper we show how product standardization, or its absence, affects the rate of technological progress. Two types of outcomes--those in which innovations are compatible with old products and those in which they are not--are market equilibria. The incompatible regime is characterized by more frequent product innovations and more rapid technological progress, on the one hand, and greater expenditure of resources in return for this progress on the other. In our framework, an absence of product standardization fulfills the role of "functional obsolescence," which may serve a socially desirable role by fostering more rapid technological progress.

#### Flanders, M. June

PD May 1994. TI Hayek and the Revival of Free Banking. AA Tel Aviv University. SR Tel Aviv Sackler Institute of Economic Studies: 12/94; Department of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 33. PR no charge. JE B22, B31, E42, E58, F33. KW Central Bank. Monetary Policy. Free Banking. Money Supply.

AB The rules versus discretion debate in monetary policy is traced back to Simons and Angell in the 1930's. The proponents of rules have been those who mistrusted the ability of the authorities to promulgate appropriate policy; but formulating rules which are unambiguous as well as credible and time-consistent has proved virtually impossible. Opinion has therefore shifted away from favoring rules for monetary authorities to eliminating those authorities, that is, to deregulating banking and the creation of money. This contemporary free banking movement has an early adherent in F.A. Hayek. The development of his proposals from that of a super-fine-tuning central bank to no central bank at all is traced. There was never any deviation from his fundamental view that the money supply a) has real effects and b) should be endogenous. Both of these views have been adopted by the majority of free banking advocates today. These will be discussed in future sections of this study.

#### Flores, Nicholas E.

TI Contingent Valuation and Revealed Preference Methodologies: Comparing the Estimates for Quasi-Public Goods. AU Carson, Richard T.; Flores, Nicholas E.; Martin, Kerry M.; Wright, Jennifer L.

#### Flug, Karnit

PD June 1994. TI A Small-Open-Economy Analysis of Migration. AU Flug, Karnit; Hercowitz, Zvi; Levi, Anat. AA Flug and Levi: Bank of Israel. Hercowitz: Bank of Israel and Tel Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 13/94; The Eitan Berglas School of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 22. PR no charge. JE C61, F22, F41. KW Migration. Job Search. Unemployment. Open Economy.

AB The standard small-open-economy framework is extended to incorporate migration and job search. The model has a dynamic optimization setup with migration costs, where a simple mechanism of job search interacts with the migration decision. The balanced-growth population size is not determined in this model. However, when conditioned on the current population size, the expected long-run population is finite. The developed framework is used to analyze, theoretically and quantitatively, the effects of an exogenous immigration influx of the magnitude of the ongoing influx to Israel from the CIS. The outcome of the model is a set of paths for endogenous emigration, domestic population size, and unemployment.

#### Fobian, Cynthia

TI Forming Beliefs about Adjudicated Outcomes: Risk Attitudes, Uncertainty, and Reservation Values. AU Babcock, Linda; Farber, Henry S.; Fobian, Cynthia; Shafir, Eldar.

#### Franses, Philip Hans

PD February 1994. TI Multi-Step Forecast Error

Variances for Periodically Integrated Time Series. AA Erasmus University. SR University of California, San Diego Department of Economics Working Paper: 94-01; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 14. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C32, C53. KW Seasonal Variation. Stochastic Trends. Forecast Error.

AB A periodically integrated time series process assumes that a stochastic trend can be removed using the (?) filter, where ? while the ? vary with the seasons and are not all equal to unity. In this paper the multi-step forecast error variances are derived for the levels of such a time series when periodic autoregressions of order 1 and 2 adequately describe the data. The forecast error variances display seasonal variation, indicating that observations in some seasons can be forecast more precise than those in other seasons. Two examples illustrate the empirical relevance of calculating forecast error variances. A by-product of the analysis is an expression for the matrix displaying the seasonally varying impact of stochastic trends.

#### Fries, Steven M.

PD March 1994. TI Financial and Enterprise Restructuring in Emerging Market Economies. AU Fries, Steven M.; Lane, Timothy D. AA not available. SR International Monetary Fund Working Paper: WP/94/34; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 19. PR not available. JE G18, P21. KW Financial Structure. Lending Risk. Insolvency.

AB This paper examines alternative approaches to building sound financial structures in emerging market economies. The foremost task is to resolve the bad loan problem and to recapitalize insolvent state banks. By restoring an incentive for banks to price accurately the risks of new lending, this effort would be an important first step in strengthening financial control. However, we argue that this endeavor is only part of the task at hand; the remainder is to provide financing that facilitates the economic restructuring of SOE's. A comprehensive strategy may involve combining discipline derived from enforcing existing loans to SOE's with adequate funding for new forms of ownership, including financing for enterprise sell-offs and leasing.

#### Fudenburg, Drew

TI Maintaining a Reputation Against a Patient Opponent. AU Celentani, Marco; Fudenburg, Drew; Levine, David K.; Pesendorfer, Wolfgang.

#### Galetovic, Alexander

PD May 1994. TI Credit Market Structure, Firm Quality, and Long-run Growth. AA Princeton University and Centro de Economia Aplicada. SR Princeton Woodrow Wilson School Discussion Paper in Economics: 171; Woodrow Wilson School, Robertson Hall, Princeton University, Princeton, NJ 08544. PG 34. PR no charge. JE E44, O16, O40, G20. KW Firm Quality. Credit Markets. Monopolistic Intermediaries.

AB In a simple model of endogenous growth with low-and high-quality firms it is shown that: (a) when credit markets are competitive, an equilibrium where both low-and high-quality firms are creditworthy and receive credit always exists; (b) when intermediaries have market power to exclude individual

borrowers, low-quality firms are always denied credit, this regardless of their creditworthiness; (c) having more productive firms accelerates long-run growth directly by increasing the productivity of the economy's engine of growth; but also indirectly, by increasing the diffusion of innovations and thus the profitability of creating new knowledge.

#### Gandal, Neil

TI Standardization and the Rate of Technological Progress. AU Fishman, Arthur; Gandal, Neil.

#### Gardiner, Karen

PD November 1993. TI A Survey of Income Inequality Over the Last Twenty Years--How Does the UK Compare? AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/100; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 74. PR no charge. JE D31. KW Income Inequality. International Comparisons.

AB This study is a survey of existing literature and statistics on the trends in the distribution of household equivalized disposable income in the United Kingdom and other developed nations during the 1970's and 1980's. Twelve countries are ranked according to the level of income inequality in the mid-1980's, with the UK coming seventh and Finland first, with the most equal distribution of income. The influence of five main factors in causing inequality trends is then assessed: earnings, investment income, taxes and transfers, unemployment and demographic and socio-economic change. Whilst it has probably been earnings which has been the single most important factor, the impact of the other factors has been significant. In particular, it is found that the complex and changing links between different sources of income and the individual income-earning members of the household are crucial to understanding the overall trends in inequality, despite receiving little attention to date.

#### Garella, Paolo G.

TI Debt Restructuring with Multiple Debtors. AU Detragiache, Enrica; Garella, Paolo G.

#### Gargiulo, Martin

TI Organizing for Hyper Competition: The Legitimation of Corporate Leadership. AU Chakravarthy, Balaji S.; Gargiulo, Martin.

#### Gately, Dermot

TI The Imperfect Price-Reversibility of Non-Transportation Oil Demand in the OECD. AU Dargay, Joyce; Gately, Dermot.

TI The Changing World Petroleum Market: Demand in the Industrialized Countries. AU Dargay, Joyce; Gately, Dermot.

PD March 1994. TI Strategies for OPEC's Pricing Decisions--Revisited. AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-11; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 33. PR no charge. JE Q41. KW World Oil Markets. OPEC.

AB Following the lines of a 1977 paper with a similar title,

this paper examines the effects of different price or output strategies for OPEC, under a variety of assumptions about the underlying conditions for non-OPEC supply and world oil demand. Given the dominant influence of its Gulf members, OPEC's interests will be best served by a policy of moderate output growth, at about half the rate of world economic growth. This rate of output growth will allow it gradually to regain the market share lost after its disastrous 1979-80 price doubling, but without jeopardizing its revenue, as might a policy of more rapid increases in output. It will yield a consistently good result for OPEC, relative to alternative strategies, over a fairly wide range of demand and supply conditions.

### Gaynor, Martin

PD August 1993. TI Uncertain Demand, The Structure of Hospital Costs, and the Cost of Empty Hospital Beds. AU Gaynor, Martin; Anderson, Gerard F. AA Gaynor and Anderson: Johns Hopkins University. Gaynor: National Bureau of Economic Research. SR Johns Hopkins Department of Economics Working Paper: 313; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 41. PR no charge. JE D24, D21, I18, H51. KW Medicare Costs. Hospital Costs. Excess Capacity.

AB One of the fundamental facts of the environment hospitals face is uncertainty over demand for their services. This uncertainty leads hospitals to hold excess standby capacity to avoid turning away patients. This paper reformulates the theory of cost and production to take account of this uncertainty. In the reformulated theory the duality between cost and production no longer obtains, and demand distribution parameters enter the cost function as well as the traditional outputs and input prices. This paper then uses this model to calculate the cost of empty hospital beds, controlling for the effect of uncertain demand on the structure of hospital costs. Utilized capacity in the hospital industry, as measured by the inpatient hospital bed occupancy rate, has gradually declined since 1980 and was approximately 65 percent in 1992. Congress and the Administration are concerned that the costs associated with empty beds represent wasteful expense and some have proposed an adjustment to Medicare payment rates which will penalize hospitals with low occupancy rates. Hospitals, on the other hand, have indicated that the costs of empty hospital beds are low and that reimbursement adjustments are unnecessary. We estimate a short run cost function for a hospital facing uncertain demand using data from a national sample of over 5000 hospitals for the years 1983-1987. The traditional cost model is strongly rejected in favor of the reformulated model. The cost of an empty hospital bed is calculated as \$61,395 in 1987 dollars. It is estimated that a one percent decrease in the number of hospital beds would decrease hospital costs by slightly over one-half of one percent. These costs are substantial, but smaller than some others have indicated.

PD December 1993. TI Issues in the Industrial Organization of the Market for Physician Services. AA Johns Hopkins University and National Bureau of Economic Research. SR Johns Hopkins Department of Economics Working Paper: 319; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 79. PR no charge. JE L13, I11, I18. KW Physician Services Market. Government Intervention. Medical Industrial Organization.

AB This paper addressed the questions: What is the nature of the industrial organization of the market for physician services?

Is the market "competitive"? Are there pareto-relevant market failures, such that there is no room for welfare improving policies? Some background on early studies of this market is presented. The nature of the product being bought and sold, and of demand, are then characterized, in order to establish the character of this market. The key features of this market are that the product being sold is a professional service, and the persuasive presence of insurance for consumers. A professional service is inherently heterogeneous, non-retradable, and subject to an asymmetry of information between buyers and sellers. These characteristics are what bestow market power on sellers, further strengthened by the fact that consumers face only a small fraction of the price of any service due to insurance. The implications of this for agency relationships between patients and physicians, and insurers (both private and public) and physicians are then discussed. Agency relationships within physician firms are also considered. Both theoretical and empirical modeling of contracting between insurers and physicians and of the joint agency problems between patient and physician and insurer and physician are recommended as areas for future research. Since failures in this market are seen to derive largely from the structure of information, the potential gains from government intervention may be sharply circumscribed.

### Gerard-Varet, Louis-Andre

TI Knowledge as a Public Good: Efficient Sharing and Incentives for Development Effort. AU D'Aspremont, Claude; Bhattacharya, Sudipto; Gerard-Varet, Louis-Andre.

### Ghoshal, Sumantra

TI Organizing the European Operation: One Size Does Not Fit All. AU Doz, Yves; Ghoshal, Sumantra.

PD May 1994. TI The Changing Role of Top Management (Part 1): Beyond Designing Strategy to Shaping Purpose. AU Ghoshal, Sumantra; Bartlett, Christopher A. AA Ghoshal: INSEAD. Bartlett: Harvard University. SR INSEAD Working Papers: 94/19/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 27. PR not available. JE M11, M12. KW Management. Strategy.

AB Our research leads us to believe that the traumatic changes engulfing so many large corporations today are the symptoms of a major and widespread change in corporate organization and management at least as significant as the last major revolution born in the 1920's. And while a considerable amount of attention is being focused on understanding the new strategic imperatives, the emerging structural forms and the redesigned management systems that are being created in this turmoil, our sense is that this attention is misplaced. By defining the dimensions of the new corporate model in terms of the old management doctrine, one remains a captive of that doctrine. Our research suggests that the companies that are breaking through the new barriers are those in which the old doctrine based on the hard-edged instruments of strategy, structure, and systems have evolved into a new management philosophy reflected in a softer, more organic model built on the development of purpose, process, and people.

PD May 1994. TI The Changing Role of Top Management (Part 2): Beyond Framing Structure to Building Processes. AU Ghoshal, Sumantra; Bartlett, Christopher A. AA Ghoshal: INSEAD. Bartlett: Harvard University.

SR INSEAD Working Papers: 94/20/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 23. PR not available. JE M11, M12. KW Management. Framing Structure. Building Process.

AB The purpose-process-people doctrine of management is based on the very different view that the organizing task is one of shaping the behaviors of people and enabling them to take personal initiative, to cooperate, and to learn. Thus, the entrepreneurial process is built on the premise that individuals can take personal initiative and it also creates the context and the mechanisms necessary to elicit and encourage such behavior. Similarly, the capability building process both assumes and shapes collaborative behavior, and the renewal process is designed to capitalize on the human motivation to learn while creating the resources and tools that help them do so. In essence, the shift from structure to process is a shift from a focus on organizing activities to a focus on shaping behaviors. As a result, the kind of organization we have described is highly dependent on the quality and capabilities of its people.

PD May 1994. TI The Changing Role of Top Management (Part 3): Beyond Managing Systems to Developing People. AU Ghoshal, Sumantra; Bartlett, Christopher A. AA Ghoshal: INSEAD. Bartlett: Harvard University. SR INSEAD Working Papers: 94/21/SM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 22. PR not available. JE M11, M12. KW Managing Systems. Personnel Development.

AB Our research suggests a new philosophy based on a top management role focused on purpose, process, and people which involves a reversal of the decades of management practice that emphasized the need to minimize the risk and reduce the variability due to "the human factor". The new top management role we have defined recognizes that it is the great diversity and high unpredictability of the human spirit that is the force driving initiative, creativity, and entrepreneurship. The focus of the new top management role is to recapture these lost and unreplacable human attributes by individualizing the corporation through a focus on purpose, process, and people.

### Gibbons, Robert

TI Learning and Wage Dynamics. AU Farber, Henry S.; Gibbons, Robert.

### Gilboa, Itzhak

PD January 1994. TI Act-Similarity in Case-Based Decision Theory. AU Gilboa, Itzhak; Schmeidler, David. AA Gilboa: Northwestern University. Schmeidler: Tel Aviv University and Ohio State University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1081; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG 28. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE D80, D81, D83. KW Case-Based Decision Theory. Axiomatization. Act Similarity.

AB Case-Based Decision Theory (CBDT) postulates that decision making under uncertainty is based on analogies to past cases. In its original version, it suggests that each of the available acts is ranked according to its own performance in similar decision problems encountered in the past. In this paper we extend CBDT to deal with cases in which the evaluation of an act may also depend on past performance of different, but

similar acts. That is, we consider a model in which the similarity function is not defined on decision problems alone, but on problem-act repairs. This decision rule poses a theoretical problem: since every act may, a priori, be similar to any other act chosen in the past, an act no longer has a history of cases which identifies it. Thus there is no clear relation between acts, over which preferences are defined, and past cases, over which the similarity is defined. In the absence of such a relation, one cannot derive the similarity function from observable preferences. We propose to solve this problem by the "context approach:" we formulate axioms not only on the objects of choice (i.e., acts), but also (and mostly) on the contexts in which certain preference patterns are to be observed. That is, observing certain preferences in a given context provide the missing link. Using this approach, we derive an axiomatization of an essentially-unique problem-act similarity function.

### Giovannini, Alberto

TI International Evidence on Tradables and Nontradables Inflation. AU De Gregorio, Jose; Giovannini, Alberto; Wolf, Holger C.

### Glennerster, Howard

TI Investigating Welfare: Final Report of the ESRC Welfare Research Programme. AU Hills, John; Glennerster, Howard; Le Grand, Julian and others.

PD May 1994. TI The Development of Quasi-Markets in Welfare Provision. AU Glennerster, Howard; Le Grand, Julian. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/102; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 26. PR no charge. JE H40, H51, H52, H53. KW Quasi-Markets. Competition. Health. Education.

AB In the late 1980's, governments in many western economies began to introduce competition between public agencies providing health, education, and other forms of social welfare. Governments became a contracting agency separating funding from provision. The UK went farthest in legislation passed between 1988 and 1990. This paper reviews some possible explanations for this fundamental change. It draws on public choice theory and broader political science approaches. It also reviews the evidence on the impact of the changes and concludes the gains may be small and the result may be only to build up pressure for more spending in the longer term.

### Gockowski, James

TI Economics, Politics, and Ethics of Primary Commodity Development: How Can Poor Countries in Africa Benefit the Most? AU Lele, Uma; Gockowski, James; Adu-Nyako, Kofi.

### Gong, Changzhen

PD March 1994. TI Transition with Growth: The Chinese Experience in the World Economy. AU Gong, Changzhen; Li, Shuhe. AA Gong and Li: University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 271; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. PG 43. PR no charge. JE O53, P21, O14, L33. KW Growth.

China. Transition Economy. Leader-Follower Model.

**AB** This paper analyzes the Chinese experience of gradual transition with rapid growth (1978-1993) in the world economy. The rapid growth is decomposed into four sources: population/labor, privatization, industrialization and trade/leader. The growth of China's economy in the 1990's would be at least as fast as in the 1980's, provided there were no political/military turmoil. These results are based on the combination of historical, statistical and theoretical approaches, and on our theoretical analyses of the relationships among transition, industrialization, growth and development. Stylized facts on transition and growth, and construct conceptual frameworks to match these facts are present. In particular, it is shown that a gradualism (big bang) transition may result in growth and inflation (depression and hyperinflation), and a follower with sufficient (insufficient) social capability would catch up to (fall behind) the leader.

**Gowa, Joanne**

**TI** Politics and Peace. **AU** Farber, Henry S.; Gowa, Joanne.

**Granger, Clive W.J**

**PD** September 1993. **TI** Some Properties of Absolute Return an Alternative Measure of Risk. **AU** Granger, Clive W.J.; Ding, Zhuanxin. **AA** Granger and Ding: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-38; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 19. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C22, G12. **KW** Risk. Dispersion Measure. Double Exponential Model. **ARCH**.

**AB** Measures of dispersion are not generally agreed upon, but it has been shown that if an investor decides to use a particular measure of dispersion, then strong behavioral predications about that investor can be made. This paper presents the theoretical and empirical implications of investors using an expected absolute deviation measure of dispersion:  $\mu_{\text{sub}(a)} = E(|r-m|)$ . The paper discusses concepts of risk and links to the use of common mean-variance measures of risk. A model of S&P 500 stock return data using the double exponential distribution is specified and estimated. In hypothesis testing this model is found to dominate other ARCH specifications using a normal distribution assumption.

**PD** November 1993. **TI** Modelling Non-Linear Relationships Between Long-Memory Variables. **AA** University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-48; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 17. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C32, C39. **KW** Nonlinear Models. Long Memory. Specification. Testing.

**AB** The objective of this paper is to relate the apparently widely held belief that relationships between economic variables are often non-linear with the empirically observed fact that many macro economic time series have a smoothness property which, will be referred to as "long memory". Though not ignored by econometricians, testing for nonlinearities, and specifying nonlinear models pose unique challenges especially

in the context of long-memory variables. This paper illustrates some of the difficulties that arise when testing for nonlinearities in long-memory variables and offers some solutions. Techniques for specifying and estimating models involving nonlinearity which nest flexible fourier forms, projection pursuit, and neural network models within a linear form are given. This area of research is new and these techniques need to be tested on realistic problems.

**TI** Modeling Volatility Persistence of Speculative Returns: A New Approach. **AU** Ding, Zhuanxin; Granger, Clive W.J.

**Grant, Simon**

**PD** February 1994. **TI** Bargaining, Boldness and Nash Outcomes. **AU** Grant, Simon; Kajii, Atsushi. **AA** Grant: Australian National University. **Kajii:** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 94-03; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 21. **PR** no charge. **JE** C78.

**KW** Bargaining Theory. Risk Preferences. Expected Utility.

**AB** We provide a multi-agent extension of the Rubinstein-Safra-Thomson (ordinal) bargaining theory where bargainers are described by their risk preferences. The ordinal Nash solution for this multi-agent seeking a concession from any one other agent. A geometric characterization of this ordinal Nash solution allows us to define a class of preference relations that are compatible with well-known experimental violations of expected utility and for which the ordinal Nash solution is well-defined. If preferences are assumed to be "smooth" then an ordinal Nash solution is also equally marginally bold, where a bargainer's marginal boldness measures his or her willingness to risk disagreement in return for a marginal improvement in his or her position.

**Green, Alan G.**

**PD** January 1994. **TI** Canadian Immigration Policy: The Effectiveness of the Point System and Other Instruments. **AU** Green, Alan G.; Green, David A. **AA** Green A.: Queen's University. **Green, D.:** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 94-01; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 56. **PR** **JE** J61, J38. **KW** Immigration. Political Economy.

**AB** This paper examines the effects of the 1967 changes to the Canadian immigration regulatory system on the occupational composition of immigration to Canada. The 1967 changes created a regulatory system, including the point system, that still forms the basis for Canadian immigration policy. We evaluate the effectiveness of that system in controlling the immigrant occupational distribution by comparing the occupational composition of the inflow before and after 1967. Evaluating the effectiveness is of interest in the current Canadian context in which annual inflows amounting to nearly 1% of Canada's current population are being assessed under the same basic system. We find that the point system does provide some control over the inflow, but that because of the large number of other immigrant characteristics the point system seeks to control, its effectiveness in fine tuning the occupational composition is limited. We also find that the effectiveness of the point system has at times been swamped by



movements in the non-assessed parts of the inflow, and that the assignment of processing priorities for different types of relatives has an important impact on the inflow.

#### Green, David A.

TI Canadian Immigration Policy: The Effectiveness of the Point System and Other Instruments. AU Green, Alan G.; Green, David A.

#### Green, Edward J.

PD January 1994. TI Sequential Stratified Sampling. AU Green, Edward J.; Zhou, Ruilin. AA Green: University of Minnesota. Zhou: University of Pennsylvania. SR University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 94-02; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. PG 51. PR no charge. JE C11, C61, C90. KW Optimal Decision Rule. Bayesian Analysis. Experiments. AB We formulate and analyze a Bayesian decision-theoretic model of a researcher who can sequentially perform costly experiments of several types. Formally, this is a sequential stratified sampling problem. The optimal decision rule can be computed by solving a dynamic programming problem using value-function iteration. Simulations suggest that this optimal rule can substantially improve on a nonsequential research design in which a fixed number of experiments of various types are performed, and on designs in which either sample size or stratification is fixed while the other is determined sequentially. These simulations are also informative about the characteristics of the optimal decision rule.

#### Greenwood, Jeremy

PD February 1994. TI The Cyclical Behavior of Job Creation and Job Destruction: A Sectoral Model. AU Greenwood, Jeremy; MacDonald, Glenn M.; Zhang, Guang-Jia. AA Greenwood, MacDonald, and Zhang: University of Rochester. Zhang: University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9403; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 25. PR \$7.00 Canada; \$9.00 Elsewhere. JE J06, J21, J23, C68. KW Two Sector General Equilibrium Model. Job Creation. Job Destruction. AB Three key features of the employment process in the U.S. economy are that job creation is procyclical, job destruction is countercyclical, and job creation is less volatile than job destruction. These features are also found at the sectoral (goods and services) level. The paper develops, calibrates and simulates a two sector general equilibrium model including both aggregate and sectoral shocks. The behavior of the model economy mimics the job creation and destruction facts. Sectoral shocks play a significant role in determining the aggregate level of nonemployment.

PD March 1994. TI Macroeconomic Implications of Investment-Specific Technological Change. AU Greenwood, Jeremy; Hercowitz, Zvi; Krusell, Per. AA Greenwood: University of Rochester. Hercowitz: Tel Aviv University. Krusell: University of Pennsylvania. SR Tel Aviv Sackler Institute of Economic Studies: 6/94; Department of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 52. PR no charge. JE E22, E32, O33, O41. KW Growth.

Business Cycle. Capital Goods.

AB A quantitative investigation of investment-specific technological change for the U.S. post-war period is undertaken, analyzing both long-term growth and business cycles within the same framework. The premise is that the introduction of new, more efficient capital goods is an important source of productivity change, and an attempt is made to disentangle its effects from the more traditional Hicks-neutral form of technological progress. The balanced-growth path for the model is characterized and calibrated to U.S. National Income and Product Account data. The long- and short-run U.S. data are then interpreted through the eyes of this framework. The analysis suggests that investment-specific change accounts for a large part of U.S. growth and is a significant factor in U.S. business cycle fluctuations.

#### Groves, Theodore

TI A Practical Procedure for Public Policy Decisions or "Contingent Valuation and Demand Revelation -- Without Apology." AU Werner, Megan; Groves, Theodore.

#### Gupta, Sanjeev

PD March 1994. TI Taxation of Petroleum Products: Theory and Empirical Evidence. AU Gupta, Sanjeev; Mahler, Walter. AA not available. SR International Monetary Fund Working Paper: WP/94/32; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 25. PR not available. JE H21, H22. KW Petroleum Products. Taxation.

AB The domestic taxation of petroleum products is an important source of revenue in most countries. However, there is a wide variation of tax rates on petroleum products across countries, which cannot be explained by economic theory alone. This paper surveys different considerations advanced for taxing petroleum and presents petroleum tax rate data in 120 countries. It concludes that a significant reduction in the present extremely wide variation in petroleum prices and tax rates appears warranted.

#### Guyomard, Herve

PD March 1994. TI Producer Behavior Under Strict Rationing and Quasi-Fixed Factors. AU Guyomard, Herve; Mahe, Louis P. AA ENSA-INRA, Rennes France. SR University of Minnesota Economic Development Center Bulletin: 93-2; Department of Agricultural and Applied Economics, 231 Classroom Office Building, University of Minnesota, St Paul, MN 55108. PG 24. PR no charge. JE D21, Q11. KW Producer Behavior. Rationing. Agriculture.

AB The paper examines the effect of rationing outputs and inputs on producer behavior. Full representation of the modified supply-demand system after rationing, including shadow prices for the constrained netputs, is derived from the unrestricted profit function before rationing, and vice-versa. Attention is focused on cross-price effects which have been less explored than own-price effects which obey the Le Chatelier principle. The theoretical framework is applied to the EC agricultural sector in order to analyze the effects of output and input rationing on the production structure of the EC agricultural sector, with emphasis on the impact of the milk quota constraint on unrestricted output supplies and input demands.

**Hajivassiliou, Vassilis A.**

**PD** October 1993. **TI** Classical Estimation Methods For LDV Models Using Simulation. **AU** Hajivassiliou, Vassilis A.; Ruud, Paul A. **AA** Hajivassiliou: Cowles Foundation for Research in Economics, Yale and Economics. Ruud: University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 93-219; **IBER**, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 48. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** C13, C15, C23, C24, C50. **KW** Discrete Choice. Limited Dependent Variable Models. Monte Carlo Simulation. **AB** This paper discusses estimation methods for limited dependent variable (LDV) models that employ Monte Carlo simulation techniques to overcome computational problems in such models. These difficulties take the form of high dimensional integrals that need to be calculated repeatedly but cannot be easily approximated by series expansions. In the past, investigators were forced to restrict attention to special classes of LDV models that are computationally manageable. The simulation estimation methods discussed in this paper make it possible to estimate LDV models that are computationally intractable using classical estimation methods. A review of the ways in which LDV models arise, describing the differences and similarities in censored and truncated data generating processes is presented. Censoring and truncation give rise to the troublesome multivariate integrals. Following the LDV models, various simulation methods for evaluating such integrals are described (censoring and truncation play roles in simulation as well). Finally, estimation methods that rely on simulation are described. A review of three general log-likelihood functions (MSL), simulation of moment functions (MSM), and simulation of the score (MSS) is given. The MSS is a combination of ideas from MSL and MSM, treating the efficient score of the log-likelihood function as a moment function. The rank ordered profit model is used as an illustrative example to investigate the comparative properties of these simulation estimation approaches.

**Hall, Bronwyn H.**

**PD** September 1993. **TI** Industrial Research During the 1980's: Did the Rate of Return Fall? **AA** University of California at Berkeley and National Bureau of Economic Research. **SR** University of California at Berkeley Working Paper in Economics: 93-217; **IBER**, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 35. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** G12, G31, O30, H32. **KW** Tobin's Q. R&D Investment. Firm-Level Productivity. **AB** Hall (1993b) found that the market value of corporate R&D relative to ordinary capital investment fell precipitously during the 1980's. The present paper examines this result more closely and finds that it was due both to an increase in the value of ordinary capital and to a steep decline in the absolute value of R&D assets. The latter was concentrated in the electrical, scientific instruments, electronics, and computing sectors. Firm-level productivity results show that the contribution of R&D to sales to output growth was low during the 1970's and the first half of the 1980's but has increased recently, except in the electrical industry and in the large firm part of the computing, machinery, metals, and motor vehicle industries. The overall explanation for these findings is that the very substantial restructuring of the manufacturing sector during the 1980's raised the valuation of ordinary capital (and of R&D

capital in the medium-technology sectors). At the same time entry by smaller firms and new technology coupled with a speed-up in product cycles eroded the profits in the electrical and computing sectors, leading to a substantial decline in the valuation of these profits.

**Halonen, M.**

**PD** May 1994. **TI** Endogenous Industry Structure in Vertical Duopoly. **AA** Helsinki School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EI/7; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 34. **PR** no charge. **JE** L22, L13, D43. **KW** Vertical Integration. Efficiency Differences.

**AB** This paper examines integration decisions of successive duopolists. It is shown qualitatively that the same pattern of integration emerges whether there is Cournot or Bertrand competition in the input market. The degree of integration in the industry is increasing in the size of the downstream market and decreasing in the average marginal cost of the industry and in the fixed integration cost. There is a tendency for partial integration when one upstream firm is relatively efficient compared to its rival.

**Haltiwanger, John**

**TI** A Comparison of Job Creation and Job Destruction in Canada and the United States. **AU** Baldwin, John; Dunne, Timothy; Haltiwanger, John.

**TI** Downsizing and Productivity Growth: Myth or Reality? **AU** Baily, Martin Neil; Bartelsman; Eric J.; Haltiwanger, John.

**Hansen, Lars Peter**

**PD** March 1994. **TI** Assessing Specification Errors in Stochastic Discount Factor Models. **AU** Hansen, Lars Peter; Jagannathan, Ravi. **AA** Hansen: University of Chicago, NORC, and National Bureau of Economic Research. Jagannathan: Federal Reserve Bank of Minneapolis and University of Minnesota. **SR** Federal Reserve Bank of Minneapolis Staff Report; 167; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 40. **PR** no charge. **JE** G12, C12, C13, E30. **KW** Asset Pricing. Specification Tests. Arbitrage Pricing.

**AB** In this paper we develop alternative ways to compare asset pricing models when it is understood that their implied stochastic discount factors do not price all portfolios correctly. Unlike comparisons based on chi-square statistics associated with null hypotheses that models are correct, our measures of model performance do not reward variability of discount factor proxies. One of our measures is designed to exploit fully the implications of arbitrage-free pricing of derivative claims. We demonstrate empirically the usefulness of methods in assessing some alternative stochastic factor models that have been proposed in asset pricing literature.

**Harrington, Joseph E., Jr**

**PD** March 1993. **TI** The Social Selection of Principled and Expedient Agents. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 324; Department of Economics, Johns Hopkins University,

Baltimore, Maryland 21218. PG 65. PR no charge. JE H10, H19, H89, D29. KW U. S. Electoral System. Adaptive Behavior. Hierarchical Systems.

AB The premise of this paper is that individuals differ in terms of how adaptive their behavior is to their environment. Some individuals treat each situation as unique and tailor their behavior accordingly while other individuals tend to respond in the same manner regardless of the specifics of the situation. The behavior of the latter appears to be governed by some law of conduct which is rooted in past, rather current, events. The ultimate objective of this research is to understand how competitive processes like the U.S. electoral system and the modern corporation select from a population which is heterogeneous in the respect just described. What types of agents are successful in these systems and thereby go on to dominate its highest levels? Towards this goal, this paper investigates a class of simple hierarchical competitive processes which contains some of the crucial factors of the real world systems mentioned above. At each level of this hierarchy, there is assumed to be a heterogeneous population of agents which interact. These agents face a stochastic environment and must select an action. Those agents who perform relatively better than a select group of their peers are "promoted" to the next higher level where they compete amongst each other for yet further promotion. This process is continuously repeated so that increasingly successful agents compete against equally successful agents. For this population of agents and this class of processes, we characterize this population dynamics and investigate the type(s) of agents which ultimately dominate the highest levels. Principled agents, whose behavior is relatively unresponsive to the environment, are found to do so surprisingly well.

TI Product Variety and Firm Agglomeration. AU Fischer, Jeffrey H.; Harrington, Joseph E., Jr.

#### Hashim, Ali

PD March 1994. TI Core Functional Requirements for Fiscal Management Systems. AU Hashim, Ali; Allan, Bill. AA not available. SR International Monetary Fund Working Paper: WP/94/27; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 20. PR not available. JE E62. KW Fiscal Management. Budgeting. Developing Economies.

AB This paper presents a framework for planning the development of computerized government budgeting and accounting systems in economics in transition and developing economies. It argues that a comprehensive framework is needed to enable fiscal management issues to be addressed effectively, then outlines a methodology for planning systems development and proposes strategies for implementing the methodology in transitional and developing economies.

#### Head, Allen C.

TI Monopolistic Competition, Increasing Returns, and the Effects of Government Spending. AU Devereux, Michael B.; Head, Allen C.; Lapham, Beverly J.

#### Henry, S.G.B

TI The Use of Financial Spreads as Indicator Variables: Evidence for the U.K. and Germany. AU Davis, E.P.; Henry, S.G.B.

#### Hercowitz, Zvi

TI Macroeconomic Implications of Investment-Specific Technological Change. AU Greenwood, Jeremy; Hercowitz, Zvi; Krusell, Per.

TI A Small-Open-Economy Analysis of Migration. AU Flug, Karnit; Hercowitz, Zvi; Levi, Anat.

#### Hermalin, Benjamin E.

PD February 1994. TI Corporate Diversification and Agency. AU Hermalin, Benjamin E.; Katz, Michael L. AA Hermalin and Katz: University of California at Berkeley. SR University of California at Berkeley Working Paper in Economics: 227; IBER, 156 Barrows Hall, University of California, Berkeley, CA 94720. PG 38. PR \$3.50 U.S.A. and Canada. \$7.00 foreign. JE L20, D21, G34, G11. KW Principle-Agent Relationship. Risk-Reduction. Corporate Diversification.

AB By a well-known argument, securities holders do not directly benefit from risk-reducing corporate diversification when they can replicate this diversification on their own. Some have argued that corporate diversification may be of value, or can otherwise be explained by, the agency relationship between securities holders and managers. It is argued that the value of diversification in an agency relationship derives not from its effects on risk, but rather from its effects on the principal's information about the agent's actions.

#### Hills, John

TI William Beveridge versus Robin Hood: Social Security and Redistribution over the Lifecycle. AU Falkingham, Jane; Hills, John; Lessof, Carli.

PD April 1993. TI Investigating Welfare: Final Report of the ESRC Welfare Research Programme. AU Hills, John; Glennerster, Howard; Le Grand, Julian and others. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/92; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 56. PR no charge. JE I38. KW Welfare. Social Security. Public Spending.

AB This paper contains the Final Report on the Economic and Social Research Council-financed Welfare Research Programme at the LSE. It summarizes the main findings of the program and gives a guide to the publications arising from it. At its heart, the program has been aimed at the rigorous examination of issues connected with the provision and use of welfare services. Our findings have quantified current trends, contradicted popular misconceptions, and suggested new ways of looking at the welfare state. It is hoped that it has contributed to a much improved understanding of the ways in which people's lives are affected by the welfare state as its form and the demands made on it rapidly change.

#### Hoff, Karla

PD July 1994. TI Bayesian Learning in a Model of Infant Industries. AA University of Maryland. SR University of Maryland Department of Economics Working Paper: 94-08 University of Maryland, Department of Economics, College Park, MD 20742. PG 28. PR no charge. JE F12, O14, O38. KW Industrial Policy. Entrepreneurs. Optimum Rate of Subsidy.

AB The author examines the scope for welfare-increasing

industrial policy in an economy where production experiences are required to learn about the profitability of a new industry in a developing country. The main assumptions are that the success or failure of an entrepreneur will convey information to other entrepreneurs about their opportunities, and that risk markets are missing. It is shown that an increase in initial uncertainty may lower the optimum rate of subsidy, while an increase in risk aversion surely lowers it. Thus, the factors that make the entry barrier high may also reduce the scope for welfare-increasing infant industry subsidies.

### Howes, Stephen

**PD** July 1993. **TI** Income Inequality in Urban China in the 1980's: Level, Trends and Determinants. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/3; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 109. **PR** no charge. **JE** D31, O53, P24. **KW** China. Inequality. Transition.

**AB** This paper uses aggregated household income official survey data collected annually between 1981 and 1990 to investigate and explain the level of, and trends in, income inequality in urban China over the decade. The reliability of the data is evaluated and particular attention paid to the problems posed by the method in which the data are aggregated. Attempts are made to correct the biases found where possible. Income inequality is low in urban China compared to developed (and developing) countries because the income share of the poor is relatively large and that of the rich relatively small. The share of the "middle class" by contrast is comparable to that found in most developed countries. However, over the past decade urban China has moved closer to the international norm. While the share of the middle class has been relatively stable, the income share of the poor has fallen and that of the rich has risen. This trend to the international norm has resulted in increased inequality in urban China. Inequality fell from 1981 to 1983, but trended upwards thereafter, increasing by, it is estimated, some 25 percent as measured by the Gini coefficient. The conventional wisdom that growth in rural inequality had been greater than that in urban inequality is challenged with evidence to suggest that the two growth rates have been of similar magnitude. However, the urban disequalization, while significant, was not large enough to prevent a rise in welfare and reduction in poverty over the decade, as mean income grew.

**PD** October 1993. **TI** Why Not to Aggregate Up: The Influence of Aggregation on the Ordering of Distributions. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DARP/2; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 28. **PR** no charge. **JE** P30, D63. **KW** Aggregation. Income Distribution.

**AB** Researchers in many fields of economics often compare distributions using some criterion or another of inequality, poverty, or welfare. It is standard practice to base such comparative analysis on aggregated data. But will the results obtained be dependent on the degree of aggregation of the data? This paper argues, on the basis of a simulation study, that they will be since the probability of obtaining a ranking can increase rapidly with the degree of aggregation. Aggregation exaggerates the differences between similar distributions and

overlooks crossings at the lower tail. A change in research strategy where possible and statistical inference used in its place is suggested.

**PD** October 1993. **TI** Mixed Dominance: A New Criterion for Poverty Analysis. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DARP/3; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 24. **PR** no charge. **JE** D63, I32. **KW** Poverty. Stochastic Dominance.

**AB** The second-order stochastic dominance criterion for inequality analysis introduced by Atkinson (1970) covers nearly all well-known inequality indices. The same cannot be said, in respect of poverty indices, for the second-order stochastic dominance criterion for poverty analysis introduced by Atkinson (1987). Indeed, two of the best known poverty indices, the head count ratio and the Sen index are excluded by it. This paper introduces a more general "mixed" dominance criterion which provides a more comprehensive coverage of poverty indices. By establishing the relationship between welfare and poverty functions, it also generalizes the proofs given by Atkinson (1987) to include non-separable as well as separable functions.

**TI** The Reform of Indirect Taxes in India. **AU** Burgess, Robin; Howes, Stephen; Stern, Nicholas.

### Hu, Teh-wei

**PD** January 1994. **TI** Tobacco Taxes and the Anti-Smoking Media Campaign: The California Experience. **AU** Hu, Teh-wei; Sung, Hai-yen; Keeler, Theodore E. **AA** Hu: School of Public Health; Sung: Institute of Business and Economic Research. Keeler: University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 94-225; IBER, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 16. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** H71, I18, M37. **KW** Public Health. Public Policy. Taxation Sin-Tax.

**AB** In 1988, California voters enacted Proposition 99, increasing the tax on cigarettes by 25 cents per pack effective January 1989. Proposition 99 also earmarked 20% of the revenue raised by this new tax for an anti-smoking media campaign and other educational programs to reduce tobacco use. This paper examines the relative effects of taxation versus the anti-smoking media campaign on cigarette sales. Quarterly sales data reported by the California State Board of Equalization between 1980 and 1992, adjusted for seasonal variations and time trends, show that sales of cigarettes were reduced by 1333 million packs as a result of the additional 25-cent tax, while the anti-smoking media campaign reduced sales by 232 million packs during the same period: July 1990-December 1992. The combined effects of taxes and the anti-smoking media campaign during the 4-year post Proposition 99 period resulted in 1.565 billion fewer packs of cigarettes sold in California. The magnitude of those effects is influenced by the magnitude of taxes and the amount of the anti-smoking media campaign budget.

### Hughes, Joseph P.

**PD** April 1994. **TI** Bank Managers' Objectives. **AU** Hughes, Joseph P.; Mester, Loretta J. **AA** Hughes: Rutgers University. Mester: Federal Reserve Bank of

Philadelphia and University of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 94-8; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. **PG** 24. **PR** no charge except overseas airmail, \$2.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** G21, G31, G29. **KW** Risk Preference. Financial Capital Level. Bank's Utility Function.

**AB** The authors present evidence on the objection function of bank managers. Are managers risk-neutral and therefore, maximize expected profits, or do they show non-neutrality toward risk? If managers exhibit non-neutrality towards risk, then banks appear to be operating inefficiently when they are not. The authors extend the model of Hughes and Mester (1993) to allow a bank's choice of its financial capital level to reflect its preference for return versus risk. A multiproduct cost function, which incorporates asset quality and the risk faced by a bank's uninsured depositors, is derived from a model of utility-maximization. The utility function represents the bank management's preferences defined over asset levels, asset quality, capital level, and profits. Endogenizing the bank's choice of capital level in this way permits the demand for financial capital to deviate from its cost-minimizing level. The model consists of the cost function, share equations, and demand for financial capital equation, which are estimated jointly. The authors then are able to explicitly test whether bank managers act in shareholders' interest and maximize expected profits, or whether they exhibit non-neutrality toward risk. They believe this is the first direct test of bank managers' risk preferences.

### Huizinga, Harry

**PD** February 1994. **TI** Withholding Taxes and the Cost of Public Debt. **AA** Tilburg University. **SR** International Monetary Fund Working Paper: WP/94/18; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** F21, F23, H25, H87. **KW** Government Borrowing. Withholding Taxes.

**AB** Several industrialized countries impose withholding taxes on public interest accruing to nonresidents. This paper examines the international incidence of such withholding taxes by estimating to what extent these taxes raise the cost of government borrowing. It is found that the pretax interest rate is most sensitive to the tax withheld on Japanese investors. In particular, the gross-up is about half of this tax, which suggests that about half is returned to the investor in the form of foreign tax credits. The extent of the gross-up rises over the 1989-93 period, which indicates that in recent years foreign tax credits have been available to a lesser extent.

### Hussain, Athar

**PD** July 1993. **TI** The Role of the State, Ownership and Taxation in Transitional Economies. **AU** Hussain, Athar; Stern, Nicholas. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/1; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 50. **PR** no charge. **JE** H20, P43. **KW** Taxation. Transitional Economies. China.

**AB** The paper deals with the following four sets of issues: the pace of transition, ownership rights and taxation, tax design in

the long term, and tax reform in the transitional period. The discussion of taxation begins with the principles of tax design and then leads on to the possibilities of tax reform in transitional economies. A special emphasis is given to a joint analysis of taxation, ownership change, and regulation. A tax reform package for China is offered at the end by way of illustration.

**PD** October 1993. **TI** Reform of the Chinese Social Security. **AA** London School of Economics. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: CP/27; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 40. **PR** no charge. **JE** H55, I38. **KW** China. Social Security. Unemployment Insurance. Health Insurance.

**AB** The purpose of this paper is to analyze the Chinese Labor Insurance system and its reform, which is high in the current reform agenda. It begins with a general framework for analysis, and then goes on to outline the salient features of Labor Insurance, first in general terms and then component by component, and the problems it faces. This is followed by a discussion of the links between the economic reforms and the reform of a social security system in China. The paper concludes with observations on the principal issues in such a reform.

**PD** February 1994. **TI** Economic Transition on the Other Side of the Wall: China. **AU** Hussain, Athar; Stern, Nicholas. **AA** Hussain: London School of Economics and Keele University. Stern: European Bank for Reconstruction and Development. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: CP/29; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 21. **PR** no charge. **JE** P17, O53. **KW** China. Transition. Economic Reforms.

**AB** The paper seeks to provide brief answers to the following three questions: 1) How has the Chinese economy performed since 1978, when the economic reforms began; 2) What form have the Chinese reforms taken and what are their lessons; 3) How might one explain the apparent success of the Chinese economy?.

### Imber, David

**TI** Valuing the Preservation of Australia's Kakadu Conservation Zone. **AU** Carson, Richard T.; Wilks, Leanne; Imber, David.

### Iorio, Karl

**PD** March 1993. **TI** Sequential Equilibria and Cheap Talk in Infinite Signaling Games. Part 1: Sequential Equilibria. **AU** Iorio, Karl; Manelli, Alejandro M. **AA** Iorio: Kaiser Foundation Health Plan. Manelli: Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1073; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 29. **PR** \$3.00 in U.S. and Canada; \$5.00 via international mail. **JE** C70, D82, D83. **KW** Signaling Games. Sequential Equilibria. Monotonic Games.

**AB** An example shows that there are well-behaved infinite signaling games with no sequential equilibria. We explore the relationship between equilibrium outcomes of the infinite game

and those of approximate games. Consider a sequence of signaling games approaching a limited game. A (sub)sequence of equilibrium outcomes of the approximating games will converge to a limited distribution. That limit distribution will be an equilibrium outcome of the limited game if it can be realized by strategies of the limited game. As a result of this general convergence result, we prove the existence of sequential and weak-best-response equilibria for strongly monotonic games. In a companion article we explore the role of cheap talk in solving the non-existence problem.

**PD** March 1993. **TI** Sequential Equilibria and Cheap Talk in Infinite Signaling Games. Part 2: Cheap Talk. **AU** Iorio, Karl; Manelli, Alejandro M. **AA** Iorio: Kaiser Foundation Health Plan. Manelli: Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1074; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 21. **PR** \$3.00 in U.S. and Canada; \$5.00 via international mail. **JE** C70, D82, D83. **KW** Signaling Games. Sequential Equilibria. Cheap Talk.

**AB** Signaling games with infinite action spaces may have no sequential equilibrium. We prove that adding cheap talk to these games solves the non-existence problem; the sequential equilibrium outcome correspondence is upper hemi-continuous. In addition, when signaling space has sufficiently many signals, any cheap talk sequential equilibrium outcome can be approximated by a sequential epsilon-equilibrium of the game without cheap talk. In these cases, adding cheap talk does not fundamentally alter the nature of the game.

#### Isard, Peter

**PD** February 1994. **TI** Realignment Expectations, Forward Rate Bias, and Sterilized Intervention in an Adjustable Peg Exchange Rate Model with Policy Optimization. **AA** not available. **SR** International Monetary Fund Working Paper: WP/94/20; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 21. **PR** not available. **JE** F31. **KW** Exchange Rates. Spot Rates. Sterilized Intervention.

**AB** The paper models an adjustment peg exchange rate arrangement as a policy rule with an escape clause under which the timing and magnitudes of realignments are the outcomes of policy optimization decisions. Under the assumptions that market participants are rational, risk averse, and fully informed about the incentives of policymakers, the analysis focuses on the implications for relating realignment expectations to the state in using forward exchange rates to predict future spot rates, and for characterizing the effectiveness of sterilized intervention.

#### Jagannathan, Ravi

**PD** November 1993. **TI** The CAPM is Alive and Well. **AU** Jagannathan, Ravi; Wang, Zhenyu. **AA** Jagannathan: Federal Reserve Bank of Minneapolis and University of Minnesota. Wang: University of Minnesota. **SR** Federal Reserve Bank of Minneapolis Staff Report; 165; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. **PG** 57. **PR** no charge. **JE** G12, C12, C13, E30. **KW** Asset Pricing. Roll's Critique. Beta Pricing. Risk.

**AB** In empirical studies of the CAPM, it is commonly assumed that, (a) the return to the value-weighted portfolio of

all stocks is a reasonable proxy for the return on the market portfolio of all assets in the economy, and (b) betas of assets remain constant over time. Under these assumptions, Fama and French (1992) find that the relation between average return and beta is flat. We argue that these two auxiliary assumptions are not reasonable. We demonstrate that when these assumptions are relaxed, the empirical support for the CAPM is very strong. When human capital is also included in measuring wealth, the CAPM is able to explain 28% of the cross sectional variation in average returns in the 100 portfolios studied by Fama and French. When, in addition, betas are allowed to vary over the business cycle, the CAPM is able to explain 57%. More important, relative size does not explain what is left unexplained after taking sampling errors into account.

**TI** Assessing Specification Errors in Stochastic Discount Factor Models. **AU** Hansen, Lars Peter; Jagannathan, Ravi.

#### James, Patrick

**TI** Internal Constraints and Interstate Ethnic Conflict: Toward a Crisis-Based Assessment of Irredentism. **AU** Carment, David; James, Patrick.

#### Jie, Li

**TI** Changes Over Time in Input-Output Coefficients for China. **AU** Coady, David; Jie, Li.

#### Jilani, Saleha

**PD** October 1993. **TI** Commercial and Tax Policy with Endogenous Capital Flows: A Welfare Analysis. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 315; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 35. **PR** no charge. **JE** F13, F15. **KW** Endogenous Factor Mobility. Regional Cooperation. Multilateral Factor Intensity.

**AB** This paper analyses a model of two small trading countries, linked by flows of two types of sector-specific capital. This paper presents the effects of a country's commercial and tax policy on its welfare in the presence of complete capital mobility between these "neighboring" countries. The welfare effects are shown to depend crucially on multilateral factor intensity rankings, as well as on the relative importance of exported versus imported capital.

#### Johnson, Paul

**TI** A Unified Funded Pension Scheme (UFPS) for Britain. **AU** Falkingham, Jane; Johnson, Paul.

#### Jones, Stephen R. G.

**PD** November 1993. **TI** Regional Aspects of Labour Force Attachment and Labour Market Flows in Canada. **AU** Jones, Stephen R. G.; Riddell, W. Craig. **AA** Jones: McMaster University. Riddell: University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 93-37; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 39. **PR** **JE** J64, R11. **KW** Labor Market Flows. Employment. Marginal Attachment.

**AB** This paper investigates three related aspects of regional labor market behavior in Canada. First, using gross flows data from the Labour Force Survey (LFS), we examine the behavior

of flows among the labor force states of employment, unemployment, and not in the labor force. The second part of the paper, which utilizes the annual Survey of Job Opportunities (SJO), focuses on the behavior of individuals who display a marginal attachment to the labor force. Part three investigates flows between the marginally attached and other labor force states using a special longitudinal data set constructed by matching individuals in the SJO with the same individuals in the subsequent monthly LFS.

**PD** December 1993. **TI** The Measurement of Unemployment: An Empirical Approach. **AU** Jones, Stephen R. G.; Riddell W. Craig. **AA** Jones: McMaster University. Riddell: University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 93-48; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 50. **PR** JE E24, J21, J64. **KW** Unemployment. Marginal Attachment. Discouraged Workers.

**AB** The unemployment rate is one of the most widely cited and closely monitored economic statistics. Yet the definition and measurement of unemployment remains controversial. An important issue is whether non-employed persons who display a marginal attachment to the labor force (for example, those who are available for and desire work but are not actively searching for work) should be classified as unemployed or out of the labor force. Although this issue has been extensively debated, it has never been tested empirically. This paper carries out an empirical test of this and related hypotheses using a unique longitudinal data set created by linking individuals in two Canadian data sets: the Survey of Job Opportunities, which gives a very detailed breakdown of unemployment and out of the labor force according to various degrees of attachment to the labor force, and the Labour Force Survey in the subsequent month, which hence gives information on resulting labor market events. These innovative data are available on a nearly continuous annual basis since 1979 and our analysis exploits both the longitudinal nature of the data within each year and the time series variation that is present from one year to the next. Our results reveal that, while the marginally attached are closer in behavior to the unemployed than to the balance of the out of the labor force group, one can reject pooling the marginally attached with either of these groups. This suggests that it would be useful to report magnitudes for four labor market states and to conduct econometric analysis of labor market transitions in such a multi-state model of non-employment.

**Jovanovic, Boyan**

**PD** April 1994. **TI** The Bayesian Foundation of Learning by Doing. **AU** Jovanovic, Boyan; Nyarko, Yaw. **AA** New York University. **SR** New York University, C.V. Starr Center Economic Research Report: 94-15; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. **PG** 68. **PR** no charge. **JE** O14, C11, D13. **KW** Bayesian Foundations. Learning By Doing.

**AB** This paper explores a one-agent Bayesian model of learning by doing and technological choice. To produce output, the agent can choose among various technologies. The beneficial effects of learning by doing are bounded on each technology, and so long-run growth in output can take place only if the agent repeatedly switches to better technologies. As

the agent repeatedly uses a technology, he learns about its unknown parameters, and this accumulated expertise is a form of human capital. But when the agent switches technologies, part of this human capital is lost. It is this loss of human capital that may prevent the agent from moving up the quality ladder of technologies as quickly as he can, since the loss is greater the bigger is the technological leap. We analyze the global dynamics. We find that a human-capital-rich agent may find it optimal to avoid any switching of technologies, and therefore to experience no long-run growth. On the other hand, a human-capital-poor agent, who because of his lack of skill is not so attached to any particular technology, can find it optimal to switch technologies repeatedly, and therefore enjoy long-run growth in output. Thus the model can give rise to overtaking.

**Kaiser, Kevin M.J**

**PD** February 1994. **TI** Market Response to Divestiture Announcements by European Firms. **AU** Kaiser, Kevin M.J.; Stouraitis, Aris. **AA** INSEAD. **SR** INSEAD Working Papers: 94/14/FIN; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 13. **PR** not available. **JE** G14, G34. **KW** Divestiture Announcements. Market Response.

**AB** We present preliminary evidence on stock market reaction to divestiture announcements by European firms. Included in the current sample are divestitures by French, German, Swedish, and UK firms. The complete sample will include divestitures by firms in these four countries and also by firms in Belgium, Netherlands, Denmark, Finland, Norway, Switzerland, Italy, Spain, and Ireland. Our current findings include: (1) stock price reaction during initial announcements of domestic subsidiary sell-offs is positive and consistent (in size and direction) with the U.S. evidence, (2) in contrast to evidence for sellers in the U.S., the European evidence indicates that seller performance improves substantially for the 60 trading days following the event, (3) there appear to be substantial information leakages in Continental European countries many trading days prior to the initial announcement of the event to the press, and (4) there appear to be differences across countries in the way cumulative abnormal returns are distributed between sellers divesting domestic subsidiaries (positive effect) and sellers divesting foreign subsidiaries (ambiguous effect).

**Kaitala, Veijo**

**TI** The Economic Management of High Seas Fishery Resources: Some Game Theoretic Aspects. **AU** Munro, Gordon R.; Kaitala, Veijo.

**Kajii, Atsushi**

**TI** Bargaining, Boldness and Nash Outcomes. **AU** Grant, Simon; Kajii, Atsushi.

**Kalai, Ehud**

**PD** January 1994. **TI** Subjective Games and Equilibria: I +. **AU** Kalai, Ehud; Lehrer, Ehud. **AA** Kalai and Lehrer: Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1077; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 59. **PR** \$3.00 in U.S. and Canada; \$5.00 via international mail. **JE** C72, C73, C11, D50, D83. **KW** Repeated Games. Nash Equilibria. Bayesian

**Learning.**

**AB** Applying the concepts of Nash, Bayesian or correlated equilibrium to analysis of strategic interaction, requires that players possess objective knowledge of the game and opponents' strategies. Such knowledge is often not available. The proposed notions of subjective games, and subjective Nash and correlated equilibria, replace unavailable objective knowledge by subjective assessments. When playing such a game repeatedly, subjective optimizers will converge to a subjective equilibrium. We apply this approach to some well known examples including a single multi-arm bandit player, multi-person multi-arm bandit games, and repeated Cournot oligopoly games.

**Kane, Alex**

**TI** Index-Option Pricing with Stochastic Volatility and the Value of Accurate Variance Forecasts. **AU** Engle, Robert F.; Kane, Alex; Noh, Jaesun.

**Kane, Thomas J.**

**PD** January 1994. **TI** Comment on W. Norton Grubb, "The Varied Economic Returns to Postsecondary Education: New Evidence from the Class of 1972." **AU** Kane, Thomas J.; Rouse, Cecilia E. **AA** Kane: Harvard University and National Bureau of Economic Research. Rouse: Princeton University and National Bureau of Economic Research. **SR** Princeton Industrial Relations Section Working Paper: 326; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 21. **PR** \$1.00. **JE** J31. **KW** Returns to Education.

**AB** In "The Varied Economic Returns to Postsecondary Education: New Evidence from the Class of 1972", an article recently published in the *Journal of Human Resources* (Volume 28, no.2, pp. 365-382), Norton Grubb reaches two main conclusions: (1) students who enroll in two-year colleges without completing degrees earn no more than comparable high school graduates; and (2) degrees from two-year colleges and vocational and technical institutes only indirectly lead to higher earnings by providing students with access to jobs in which they can accumulate experience and on-the-job training (i.e., access to "careers" instead of "jobs"). Given that roughly half of those entering college today do so at community colleges and that roughly a fifth of federal Pell Grant subsidies are spent at these institutions, such results are quite provocative. However, in this comment we show that several of the variables used in Grubb's paper are severely mismeasured and that, when they are corrected with reasonable alternatives, his conclusions no longer receive empirical support. On the contrary, even those who enter but fail to complete degrees at community colleges do seem to earn significantly more than similar high school graduates. Further, controlling for work experience has relatively little effect on the estimated returns.

**Karni, Edi**

**PD** February 1994. **TI** Political Structure, Taxes, and Trade. **AU** Karni, Edi; Chakrabarti, Subir K. **AA** Karni: Johns Hopkins University. Chakrabarti: IUPUI. **SR** Johns Hopkins Department of Economics Working Paper: 320; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 27. **PR** no charge. **JE** D42, H20, C72. **KW** Chains of Market. Game Theory. Taxation. Trade Routes.

**AB** Chains of markets describe situations in which a

commodity is traded sequentially in a number of locations. In this paper, using a game-theoretic approach the implications of the political control of a market chain for taxes and trade are studied. It is found that monopolization of the chain or parts of it leads to better allocation of the tax burden, and consequentially to a larger tax revenue trade volume.

**Kathuria, Rajat**

**PD** March 1994. **TI** Investment and Cash Flow; Asymmetric Information of Managerial Discretion. **AU** Kathuria, Rajat; Mueller, Dennis C. **AA** Kathuria and Mueller: University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 94-4; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 27. **PR** no charge. **JE** D21, D82. **KW** Cash-Flow Finance. Managerial Discretion. Assymetric Information.

**AB** This paper examines the implications of cash-flow financing of corporate investment in the United States. The asymmetric information hypothesis (AIH) supposes that the owners of a firm are aware of investment opportunities not known to the shareholders, whereas the managerial discretion hypothesis (MDH) assumes that managers actually prefer investment levels higher than is optimal. If the AIH is correct, then firms are cash-flow constrained, and investment is below the optimal level investment. If the MDH is appropriate, then the return to in-house investments will actually be below the neoclassical cost of capital implying inefficient over-investment. Empirical research of large U.S. corporations suggests that the MDH applies to the majority of firms studied. The policy implication of this result is that excess cash should be reallocated to higher return activities.

**Katz, Michael L.**

**TI** Corporate Diversification and Agency. **AU** Hermalin, Benjamin E.; Katz, Michael L.

**Keeler, Theodore E.**

**TI** Tobacco Taxes and the Anti-Smoking Media Campaign: The California Experience. **AU** Hu, Teh-wei; Sung, Hai-yen; Keeler, Theodore E.

**Keenan, Sean**

**TI** Multi-Country Tests for the Oscillator Model with Slowly Varying Coefficients. **AU** Ramsey, James B.; Keenan, Sean.

**Kelejjan, Harry H.**

**PD** February 1994. **TI** Aggregated Heterogenous Dependent Data and the Logit Model: A Suggested Approach. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 94-1; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 9. **PR** no charge. **JE** C25, C12. **KW** Aggregated Cell Data. Logit Models.

**AB** In this paper the authors suggest an approach for estimating logit models which are based on aggregated cell data. The approach permits the underlying data corresponding to each cell to be heterogeneous, as well as dependent. A test for aggregation bias is a by-product of the procedure.

**PD** February 1994. **TI** Infrastructure Productivity: A Razor's Edge. **AU** Kelejjan, Harry H.; Robinson, Dennis P.



**AA** Kelejian: University of Maryland. Robinson: Institute for Water Resources. **SR** University of Maryland Department of Economics Working Paper: 94-3; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 19. **PR** no charge. **JE** R10, C51. **KW** Spatial Interactions Modeling. Regional Models. Regional Productivity.

**AB** In recent years researchers have considered a variety of regional models relating to the infrastructure productivity. These models are often based upon overly simple econometric specifications and are typically formulated as if spatial interactions are absent. In this paper, the authors try to account for these shortcomings. They do this by modeling spatial interactions of the variables involved, as well as spatial correlation of the error terms. The authors also consider general patterns of heteroskedasticity, time series autocorrelation, unit roots, and a systems problem. Our results strongly suggest that regional infrastructure productivity involves spatial spill-overs. They also suggest that corresponding coefficient estimates are very sensitive to model specifications.

#### **Kesselman, Jonathan R.**

**PD** November 1993. **TI** Compliance, Enforcement, and Administrative Factors in Improving Tax Fairness. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 93-45; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 24. **PR** **JE** H26, H21, D63. **KW** Tax Administration. Public Policy. Tax Compliance.

**AB** This study examines emerging issues in the areas of tax compliance, enforcement, and administration, primarily from an economic perspective, and applies its findings to issues of tax fairness. It focuses on the economic motivation of compliance behaviors and the assessment of related policy structures. The study reviews evidence about the extent and nature of noncompliance and, at an intuitive level, the economic theory of tax avoidance, evasion, and enforcement. The treatment attempts to direct these findings towards the mandate of the Ontario Fair Tax Commission. This is done by showing the importance of compliance, enforcement, and administrative factors in attaining tax fairness. It is further pursued in overview applications of the economic analysis to selected issues of concern at the provincial level of taxation.

**PD** February 1994. **TI** Canadian Provincial Payroll Taxation: A Structural and Policy Analysis. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 94-07; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 54. **PR** **JE** H25, H55. **KW** Payroll Taxation. Provincial Taxation. Medicare.

**AB** Provincial use of payroll taxes for general revenue purposes has become a growing and important phenomenon. Currently four provinces, including the two largest, and the Northwest Territories apply payroll taxes. In three provinces the revenues from payroll tax exceed those from corporate income tax. However, these payroll taxes have been almost totally neglected in the public finance literature. This study offers a description and comparison of the key features of the payroll taxes, which differ considerably across the jurisdictions. It then undertakes an analysis of the structural and design issues for the payroll taxes.

#### **Kets de Vries, M.F.R**

**PD** 1994. **TI** The Leadership Mystique. **AA** INSEAD. **SR** INSEAD Working Papers: 94/08/ENT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 26. **PR** not available. **JE** M10, D21. **KW** Leadership. Management. Corporate Culture.

**AB** This article explores the way in which character traits and behavioral patterns affect leadership style. Some of the elements that make for successful leadership are presented. It is suggested that the personality of a top executive influences the strategy, corporate culture, and even structure of his or her organization to such an extent that often organizations cannot perform successfully if no attention is given to a leader's intrapsychic world. A clinical approach is used in the article to analyze how behavior on the part of a leader which may seem completely irrational may on closer inspection have an explanation and deeper rationale. The process is described by which executives can explore their core conflictual relationship themes, or inner scripts, through self-examination and through studying the lives of well-known business leaders and their companies. The theme of psychological pressure of leadership emerges during this process. The problems of loneliness of command, envy, and "false connection" on the part of subordinates are discussed. To clarify why some leaders are more affected by this pressure than others, the shaping of personality is described in the context of narcissistic development, and the concepts of reactive and constructive narcissism are explored. A correlation is shown between individual pathology and organizational pathology which often results in neurotic organizations. Finally, the danger of leaders' uncontrolled narcissism and hubris is touched on.

**PD** 1994. **TI** Reaping the Whirlwind: Managing Creative People. **AA** INSEAD. **SR** INSEAD Working Papers: 94/09/ENT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 19. **PR** not available. **JE** M12. **KW** Creativity. Management.

**AB** This article addresses the challenge that lies in transforming creative but unorthodox methods into constructive organizational action. Creative people are often considered to be trouble-makers, but in fact they can be a source of innovative products or processes for their organization. The paper begins with a discussion of what creativity really is, looking at both the populist notion and the idea of genius. Subsequently, some of the early developmental elements which contribute to an individual's creativity are explored. Creativity takes one of two possible forms as a result of these developmental experiences: constructive or reactive. Examples of well-known artists, writers, and composers are given to illustrate these forms of creativity. Finally, the article shows how an awareness of the roots of creativity is essential in an organizational setting. Concrete suggestions are given for managing creative people in the context of organizational, cultural, and leadership variables.

#### **Kletzer, K.M**

**TI** Ponzi Finance, Government Solvency and the Redundancy or Usefulness of Public Debt. **AU** Buitter, W.H.; Kletzer, K.M.

#### **Knight, Malcolm**

**PD** March 1994. **TI** Economic Determinants of Fund Financial Arrangements. **AU** Knight, Malcolm; Santaella, Julio A. **AA** International Monetary Fund.

**SR** International Monetary Fund Working Paper: WP/94/36; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 26. **PR** not available. **JE** F32, F33, F34. **KW** Financial Arrangements. International Monetary Fund. Macroeconomic Policy.

**AB** This paper analyses empirically the economic factors that lead to approval of Fund financial arrangements. We account for both the economic variables that induce a country to seek arrangement with the Fund ("demand-side" factors) and the macroeconomic policy commitments that the Fund considers when deciding whether to approve it ("supply-side" factors). Using a pooled sample of annual observations for 91 developing countries over 1973-1991, we obtain maximum likelihood estimates of bivariate and univariate probit equations to determine the probability of approval of a financial arrangement for a given country in a given year. A number of our chosen demand-side and supply-side variables are statistically significant determinants of the approval of a Fund arrangement, and the overall explanatory power of the equations is high.

#### Kotwal, Ashok

**TI** Product Quality and the Theory of Comparative Advantage. **AU** Copeland, Brian R.; Kotwal, Ashok.

#### Kourelis, Angeliki

**TI** Financial Structure, Bank Lending Rates, and the Transmission Mechanism of Monetary Policy. **AU** Cottarelli, Carlo; Kourelis, Angeliki.

#### Krueger, Alan B.

**PD** January 1994. **TI** Observations on Employment-Based Government Mandates, With Particular Reference to Health Insurance. **AA** Princeton University and National Bureau of Economic Research. **SR** Princeton Industrial Relations Section Working Paper: 323; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 47. **PR** \$1.50. **JE** J32, I18. **KW** Mandated Benefits. Health Insurance.

**AB** This paper provides several observations on the impact of employment-based government mandates on job characteristics, wages, and employment. Special attention is devoted to evaluating the effects of mandated health insurance because health care is the largest government mandate potentially on the horizon. In some situations, mandates may be useful to solve adverse selection problems, and to compel firms to internalize the social costs of production. Moreover, in a world with pre-existing distortions, mandates may reduce other inefficiencies. However, it is concluded that in many situations the optimal way for a government to assure that services are provided is probably not through employment-based mandates. In many situations, mandates are utilized because alternative schemes are politically infeasible. Nevertheless, since the labor supply curve is widely believed to be fairly inelastic, in the long-run employers' costs of meeting government mandates are likely to be shifted to employees in the form of lower wages. Cost shifting to employees is expected to moderate the reduction in jobs due to government mandates.

**PD** May 1994. **TI** New Evidence on Workplace Education. **AU** Krueger, Alan B.; Rouse, Cecilia E. **AA** Princeton University and National Bureau of Economic Research. **SR** Princeton Industrial Relations Section Working Paper: 329; Industrial Relations Section, Department

of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 47. **PR** \$1.50. **JE** J31, I20. **KW** Reexamination. Minimum Wage. Employment.

**AB** This paper presents an analysis of the impact of a workplace education program that was administered by a community college at two companies. One of the companies we study is in the manufacturing sector and the other is in the service sector. The analysis relies on longitudinal administrative data and cross-sectional survey data. We examine a broad range of outcome variables, including workers' earnings, performance awards, and subjective performance measures. Our main finding is that the program had a small, positive impact on earnings at the manufacturing company, but an insignificant impact at the service company. We also find that the training program had a positive association with the incidence of job bids, upgrades, and performance awards. At the manufacturing company, occupational courses, such as blue print reading, had the largest impact.

**PD** May 1994. **TI** The Effect of the Minimum Wage When it Really Bites: A Reexamination of the Evidence from Puerto Rico. **AA** Princeton University and National Bureau of Economic Research. **SR** Princeton Industrial Relations Section Working Paper: 330; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 35. **PR** \$1.50. **JE** J20. **KW** Workplace Education.

**AB** This paper reinvestigates the evidence on the impact of the minimum wage on employment in Puerto Rico. The strongest evidence that the minimum wage had a negative effect on employment comes from an aggregate time series analysis. The weakest evidence comes from cross-industry analyses. The main finding of the paper, however, is that the statistical evidence of a negative employment effect of the minimum wage in Puerto Rico is surprisingly fragile.

#### Krusell, Per

**TI** Macroeconomic Implications of Investment-Specific Technological Change. **AU** Greenwood, Jeremy; Hercowitz, Zvi; Krusell, Per.

#### Lagunoff, Roger D.

**PD** December 1993. **TI** On the Dynamic Selection of Mechanisms as Clubs for the Provision of a Public Project. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 93-28; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 26. **PR** no charge. **JE** H31, H43, D11, D71. **KW** Majority Rule. Voluntary Contribution. Public Project.

**AB** In many instances, the internal provision mechanism for local public goods figures crucially in the decision of individuals when they choose which organizations or community to join. This paper describes a dynamic model in which the provision mechanism is itself the object of locational choice of individuals. Individuals must choose between a Majority Rule mechanism and a Voluntary Contribution mechanism. Each mechanism determines a funding decision for a local public project which is repeated over time. Generations of individuals asynchronously supercede their "parents," creating an entry/exit process that allows individuals with possibly

different beliefs to enter society. The possibility of heterogeneous forecasts of incoming individuals is captured by a process of belief formation of newborn individuals in which forecasts form a self confirming equilibrium (SCE) in the sense of Fudenberg and Levine (1993). This notion requires "correct" forecasts of an individual only on those trajectories along the realized path and on which he remains "alive." We describe the explicit transitional dynamics of selection of these mechanisms as clubs under SCE belief processes. The results show that when the SCE process admits sufficiently heterogeneous forecasts over time, the Majority Rule mechanism is the unique survivor of the two in the long-run. The mechanics of the model suggest a general method of describing the emergence of certain institutions, while others are weeded-out over time.

**Laidler, David E.W**

PD October 1993. TI Why do Agents Hold Money and Why Does it Matter? AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9401; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 26. PR \$7.00 Canada; \$9.00 Elsewhere. JE E41, E52. KW Monetary Policy. Demand for Money. Microfoundations.

AB This paper explores two questions: why do agents hold money, and why does it matter? The answer to the former is that money serves as a medium of exchange and reduces transaction costs. It matters because it implies a serious alternative to the Walrasian tatonnement process as a means of coordinating economic activity. It also undermines the current literature exploring the microfoundations of monetary economics. This paper points toward some interesting and potentially fruitful lines of future inquiry both theoretical and empirical.

**Lane, Timothy D.**

TI Financial and Enterprise Restructuring in Emerging Market Economies. AU Fries, Steven M.; Lane, Timothy D.

**Lapham, Beverly J.**

TI Monopolistic Competition, Increasing Returns, and the Effects of Government Spending. AU Devereux, Michael B.; Head, Allen C.; Lapham, Beverly J.

**Le Breton, Michel**

PD July 1993. TI Strategy-Proof Social Choice with Continuous Separable Preferences. AU Le Breton, Michel; Weymark, John A. AA Le Breton: GREQUE and Universite d'Aix-Marseille II. Weymark: Johns Hopkins University and University of British Columbia. SR Johns Hopkins Department of Economics Working Paper: 314; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 51. PR no charge. JE D71, D70, C79. KW Tychonoff Spaces. Social Choice. Continuous Separable Preference Profile.

AB This paper considers a strategy-proof social choice function  $f$  defined on domain of continuous separable preference profiles. The set of alternatives is assumed to be the product of first-countable Tychonoff spaces, with each component containing at least three alternatives. It is shown that if  $f$  is strategy-proof and has a full range, then there is a dictator for each component, but different components may have different dictators. In addition, it is shown that if  $f$  is also

required to choose Pareto optimal outcomes, then a single individual must be the dictator on all components.

**Le Grand, Julian**

TI The Development of Quasi-Markets in Welfare Provision. AU Glennerster, Howard; Le Grand, Julian.

**Le Grand, Julian and others**

TI Investigating Welfare: Final Report of the ESRC Welfare Research Programme. AU Hills, John; Glennerster, Howard; Le Grand, Julian and others.

**Lehrer, Ehud**

TI Subjective Games and Equilibria: I +. AU Kalai, Ehud; Lehrer, Ehud.

**Leidler, David**

PD January 1992. TI Wage and Price Stickiness in Macroeconomics: An Historical Perspective. AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9201; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 40. PR \$7.00 Canada; \$9.00 elsewhere. JE KW AB not available.

**Lele, Uma**

PD February 1994. TI Economics, Politics, and Ethics of Primary Commodity Development: How Can Poor Countries in Africa Benefit the Most? AU Lele, Uma; Gockowski, James; Adu-Nyako, Kofi. AA University of Florida. SR International Monetary Fund Working Paper: WP/94/23; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 23. PR not available. JE F43, H10, H50, Q10. KW Agriculture. Exports. Factor Productivity. Development.

AB The critical role of agricultural commodities in the growth of low-income countries is examined. A combination of factors has resulted in declining agricultural prices, necessitating further increasing volumes by developing countries to maintain export earnings. But low growth in factor productivity in Africa compared to competitors caused declining export shares in African countries. A broad-based smallholder strategy based on producing commodities in which a country enjoys comparative advantage needs to be supported by productivity enhancing innovations in food and export commodities, a stable price environment, availability of infrastructure, and access to credit. Such an environment requires partnership between government and private agents.

**Lemieux, Thomas**

TI Changing Wage Structure and Black-White Differentials: A Longitudinal Analysis. AU Card, David; Lemieux, Thomas.

**Lequiller, Francois**

PD March 1994. TI Drift in Producer Price Indexes for the Former Soviet Union (FSU) Countries. AU Lequiller, Francois; Zieschang, Kimberly D. AA not available. SR International Monetary Fund Working Paper: WP/94/35; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 9. PR not available. JE C43, C82, E31.

**KW** Transition Economies. Inflation. Price Drift.

**AB** The purpose of this paper is to show that, under the price fluctuations that characterize most transition economies, the commonly used chain index derived from the published month-to-month price change of the PPI in some cases dramatically overstates the rate of price inflation. The analysis is based in part on a seminal paper by Szulc, who studies the problem of drift for a wide class of index formulae, and in part on the observations of price movements made by the Fund's missions. Greatest during the year 1992, the price drift declines with slower rates of inflation and, possibly, with changing patterns of price increases, but is still important for countries such as Russia, where monthly inflation continues to run well into the double digits.

### Lessof, Carli

**TI** William Beveridge versus Robin Hood: Social Security and Redistribution over the Lifecycle. **AU** Falkingham, Jane; Hills, John; Lessof, Carli.

### Lettau, Martin

**PD** May 1994. **TI** Rules of Thumb and Dynamic Programming. **AU** Lettau, Martin; Uhlig, Harold. **AA** Lettau and Uhlig: Princeton University. **SR** Princeton Financial Research Center Memorandum: 145; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544-1021. **PG** 27. **PR** \$3.00 for U.S. mailings. \$6.00 for foreign mailings. **JE** E21, C63, C61. **KW** Rules of Thumb. Dynamic Programming. Markovian/Stochastic Approximation.

**AB** This paper studies the relationships between learning about rules of thumb (represented by classifier systems) and dynamic programming. Building on a result about Markovian stochastic approximation algorithms, the authors characterize all decision functions that can be asymptotically obtained through classifier system learning, provided the asymptotic ordering of the classifiers is strict. They demonstrate in a robust example, that the learnable decision function is in general not unique, not characterized by a strict ordering of the classifiers, and may not coincide with the decision function delivered by the solution to the dynamic programming problem even if that function is attainable. As an illustration the authors consider the puzzle of excess sensitivity of consumption to transitory income: classifier systems can generate such behavior even if one of the available rules of thumb is the decision function solving the dynamic programming problem, since bad decisions in good times can "feel better" than good decisions in bad times.

### Levi, Anat

**TI** A Small-Open-Economy Analysis of Migration. **AU** Flug, Kamit; Hercowitz, Zvi; Levi, Anat.

### Levin, Andrew

**PD** December 1993. **TI** Unit Root Tests in Panel Data: New Results. **AU** Levin, Andrew; Lin, Chien-Fu. **AA** Levin: University of California at San Diego and Federal Reserve Board of Governors. Lin: National Taiwan University. **SR** University of California, San Diego Department of Economics Working Paper: 93-56; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 27. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents,

University of California. **JE** C32, C15. **KW** Monte Carlo Simulation. Panel Unit Root Test.

**AB** This paper considers the use of pooled cross-section time series data to test the null hypothesis that each individual time series contains a unit root against the alternative hypothesis that each time series is stationary. The degree of persistence may vary across individuals under the alternative hypothesis, and all other model parameters are also allowed to vary freely across individuals. As both the cross-section and time series dimensions of the panel grow large, the test statistic has a limiting normal distribution that depends on the regression specification but is free from nuisance parameters. Monte Carlo simulations indicate that the normal distribution provides an excellent approximation to the empirical distribution of the test statistic in relatively small samples (at least 10 individuals and 25 time periods), and that the panel framework can provide framework can provide dramatic improvements in statistical power compared to performing a separate unit root for each individual time series. Thus, the use of panel unit root tests may prove to be particularly useful in analysing industry-level and cross-country data.

### Levine, David K.

**TI** Maintaining a Reputation Against a Patient Opponent. **AU** Celentani, Marco; Fudenberg, Drew; Levine, David K.; Pendorfer, Wolfgang.

### Li, Shuhe

**TI** Transition with Growth: The Chinese Experience in the World Economy. **AU** Gong, Changzhen; Li, Shuhe.

### Limin, Wang

**TI** Housing and Housing Reform in Urban China: Efficiency, Distribution and the Implications for Social Security. **AU** Pudney, Stephen; Limin, Wang.

### Lin, Chien-Fu

**TI** Unit Root Tests in Panel Data: New Results. **AU** Levin, Andrew; Lin, Chien-Fu.

### Litchfield, J. A.

**TI** Inequality, Mobility and the Determinants of Income Among the Rural Poor in Chile, 1968-1986. **AU** Scott, C. D.; Litchfield, J. A.

### Ludwick, Jr., Richard E.

**PD** July 1994. **TI** Reversing Roles: Stackelberg Incentive Contract Equilibrium. **AA** Federal Trade Commission. **SR** Federal Trade Commission Bureau of Economics Working Paper: 206; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Ave. NW, Washington, D.C. 20580. **PG** 20. **PR** no charge. **JE** L14, D43, D21. **KW** Stackelberg Equilibrium. Incentive Contracts.

**AB** This analysis derives the optimal incentive contracts owners offer managers who engage in Stackelberg-quantity competition. In contrast to the Cournot case, the owner of the leading firm motivates his manager to strictly maximize profits and thereby gives no incentives for increased production. This results in a reversal of the usual Stackelberg outcome; output and profits for the leading firm are less than those of the follower's. In another reversal of the standard Stackelberg result, the leader's output and profits are lower compared to when outputs are chosen simultaneously whereas the follower's

are greater. While the owner of the leading firm then wants his manager to engage in simultaneous quantity competition, the manager always chooses to be a leader irrespective of his incentive contracts.

#### MacDonald, Glenn M.

TI The Cyclical Behavior of Job Creation and Job Destruction: A Sectoral Model. AU Greenwood, Jeremy; MacDonald, Glenn M.; Zhang, Guang-Jia.

#### Machin, Stephen

PD June 1994. TI The Decline of the Male Breadwinner: Changing Shares of Husbands' and Wives' Earnings in Family Income. AU Machin, Stephen; Waldfogel, Jane. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/103; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 38. PR no charge. JE J16, J31. KW Earnings Shares. Family Income. Inequality. AB In this paper we use General Household Survey data from 1979-1990 to explore the changing contributions of the earnings of husbands and wives to overall family income. The share of men's earnings fell from 74 percent in 1979 to 63 percent by 1990. This reflects a massive deterioration in the labor market position of unskilled men. At the same time we see an increase in the female share that is mainly driven by increased participation of the wives of low earning men. There is one exception to this, as the relative labor supply of women married to unemployed men falls between 1979-80 and 1989-90. We then go on to evaluate the importance of these changes in explaining the sharp rise in the inequality of family incomes that occurred through the 1980's. The principal factor underpinning the rise in income inequality is the rise in male earnings inequality. Furthermore, because increases in female labor force participation are larger for women married to low earning men, wife's earnings are shown to exert an equalizing impact on the distribution of family income, an effect which becomes more marked by 1989-90.

#### Machina, Mark J.

PD May 1994. TI Bayes Without Bernoulli: Simple Conditions for Probabilistically Sophisticated Choice. AU Machina, Mark J.; Schmeidler, David. AA Machina: University of California at San Diego. Schmeidler: Tel-Aviv University and Ohio State University. SR University of California, San Diego Department of Economics Working Paper: 93-33R; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 17. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE D81, D80. KW Subjective Probability. Bayesian Rationality. Expected Utility.

AB In 1963, Anscombe and Aumann demonstrated that the introduction of an objective randomizing device into the Savage setting of subjective uncertainty considerably simplified the derivation of subjective probability from a decision maker's preferences over uncertain bets. The purpose of this paper is to present a more general derivation of classical subjective probability in such a framework, which neither assumes nor implies that the individual's risk preferences necessarily conform to the expected utility principle. We argue that the essence of "Bayesian rationality" is the assignment,

correct manipulation, and proper updating of subjective event probabilities when evaluating and comparing uncertain prospects, regardless of whether attitudes toward risk satisfy the expected utility property.

PD June 1994. TI Two Errors in the "Allais Impossibility Theorem". AA not available. SR University of California, San Diego Department of Economics Working Paper: 94-08; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 12. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE D11, D81. KW Smooth Non-Expected Utility Functions. Local Expected Utility Functions. Allais Impossibility Theorem. AB This paper is a response to Allais' (1988) paper which finds that the "local expected utility" function presented by Machina (1982, 1983) cannot be validity defined over the whole domain of the distribution. The purpose of this paper is to identify two separate errors in Allais' argument. The definition of the local utility function of a preference functional is presented. Allais' argument is presented step by step with a discussion of his two errors. Counterexamples to the Allais assertions are provided.

#### Mahe, Louis P.

TI Producer Behavior Under Strict Rationing and Quasi-Fixed Factors. AU Guyomard, Herve; Mahe, Louis P.

#### Mahler, Walter

TI Taxation of Petroleum Products: Theory and Empirical Evidence. AU Gupta, Sanjeev; Mahler, Walter.

#### Makridakis, S.

PD 1994. TI Forecasting Accuracy and System Complexity. AA INSEAD. SR INSEAD Working Papers: 94/06/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 20. PR not available. JE C53. KW Forecasting. System Complexity. AB The purpose of this article is to briefly survey the literature of empirical studies related to the forecasting of economic and business series and outline their major conclusions. Consequently the reasons for such conclusions are examined and their relation to system complexity are discussed. Finally, suggestions are made about the most rational way of dealing with the forecasting of future events and the resulting uncertainty of having to predict the outcome of large, complex systems such as those involving the economy and business firms, which are chaotic in the short term but stable in the long-run.

#### Maler, Karl-Goran

TI Poverty, Institutions, and the Environmental-Resource Base. AU Dasgupta, Partha; Maler, Karl-Goran.

#### Manelli, Alejandro M.

TI Sequential Equilibria and Cheap Talk in Infinite Signaling Games. Part 1: Sequential Equilibria. AU Iorio, Karl; Manelli, Alejandro M.

TI Sequential Equilibria and Cheap Talk in Infinite Signaling Games. Part 2: Cheap Talk. AU Iorio, Karl; Manelli, Alejandro M.

**Marsh, Ian W.**

PD March 1994. TI Competitiveness Indicators: A Theoretical and Empirical Assessment. AU Marsh, Ian W.; Tokarick, Stephen P. AA not available. SR International Monetary Fund Working Paper: WP/94/29; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 40. PR not available. JE F40. KW Competitiveness Indicators. Exchange Rates. Exports.

AB This paper discusses five indicators of competitiveness: real exchange rates based on consumer price indices, export unit values of manufacturing goods, the relative price of traded to nontraded goods, normalized unit labor costs in manufacturing, and the ratio of normalized unit labor costs to value-added deflators in manufacturing. It discusses how each of these measures is associated with changes in a country's balance of trade in goods and nonfactor services and examines the relationship among these indicators. It then examines the empirical performance of three of the indicators in terms of their ability to explain trade flows.

**Martin, Kerry M.**

TI Contingent Valuation and Revealed Preference Methodologies: Comparing the Estimates for Quasi-Public Goods. AU Carson, Richard T.; Flores, Nicholas E.; Martin, Kerry M.; Wright, Jennifer L.

**Martinas, K.**

TI Entropy, Physical Information and Economic Values. Waste Potential Entropy: The Ultimate Ecotoxic. AU Ayres, R.U.; Martin, K.

**Marx, Leslie M.**

PD October 1993. TI Order Independence for Iterated Weak Dominance. AU Marx, Leslie M.; Swinkels, Jeroen M. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1066; Northwestern University, 2001 Sheridan Road, 3-014 Leverone, Evanston, IL 60208-2014. PG 17. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE C72. KW Weak Dominance. Order of Elimination. Game Theory.

AB In general, the result of the elimination of weakly dominated strategies depends on order. We find a condition, satisfied by the normal form of any generic extensive form, and by some important games which do not admit generic extensive forms, under which any two games resulting from the elimination of weakly dominated strategies (subject to no more eliminations being possible) are equivalent. We extend our condition and result to the case of elimination by mixed strategies. The result strengthens the intuitive connection between backward induction and weak dominance. And, under our condition, some computational problems relating to weak dominance, which are generally complex, become simple.

PD October 1993. TI Monotonicity of Solution Sets for Parameterized Optimization Problems. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1067; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall Evanston, IL 60208-2014. PG 43. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE C72. KW Game Theory. Nash Equilibrium.

AB This paper uses the results of lattice theory, convex analysis, and nonsmooth analysis to establish conditions for the existence of pure-strategy Nash equilibria when payoff functions are continuous but not quasi-concave. A class of economic games for which this theory is important is given.

**Mathieson, Donald J.**

PD February 1994. TI Systemic Requirements for Monetary Stability in Eastern Europe and the Former Soviet Union. AA London University. SR International Monetary Fund Working Paper: WP/94/24; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 19. PR not available. JE G21, G25, P34, P51, E52. KW Monetary Stability. Efficient Payments. Banking System.

AB The primary function of banks during economic transformation is seen to be provision of an efficient payments mechanism. The lack of banking skills, particularly in credit allocation, is seen as the major problem in stable monetary systems. This is a problem which can be expected to last many years. The solution is to limit banks to very safe assets (initially central bank liabilities). Combining such safe banks with a monetary rule would provide stable monetary systems during transition.

**Matsui, Akihiko**

PD September 1993. TI An Approach to Equilibrium Selection. AU Matsui, Akihiko; Matsuyama, Kiminori. AA Matsui: University of Pennsylvania. Matsuyama: Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1065; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG 29. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE C72. KW Equilibrium Selection. Random Matching Games. Risk Dominance.

AB We consider equilibrium selection in 2x2 bimatrix (both symmetric and asymmetric) games with two strict Nash equilibria by embedding it in a dynamic random matching game played by a continuum of anonymous agents. Unlike in the evolutionary game literature, we assume that the players are rational, seeking to maximize the expected discounted payoffs; but they are instead restricted to make a short run commitment when choosing actions. Modelling the friction this way yields the equilibrium dynamics, whose stationary states correspond to the Nash outcomes of the original game. Our selection is based on differential stability properties of the stationary states. It is shown that, as friction becomes arbitrarily small, a strict Nash outcome becomes uniquely absorbing and globally accessible if and only it satisfies the Harsanyi and Selten (1988) notion of risk-dominance criterion. Our approach thus supplies another support for risk-dominance in addition to those given in the literature.

PD January 1994. TI Expected Utility and Case-Based Reasoning. AA University of Pennsylvania. SR University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 94-01; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. PG 32. PR no charge. JE D11, D81. KW Human Behavior. Bounded Rationality. Expected Utility.

AB This paper presents an equivalence result between

expected utility theory (EUT) and a modified version of case-based decision theory (CBDT). The latter, proposed and axiomatized by Gilboa and Schmeidler (1992), has been developed as case-based reasoning in artificial intelligence and often considered as a descriptive theory of human behavior. In CBDT a decision maker remembers situations similar to the current ones and uses them to help solve the new problem. This idea stems from bounded rationality and is similar in spirit to the satisficing theory of March and Simon (1958) in the sense that the decision maker tends to satisfice rather than optimize. Implications of the equivalence result are the following. If a decision maker is perfectly rational in the sense that he can completely analyze a situation without cost, then the two rational theories are equivalent, i.e., they are substitutes to each other. Thus, one should not reject the other theory for the reason that it is the theory of bounded rationality. If on the other hand, the decision maker is boundedly rational, then he chooses a "simpler" and more intuitive theory, depending on his background as well as the situation he is faced with. Moreover, for an outside observer who has no access to the cognitive process of the decision maker, these two theories are observationally equivalent. Theoretically, the equivalence result enables us to construct a descriptive theory of a boundedly rational agent who is "almost" perfectly rational. It is also argued that the two reasoning processes are sometimes combined in decision making.

#### Matsuyama, Kiminori

TI An Approach to Equilibrium Selection. AU Matsui, Akihiko; Matsuyama, Kiminori.

PD December 1993. TI Toward an Economic Theory of Pattern Formation. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1079; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG 10. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE E30. KW Pattern Formation. Economic Theory. Emerging Structure.

AB This paper suggests that economists ought to be more interested in explaining the formation of spatial and temporal patterns in economic activities, instead of merely assuming their existence. It seems that many of the important insights of the science of pattern formation or emerging structure is model-independent. Krugman (1990) wisely avoids technical details and mainly focuses on concepts in his paper. Following his strategy, I will also focus on the conceptual and methodological issues, in particular, those that I think deserve more attention than Krugman gave in his paper.

#### Matzkin, Rosa L.

TI Walrasian Comparative Studies. AU Brown, Donald J.; Matzkin, Rosa L.

#### McAndrews, James J.

PD April 1994. TI Shared Ownership and Pricing in a Network Switch. AU McAndrews, James J.; Rob, Rafael. AA McAndrews: Federal Reserve Bank of Philadelphia. Rob: University of Pennsylvania. SR Federal Reserve Bank of Philadelphia Research Working Paper: 94-6; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 10 Independence Mall, Philadelphia, PA 19106. PG 21. PR no charge except overseas airmail, \$2.00;

checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. JE G29, G28. KW ATM Networks. Retail Pricing. Antitrust Policy.

AB The authors observe that many wholesale switches in ATM networks are owned by their members and that this tends to occur more frequently when the wholesale industry is highly concentrated. They also observe that network switches are "natural monopolies," their costs being largely fixed and their demand exhibiting substantial network externalities. Motivated by these observations, they model the competition for members between wholesale switches and the role joint ownership can play in attracting members. The model analyzes both the adoption decision (which network a bank chooses to join) and the subsequent pricing of switch and ATM services. The authors compare competition between two solely owned switches with competition between one solely owned and one jointly owned switch. Their analysis shows that a more concentrated structure results under the latter and that retail prices are higher. This calls into question the leniency of antitrust policy against jointly owned structures.

#### McCall, Brian P.

TI Is Workers' Compensation Covering Uninsured Medical Costs? Evidence from the "Monday Effect." AU Card, David; McCall, Brian P.

#### McGrattan, Ellen

PD October 1993. TI Solving the Stochastic Growth Model With a Finite Element Method. AA Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report; 164; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 19. PR no charge. JE C63. KW Finite Element Method. Penalty Functions. Business Cycle.

AB Since it is the dominant paradigm of the business cycle and growth literatures, the stochastic growth model has been used to test the performance of alternative numerical methods. This paper applies the finite element to this example. I show that the method is easy to apply and, for examples such as the stochastic growth method, gives accurate solutions within a second or two on a desktop computer. I also show how inequality constraints can be handled by redefining the optimization problem with penalty functions.

PD December 1993. TI Household Production and Taxation in the Stochastic Growth Model. AU McGrattan, Ellen; Rogerson, Richard; Wright, Randall. AA Rogerson: University of Minnesota. Wright: University of Pennsylvania. McGrattan, Rogerson, and Wright: Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report; 166; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55401. PG 26. 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. We use these estimates to investigate two issues. First, we analyze how well the model accounts for aggregate fluctuations. Second, we use the model to study the effects of fiscal policy. We find household production has a significant impact, and reject a nested specification in which changes in the home production technology do not matter for market variables. The model generates very different predictions for

the effects of tax changes than similar models without home production.

**McKelvey, Richard D.**

TI An Experimental Study of Constant-Sum Centipede Games. AU Fey, Mark; McKelvey, Richard D.; Palfrey, Thomas R.

**Menzela, John**

PD April 1994. TI Improving the Management of a Central Bank--A Case Study. AA Reserve Bank of New Zealand. SR International Monetary Fund Working Paper: WP/94/37; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 23. PR not available. JE G20, M10, M41, N27, O29. KW Central Bank. Efficiency Gains. Business Management.

AB This paper examines how major efficiency gains and improved effectiveness were simultaneously achieved at the Reserve Bank of New Zealand over a five-year period. It identifies the business management concepts that were used to transform the organization, outlines how they were applied, and evaluates the benefits obtained. The paper concludes that substantial real efficiency gains were achieved, while effectiveness was maintained or enhanced. Looking more widely, the business management concepts used to achieve these benefits could be applied to other central banks.

**Mercader, Magda**

PD September 1993. TI The Low Income Population in Spain and a Comparison With France and the UK: Evidence From the Household Expenditure Surveys. AA London School of Economics and DELTA. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/95; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 34. PR no charge. JE I32. KW Poverty. International Comparisons. Population.

AB Focusing on Spain, this paper uses the French, Spanish, and the UK Household Expenditure Surveys to give empirical evidence on the relevance of methodological choices involved in the measurement of the low income population across countries to the final conclusions drawn. It analyzes in particular the effect of changes in the income definition, in the poverty line, in the method of weighting units, and in the equivalence scale. It shows that these choices, widely perceived to be "technical" ones of measurement, may affect not only the relative differences between the extent of the low income population between Spain, France, and the UK, but also the ranking between countries.

**Merlo, Antonio**

PD May 1994. TI An Experimental Study of Learning in One and Two-Person Games. AU Merlo, Antonio; Schotter, Andrew. AA Merlo: University of Minnesota. Schotter: New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-17; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 36. PR no charge. JE C39, J33, D80. KW Learning. Game Theory.

AB In the economic theory of learning, agents approach each learning task identically. If they are perfectly rational Bayesians, they update their priors given revealed information

and maximize accordingly, while if they are boundedly rational they mechanically apply an exogenously given and fixed rule of thumb. In both of these approaches agents do not adapt their learning strategy to fit the circumstances they are faced with. In this paper, we view economic agents as boundedly rational. However, we view them as taking a more active and creative part in the learning that they do. This creativity is manifested in their choice of what to learn about depending on the situation they are faced with. We conduct a series of one and two-person game experiments aimed at investigating how the learning strategy of laboratory subjects changes as they are presented with decision problems of varying complexity across environments with different learning costs. We find that learning is both institution and situation specific. More precisely, our findings show that as the complexity of the decision problem increases, subjects employ simpler learning rules. Such a shift is more pronounced in a payoff environment characterized by low learning costs. Further, holding the complexity of the decision problem constant and looking across different payoff environments, we find that subjects learn less well in a high learning cost environment despite the fact that they appear to sample identically over the domain of their strategy set as their cohorts in low learning cost experiments. In other words, the relatively better performance of subjects in an environment where learning is less costly is a function of how such subjects process the information they generate and not of the type of information they generate. These results are more pronounced in our one-person decision problem experiments than in our two-person game experiments.

**Mester, Loretta J.**

TI Bank Managers' Objectives. AU Hughes, Joseph P.; Mester, Loretta J.

**Micossi, Stefano**

PD February 1994. TI Real Exchange Rates and the Prices of Nontradable Goods. AU Micossi, Stefano; Milesi-Ferretti, Gian Maria. AA Micossi: Centro Studi Confindustria. Milesi-Ferretti: London School of Economics. SR International Monetary Fund Working Paper: WP/94/19; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 21. PR not available. JE F31, F41. KW Exchange Rates. Nontradable Goods.

AB This paper attempts to provide a perspective on real exchange rate developments following the inception of the EMS. The focus is on structural determinants of real exchange rates, notably the behavior of tradables and nontradable prices and productivity. It is found that changes in the relative price of tradable goods in terms of nontradables account for a sizable fraction of real exchange rate dynamics during the EMS period. Sectoral productivity growth differentials help explain the behavior of the relative price of tradable goods, especially in the long-run. There is also some evidence that the EMS has extended on relative price behavior.

**Milesi-Ferretti, Gian Maria**

TI Real Exchange Rates and the Prices of Nontradable Goods. AU Micossi, Stefano; Milesi-Ferretti, Gian Maria.

**Minehart, Deborah**

PD September 1993. TI A Note on the Finiteness of the Set of Equilibria in an Exchange Economy with Constrained Endowments. AA University of California at Berkeley.



**SR** University of California at Berkeley Working Paper in Economics: 93-215; IBER, 156 Barrows Hall, University of California, Berkeley, CA 94720. **PG** 6. **PR** \$3.50 U.S.A. and Canada. \$7.00 foreign. **JE** L62, O51. **KW** Constrained Endowment Space. Price Equilibria. Genericity.

**AB** Debreu (1970) proved that for smooth finite exchange economies, the set of endowment assignments which result in a finite number of price equilibria is "large" in the sense that it has null closed complement. It is shown that if the individual endowment space of each agent does not include all the commodities, then this conclusion need not hold. In particular, the case where each agent's endowment space includes only one good is considered. A class of examples in which every economy in an open subset of the constrained endowment space gives rise to a continuum of equilibria is considered.

**Mitchell, Robert Cameron**

**TI** Sequencing and Nesting in Contingent Valuation Surveys. **AU** Carson, Richard T.; Mitchell, Robert Cameron.

**TI** The Issue of Scope in Contingent Valuation Studies. **AU** Carson, Richard T.; Mitchell, Robert Cameron.

**PD** December 1993. **TI** Current Issues in the Design, Administration, and Analysis of Contingent Valuation Surveys. **AU** Mitchell, Robert Cameron; Carson, Richard T. **AA** Mitchell: Clark University. Carson: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-54; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 33. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** H30, H80, D11. **KW** Contingent Valuation. Natural Resource Damage Assessment. Survey Design.

**AB** Recent developments related to the use of contingent valuation (CV) are discussed, especially the debate in the United States over the use of CV in natural resource damage assessment. It is argued that two misconceptions underlie much of the current debate over contingent valuation. After an analysis of these misconceptions and their implications the paper considers some issues in the design, administration and analysis of reliable contingent valuation surveys.

**Mohnen, Pierre**

**TI** International R&D Spillovers Between U.S. and Japanese R&D Intensive Sectors. **AU** Bernstein, Jeffrey I.; Mohnen, Pierre.

**Mount, Kenneth R.**

**PD** January 1994. **TI** On Modeling Computing with Human Agents. **AU** Mount, Kenneth R.; Reiter, Stanley. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1080; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 33. **PR** \$3.00 in U.S. and Canada; \$5.00 via international mail. **JE** D11, D81, D83. **KW** Network Model. Computing. Human Behavior.

**AB** We present in this paper an informal account of the Mount and Reiter network model of computing, and illustrate how that model applies to computations performed by human beings. We do this by examining how certain tasks are

performed by machines and by humans. Human beings can easily do some things that are very difficult for machines to do. There is a range of possibilities for models of human pattern recognition, from models based on the neurophysiology of vision, to black-box models (i.e., models whose inputs are patterns and whose outputs are names of patterns, with no attempt to analyze the process in more detail).

**Mueller, Dennis C.**

**TI** Investment and Cash Flow: Asymmetric Information of Managerial Discretion. **AU** Kathuria, Rajat; Mueller, Dennis C.

**Munro, Gordon R.**

**PD** November 1993. **TI** The Economic Management of High Seas Fishery Resources: Some Game Theoretic Aspects. **AU** Munro, Gordon R.; Kaitala, Veijo. **AA** Munro: University of British Columbia. Kaitala: Royal Swedish Academy of Sciences. **SR** University of British Columbia Department of Economics Discussion Paper: 93-41; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 31. **PR** **JE** Q22, C71, C72, F23, H77. **KW** Transboundary Resources. Dynamic Games.

**AB** A new international fisheries management problem has emerged, which has now become the focus of a major UN intergovernmental conference. The problem consists of managing transboundary fishery resources in the form of so called "straddling" stocks that are to be found in both the coastal state Exclusive Economic Zone and the adjacent high seas. This paper provides an introduction to the question of the optimal economic management of such resources. It commences by asking how far the now well developed economic analysis of the management of transboundary fishery resources in form of resources "shared" by two or more coastal states will take us in examining the management of "straddling" stocks. The answer is not very far. The game theoretic aspects of the analysis of "straddling" stock management are far more complex than those pertaining to "shared" stock management. This difference in complexity is a reflection of the number of "players" typically involved in the management of a "straddling" fishery stock and of the likely shifts in composition of the "straddling" stock overall management coalition through time.

**Nakagami, Yasuhiro**

**PD** September 1993. **TI** Inflation, Housing Taxation, and Homeowner Mobility. **AU** Nakagami, Yasuhiro; Pereira, Alfredo M. **AA** Nakagami: Seikei University. Pereira: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-39; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 32. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** H24, H31, R21. **KW** Homeownership. Intertemporal Utility. Mortgage Tax Deduction.

**AB** This paper develops an intertemporal model of household behavior with optimal housing trading up which incorporates the consumption and investment aspects of homeownership and the provisions of taxation of owner-occupied housing. It discusses how changes in inflation rates and changes in the taxation of owner-occupied housing would affect the optimal

timing of trading up, the value of uptrading, the house-financing decisions and ultimately intertemporal utility, for both first-time home buyers and current homeowners. It is shown that, under the current tax system, intertemporal utility increases with inflation for current homeowners while it decreases for first-time home buyers. It is also shown that, current homeowners would suffer greater utility losses from the taxation of imputed rents while first-time home buyers would suffer greater utility losses from the elimination of mortgage interest deductibility.

**PD** September 1993. **TI** On the Budgetary and Efficiency Effects of Housing Taxation in the U.S. **AU** Nakagami, Yasuhiro; Pereira, Alfredo M. **AA** Nakagami: Seikei University. Pereira: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-41; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 29. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** D58, H24, R21. **KW** Mortgage Interest Tax Deduction. Dynamic General Equilibria Model. Housing Investment.

**AB** This paper analyzes the budgetary and efficiency effects of eliminating the deductibility of housing mortgage interest payments from the personal income tax base as well as the exemption of taxation imputed housing rents for owner-occupants. This analysis is pursued in the context of a dynamic general equilibrium model of the United States economy. This model emphasizes the characteristics of housing as an investment good and a consumption good as well as different housing tenure situations and the importance of forward-looking behavior, in particular optimal public borrowing. Simulation results suggest that both policy changes would reduce the relative price of renting versus owning and that households would turn to a more rental-intensive tenure choice. The elimination of the mortgage interest deduction would lead to higher costs of purchasing housing capital and depress the demand for new houses reflecting a tendency for more intensive allocation of savings in financial assets as opposed to housing assets. In turn, the taxation of imputed rents for homeowners would be capitalized in lower current housing prices and induce a more housing-intensive portfolio allocation. Both policy changes would, in the long run, boost tax revenues and allocation efficiency.

### Nalbantian, Haig

**PD** February 1994. **TI** Productivity Under Group Incentives: An Experimental Study. **AU** Nalbantian, Haig; Schotter, Andrew. **AA** Nalbantian: National Economic Research Associates. Schotter: New York University. **SR** New York University, C.V. Starr Center Economic Research Report: 94-04; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. **PG** 45. **PR** no charge. **JE** C39, J33, D80. **KW** Group Incentives. Worker Productivity.

**AB** Although the United States still leads the world in worker productivity, there is some concern that the rate of productivity growth we have experienced over the past two decades may not be sufficient to maintain our leading position as we enter the next century. One possible avenue through which productivity can be increased is through the design and implementation of carefully crafted incentive compensation systems, which will

induce workers to work both harder and smarter. In this paper we take a first, experimental examination of this possibility. We report on a set of 13 experiments run using 588 paid human volunteers, the purpose of which was to investigate the problem of group moral hazard and the performance characteristics of a variety of group and individual incentive schemes. The specific schemes we investigate range from simple Revenue Sharing (egalitarian partnerships) to more sophisticated, target-based systems such as Profit Sharing or so-called Productivity Gainsharing. These are prototypical real-world incarnations of what economists call "forcing contracts." We also examined the properties of team-based tournaments, denoted here as "Competitive Teams" in which intra-firm competition, say between profit centers, is created so that relative performance becomes the basis of incentive awards. The performance of all these group incentive systems is then compared to that of individual incentive systems characterized by probabilistic monitoring and efficiency wages.

### Nelson, Daniel B.

**TI** Arch Models. **AU** Bollerslev, Tim; Engle, Robert F.; Nelson, Daniel B.

### Noh, Jaesun

**TI** Index-Option Pricing with Stochastic Volatility and the Value of Accurate Variance Forecasts. **AU** Engle, Robert F.; Kane, Alex; Noh, Jaesun.

### Nyarko, Yaw

**TI** The Bayesian Foundation of Learning by Doing. **AU** Jovanovic, Boyan; Nyarko, Yaw.

### Ohanian, Lee E.

**PD** September 1993. **TI** Short-Run Independence of Monetary Policy under Pegged Exchange Rates and Effects of Money on Exchange Rates and Interest Rates. **AU** Ohanian, Lee E.; Stockman, Alan C.; **AA** Ohanian: University of Pennsylvania. Stockman: University of Rochester. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 93-25; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 36. **PR** no charge. **JE** E43, E52, E58, F31. **KW** Monetary Policy. Exchange Rates. Liquidity Effect.

**AB** Economists generally assert that countries sacrifice monetary independence when they peg their exchange rates. At the same time, central bankers frequently assert that pegging an exchange rate does not eliminate the independence of monetary policy. This paper examines the effects of money-supply changes on exchange rates, interest rates, and production in an optimizing two-country model in which some sectors of the economy have predetermined nominal prices in the short run and other sectors have flexible prices. Money-supply shocks have liquidity effects both within and across countries and induce a cross-country real-interest differential. The model predicts that liquidity effects are highly non-linear and are not likely to be captured well empirically by linear models, particularly those involving only a single country. The most striking implication of the model is that countries have a degree of short-run independence of monetary policy even under pegged exchange rates.

**Osang, Thomas**

**PD** September 1993. **TI** Import Tariffs and Growth in a Small Open Economy. **AU** Osang, Thomas; Pereira, Alfredo M. **AA** Osang and Pereira: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-40; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 24. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** E62, F43, O20. **KW** Tariff Structure. Human Capital Accumulation and Growth. Investment Tax Credit.

**AB** In this paper we study the relationship between tariff structure, growth and welfare for a small open economy with endogenous growth induced by human capital accumulations. Using a model with trade in consumption and two investment goods we consider the short and long run effects of a permanent anticipated increase in the tariff rates under different replacement regimes. We show that in the case of lump sum replacement higher investment tariffs have negative growth effects while a consumption tariff is growth neutral. With an investment tax credit replacement, higher investment tariffs again reduce growth, albeit by less than in the lump sum case due to the growth enhancing impact of the investment tax credit, while consumption tariff stimulates growth for the same reason. All tariffs are welfare reducing in the long run but some may improve welfare in the short run. Finally, a revenue-neutral tariff reform may increase growth and welfare in the long run.

**PD** December 1993. **TI** Export-Led Growth in a Small Economy. **AU** Osang, Thomas; Pereira, Alfredo M. **AA** Osang and Pereira: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-53; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 10. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** F10, F43, O41. **KW** Human Capital Accumulation. Savings Behavior. Export Growth.

**AB** This paper develops a small open economy model of trade with endogenous growth induced by human capital accumulation, to analyze the effects of foreign growth on the domestic growth performance. Stronger export growth has the potential to increase domestic growth through a change in terms of trade. For this to happen, the role of savings behavior is crucial. For economies which display sufficiently high savings behaviors, changes in the terms of trade generate funds for domestic investment. In turn, the greater capital formation allows the use of more human capital in the accumulation of human capital instead of the production of final goods. Ultimately both increased domestic capital formation and enhanced human capital accumulation generate enhanced long term growth. If, however, the domestic economy shows a poor savings behavior, foreign growth and the corresponding growth of domestic exports might lead to lower domestic output growth. This may help to explain why some countries benefit and others lose from export growth experiences.

**Otker, Inci**

**PD** February 1994. **TI** Exchange Market Pressures and Speculative Capital Flows in Selected European Countries. **AU** Otker, Inci; Pazarbasioglu, Ceyla. **AA** not available. **SR** International Monetary Fund Working Paper: WP/94/21;

International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 35. **PR** not available. **JE** B22, G31, F33. **KW** Speculative Attack. Currency Crises. Foreign Exchange.

**AB** This paper estimates a speculative attack model of currency crises in an attempt to identify pressures in the recent crisis, as well as earlier devaluations in adjustable fixed exchange rate systems in the European currency markets. For a sample of five countries, including Denmark, Ireland, Spain, Norway, and Sweden, our empirical analyses show that both economic fundamentals and speculative factors have a significant influence on the probability of devaluations. The recent experience in the European foreign exchange markets suggests that the latest realignments are mainly the result of foreign exchange market tensions amidst the growing conflict between the needs of the domestic economies and the policies needed to maintain fixed exchange rates. Our results confirm that regardless of the source of the deterioration in economic conditions, market participants perceived the existing parties of the currencies in these five countries as inconsistent with their underlying economic fundamentals, thus effectively bringing about either a realignment or a modification of the exchange arrangement.

**Paarsch, Harry J.**

**TI** Identification, Estimation, and Testing in Empirical Models of Auctions Within the Independent Private Values Paradigm. **AU** Donald, Stephen G.; Paarsch, Harry J.

**Palfrey, Thomas R.**

**PD** September 1993. **TI** Altruism, Reputation, and Noise in Linear Public Goods Experiments. **AU** Palfrey, Thomas R.; Prisbrey, Jeffrey E. **AA** Palfrey: California Institute of Technology. Prisbrey: Universitat Pompeu Fabra. **SR** Caltech Social Science Working Paper: 864; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 31. **PR** no charge. **JE** D82, D83, C92. **KW** Public Goods. Experiments. Learning.

**AB** We report the results of a public goods experiment using a design that enables us to directly measure individual response functions in voluntary contribution games and estimate error rates. In addition, following Andreoni (1988), we employ two treatments in order to measure the extent to which voluntary contribution is due to reputation effects. The partners treatment involves a fixed group of subjects playing a repeated game. The strangers treatment approximates a one-shot game by randomly changing group assignments after each play. Our data shows that essentially the only difference between the two treatments is the amount of noise in the data, with the strangers treatment being the noisier of the two. This noise manifests itself in two distinct ways. First, there is more variation of decision rules across subjects in the strangers treatment. Second, individual behavior is, on average, less consistent with a cut-point decision rule in the strangers treatment, which produces higher estimates of individual error rates.

**TI** In or Out?: Centralization by Majority Vote. **AU** Cremer, Jacques; Palfrey, Thomas R.

**TI** An Experimental Study of Constant-Sum Centipede Games. **AU** Fey, Mark; McKelvey, Richard D.; Palfrey, Thomas R.

**Park, In-Uck**

**PD** March 1994. **TI** Generic Finiteness of Equilibrium Outcome Distributions for Sender-Receiver Cheap-Talk Games. **AA** University of Bristol. **SR** University of Minnesota Center for Economic Research Discussion Paper: 269; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. **PG** 39. **PR** no charge. **JE** C72, C70. **KW** Cheap-Talk. Finite Equilibrium. Reduced-Form Equilibrium.

**AB** This paper establishes the generic finiteness of equilibrium outcome distributions for Sender-Receiver cheap-talk games. An equilibrium in a Sender-Receiver cheap-talk game is said to be in reduced form if every message is used by at least one type and no two messages provoke the same response. It is shown that, for a generic set of utilities on outcomes, a Sender-Response cheap-talk game has a finite number of reduced form equilibria. A corollary is that, for generic utilities, the set of probability distributions over outcomes generated by equilibria is finite. Sard's theorem is not applicable in the way it was used in Kreps and Wilson (1982) because of the identification of terminal nodes for utility purposes and a structurally different proof strategy is developed. Some additional characterization of the equilibria are obtained in the process of the proof.

**PD** March 1994. **TI** A Revealed Preference Implication of Weighted Utility Decisions under Uncertainty. **AA** University of Bristol. **SR** University of Minnesota Center for Economic Research Discussion Paper: 270; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455. **PG** 24. **PR** no charge. **JE** D81, D80. **KW** Behavioral Partition. Expected Utility. Weighted Utility. Affine Boundary.

**AB** Revealed preference of the weighted utility theory of Chew (1983) is investigated in the same set-up as Green and Osband (1991) for expected utility theory; the structure of the partition of the state simplex according to the chosen act is examined. It is shown that the boundary between two partition elements generated by a weighted utility is the solution set to a quadratic equation. Moreover, except for special "symmetric" pairs of acts, weighted utilities in a generic set produce revealed preference partitions with non-affine boundaries, so that they are distinguishable from those of expected utilities which have affine boundaries according to Green and Osband.

**Parker, Philip M.**

**PD** May 1994. **TI** Dynamic Decision Calculus: Formulating Long-Run Strategies. **AU** Parker, Philip M.; Sarvary, Miklos. **AA** INSEAD. **SR** INSEAD Working Papers: 94/15/MKT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 31. **PR** not available. **JE** M11, M21, M31, D21, C61. **KW** Decision Calculus. Optimal Control. Marketing Strategy.

**AB** This paper presents a general approach to assist managers in strategically setting prices and allocating resources over the product, brand, or adoption (diffusion) life cycle. While substantial theoretical work has been achieved in this area in the management science and operations research disciplines, approaches which can be implemented as managerial tools are generally lacking. Our methodology, which has been applied as a PC-based decision support in the telecommunications industry, marries the optimal control literature with decision

calculus approaches offering sufficient flexibility for applied contexts. We discuss the approach and describe its use to derive optimal price and advertising policies. Strategies not commonly suggested using traditional formulations are also presented.

**PD** May 1994. **TI** Collusive Conduct in Duopolies: Multimarket Contact and Cross-Ownership in the Mobile Telephone Industry. **AU** Parker, Philip M.; Roller, L.H. **AA** INSEAD. **SR** INSEAD Working Papers: 94/22/MKT; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 15. **PR** not available. **JE** L63, L51. **KW** Regulation. Duopoly. Market Power. Collusion.

**AB** The deregulation of the telecommunications industry has resulted in a variety of industry structures which have been created in hopes of increasing competition. One example is the licensing of cellular telephone services in the United States. In the face of scarce radio spectrum, the FCC has created duopolies in which two firms are granted licenses to compete in strictly defined product and geographic markets. Rate regulation typically imposed for natural monopolies are foregone based on the belief that two firms provide sufficient competition and prevent collusive pricing. We test this assertion using data collected from the cellular telephone industry in the United States. Taking advantage of the unique regulatory environment, we propose a structural model of market power and test to what degree duopolistic competition leads to competitive market outcomes. We find that cellular prices are significantly above competitive, as well as non-cooperative duopoly levels. Substantial welfare gains can be achieved through price reductions. We also find considerable variance in pricing behavior across markets and operators. In a second step, we explain the identified conduct in terms of various market and organizational structures that might explain competitive behavior. We find that cross-ownership and multimarket contact are important factors in explaining non-competitive prices. Important policy implications are discussed.

**Pattanaik, Prasanta K.**

**PD** March 1994. **TI** Individual Rights and Social Evaluation: A Conceptual Framework. **AU** Pattanaik, Prasanta K.; Suzumura, Kotaro. **AA** Pattanaik: University of California, Riverside. Suzumura: Hitotsubashi University and University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 94-09; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 38. **PR** **JE** D63, D71. **KW** Individual Rights. Game Form. Liberal Paradox.

**AB** An extended framework for social choice and welfare economics involving individual rights is proposed. The proposed analysis works with individual preference orderings over the Cartesian product of the set of conventional social alternatives and the set of rights-structures, where a rights-structure is the specification of a game form for each specified set of feasible social alternatives. An extended social alternative signifies the situation where the specified social alternative is obtained through the exercise of the specified rights-structure. It is shown that this extended conceptual framework helps us clarify several controversial issues related to rights, preferences, and consistency of social choice.

**Pazarbasioglu, Ceyla**

**TI** Exchange Market Pressures and Speculative Capital Flows in Selected European Countries. **AU** Otker, Inci;

Pazarbasioglu, Ceyla.

### Pereira, Alfredo M.

TI Inflation, Housing Taxation, and Homeowner Mobility. AU Nakagami, Yasuhiro; Pereira, Alfredo M.

TI Import Tariffs and Growth in a Small Open Economy. AU Osang, Thomas; Pereira, Alfredo M.

TI On the Budgetary and Efficiency Effects of Housing Taxation in the U.S. AU Nakagami, Yasuhiro; Pereira, Alfredo M.

TI Export-Led Growth in a Small Economy. AU Osang, Thomas; Pereira, Alfredo M.

TI Housing Ownership and the Business Cycle. AU Brueckner, Jan K.; Pereira, Alfredo M.

### Pesendorfer, Wolfgang

TI Maintaining a Reputation Against a Patient Opponent. AU Celentani, Marco; Fudenberg, Drew; Levine, David K.; Pesendorfer, Wolfgang.

### Piccione, Michele

PD March 1994. TI On the Interpretation of Decision Problems With Imperfect Recall. AU Piccione, Michele; Rubinstein, Ariel. AA Piccione: University of British Columbia. Rubinstein: Tel Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 9/94; The Eitan Berglas School of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 28. PR no charge. JE C73, D83, C11. KW Extensive Games. Imperfect Recall. Bayesian Analysis.

AB In this paper we argued that extensive decision problems (extensive games with a single player) with imperfect recall suffer from major ambiguities in the interpretation of information sets and strategies. This indeterminacy allows for different kinds of analysis. We will address the following questions: 1) Should a decision maker choose random actions at an information set? 2) In Bayesian decision problems does a decision maker plan his actions before or after he receives information from nature? 3) Is an optimal plan of action time consistent? 4) Can a decision maker select an optimal strategy by checking only single improvements? 5) Does a decision maker remember the strategy he chose? 6) If a decision maker does not remember his strategy, what kind of inferences does he make about his past moves?.

### Plott, Charles R.

PD March 1990. TI An Experiment With Space Station Pricing Policies. AU Plott, Charles R.; Porter, David P. AA Plott: California Institute of Technology. Porter: Jet Propulsion Laboratory and California Institute of Technology. SR Caltech Social Science Working Paper: 704; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 30. PR no charge. JE H41, H43. KW Experiments. Space Station. Public Policy.

AB In the late 1990's the National Aeronautics and Space Administration (NASA) plans to operate an earth orbiting space station. For decades into the future the station is expected to play a dominant role in U.S. space research and in the commercialization of space. If the expectations are correct, then the station will be a complex of potentially valuable

resources and services. Much sentiment exists within the government that the allocation of those resources should be based on some sort of market-oriented policy (a more "business-like" approach). This paper is part of a larger project that is intended to ascertain what that policy might be.

PD February 1994. TI Economies of Scale, Natural Monopoly and Imperfect Competition in an Experimental Market. AU Plott, Charles R.; Sugiyama, Alexandre B.; Elbaz, Gilad. AA Plott: California Institute of Technology. Sugiyama: University of Arizona. Elbaz: IBM Corporation. SR Caltech Social Science Working Paper: 773; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 19. PR no charge. JE D42, D43, L12, L13. KW Natural Monopoly. Contestable Markets. Cournot Oligopoly.

AB This paper reports on the behavior of markets in which all agents have identical costs with economies of scale over the entire range of demand. Each firm, by choosing a larger scale of plant and a larger volume, can experience lower average cost. Thus the markets are characterized by the fundamental technological property that has motivated decades of theorizing about natural monopoly and imperfect competition. The primary question posed by the research is whether or not a natural monopoly emerges and sets prices at monopoly levels or whether the data are more closely approximated by some alternative model of imperfect competition such as monopolistic competition. Cournot oligopoly or contestable market theory. The results are that monopoly emerges and charges prices closely approximated by contestable market theory. No support is found for Cournot forms of oligopoly or for other types of monopolistic competition.

TI A Binary Conflict Ascending Price (BICAP) Mechanism for the Decentralized Allocation of the Right to Use Railroad Tracks. AU Brewer, Paul J.; Plott, Charles R.

### Ponsati, Clara

PD June 1994. TI Multiple-Issue Bargaining and Axiomatic Solutions. AU Ponsati, Clara; Watson, Joel. AA Ponsati: Universitat Autònoma. Ponsati and Watson: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 94-14; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 28. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C78, C72, C70. KW Issue-by-issue. Monotonicity. Global Bargaining. Nash Solution.

AB The authors study two-person, multiple-issue bargaining and identify four procedures by which the bargaining may take place. Drawing on some logic from non-cooperative game theory, axioms are proposed which relate the outcome of the procedures. The authors also promote a weak monotonicity axiom on solutions, called issue-by-issue monotonicity, which is geared toward multiple-issue bargaining. The main result concerns the relationship between a sequential bargaining procedure, with the rule that agreements are implemented only after all issues are resolved, and global bargaining (in which all issues are negotiated simultaneously). If a bargaining solution predicts the same outcome with these two procedures, then it is said that it satisfies agenda independence. The authors prove that a solution satisfies axioms of efficiency, symmetry, scale invariance, issue-by-issue monotonicity, and agenda

independence if and only if it is the Nash solution. This result provides new intuition for Nash's independence of irrelevant alternative axiom. Among other results, it is shown that a solution is invariant to all four of the procedures and satisfies efficiency and symmetry if and only if it is the utilitarian solution with equal+ weights. The authors comment on the results of other authors who address multiple-issue bargaining.

#### Porter, David P.

TI An Experiment With Space Station Pricing Policies. AU Plott, Charles R.; Porter, David P.

#### Potts, C.N

TI Local Search Heuristics for Single Machine Scheduling with Batch Set-Up Times. AU Crauwels, H.A.J.; Potts, C.N.; Van Wassenhove, L.N.

#### Premchand, A.

PD March 1994. TI Changing Patterns in Public Expenditure Management: An Overview. AA not available. SR International Monetary Fund Working Paper: WP/94/28; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 33. PR not available. JE H30, H50, M40. KW Public Expenditure. Developing Countries.

AB Significant changes with far-reaching impact have taken place during recent years in public expenditure management. These changes which are being implemented in a few industrial countries are likely to be emulated by other industrial and developing countries. The content of these changes is enumerated in some detail, and their impact is assumed in terms of specified criteria. Other continuing problems that are not addressed by these advances are also considered in detail.

#### Prisbrey, Jeffrey E.

TI Altruism, Reputation, and Noise in Linear Public Goods Experiments. AU Palfrey, Thomas R.; Prisbrey, Jeffrey E.

#### Pudney, Stephen

PD March 1994. TI Housing and Housing Reform in Urban China: Efficiency, Distribution and the Implications for Social Security. AU Pudney, Stephen; Limin, Wang. AA Pudney: Leicester University and London School of Economics. Limin: University of Kent and London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/8; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 46. PR no charge. JE D31, D45, D61, P39, R21. KW Housing Reform. Public Housing. Rent Subsidies.

AB We investigate the distribution of a measure of housing consumption among public tenants in cities of two Chinese provinces, using household survey data. We find the resulting distribution roughly consistent with the outcome of a market rental system, for fixed supply and CES preferences. There is surprisingly little evidence of allocative inefficiency in the present bureaucratic allocation system. We estimate the possible effects of market-oriented housing reform. Under alternative assumptions about the system of cash transfers used to compensate for a move to market rents, we investigate the distributional impact of reform and the likely need for supplementary cash benefits for low-income households.

#### Qian, Yingyi

PD July 1993. TI Why China's Economic Reforms Differ. AU Qian, Yingyi; Xu, Chenggang. AA Qian: London School of Economics and Stanford University. Xu: London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: CP/25; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 61. PR no charge. JE P21, P52, H11. KW China. Economic Reform. Organization.

AB China's thirteen years of economic reforms (1979-1991) have achieved an average GNP annual growth rate of 8.6%. What makes China's reforms differ from those of Eastern Europe and the Soviet Union is the sustained entry and expansion of the non-state sector. We argue that the organizational structure of the economy matters. Unlike their unitary hierarchical structure based on functional or specialization principles (the U-form), China's hierarchical economy had been the multi-layer-multi-regional one mainly based on territorial principles (the deep M-form, or briefly, the M-form). Reforms have further decentralized the M-form economy along regional lines, which provided flexibility and opportunities for carrying out regional experiments, for the rise of non-state enterprises, and for the emergence of markets. This is why China's non-state sector share of industrial output increased from 22% in 1978 to 47% in 1991 and its private sector's share from zero to about 10%, both being achieved without mass privatization and changes in the political system.

#### Quah, Danny

PD September 1993. TI Exploiting Cross Section Variation for Unit Root Inference in Dynamic Data. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EM/93/270; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 25. PR no charge. JE C21, C22, C23. KW Random Fields. Time Series. Panel Data. Unit Root.

AB This paper considers unit root regressions in data having simultaneously extensive cross-section and time-series variation. The standard least squares estimators in such data structures turn out to have an asymptotic distribution that is neither at most of order  $1/T$  in probability Dickey-Fuller, nor at most of order  $1/(N^{0.5})$  normal and asymptotically unbiased. Instead, the estimator turns out to be consistent and asymptotically normal, but has a non-vanishing bias in its asymptotic distribution.

PD April 1994. TI Convergence Empirics Across Economies With (Some) Capital Mobility. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EM/94/275; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 67. PR no charge. JE C23, F43, O47. KW Convergence. Education. Growth. Investment.

AB This paper reinterprets a simple model of growth and fluctuations across many economies to allow for explicit characterization of the dynamically evolving cross-economy distribution of income. Such a framework provides a more natural, revealing study of the convergence hypothesis. The data shows limited intra-distribution mobility in incomes across economies and, thus, little convergence. Our analysis uncovers

some "convergence club" dynamics, and reveals the wide diversity in growth experiences across countries. Conditioning on physical capital investment, secondary school enrollment, and a dummy for the African continent fails to overturn these characterizations.

**Quandt, Richard E.**

TI Betting Bias and Market Equilibrium. AU Chadha, Sumir; Quandt, Richard E.

PD January 1994. TI A Simulation Model for Journal Subscriptions by Libraries. AA Princeton University. SR Princeton Financial Research Center Memorandum: 144; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544-1021. PG 9. PR \$3.00 for U.S. mailings. \$6.00 for foreign mailings. JE D21, C15. KW Library Subscriptions. Journal Subscription. Myopic Behavior.

AB The paper considers a simulation model of the evolution of library subscriptions when some costs increase for exogenous reasons. Journal costs are thought to consist of "first copy costs;" when costs rise, subscription prices are increased by publishers, and some libraries being faced with fixed budgets, cancel some subscriptions. Publishers then find that the price charged is not correct and increase subscription prices again. This iterative process ultimately terminates in a new equilibrium that is characterized by significant erosion of total subscriptions. The effect of various parameters on the final equilibrium is considered. The percentage of costs accounted for by first-copy costs has no significant influence, but the profit made by publishers does: the higher the profit that publishers attempt to maintain, the lower is the erosion of subscriptions. A key element in the process is the algorithm employed by libraries to decide which journal subscriptions to cancel; when they cancel on the basis of the cost of the journal or the importance of the journal, many more journals go entirely out of business than when cancellation is essentially random. The final conclusion is that the outcome is highly variable but can be extremely severe; an initial doubling of costs can cause subscriptions to decline by 13 to 96 percent, depending on the precise parameters assumed for the simulation.

**Ramsey, James B.**

PD February 1994. TI The Application of Wave Form Dictionaries to Stock Market Index Data. AU Ramsey, James B.; Zhang, Zhifeng. AA Ramsey: New York University. Zhang: Stanford University. SR New York University, C.V. Starr Center Economic Research Report: 94-05; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 25. PR no charge. JE C22, E44, G12. KW Stock Market Index. Wave Form.

AB A matching pursuit algorithm is used to implement the application of wave form dictionaries to decompose the signal in the stock market (Standard and Poor's 500) index. A wave dictionary is a class of transforms that generalizes both windowed Fourier transforms and wavelets. Each wave form is parametrized by location, frequency, and scale. Such transforms can analyze signals that have highly localized structures in either time or frequency space as well as broad band structures. The Standard and Poor's 500 stock market index is found to be highly complex, but not a random walk. There are bursts of high energy that arise suddenly with very

localized energy and die out equally quickly. In addition there is evidence of Dirac delta functions representing impulses, or shocks, to the system that seem to cluster more than would be expected under an hypothesis of random variation. It would appear that the energy of the system is largely internally generated, rather than the result of external forcing. Finally, there is apparently some evidence for a quasi-periodic occurrence of oscillations that are well localized in time, but that involve almost all frequencies.

PD February 1994. TI An Analysis of U.S. Stock Price Behavior Using Wavelets. AU Ramsey, James B.; Usikov, Daniel; Zaslavsky, George M. AA Ramsey and Zaslavsky: New York University. Usikov: University of Maryland. SR New York University, C.V. Starr Center Economic Research Report: 94-06; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 18. PR no charge. JE G10, C19, C22. KW Stock Price Behavior. Wavelets.

AB Using wavelets we re-examine the U.S. stock market price index for any evidence of self-similarity or order that might be revealed at different scales. The wavelet transform localized in time can be used to indicate how the power of the projection of the signal onto the kernel varies with the scale of observation. By comparing how the local power scales vary over time much information about the structure of the data can be obtained. Such evidence is not at all evident from standard analyses of untransformed data, including projections onto a Fourier basis. Wavelets can detect structures in data that are highly localized in time and therefore non-detectable by Fourier transforms. The main conclusion is that while the data are clearly complex, there seems to be some evidence of non-randomness in the data. There is also some limited evidence of quasi-periodicity in the occurrence of large amplitude shocks to the system.

PD March 1994. TI Multi-Country Tests for the Oscillator Model with Slowly Varying Coefficients. AU Ramsey, James B.; Keenan, Sean. AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-09; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 18. PR no charge. JE E23, E32, C22. KW Oscillator Model. Multi-Country Tests. Slowly Varying Coefficients.

AB This paper builds on two previous papers by Ramsey, and Ramsey and Keenan. In the former paper, a model was developed for the production index of U.S. consumer goods, durable and non-durable, using monthly data. The model is a forced oscillator that models the annual variation in production. The parameters of the model are presumed to vary slowly over time. The specified model, up to slowly varying coefficients, seems to fit the data well. Ramsey and Keenan (1993) examined the forecasting implications. This paper applies the model discovered with U.S. data to similar data for Canada, Japan, U.K., Belgium, France, Germany, and Italy. We also examine the aggregate production index for consumer goods in the U.S. Thus, the model is applied to and the result checked against data that were not involved in the discovery of the model in the original paper. The adequacy of the model is evaluated and international comparisons are made. The results go beyond merely confirming the applicability of the oscillator model. The similarity of the estimates for all the data sets

examined suggest that the model may be universally applicable for consumer goods production indexes, although France and Italy provide partial exceptions to this statement. Nevertheless, the simple model captures most of the seasonal oscillations for France and Italy; the lack of fit, both in terms of the degree and the pattern of the residuals is the same for both countries.

#### **Rauch, James E.**

PD May 1994. TI Bureaucracy, Infrastructure, and Economic Growth: Theory and Evidence from U.S. Cities During the Progressive Era. AA University of California at San Diego and National Bureau of Economic Research. SR University of California, San Diego Department of Economics Working Paper: 94-06; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 25. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE E62, E65, E22. KW Sociology of Economic Development. Government Expenditures. Private Capital.

AB Recent work in the sociology of economic development has emphasized the establishment of a professional government bureaucracy in place of political appointees as an important component of the institutional environment in which private enterprise can flourish. I hypothesize that establishment of such a bureaucracy will lengthen the period that public decision makers are willing to wait to realize the benefits of expenditures, leading to allocation of a greater proportion of government resources to long-gestation period projects such as infrastructure. I also hypothesize that this increased government investment in inputs complementary to private capital will increase the rate of economic growth. These hypotheses can be tested using data generated by a "natural experiment" in the early part of this century, when a wave of municipal reform transformed the governments of many U.S. cities. Controlling for city and time effects, adoption of Civil Service is found to increase the share of total municipal expenditure allocated to road and sewer investment. This share in turn has a positive effect on growth in city manufacturing employment in a model with time effects and city random effects but not in a model with both time and city fixed effects.

#### **Ray, Indrajit**

PD May 1994. TI Efficiency in Correlated Equilibrium. AA Tel Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 11/94; The Eitan Berglas School of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 47. PR no charge. JE C72. KW Correlated Equilibrium. Efficiency. Nash Equilibrium.

AB We analyze all the existing efficiency criteria of mechanism design literature in the context of correlated equilibrium: ex-post (classical) efficiency, strong interim efficiency, weak interim (incentive) efficiency, and posterior (informational) efficiency. The natural criterion of internal efficiency is introduced where obedience is not only a Nash equilibrium but also Pareto efficient among the set of Nash equilibria in the induced extended game. All of these sets are compared to each other, analyzing several examples; the issue of (non) existence is also discussed. We characterize our efficient subsets of the set of correlated equilibria in terms of the existing notions of coalition-proofness in this context and show for two-person games some notion of efficiency is the necessary and sufficient condition for the (corresponding)

coalition-proofness. We discuss our concepts in non-canonical correlated devices also and prove the revelation principle in the context of ex-post, strong, and weak interim efficiency, though it fails, even for two-player games, in the context of posterior and interior efficiency.

#### **Razin, Assaf**

PD May 1994. TI Capital Income Taxation and Long Run Growth Under Endogenous Population and Capital Mobility. AU Razin, Assaf; Yuen, Chi-Wa. AA Razin: Tel Aviv University and National Bureau of Economic Research. Yuen: Hong Kong University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 10/94; The Eitan Berglas School of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. PG 35. PR no charge. JE E62, F21, F41, O41. KW Capital Income Tax. Endogenous Growth. Capital Mobility.

AB We study the effects of capital income taxation on long run growth in an endogenous growth framework with two distinguishing features: endogenous population and international capital mobility. Endogenizing population growth introduces a new channel for taxes to affect economic growth and enables us to discriminate the effects of taxes on total versus per capita income growth. In the open economy framework, we show how the effects of taxes on population growth and income growth across countries will vary, depending on the international income tax regimes and the relative preference bias of people towards the "quantity" and "quality" of their children. Our numerical results also indicate that although the effects of liberalizing capital flows on long-run growth may not be very sizable, the growth effects of changes in capital income tax rates can be tremendously magnified by cross-border capital flows and cross-border spillovers of policy effects.

#### **Redish, Angela**

TI A Small Open Economy in Depression: Lessons From Canada in the 1930's. AU Betts, Caroline M.; Bordo, Michael D.; Redish, Angela.

#### **Reinhart, Carmen M.**

TI Targeting the Real Exchange Rate: Theory and Evidence. AU Calvo, Guillermo A.; Reinhart, Carmen M.; Vegh, Carlos A.

#### **Reiter, Stanley**

TI On Modeling Computing with Human Agents. AU Mount, Kenneth R.; Reiter, Stanley.

#### **Reny, Philip J.**

PD September 1993. TI The Partnered Core of a Game with Side Payments. AU Reny, Philip J.; Winter, Eyal; Wooders, Myrna Holtz. AA Reny: University of Western Ontario. Winter: Hebrew University. Wooders: University of Toronto. SR University of Western Ontario Department of Economics Research Report: 9317; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 19. PR \$7.00 Canada; \$9.00 Elsewhere. JE C70, C71, C79. KW Game Theory. Partnership.

AB The authors introduce the notion of the partnered core of a game. A payoff is partnered if there are no asymmetric dependencies between any two players. A payoff is in the



partnered core of a game if it is partnered, feasible and cannot be improved upon by any coalition of players. It is shown that the relative interior of the core of a game with side payments is contained in the partnered core. For quasi-strictly convex games the partnered core coincides with the relative interior of the core. When there are no more than three partnerships, the sums of the payoffs to partnerships are constant across all core payoffs. When there are no more than three players, the partnered core satisfies additional properties.

TI Destructive Interference in an Imperfectly Competitive Multi-Security Market. AU Bhattacharya, Utpal; Reny, Philip J.; Spiegel, Matthew.

#### Riddell W. Craig

TI The Measurement of Unemployment: An Empirical Approach. AU Jones, Stephen R. G.; Riddell W. Craig.

#### Riddell, W. Craig

TI Regional Aspects of Labour Force Attachment and Labour Market Flows in Canada. AU Jones, Stephen R. G.; Riddell, W. Craig.

#### Rivera-Batiz, Luis A.

TI Geography, Trade Patterns, and Economic Policy. AU Asilis, Carlos M.; Rivera-Batiz, Luis A.

#### Rizzo, John A.

TI Financing Constraints and Investment: New Evidence from Hospital Industry Data. AU Calem, Paul S.; Rizzo, John A.

#### Rob, Rafael

TI Shared Ownership and Pricing in a Network Switch. AU McAndrews, James J.; Rob, Rafael.

#### Roberts, Kevin

PD February 1994. TI Wage and Employment Determination Through Non-Cooperative Bargaining. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TE/94/274; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 44. PR no charge. JE C78, J23, J51, J52. KW Trade Unions. Efficient Bargaining. Commitment.

AB This paper investigates wage and employment determination by a union and a firm making use of the techniques of non-cooperative bargaining. Previous analyses have examined wage determination with an artificial restriction that employment is determined either before or after wage determination has occurred. Here, employment determination is made part of the bargaining process. With two variables being determined, there is bargaining with a variable pie. Two different notions of efficiency--exchange and pie efficiency--are relevant and serve to characterize equilibria. Multiple equilibria are shown to arise naturally once exchange inefficient proposals are possible. In all equilibria there is over-employment. Factors which restrict a firm's ability to alter the labor force during or after the wage bargaining process are shown, paradoxically, to benefit the firm.

#### Robinson, Dennis P.

TI Infrastructure Productivity: A Razor's Edge. AU Kelejian, Harry H.; Robinson, Dennis P.

#### Robles, Jack

PD June 1994. TI Evolution and Long Run Equilibria in Coordination Games with Summary Statistic Payoff Technologies. AA University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 94-12; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 45. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C71, C70. KW Evolutionary Dynamic. Coordination Game. Payoff Technology.

AB This paper considers the equilibria that are chosen in coordination games using the evolutionary dynamic introduced in Kandori, Mailath and Rob (1993). The author applies this dynamic to an environment that has been modified by changing the payoff technology so that people are assigned payoffs based on a summary statistic (as in Crawford (1994)) on the current state of play instead of by the typical random pairing technology. The paper provides a simple characterization of the set of long run equilibria for coordination games in this class of environments.

#### Rogerson, Richard

TI Household Production and Taxation in the Stochastic Growth Model. AU McGrattan, Ellen; Rogerson, Richard; Wright, Randall.

#### Rogerson, William P.

PD October 1993. TI Choice of Treatment Intensities by a Nonprofit Hospital Under Prospective Pricing. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1069; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG 57. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE I11, D40. KW Health Care. Price Regulation.

AB Under prospective pricing, payers for health care essentially use price regulation of hospitals as a way of indirectly regulating the provision of treatment intensity. This paper presents a theory of how a nonprofit hospital selects treatment intensities for its products given the payer's choice of prices and then determines how the payer should select prices in light of this theory. The main result is that, in equilibrium, the ratio of price to marginal cost will vary across products inversely with the elasticity of demand with respect to treatment intensity. This means that, generally, the hospital will earn positive (negative) accounting profit on products with low (high) intensity elasticities of demand.

PD December 1993. TI Economic Incentives and the Defense Procurement Process. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1078; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. PG 65. PR \$3.00 in U.S. and Canada; \$5.00 via international mail. JE H57, D84. KW Defense Procurement. Incentives.

AB This paper describes some of the insights that the

economic theory of incentives can contribute to defense procurement policy analysis. It describes the underlying problems that shape the defense procurement problem, the nature of current institutions and how they affect actors' behavior, and possible directions for improving the procurement process suggested by viewing it as a solution to a complex set of incentive problems. Incentive problems between government and defense firms and incentive problems within government are both considered.

#### **Roller, L.H**

TI Collusive Conduct in Duopolies: Multimarket Contact and Cross-Ownership in the Mobile Telephone Industry. AU Parker, Philip M.; Roller, L.H.

#### **Rouse, Cecilia E.**

TI Comment on W. Norton Grubb, "The Varied Economic Returns to Postsecondary Education: New Evidence from the Class of 1972." AU Kane, Thomas J.; Rouse, Cecilia E.

TI New Evidence on Workplace Education. AU Krueger, Alan B.; Rouse, Cecilia E.

#### **Rubinstein, Ariel**

TI On the Interpretation of Decision Problems With Imperfect Recall. AU Piccione, Michele; Rubinstein, Ariel.

#### **Rustichini, Aldo**

TI Political Equilibria with Social Security. AU Boldrin, Michele; Rustichini, Aldo.

#### **Ruud, Paul A.**

TI Classical Estimation Methods For LDV Models Using Simulation. AU Hajivassiliou, Vassilis A.; Ruud, Paul A.

#### **Saab, W.**

TI The Development of Scientific Networks and Multinational Research Projects: Who Plays the Key Role? AU De Meyer, A.; Saab, W.; Tabet, J.

#### **Saito, Makoto**

TI Estimating the Effects of Monetary Shocks: An Evaluation of Different Approaches. AU Beaudry, Paul; Saito, Makoto.

#### **Sakata, Shinichi**

PD April 1994. TI Asymptotic Properties of S-Estimators for Nonlinear Regression Models with Dependent, Heterogeneous Processes. AU Sakata, Shinichi; White, Halbert. AA Sakata and White: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 94-04; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 48. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C13, C40. KW Breakdown Point. Nonlinear Regression. S-Estimator. High Breakdown Point Estimation.

AB S-estimators were originally proposed for linear regression estimation; it has been shown that they are Fisher-consistent and asymptotically normally distributed with convergence rate  $O_{\text{sub}(p)}(n^{\text{sup}(-1/2)})$  when the observations are obtained from an independently and identically distributed

(i.i.d.) processes. Independence is too strict an assumption for statistical applications to time series data, while heterogeneity may be present in stratified cross-sections. Nonlinear functions are also common. The authors thus carry out a formal analysis of the asymptotic behavior of the S-estimators under conditions that allow nonlinear regression functions and data from heterogeneous and dependent processes. The main body of this paper employs carefully chosen general assumptions to maximize applicability of the results. These assumptions are satisfied in many situations where appropriate uniform laws of large numbers and central limit theorems apply. As an example, the case of a process near each epoch dependent on a strong mixing process is considered by using Andrews' (1988,1992) results on the uniform and point-wise law of large numbers and Woolridge's (1986) central limit theorem. The results establish the usefulness of the S-estimators in a variety of statistical contexts.

PD May 1994. TI An Alternative Definition of Finite Sample Breakdown Point with Applications to Regression Model Estimators. AU Sakata, Shinichi; White, Halbert. AA Sakata and White: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 93-52R; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 21. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C13, C19. KW Loss Function. Nonlinear Regression. M-Estimators. High Breakdown Estimators.

AB An alternative definition of the finite sample breakdown point is proposed. This breakdown point is invariant with respect to re-parametrization and compatible with the Donoho-Huber breakdown point in linear regression situations. It also overcomes certain limitations of the definition proposed by Stromberg and Ruppert (1992), and can be used in a wide range of estimation problems. We investigate the breakdown properties of some nonlinear regression estimators. These results alert us to the danger of using familiar M-estimators with datasets containing outliers and to the advantages of using estimators based on Hampel's (1975) proposal such as S-estimators.

#### **Santaella, Julio A.**

TI Economic Determinants of Fund Financial Arrangements. AU Knight, Malcolm; Santaella, Julio A.

#### **Saran, Mrinalini**

TI Primary Education and Economic Development in China and India: Overview and Two Case Studies. AU Dreze, Jean; Saran, Mrinalini.

#### **Sarin, Rajiv**

TI Learning Through Reinforcement and Replicator Dynamics. AU Borgers, Tilman; Sarin, Rajiv.

#### **Sarvary, Miklos**

TI Dynamic Decision Calculus: Formulating Long-Run Strategies. AU Parker, Philip M.; Sarvary, Miklos.

#### **Saving, Jason**

PD June 1994. TI Human Capital and Legislative Outcomes. AA California Institute of Technology.

**SR** Caltech Social Science Working Paper: 889; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 18. **PR** no charge. **JE** D72, H11. **KW** Human Capital. Asymmetric Information. Legislation.

**AB** This paper presents a model in which legislators use informational advantages to engage in rent-seeking activities. Previous work that postulated either informational asymmetries or rent-seeking behavior could not explain deviations from the median preference without reference to "committee power." Integration of these forces demonstrates that legislative outcomes need not correspond to the median preference regardless of the extent to which "committee power" is present in a legislature. In general, both procedural and informational asymmetries can induce deviations in legislative outcomes.

**PD** June 1994. **TI** Welfare Magnets, The Labor-Leisure Decision and Economic Efficiency. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 890; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 21. **PR** no charge. **JE** H23, H73. **KW** Migration. Redistribution. Centralization.

**AB** This paper develops a model designed to capture the fiscal externalities associated with redistributive policy in a system of jurisdictions. Policy changes in one jurisdiction affect other jurisdictions through both migration and work-disincentive effects. Previous work ignores work-disincentive effects and concludes that centralization is sufficient to eliminate fiscal externalities. Inclusion of work-disincentive effects unambiguously worsens fiscal externalities under both centralized and decentralized redistribution. Sufficiently severe work-disincentive effects guarantee that an increase in redistribution will harm the poor.

#### **Schepley, James B.**

**PD** July 1994. **TI** Another Overpriced Weapon? The Problem of Accurately Pricing Increasingly Complex Arms. **AA** Hoover Institution. **SR** Stanford Hoover Institute International Studies Working Paper: I-94-6; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 23. **PR** no charge. **JE** D49, H56, H57. **KW** U. S. Armed Forces. Weaponry Costs. Technology Pricing.

**AB** The purpose of this paper is to emphasize the difficulties in accurately determining the price of the extremely complex weapons on which American forces rely today. The paper is a compilation of the thoughts of many scholars and defense experts concerning this subject. The paper focuses on the point that this is not a problem unique to the armed services and that the solution is to use a number of different pricing techniques rather than depending on just one.

#### **Schepley: James B.**

**PD** July 1994. **TI** Improving the Military Acquisition System: A Two-Hundred Year Process. **AA** Hoover Institution. **SR** Stanford Hoover Institute International Studies Working Paper: I-94-7; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 19. **PR** no charge. **JE** H56, H57. **KW** Military Procurement. Procurement Reform. Historical Analysis.

**AB** The military acquisition process in the United States is examined in historical perspective. It is found that the current acquisition system's faults have their parallels in history. It is also found that movements to reform this process are not a

recent development, but have been ongoing through history. It is concluded that acquisition reform is continuous because it is a response to a changing world.

#### **Schmeidler, David**

**TI** Act-Similarity in Case-Based Decision Theory. **AU** Gilboa, Itzhak; Schmeidler, David.

**TI** Bayes Without Bernoulli: Simple Conditions for Probabilistically Sophisticated Choice. **AU** Machina, Mark J.; Schmeidler, David.

#### **Schmidt, Christopher M.**

**PD** September 1993. **TI** Country of Origin, Family Structure and Return Migration. **AA** University of Munich. **SR** London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: TIDI/160; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 20. **PR** no charge. **JE** J31, J61, D13. **KW** Return Migration. Assimilation.

**AB** This paper uses the panel structure of the GSOEP micro data to investigate the actual return behavior of male migrants to Germany and contrasts this evidence with information from aggregate data and with interview information on return intentions. It is demonstrated that economic developments in the country of origin, the migrant's position in the life-cycle, and current family structure are influential determinants of return migration, while the duration of residence has only a minor impact on return propensities.

#### **Schneider, Susan C.**

**PD** 1994. **TI** Interpreting Strategic Issues: Making Sense of "1992." **AA** INSEAD. **SR** INSEAD Working Papers: 94/01/OB; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. **PG** 24. **PR** not available. **JE** D81, D84. **KW** Organizational Strategy. Institutional Pressures.

**AB** Organizations gather and interpret information regarding environmental events that are then validated and prioritized as strategic issues. As strategic issues are by nature uncertain and ambiguous, multiple meanings and multiple ways of knowing are possible. While previous research has demonstrated the influence of organizational strategy and structure on this process, this paper explores the impact of national context by comparing the stories of how two banks, one in Denmark and one in Spain, went about making sense of a strategic issue, "1992." Finally, the role of "broader" institutional pressures, beyond national boundaries, is questioned.

#### **Schotter, Andrew**

**TI** Productivity Under Group Incentives: An Experimental Study. **AU** Nalbantian, Haig; Schotter, Andrew.

**TI** An Experimental Study of Learning in One and Two-Person Games. **AU** Merlo, Antonio; Schotter, Andrew.

#### **Schworm, William**

**PD** January 1994. **TI** A Moral Hazard Trap to Growth: A Reconsideration. **AU** Schworm, William; Tan, Guofu. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 94-05; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T

1Z1 CANADA. PG 28. PR JE D82, I22. KW Education, Growth, Moral Hazard.

AB Tsiddon (1992) presents a model of an OLG economy with a moral hazard problem in the credit market. He argues that a poverty trap can occur in this model as a consequence of a quantity constrained equilibrium in the market for educational loans. In this equilibrium, the young choose an education with a safe but low return that generates a low aggregate growth rate for the economy. In this paper, we show that Tsiddon's model has a unique equilibrium in which the moral hazard problem does not affect the educational choice or the aggregate growth rate. The young always choose a loan contract with full insurance and select the risky, high return education. There is a unique, stable steady-state so that a poverty trap is not an equilibrium in the model. We propose an extension to Tsiddon's model which permits equilibria with credit rationing. In the extended model, we show that the equilibrium credit rationing caused by moral hazard may promote growth relative to a complete information economy. This is shown to be a natural consequence of insurance possibilities in a model with asymmetric information in the credit market.

#### Scott, C. D.

PD March 1994. TI Inequality, Mobility and the Determinants of Income Among the Rural Poor in Chile, 1968-1986. AU Scott, C. D.; Litchfield, J. A. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/53; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 95. PR no charge. JE C23, D31, H31, I38, O15. KW Inequality. Mobility. Life Cycle. Permanent Income Hypothesis.

AB The paper analyses the evolution of income inequality, the extent and nature of income mobility, and the determinants of per capita income among a panel of rural households in Chile over the period 1968 to 1986. An eclectic explanatory model is derived which integrates elements from the classic debate between marxists and populists on the "agrarian question" with more recent work in microeconomics and anthropology which focuses on (i) the life cycle hypothesis for individuals; (ii) the domestic development cycle hypothesis for households; (iii) the effect of climatic shocks at the community level, and (iv) the changing scope and nature of public action at the national level. Inequality of the secondary income distribution declined significantly over the period, which was mainly due to the increased coverage of rural areas by targeted public transfers. In both 1968 and 1986, it was inequality within rather than between communities which contributed most to overall income inequality among households. This suggests that community-specific factors were of limited importance in explaining inequality in the pooled sample. There was no evidence to support an inverted-U relation between average per capita income and inequality among the communities. There was significant (absolute) secondary income mobility among the panel households. Most movement was upwards and the distances moved were greater, the poorer the household. The determinants of income are analyzed in three steps. Firstly, cross-section income functions are estimated for 1968 and 1986. Secondly, an ordered LOGIT model is estimated to explain the direction of income mobility between 1968 and 1986. Thirdly, an OLS model is used to

explain the magnitude as well as the direction of income mobility over the period.

#### Sen, Amartya

PD October 1993. TI Moral Codes and Economic Success. AA Harvard University. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/49; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 23. PR no charge. JE B12, B40, I20. KW Moral Codes. Adam Smith. Japan.

AB Behavioural codes can be quite important for economic organization in general. The importance of moral codes is not contradicted in any way by Adam Smith's pointer to the fact that our "regard to our own best interest" provides adequate motivation for exchange. Smith's butcher-brewer-baker argument is concerned (1) directly with exchange only (not production or distribution), and (2) only with the motivational aspect of exchange (not its organizational and behavioral aspects). Successful operation of an exchange economy depends on mutual trust and implicit norms. When these behavioral models are plentifully there, it is easy to overlook their role. But when they have to be cultivated, that lacuna can be a major barrier to economic success. This can be illustrated by (1) the development problems of the third world, (2) problems of economic reform in the second world, and (3) variations in productivity and corruptibility in the first world.

#### Shafir, Eldar

TI Forming Beliefs about Adjudicated Outcomes: Risk Attitudes, Uncertainty, and Reservation Values. AU Babcock, Linda; Farber, Henry S.; Fobian, Cynthia; Shafir, Eldar.

#### Shirai, Sayuri

PD March 1994. TI An Overview of the Japanese Distribution System: The Case of the Automobile Industry. AA Columbia University. SR International Monetary Fund Working Paper: WP/94/26; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 30. PR not available. JE L22, L81. KW Social Welfare. Price Differentials. Distribution System. Japan.

AB This paper surveys the recent literature on the Japanese distribution system to consider two propositions: first, that the system is inefficient. However, the efficiency has not necessarily resulted in high social welfare as consumers have had limited access to various product lines or paid high prices for some products. This paper examines the distribution system in the automobile industry to promote understanding about the impacts of the system on price differentials.

#### Shubik, Martin

PD May 1994. TI Financing Trade and the Price Level: Problems with the Description of Markets, Expectations, Money and Credit. AA Yale University. SR Yale Cowles Foundation Discussion Paper: 1072; Yale University, Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. PG 20. PR no charge. JE O21, O25. KW Strategic Market Game. Price System. General Equilibrium Model.

AB The role of money as an asset is considered in a strategic market game with infinite horizon with and without a clearinghouse and competitive bankers.

**Sirtaine, Sophie**

PD January 1994. TI Financing Infrastructure in Asian Developing Countries: Attracting Asian Capital Market Investors in BOT Schemes. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/52; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 53. PR no charge. JE G18, G24, G32, H54, O16. KW Asia. Infrastructure. Project Finance. Capital Markets.

AB This paper begins with an examination of the current status of infrastructure in Asia, highlighting that shortages and deterioration of services are seriously interfering with economic development. Traditionally, infrastructure, considered to be within the public domain, has been funded by the public sector. But the inception of the debt crisis after 1982 led to a sharp diminution on general purpose lending to developing countries. Hence there is a need to find alternative financing sources involving the private sector. This paper concentrates on the most common form of private financing of infrastructure projects: the Built-Operate-Transfer model (BOT). Under such a scheme a consortium of private companies finances and builds an infrastructure system, which it can operate during a predefined concession period, at the end of which the project is transferred back to the government. The analysis starts from the assessment that, next to some equity provided by the project sponsors, BOTs are almost exclusively financed through loans. However, in high-risk countries, loan financing proves difficult to secure. Therefore, the involvement of other private sources of finance becomes a priority. This paper analyses whether and how Asian capital market finance could be attracted in BOT projects in Asia. It begins with equity finance, then turns to bond finance. Both analyses highlight that the main obstacles to capital market financing of BOTs in Asia are the excessive riskiness of the projects, and the underdevelopment of local demand for capital market instruments.

**Slivinski, Alan**

TI Toilet Cleaning and Department Chairing: Volunteering a Public Service. AU Bilodeau, Marc; Slivinski, Alan.

**Slotsve, George A.**

TI Polarization of Earnings in the Canadian Labour Market: A Non-Microdata Approach. AU Beach, Charles M.; Slotsve, George A.

**Smart, Gavin**

TI Who Benefits From Local Services? Comparative Evidence From Different Local Authorities. AU Bramley, Glen; Smart, Gavin.

**Smith, Bruce D.**

TI Liquidity of Secondary Capital Markets, Capital Accumulation, and the Term Structure of Asset Yields. AU Bencivenga, Valerie R.; Smith, Bruce D.; Starr, Ross M.

**Spiegel, Matthew**

TI Destructive Interference in an Imperfectly Competitive Multi-Security Market. AU Bhattacharya, Utpal; Reny, Philip J.; Spiegel, Matthew.

**Staiger, Robert W.**

TI Multilateral Tariff Cooperation During the Formation of Customs Unions. AU Bagwell, Kyle; Staiger, Robert W.

**Starr, Ross M.**

TI Liquidity of Secondary Capital Markets, Capital Accumulation, and the Term Structure of Asset Yields. AU Bencivenga, Valerie R.; Smith, Bruce D.; Starr, Ross M.

**Stern, Nicholas**

TI Tax Reform in India. AU Burgess, Robin; Stern, Nicholas.

TI The Role of the State, Ownership and Taxation in Transitional Economies. AU Hussain, Athar; Stern, Nicholas.

TI A VAT in India, Problems and Options. AU Burgess, Robin; Stern, Nicholas.

PD November 1993. TI The World Bank as "Intellectual Actor". AU Stern, Nicholas; Ferreira, Francisco. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DEP/50; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 125. PR no charge. JE B25, O19, N20, F33, F34. KW World Bank. Development Economics. International Lending.

AB This is a chapter for the two volume history of the World Bank being prepared at the Brookings Institution. The volume of which it is a part contains a collection of views of the Bank from different, largely geographical standpoints. This chapter concerns the contribution of the World Bank to the understanding of the economics of development, focusing on the last twenty-five years of its history (the first twenty-five being the subject of the early Mason-Asher volume). In describing the Bank's role as a significant intellectual participant in the discipline, the authors also attempt to assess its performance in creating, stimulating, disseminating, and applying ideas. Such activities span the Bank's organization structure, and the chapter is therefore not an appraisal of its research departments. Analogously to the geographical standpoint of other chapters in the volume, this takes an academic perspective, and the chapter focuses on the creation and dissemination of ideas. This is not because the authors believe that those functions are more important than others. It is recognized from the outset that the Bank is primarily an operational agency and the discussion is set in that context.

TI The Reform of Indirect Taxes in India. AU Burgess, Robin; Howes, Stephen; Stern, Nicholas.

TI Economic Transition on the Other Side of the Wall: China. AU Hussain, Athar; Stern, Nicholas.

**Stockman, Alan C.**

TI Short-Run Independence of Monetary Policy under Pegged Exchange Rates and Effects of Money on Exchange Rates and Interest Rates. AU Ohanian, Lee E.; Stockman, Alan C.;

TI Short-Run Independence of Monetary Policy under Pegged Exchange Rates and Effects of Money on Exchange Rates and Interest Rates. AU Ohanian, Lee E.; Stockman, Alan C.;

**Stoddart, Greg L.**

**TI** Charging Peter To Pay Paul: Accounting for the Financial Effects of User Charges. **AU** Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L.

**TI** It's Not the Money, It's the Principle: Why User Charges for Some Services and Not Others? **AU** Evans, Robert G.; Barer, Morris L.; Stoddart, Greg L.; Bhatia, Vandna.

**Stouraitis, Aris**

**TI** Market Response to Divestiture Announcements by European Firms. **AU** Kaiser, Kevin M.J.; Stouraitis, Aris.

**Sueyoshi, Glenn T.**

**PD** June 1994. **TI** Semiparametric Estimation of Generalized Accelerated Failure Time Models with Grouped Data. **AA** University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 94-10; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 25. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C41, C25, C24, C23. **KW** Duration Analysis. Discrete Regression. Panel Data. Semi and Nonparametric Methods.

**AB** This paper proposes simple semiparametric estimation methods for generalized accelerated failure time (GAFT) models (Ridder 1990) where durations are observed in grouped intervals. The approach, which relies upon the specification of conditional survivor functions, estimates both the GAFT transformation function and error distribution without functional form restrictions. Both nonparametric point mixture (Heckman and Singer 1984b) and series expansion estimators of the error distribution (Davidian and Gallant 1993) are considered. By working with the conditional survivor function rather than the survivor function or density, the author is able to: (1) derive a useful correspondence between GAFT models and more familiar panel binary response models; and (2) simplify greatly the computational burden associated with semiparametric estimators for grouped duration data. An empirical example is provided to demonstrate that the approach is practical in typical applied situations.

**PD** June 1994. **TI** Regression Based Tests for Non-tested Alternatives in Grouped Duration Models. **AA** University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 94-11; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 22. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C41, C12. **KW** Hazard Models. Duration Specification. Conditional Moment Tests.

**AB** This paper describes regression based, conditional moment tests for a variety of non-nested alternatives in grouped duration models. The methodology may, for example, be used to test the proportional hazards specification against various non-nested accelerated failure time specifications. The tests are an application of the conditional mean encompassing (CME) tests are developed by Woolridge (1990a) to the binary outcome structure of grouped duration data, and take the simple form of NR2 tests obtained by regressing residuals from the null specification on gradients from the null and alternative models. Thus, the tests are functions of variables that are

readily available in standard econometric packages. I consider a small monte carlo simulation which suggests that the tests possess reasonable size properties, and in a number of cases, moderate to good power against alternatives of interest.

**Sugiyama, Alexandre B.**

**TI** Economies of Scale, Natural Monopoly and Imperfect Competition in an Experimental Market. **AU** Plott, Charles R.; Sugiyama, Alexandre B.; Elbaz, Gilad.

**Sung, Hai-yen**

**TI** Tobacco Taxes and the Anti-Smoking Media Campaign: The California Experience. **AU** Hu, Teh-wei; Sung, Hai-yen; Keeler, Theodore E.

**Suzumura, Kotaro**

**TI** Individual Rights and Social Evaluation: A Conceptual Framework. **AU** Pattanaik, Prasanta K.; Suzumura, Kotaro.

**Swinkels, Jeroen M.**

**TI** Order Independence for Iterated Weak Dominance. **AU** Marx, Leslie M.; Swinkels, Jeroen M.

**PD** January 1994. **TI** Independence for Conditional Probability Systems. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1076; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 14. **PR** \$3.00 in U.S. and Canada; \$5.00 via international mail. **JE** C70, C72, D81. **KW** Conditional Probability System. Independence.

**AB** It has been argued that the natural notion of independence for conditional probability systems is weaker than sequential equilibrium's consistency condition. Kohlberg and Reny (1992) provide an attractive extra condition on a conditional probability system that implies equivalence to consistency. We provide an alternative condition and argue that it is a natural implication of independence. This condition also implies equivalence to consistency, and so is equivalent to Kohlberg and Reny's. However, the motivation and formulation of the condition are different, providing an additional viewpoint from which to understand consistency.

**Symansky, Steve**

**TI** Robustness of Equilibrium Exchange Rate Calculations to Alternative Assumptions and Methodologies. **AU** Bayoumi, Tamim; Clark, Peter; Symansky, Steve; Taylor, Mark.

**Tabet, J.**

**TI** The Development of Scientific Networks and Multinational Research Projects: Who Plays the Key Role? **AU** De Meyer, A.; Saab, W.; Tabet, J.

**Tan, Guofu**

**TI** A Moral Hazard Trap to Growth: A Reconsideration. **AU** Schworm, William; Tan, Guofu.

**Taylor, M. Scott**

**TI** Trade and Transboundary Pollution. **AU** Copeland, Brian R.; Taylor, M. Scott.

**PD** January 1994. **TI** "Once-Off" and Continuing Gains From Trade. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 94-02; Department of Economics, University of British Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. **PG** 29. **PR** **JE** F12, O41. **KW** Endogenous Growth. Trade. Welfare Gains. Open Economy.

**AB** Most economists are familiar with the static or "once-off" welfare gains created by opening an economy to trade. Much less is known about how the resource reallocations necessitated by this move affect long run growth, and hence whether they provide dynamic or continuing welfare gains in future periods. This paper employs a dynamic Ricardian trade model to provide a decomposition of the gains from trade into "once-off" and continuing categories. In both versions the magnitude of "once-off" and continuing effects are related to absolute and relative country size, similarity in production structures, rates of time preference, and the productivity of R&D.

#### Taylor, Mark

**TI** Robustness of Equilibrium Exchange Rate Calculations to Alternative Assumptions and Methodologies. **AU** Bayoumi, Tamim; Clark, Peter; Symansky, Steve; Taylor, Mark.

#### ten Raa, Thijs

**PD** March 1994. **TI** Outsourcing of Services and Productivity Growth in Goods Industries. **AU** ten Raa, Thijs; Wolff, Edward N. **AA** ten Raa: not available. Wolff: New York University. **SR** New York University, C.V. Starr Center Economic Research Report: 94-12; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. **PG** 35. **PR** no charge. **JE** O47. **KW** Economic Growth. Aggregate Productivity.

**AB** Outsourcing refers to the process of replacing in-house services, such as legal, advertising, accounting, and related business services with services purchased from outside the firm. If these services have lower productivity growth rates than the production of goods, then outsourcing will increase measured productivity growth within the goods industries. To analyze this we reduce service inputs to their constituent elements of labor, capital, and good inputs, circumventing their problem of measurement. Total factor productivity growth amounts to  $1.3 - 0.2 = 1.1$  percent a year over the period 1947-82 where the second term accounts for the service drag. Two thirds of the drag can be ascribed to an increase of service inputs (outsourcing) and one third to the negative productivity growth within the service sectors. The service drag was concentrated in 1977-82. Goods sectors which have rapid rates of standard total factor productivity growth have, on average, been successful in outsourcing sluggish services, but this source of sectoral productivity growth dried up in the last subperiod.

#### Thakur, Subhash

**PD** March 1994. **TI** The "Hard" SDR: An Exploratory Analysis. **AA** not available. **SR** International Monetary Fund Working Paper: WP/94/25; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 21. **PR** not available. **JE** F33, E42. **KW** SDR. Monetary Stability.

**AB** There has been considerable interest in recent years in the possibility of hardening the SDR, motivated by the desire

for an international yardstick of monetary stability. This paper explores various ideas aimed at hardening the SDR in the light of the previous debate on the valuation of the SDR. The paper shows that the construction and implementation of a "hard" SDR which would preserve its purchasing power over goods and services is technically feasible and illustrates this by monthly computations covering the period from July 1974 to July 1993.

#### Tokarick, Stephen P.

**TI** Competitiveness Indicators: A Theoretical and Empirical Assessment. **AU** Marsh, Ian W.; Tokarick, Stephen P.

#### Trockel, Walter

**TI** Nonconvergence of the Mas-Colell and Zhou Bargaining Sets. **AU** Anderson, Robert M.; Trockel, Walter; Zhou, Lin.

#### Uhlig, Harold

**TI** Rules of Thumb and Dynamic Programming. **AU** Lettau, Martin; Uhlig, Harold.

#### Usikov, Daniel

**TI** An Analysis of U.S. Stock Price Behavior Using Wavelets. **AU** Ramsey, James B.; Usikov, Daniel; Zaslavsky, George M.

#### Vahid, Farshid

**PD** December 1993. **TI** Non-Synchronous Common Cycles. **AU** Vahid, Farshid; Engle, Robert F. **AA** Vahid and Engle: University of California at San Diego. **SR** University of California, San Diego Department of Economics Working Paper: 93-55; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. **PG** 20. **PR** \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. **JE** C32, C12. **KW** Codependence, Scalar Components Models, Generalized. **AB** This paper extends the work of Engle and Kozicki (1993) to test for co-movement in multiple time series when their cycles are not exactly synchronized. It is shown that a test for common feature and estimation of the cofeature vector in this case will be a Generalized Method of Moments test and estimation procedure. It is also shown that Tiao and Tsay's (1985) proposed test for scalar components of order (0,q) can also be seen as a test for common non-synchronized cycles based on a consistent, but sub-optimal, estimate of the cofeature vector. The paper assesses the small sample performance of the proposed tests through a series of simulations. Finally, this test is applied to an investigation of non-synchronous co-movement between durable and non-durable consumption expenditures.

#### Valimaki, Juuso

**TI** Learning and Strategic Pricing. **AU** Bergemann, Dirk; Valimaki, Juuso.

#### van der Klaauw, Wilbert

**TI** The Turnover of UK Teachers: A Competing Risks Analysis. **AU** Dolton, Peter; van der Klaauw, Wilbert.

#### Van Wassenhove, L.N

**TI** Local Search Heuristics for Single Machine Scheduling

with Batch Set-Up Times. AU Crauwels, H.A.J.; Potts, C.N.; Van Wassenhove, L.N.

TI An Integrated and Structured Approach to Improve Maintenance. AU Vanneste, S.G.; Van Wassenhove, L.N.

#### Vanneste, S.G

PD 1994. TI An Integrated and Structured Approach to Improve Maintenance. AU Vanneste, S.G.; Van Wassenhove, L.N. AA Vanneste: Tilburg University. Van Wassenhove: INSEAD. SR INSEAD Working Papers: 94/10/TM; INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, FRANCE. PG 24. PR not available. JE M11. KW Maintenance. Management. Information Technology.

AB Following a brief review of recent developments in maintenance theory and practice, and in information technology and decision support models, we present an integrated approach that combines elements from these domains into a powerful tool for dealing with maintenance problems. We show how this framework can be used to set up a continuous improvement program for maintenance management and apply the concepts to an industrial case.

#### Vegh, Carlos A.

TI Targeting the Real Exchange Rate: Theory and Evidence. AU Calvo, Guillermo A.; Reinhart, Carmen M.; Vegh, Carlos A.

#### Velasco, Andres

PD March 1994. TI Are Balance of Payments Crises Rational? AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-08; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 43. PR no charge. JE E62, F40, D71. KW Speculative Attacks. Fiscal Policy. Political Economy.

AB Krugman (1979) elegantly showed how and when balance of payments crises occur. He left unanswered, however, the crucial question of why they are allowed to occur. This paper suggests an explanation for the peculiar fiscal policies that are associated with balance of payments crises. Fiscal policy is assumed to be controlled by one or more ministers who aim to maximize utility from the transfers they make to the public. If fiscal authority is centralized in just one minister, the initial level of reserves determines the sustainability of the fixed exchange rate regime. If initial reserves are above a certain threshold, spending is low and the system is always sustainable; if reserves are in an intermediate range, the system is vulnerable to self-fulfilling attacks; if reserves are below a certain minimum, the system is never sustainable, and high fiscal spending leads to a collapse. If fiscal policy is controlled by two ministers who act non-cooperatively, an even richer menu of possibilities occurs. Equilibria in which expectations of high spending by one minister trigger high spending by the other, leading to the exhaustion of reserves and a collapse, can happen at any level of initial reserves. There are also equilibria along which sustained fiscal deficits occur, causing reserves to decline over time; eventually a balance of payments crisis occurs, the exchange rate begins to float and the economy settles on a high-inflation steady state.

#### Victoria-Feser, Maria-Pia

TI Robustness Properties of Inequality Measures. AU Cowell, Frank; Victoria-Feser, Maria-Pia.

PD October 1993. TI Robust Estimation of Personal Income Distribution Models. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: DARP/4; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 26. PR no charge. JE C13, D63. KW Income Distributions. Inequality Measures. Parametric Models.

AB Statistical problems in modelling personal income distributions include estimation procedures, testing, and model choice. Typically, the parameters of a given model are estimated by classical procedures such as maximum likelihood and least squares estimators. Unfortunately, the classical methods are very sensitive to model derivations such as gross errors in the data, grouping effects, or model misspecifications. These deviations can ruin the values of the estimators and inequality measures and can produce false information about the distribution of the personal income in a given country. In this paper we discuss the use of robust techniques for the estimation of income distributions. These methods behave as the classical procedures at the model but are less influenced by model deviations and can be applied to general estimation problems.

#### Wahl, Jack E.

TI Indirect Hedging of Exchange Rate Risk. AU Broll, Udo; Wahl, Jack E.; Zilcha, Itzhak.

#### Waldfoegel, Jane

PD September 1993. TI Women Working for Less: A Longitudinal Analysis of the Family Gap. AA Harvard University. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: WSP/93; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 61. PR no charge. JE J16, J38, D13. KW Women. Wages. Gender Gap.

AB This paper investigates wage differentials among women related to family status (the "family gap") as well as wage inequality between men and women (the "gender gap"), using longitudinal data from the National Child Development Study (NCDS) as well as cross-sectional data from the General Household Survey (GHS). In a cross-section, there is a family gap of 20-25%. The longitudinal results provide little evidence that this gap is due to unobserved heterogeneity. The gap appears to be due to the indirect effects (lower work experience) and direct effects (lower effort, employer discrimination, and/or limited opportunities) of having children. This paper also finds a large maternity leave premium and a large part-time penalty.

TI The Decline of the Male Breadwinner: Changing Shares of Husbands' and Wives' Earnings in Family Income. AU Machin, Stephen; Waldfoegel, Jane.

#### Wales, T. J.

TI A "New" Approach to the Smoothing Problem. AU Diewert, W. E.; Wales, T. J.



**Wang, Gyu Ho**

PD March 1994. TI Regulating the Oligopoly with Unknown Costs. AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9406; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 27. PR Cdn \$10.00; Cheques payable to University of Western Ontario. JE L13, L50, L51. KW Central Planning. Market Regulation. Efficient Firm Regulation.

AB This paper examines the planner's problem of regulating the oligopoly with unknown costs. The author considers the regulation problem under three different information structures: (1) independently and identically distributed (i.i.d.) case; (2) independently distributed case; (3) correlated case. He provides the full characterization of the optimal mechanism for an arbitrary number of firms in all three cases. He also shows that in (1), when the number of the firms increase, the welfare to the planner converges to the first best case where the planner has the complete information of lowest cost. The same result holds in (2) and (2) under additional mild conditions. Finally, he compares the welfare to the planner under these three different information structures. The planner becomes better off under the correlated case than under the i.i.d. case or independent case only when the costs are not too positively correlated.

**Wang, Zhenyu**

TI The CAPM is Alive and Well. AU Jagannathan, Ravi; Wang, Zhenyu.

**Watson, Joel**

PD June 1994. TI Dominance and Equilibrium Alternating-Offer Background. AA University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 94-13; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 19. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C70, C11, C78. KW Alternating-Offers. Bargaining. Payoff Bounds. Bayesian Equilibrium.

AB This paper studies Rubinstein's classic bargaining game with two-sided incomplete information about the players' discount factors. It characterizes the set of strategies that survive a notion of iterated dominance and shows how this restricts the behavior of the players. I then use the dominance results to derive bounds on the payoffs that are supported by perfected Bayesian equilibria. The bounds correspond to the payoffs of two games of complete information which are defined by the players' weakest and strongest possible types. It also found that a bound on the amount of delay can occur in equilibrium and its properties are studied. Finally, the author characterizes fully the set of perfect Bayesian equilibrium payoffs for games in which the support of the players' possible discount factors is wide, yet each players' discount factor is close to single value with high probability. For this setting the author proves a surprising lopsided convergence result: each player cannot gain from a slight chance that she is a strong type, but the player can suffer greatly if there is a slight chance that she is a weak type.

TI Multiple-Issue Bargaining and Axiomatic Solutions. AU Ponsati, Clara; Watson, Joel.

PD June 1994. TI Reputation and Outcome Selection in Supergames. AA University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 94-15; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 30. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE C70, C72. KW Reputation. Rationalizability. Super Game. Refinements.

AB In this paper the author studies two-player, infinitely repeated games with no discounting. He examines how perturbations afford players opportunities to establish reputations and studies how potential reputations lead to outcome selection in a non-equilibrium setting. The sense of outcome selection within this context is in terms of the beliefs of the players. The theorems have useful corollaries for equilibrium notions as well, where they translate into bounds on the actual payoffs in the game. The main result can be outlined as follows. Assume that players have beliefs of countable support, players only adopt "forgiving strategies," and players best-respond to their beliefs. (A forgiving strategy is one that will not "hold a grudge against," or punish, an opponent forever.) Then if the game is perturbed, each player expects to fare at least as well as if she selected any of her perturbation strategies and the opponent played a best-response. It is demonstrated that the behavioral assumptions are consistent in the context of rationalizability, but that conflicts may arise in an equilibrium context. The author discusses the implications and issues involved. In addition, he examines reputation phenomena from the setting of a hybrid notion of behavior featuring Kalai and Lehrer's (1990) grain of truth assumption.

**Weitzman, Martin L.**

PD September 1993. TI Chinese Township Village Enterprises as Vaguely Defined Cooperative. AU Weitzman, Martin L.; Xu, Chenggang. AA Weitzman: Harvard University. Xu: London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: CP/26; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 32. PR no charge. JE P51, P52, P13, L14. KW Property Rights. Economic Reform. Economic Transition. Chinese Economy.

AB This paper concerns the paradoxes and dilemmas that the very successful "Chinese model" presents for transition theory. The "Chinese model" is centered on the development of township-village enterprises. The main purpose of this paper is to make the case that TVE's are not just some form of disguised capitalist institution; they are much better described as "vaguely defined cooperatives"--meaning an essentially communal organization extremely far removed from having a well defined ownership structure. That a transition strategy based on vaguely defined cooperatives should be so successful presents a severe challenge for traditional property rights theory. We speculate that to address this challenge properly, traditional property rights theory should be extended by including a dimension corresponding to the degree of individualism/cooperation existing in a society. A model of the required extension is described. Implications and applications are discussed.

**Werner, Megan**

PD November 1993. TI A Practical Procedure for Public Policy Decisions or "Contingent Valuation and Demand Revelation -- Without Apology." AU Werner, Megan; Groves, Theodore. AA Werner and Groves: University of California at San Diego. SR University of California, San Diego Department of Economics Working Paper: 93-51; Working Paper Coordinator, Economics Department, 0508, University of California, 9500 Gilman Drive, La Jolla, CA 92093-0508. PG 19. PR \$3.00 U.S.; \$4.00 Foreign; payable to Regents, University of California. JE H30, H80, D11. KW Contingent Valuation. Willingness to Pay. Conditional Mean Values.

AB This paper examines procedures based on expressions of willingness to pay to determine the provision of public goods such as environmental amenities. In addition to classical efficiency and majority political support criteria, some issues related to the practical implementability of such mechanisms are considered, including the incentives agents have to report truthfully and the possibility of sampling a subset of the population of agents. In particular the paper suggests a decision procedure that is an alternative to those based on estimating either the mean or median willingness to pay, as proposed in conventional Contingent Valuation studies. Based on an average of conditional median values of willingness to pay, it is shown that *this mechanism has many desirable properties*. While maintaining incentives for agents to report truthfully their valuation for a public good, the mechanism limits the effects of outliers and broadens the political acceptability for adopted policies. In addition, the mechanism has better statistical properties than conventional Contingent Valuation procedures when only a sample of individuals is queried for their willingness to pay.

**Wernik, Andrzej**

PD July 1993. TI The Polish Economy in the Eighties: From Destabilization to Destabilization. AA Institute of Finance, Warsaw, Poland. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/2; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 36. PR no charge. JE E65. KW Poland. Inflation. Macroeconomic Policy.

AB The paper traces economic events against the background of political changes in Poland, in the last decade before the first non-communist government came to power in the autumn of 1989. Failures of economic policies pursued in the 1970's contributed to a deep crisis which preceded the emergence of the Solidarity trade union in the autumn of 1980 and the introduction of martial law in December 1981. Throughout the 1980's attempts were made to reform the economic system leaving communist political power essentially intact. The paper gives a detailed description of the attempted reforms, their implementation, and the results for the Polish economy.

**Weymark, John A.**

TI Strategy-Proof Social Choice with Continuous Separable Preferences. AU Le Breton, Michel; Weymark, John A.

PD November 1993. TI Further Remarks on Harsanyi's Social Aggregation Theorem and the Weak Pareto Principle. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 93-39; Department of Economics, University of British

Columbia, 1873 East Mall, Room 997, Vancouver, B.C. V6T 1Z1 CANADA. PG 11. PR JE D71. KW Harsanyi's Theorem. Social Aggregation.

AB Weak Pareto versions of Harsanyi's Social Aggregation Theorem are established for mixture-preserving utility functions defined on a mixture set of alternatives.

**White, Halbert**

TI Consistent Nonparametric Estimation and Testing for the Variance of a Diffusion from Discretely Sampled Observations. AU Corradi, Valentina; White, Halbert.

TI Asymptotic Properties of S-Estimators for Nonlinear Regression Models with Dependent, Heterogeneous Processes. AU Sakata, Shinichi; White, Halbert.

TI An Alternative Definition of Finite Sample Breakdown Point with Applications to Regression Model Estimators. AU Sakata, Shinichi; White, Halbert.

**Wilks, Leanne**

TI Valuing the Preservation of Australia's Kakadu Conservation Zone. AU Carson, Richard T.; Wilks, Leanne; Imber, David.

**Winter, David**

TI Informal Carers and the Labour Market in Britain. AU Evandrou, Maria; Winter, David.

**Winter, Eyal**

TI The Partnered Core of a Game with Side Payments. AU Reny, Philip J.; Winter, Eyal; Wooders, Myrna Holtz.

**Wolf, Holger C.**

TI International Evidence on Tradables and Nontradables Inflation. AU De Gregorio, Jose; Giovannini, Alberto; Wolf, Holger C.

**Wolff, Edward N.**

PD February 1994. TI Trends in Household Wealth in the United States: 1962-1983 and 1983-1989. AA New York University. SR New York University, C.V. Starr Center Economic Research Report: 94-03; New York University, Faculty of Arts and Science, Department of Economics, C.V. Starr Center for Applied Economics, 269 Mercer Street, New York, NY 10003. PG 59. PR no charge. JE D31, J14, J15. KW Wealth. Inequality. Demographics.

AB Using the 1983 and 1989 Surveys of Consumer Finances, I find evidence of sharply increasing household wealth inequality over this period. Whereas mean wealth increased by 23 percent in real terms, median wealth grew by only 8 percent. The share of the top half percentile rose by five percentage points, while the wealth of the bottom two quintiles showed an absolute decline. The Gini coefficient increased from 0.80 to 0.84. Almost all the growth in real wealth accrued to the top 20 percent of wealthholders. In contrast, the degree of wealth inequality was almost identical in 1983 as in 1962, and real wealth growth was more evenly distributed across the wealth distribution. There is also evidence that the sharp increase in wealth inequality from 1983 to 1989 was due to a correspondingly sharp rise in income inequality, the increase of stock prices relative to housing prices, and relatively slow inflation.

**TI** Outsourcing of Services and Productivity Growth in Goods Industries. AU ten Raa, Thijs; Wolff, Edward N.

#### Wooders, Myrna Holtz

**TI** The Partnered Core of a Game with Side Payments. AU Reny, Philip J.; Winter, Eyal; Wooders, Myrna Holtz.

#### Wright, Jennifer

**TI** Contingent Valuation and Revealed Preference Methodologies: Comparing the Estimates for Quasi-Public Goods. AU Carson, Richard T.; Flores, Nicholas E.; Martin, Kerry M.; Wright, Jennifer L.

#### Wright, Randall

**TI** Household Production and Taxation in the Stochastic Growth Model. AU McGrattan, Ellen; Rogerson, Richard; Wright, Randall.

#### Xu, Bin

**PD** March 1994. **TI** Tax Policy Implications in Endogenous Growth Models. AA Columbia University. **SR** International Monetary Fund Working Paper: WP/94/38; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 23. **PR** not available. **JE** H20, O41. **KW** Tax Policy. Capital Mobility. Growth.

**AB** This paper surveys the tax policy implications in various endogenous growth models. The focus is on the long-run growth effects of income, consumption, and investment taxation in models whose engine of growth is the accumulation of human capital, technological innovation, and/or public infrastructure. The results depend on model specifications. This paper also reviews quantitative results from cross-country regression and simulations, and indicates some statistical and methodological problems to which they are subject. Tax policy implications in endogenous growth models both with tax policy endogenously determined by a political process and with international capital mobility are also discussed.

#### Xu, Chenggang

**TI** Why China's Economic Reforms Differ. AU Qian, Yingyi; Xu, Chenggang.

**TI** Chinese Township Village Enterprises as Vaguely Defined Cooperative. AU Weitzman, Martin L.; Xu, Chenggang.

#### Yashiv, Eran

**PD** November 1993. **TI** On the Consequences of Capital Controls: Intertemporal Interactions With Fiscal and Monetary Policies. AA Tel Aviv University. **SR** Tel Aviv Sackler Institute of Economic Studies: 18/93; Department of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. **PG** 40. **PR** no charge. **JE** E63, F41, F32. **KW** Capital Controls. Small Open Economy. Fiscal Policy. Monetary Policy.

**AB** Capital controls are a feature of many small open economies. This paper investigates their real effects by studying their intertemporal interactions with fiscal and monetary policies. We discuss two widely used forms of controls and demonstrate their equivalence. We then use a unified framework to derive a feedback policy rule from the stock of foreign debt to the amount of controls, within the context of determining the conditions for sustainability of government

plans. We subsequently investigate the effects of this policy on real magnitudes such as production, consumption, and current account flows. Real effects are generated as policy induces portfolio or consumption adjustments; these lead to real exchange rate movements that affect current account flows and foreign debt and thus trigger a change in capital controls; these, in turn, induce further changes in portfolio composition and consumption patterns. We study several prevalent policy experiments and show how the use of controls enlarges the set of possible outcomes - including several "non-traditional" ones. Finally we discuss the new tradeoffs and hence new dilemmas faced by a government that uses controls.

**PD** January 1994. **TI** Inflation, Wages and the Role of Money Under Discretion and Rules: A New Interpretation. AA Tel Aviv University. **SR** Tel Aviv Sackler Institute of Economic Studies: 1/94; Department of Economics, Tel Aviv University, Ramat Aviv, ISRAEL. **PG** 29. **PR** no charge. **JE** E52, E61, E63. **KW** Monetary Policy. Stabilization Policy. Inflation.

**AB** This paper models a game-theoretic interaction between the monetary authority and a strategically active private sector. It aims at exploring the real effects of monetary policy, wage setting behavior, and the consequences of stabilization and indexation policy. We find that when the private sector has an active role, "rules" and "discretion" are not as far apart as implied by the standard model prevalent in the literature. Both regimes are not Pareto-optimal equilibria and inflation may be positive even under "rules". We show that monetary policy may have real effects on output in the short-run due to strategic considerations by rational, perfectly informed wage-setters. The latter may act "tough" or "soft" depending upon the preferences of the policy-maker facing them. We investigate the consequences of inflation stabilization policy and the means open to the government to mitigate its output costs. We also find that the prevalent intuition whereby more indexation should lead to more inflation is not always correct.

#### Yuen, Chi-Wa

**TI** Capital Income Taxation and Long Run Growth Under Endogenous Population and Capital Mobility. AU Razin, Assaf; Yuen, Chi-Wa.

#### Zaslavsky, George M.

**TI** An Analysis of U.S. Stock Price Behavior Using Wavelets. AU Ramsey, James B.; Usikov, Daniel; Zaslavsky, George M.

#### Zhang, Guang-Jia

**TI** The Cyclical Behavior of Job Creation and Job Destruction: A Sectoral Model. AU Greenwood, Jeremy; MacDonald, Glenn M.; Zhang, Guang-Jia.

#### Zhang, Zhifeng

**TI** The Application of Wave Form Dictionaries to Stock Market Index Data. AU Ramsey, James B.; Zhang, Zhifeng.

#### Zhou, Lin

**TI** Nonconvergence of the Mas-Colell and Zhou Bargaining Sets. AU Anderson, Robert M.; Trockel, Walter; Zhou, Lin.

#### Zhou, Ruilin

**TI** Sequential Stratified Sampling. AU Green, Edward J.;

Zhou, Ruilin.

**Zhuang, Juzhong**

PD October 1993. TI A General Equilibrium Computation of Market Distortions in the Chinese Economy. AA London School of Economics. SR London School of Economics Suntory-Toyota International Centre for Economics and Related Disciplines Working Paper: EF/5; London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 46. PR no charge. JE C68, P20, P52. KW China. CGE Modelling.

AB This paper investigates market distortions in the Chinese economy during the early 1980's in a general equilibrium framework. A computable general equilibrium model was constructed to simulate the behavior of the Chinese economy under a system of perfect markets, and estimated based on 1983 data using a calibration procedure coupled with econometric estimation for key parameters. The equilibrium model solution indicates substantial distortions in prices and sectoral structures in the 1983 Chinese economy. Labor was found to be over-paid, capital under-paid, and the exchange rate overvalued. The elimination of these distortions would mean a 15% increase in national income and a redistribution of income from labor to capital, from households to the state, and from urban households to rural households.

**Zieschang, Kimberly D.**

TI Drift in Producer Price Indexes for the Former Soviet Union (FSU) Countries. AU Lequiller, Francois; Zieschang, Kimberly D.

**Zilcha, Itzhak**

TI Indirect Hedging of Exchange Rate Risk. AU Broll, Udo; Wahl, Jack E.; Zilcha, Itzhak.