

ABSTRACTS OF WORKING PAPERS IN ECONOMICS

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Adelman, Irma

PD July 1985. **TI** Some Dynamic Aspects of Rural Poverty in India. **AU** Adelman, Irma; Subbarao, K.; Vashistha, P. S. **AA** Adelman: University of California at Berkeley. Subbarao: Institute for Economic Growth, Delhi, India. Vashistha: National Council for Applied Economic Research, Delhi, India. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 379; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 37. **PR** No Charge. **JE** 914, 121, 718. **KW** India. Poverty. Income Distribution. Rural Poverty.

AB Studies of rural poverty in India have generally concentrated on the static aspects of income or expenditure inequality (Bardhan and Srinivasan, 1974). Some of the recent studies estimated the posttrends in the rural poverty ratio as well as the trends in the Gini ratios for different Indian states (Ahluwalia, 1978; Planning Commission). The insights into the static aspects of poverty provided by these studies can be enriched by dynamic perspectives based on the mobility patterns of households from one income class to another over time and the underlying causal nexus behind such income mobility. This paper makes an attempt in this direction. It generates the long-run income distributions implicit in the observed income mobility patterns of rural households during 1968-1971. It then compares the long-run income distributions toward which different states of India are tending with the prevailing income distributions and with past income distribution and poverty trends.

Aigner, Dennis J.

PD May 1986. **TI** Me and My Shadow: Estimating the Size of the United States Underground Economy from Time Series Data. **AU** Aigner, Dennis J.; Schneider, Friedrich; Ghosh, Damayanti. **AA** Schneider: Department of Economics, University of Linz. Aigner and Ghosh: Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8615; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 59. **PR** No Charge. **JE** 220, 916. **KW** Underground Economy. Shadow Economy. MIMIC Model.

AB Estimating the magnitude of the shadow economy in the United States and various European countries has been a topic of some interest since the late 1970's. Several

indicators (measurements) have been proposed and attempts have been made to link the magnitude of the shadow economy (as a percentage of GNP) to causal variables such as the tax rate on personal income, the extent of government regulation in the conduct of business, etc. These attempts, while provocative in their findings, do not recognize (with but one exception) the obvious latent structure involved in this estimation problem. No one has yet attempted to estimate a latent variable model for the shadow economy using time series data. In this paper we construct and estimate a dynamic latent variable model of the MIMIC form (multiple indicators, multiple causes, one latent variable) on annual United States data covering the period 1939-82. A number of different specifications are considered. The ML estimation procedure is patterned after a method used by Engle and Watson. It involves a first-stage Kalman filter followed by an application of the EM algorithm. As to substantive results, we find that the autoregressive structure in the latent variable and serial correlation in the measurement equation errors are responsible for most of the "action". On occasion a causal variable will appear to be statistically significant, but often their impact is nil. Some of the available indicators are clearly more important than others, as measured by the estimated coefficients that link them to the shadow economy.

Allen, Roy E.

PD May 1985. **TI** Alternate Bearing in Californian Pears and Avocados. **AU** Allen, Roy E.; Perloff, Jeffrey M. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 365; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 23. **PR** No Charge. **JE** 132, 712. **KW** Crop Yield Estimation. Alternate Bearing.

AB This paper develops a test for the presence of alternate bearing and a means of consistently estimating yields for crops whose output varies from year to year for reasons not fully captured by available biological and economic variables. Using these techniques one can better forecast yields than one can using previous methods. This approach is illustrated for the California Bartlett pear and avocado industries.

Andrews, Donald W. K.

PD January 1986. **TI** On the Performance of Least Squares in Linear Regression with Undefined Error Means.

AA Yale University. **SR** Yale Cowles Foundation Discussion Paper: 798; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. **PG** 53. **PR** No Charge. **JE** 211. **KW** Least Squares Estimator. Linear Regression. Stable Distribution. Fat-Tails. Consistency. Robustness.

AB This paper considers the linear regression model with multiple stochastic regressors, intercept, and errors that have undefined means. This model is of interest from a robustness perspective as a polar case. Generally, least squares estimators are inconsistent in this context. It is shown, however, that this inconsistency is restricted to the estimation of the intercept, if the regressors are highly variable. Rates of convergence of the least squares slope estimators are determined, and are shown to exceed the standard rate, $n^{-(1/2)}$, in certain contexts. The results place no restrictions on the temporal dependence of the errors, and require an unusually weak exogeneity condition between the regressors and errors. Implications of the results for robustness theory are discussed.

Arellano, Manuel

PD June 1986. **TI** Estimating Contaminated Limited Dependent Variable Models. **AU** Arellano, Manuel; Bover, Olympia. **AA** Institute of Economics and Statistics Nuffield College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 11; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL. **PG** 38. **PR** No Charge. **JE** 211. **KW** Gaussian Mixtures. Truncated Distributions. Non-Normal Tails. Maximum Likelihood Estimations. Skewness. Davies Tests. Asymptotic Biases. Female Labour Supply.

AB In limited dependent variable models the estimators obtained by maximising the normal likelihood function are generally inconsistent when the assumption of normality is false. Arabmazar and Schmidt (1982) have shown that the bias from non-normality can be substantial when the degree of censoring (or truncation) in the population is relatively large. The issue is relevant because usually we do not have any a priori reason to believe that our disturbances are normally distributed. While extensive research has recently been carried out on non-normality tests, little has been done on ways of relaxing the normality assumption itself. The view is usually taken that evidence of non-normality is a signal of structural misspecification. Although this will often be the case, it may also be indicating genuine non-normal features in the distribution of the errors. In the latter situation more general distributional assumptions are called for. In cross section or panel data a common source of non-normality is due to the existence of extreme values in the samples which determine thick tails. We propose to use mixtures of normal distributions when the objective is to allow for leptokurtosis. Essentially, the advantages of this approach are that the normal model is nested as a special case and also the computational simplicity of the normal model is maintained. This track also allows us to construct simple tests for non-normality. Both estimation and testing issues are discussed in the paper and illustrations are provided.

Argy, Victor

TI William H. White (1922-83): An Appreciation. **AU** Polak, J. J.; Haberler, Gottfried; Thorn, Richard S.; Argy, Victor.; Heller, H. Robert.

TI William H. White (1922-83): An Appreciation. **AU** Polak, J. J.; Haberler, Gottfried; Thorn, Richard S.; Argy, Victor.; Heller, H. Robert.

Asch, Peter

PD June 5, 1986. **TI** A Test of Market Efficiency in 'Exotic' Racetrack Betting. **AU** Asch, Peter; Quandt, Richard E. **AA** Asch: Department of Economics, Rutgers University. Quandt: Department of Economics, Princeton University. **SR** Princeton Financial Research Center Memorandum: 69; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 13. **PR** \$2.00. **JE** 520, 020. **KW** Betting. Market Efficiency.

AB Exacta betting implicitly provides probability estimates that horse *i* wins and horse *j* is second. Straight win betting provides an independent set of estimates of these probabilities. The hypothesis of market efficiency requires that these be (statistically) the same. An empirical test rejects the hypothesis.

Atanasio, Orazio

PD July 1986. **TI** Output and Employment Effects of Countercyclical Policy: Empirical Evidence for OECD Countries. **AU** Atanasio, Orazio; Marini, Giancarlo. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 248; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 26. **PR** No Charge. **JE** 122, 133. **KW** Countercyclical Policy. Phillips Curve. Output Fluctuations.

AB This paper presents some empirical evidence supporting the effectiveness of active stabilisation policy. Output (and unemployment) fluctuations about a measure of capacity have been less pronounced for those OECD countries where the monetary authorities responded countercyclically to lagged unemployment rates.

Avery, Robert

PD October 1985. **TI** Pensions and Social Security In Household Portfolios: Evidence From the 1983 Survey of Consumer Finances. **AU** Avery, Robert; Elliehausen, Gregory E.; Gustafson, Thomas A. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Research Paper in Banking and Financial Economics: 81; Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 12. **PR** No Charge. **JE** 220, 915, 921. **KW** Social Security. Pensions. Survey of Consumer Finances. Household Portfolios. Life-Cycle Saving Model.

AB This paper presents some initial findings from the 1983 Survey of Consumer Finances on the role of pensions and social security on the size and composition of household portfolios. Reduced form regression models for several different measures of nonpension wealth are estimated using a sample of households headed by persons

50 years of age or older who are in the labor force but are not self employed. Results provide some support for the prediction of the simple life-cycle saving model that pensions and social security reduce discretionary saving. They suggest substantial substitution between nonpension wealth and retirement saving in the form of pensions and thrift assets in households with married heads. A one-dollar increase in the amount of thrift assets reduces nonpension network by \$1.20, and a one-dollar increase in pension wealth reduces nonpension net worth by \$0.66. Coefficients for social security wealth are small in size and are not significantly different from zero, suggesting little substitution between social security wealth and nonpension wealth.

PD August 1986. **TI** Market Discipline in Regulating Bank Risk: New Evidence From the Capital Markets. **AU** Avery, Robert; Belton, Terrence M.; Goldberg, Michael A. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Research Paper in Banking and Financial Economics: 86; Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 17. **PR** No Charge. **JE** 310, 312. **KW** Subordinated Notes and Debentures. Bank Capital Requirements. **FDIC**. **AB** The potential for bank subordinated notes and debentures (SNDs) to enhance market discipline is a key factor behind a recent proposal by the FDIC to increase total bank capital requirements from six to nine percent of assets with SNDs permitted to satisfy up to one-third of this requirement. This study attempts to evaluate the potential market discipline of SNDs by analyzing empirically the sensitivity of the interest rate spread between bank-related debt and comparable Treasury securities to measures of bank risk including balance sheet measures and bond agency ratings. The analysis indicates that the market discipline benefits of the FDIC's proposal appear to be relatively small in that the interest rate spread between bank holding company debt and Treasury yields is generally insensitive to measures of bank balance sheet risk. Moreover, while the spread does appear to vary weekly with Moody's and Standard and Poor's ratings, it does not appear related to an index recently proposed by the FDIC as the basis for determining risk-adjusted deposit insurance assessments. Therefore, even if the bond rating agencies could induce bankers to behave in a particular way, it is not clear that this induced behavior would be viewed by regulators as consistent with their standards of safety and soundness.

Baack, Jane

TI Dual Career Couples: Anxiety of MBA Couples Compared with Traditional Couples. **AU** Harrell, Thomas W.; Baack, Jane.

Babcock, Bruce A.

PD June 1985. **TI** Input Allocation under Uncertainty: An Expected-Utility, Moment-Generating Function Approach. **AU** Babcock, Bruce A.; Chalfant, James A.; Collender, Robert N. **AA** Babcock and Chalfant: University of California at Berkeley. Collender: North Carolina State University. **SR** University of California at Berkeley Department of Agricultural and

Resource Economics (CUDARE) Working Paper: 370; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 17. **PR** No Charge. **JE** 026, 022. **KW** Yield Distributions. Risk Analysis. Expected Utility Moment Generating Function. Stochastic Production.

AB Characterizing yield distributions with higher order moments which are functions of input levels is crucial in risk analysis. The expected utility moment-generating function technique effectively incorporates recent work on modeling stochastic production into a micro-decision framework that allows the allocation of land and the level of variable inputs to be chosen simultaneously. This paper provides a discussion and an application of the technique.

Bachem, A.

PD October 1985. **TI** On Sticky Matroids. **AU** Bachem, A.; Kern, W. **AA** University of Cologne. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: 85.18; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 9. **PR** No Charge. **JE** 213. **KW** Sticky Conjecture. Geometric Lattice.

AB The "sticky conjecture" states that a geometric lattice is modular if and only if any two of its extensions can be "glued together". It is known to be true as far as rank 3 geometries are concerned. In this paper we show that it is sufficient to consider a very restricted class of rank 4 geometries in order to settle the question. As a corollary we get a characterization of uniform sticky matroids, which has been found by POLJACK and TURZIK in 1984.

Baillie, Richard T.

PD April 1986. **TI** Inference in Dynamic Models Containing 'Surprise' Variables. **AA** University of California at San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 86-14; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 19. **PR** \$2.00; make cheques payable to University of California Regents. **JE** 211. **KW** Macroeconomic Shocks. Surprise Variables. Limiting Distribution.

AB This paper shows how the coefficients associated with surprise variables in a model can be obtained as a reparameterization of the parameters of a vector linear time-series model, and derives the appropriate limiting distribution of such estimates. The technique avoids problems of adjusting standard errors and automatically generates expectations conditional on the past history of the process under consideration. In particular, the difference between the rational expectation of a variable and its outcome several periods later is decomposed into separate component moving average processes associated with surprises on a set of different variables. A potential disadvantage with the technique is that it requires the specification of a complete multivariate time series model, rather than just being based on single-equation estimation as in previous studies. However, the technique does have the advantage of dealing simply with situations where the surprise or news variable is formulated over a multi-step interval and where the errors to such an equation are autocorrelated.

Barsky, Robert B.

PD May 1986. TI The Fisher Hypothesis and the Forecastability and Persistence of Inflation. AA University of Michigan. SR National Bureau of Economic Research Working Paper: 1927; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$2.00. JE 134, 132, 310, 041, 023. KW Inflation. Fisher Effect. Theil Misspecification Theorem.

AB For the period 1860 to 1939, the simple correlation of the United States commercial paper rate with the contemporaneous inflation rate is $-.17$. The corresponding correlation for the period 1950 to 1979 is $.71$. Inflation evolved from essentially a white noise process in the pre-World War I years to a highly persistent, nonstationary ARIMA process in the post-1960 period. I argue that the appearance of an ex post Fisher effect for the first time after 1960 reflects this change in the stochastic process of inflation, rather than a change in any structural relationship between nominal rates and expected inflation. I find little evidence of inflation non-neutrality in data from the gold standard period. This contradicts the conclusion of a frequently cited study by Lawrence Summers, who examined the low frequency relationship between inflation and interest rates using band spectrum regression. Deriving and implementing a frequency domain version of the Theil misspecification theorem, I find that neither high frequency nor low frequency movements in gold standard inflation rates were forecastable. Thus even if nominal rates responded fully to expected inflation, one would expect to find the zero coefficient obtained by Summers.

Beaumont, Nicholas B.

PD July 1986. TI Efficient Treatment of Sets of Alternative Constraints in Linear Programming. AA Monash University. SR Monash Department of Econometrics and Operations Research Working Paper: 7/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 24. PR No Charge. JE 213. KW Disjunctive Algorithm. Mathematical Programming. Sets of Alternative Constraints. Special Ordered Set Type I.

AB Traditionally, in mathematical programming logical combinations of constraints (most commonly a fixed cost is incurred or production is zero) are expressed by introducing binary variables whose arbitration forms a tree. It is shown that one can arbitrate logical combinations without introducing binary variables. The problem at each node of the tree is appreciably smaller and the formulation is simplified. It is possible, and may be useful, to generalise the SOS1 concept.

Beenstock, Michael

PD April 1986. TI The Determinants of the Money Multiplier in the United Kingdom. AU Beenstock, Michael; Chan, Kam Fai. AA The City University Business School. SR Centre for Economic Policy Research Discussion Paper: 106; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y

6LA, ENGLAND. PG 24. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 311, 122, 312. KW Money Multiplier. United Kingdom. Money Supply. Bank Deregulation.

AB We use annual data drawn from 1950-85 to estimate an econometric model of the money multiplier for the United Kingdom. We define the money multiplier as ratio of the money stock broadly defined ($M3$) and the monetary base ($M0$), and then decompose the multiplier into the currency ratio, the time deposit ratio and the reserve ratio. We find that the multiplier has been increased by institutional changes. These have arisen as banks have been deregulated and as they have competed for sight deposits by offering interest-bearing accounts. We find that the multiplier increases as interest rates rise because the demand for cash and the demand for bank reserves fall. The money multiplier also varies directly with the level of economic activity. An increase in the demand for money would therefore lead to an increase in the money supply, assuming that the monetary base ($M0$) is unchanged.

Beller, Andrea H.

TI The Effect of Child Support Payments on the Labor Supply of Female Family Heads. AU Graham, John W.; Beller, Andrea H.

Belton, Terrence M.

TI Market Discipline in Regulating Bank Risk: New Evidence From the Capital Markets. AU Avery, Robert; Belton, Terrence M.; Goldberg, Michael A.

Benard, J.

PD 1986. TI Politique de Prix et Optimum Second (Price Policy and Second Best Optimum). AU Benard, J.; Chiappori, P. A. AA Benard: CEPREMAP. Chiappori: ENS. SR CEPREMAP Discussion Paper: 8604; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 25. PR \$20.00. JE 022, 323, 921. KW Second Best Optimum. Optimal Tax-Subsidies. Qualitative Matrices. Price Policy.

AB This paper aims at defining, in a social welfare 2nd best optimizing model with n goods, the signs of optimal tax-subsidies when arbitrary taxes or subsidies are put upon some goods. We could demonstrate that, if the whole set of goods can be partitioned into two subsets, each of them made exclusively of substitutable goods, these goods being complementary of those pertaining to the other subset, and reciprocally (these substitution-complementarity characteristics being valid as well for production as for consumption), every tax (subsidy) on a good included in one subset must optimally be compensated not only by the taxation (subsidisation) of its substitutes but also by the subsidisation (taxation) of its complements. If this "MORISHIMA bipartition" is possible only for consumption or for production, but not for both, conclusions are weaker but still remain interesting. If no such bipartition is possible, nothing can be predicted about the signs of optimal taxes and we are left with the numerical resolution of the model. The paper ends with some statistical checking of MORISHIMA bipartition from "complete demand systems" built on British, Dutch and German data in the seventies by various authors. (Paper in French.).

Benveniste, Lawrence M.

PD June 1986. TI Decentralized Credit Markets With Intermediaries: A Relationship Between Complete and Efficient Markets. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Research Paper in Banking and Financial Economics: 84; Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 26. PR No Charge. JE 314, 021, 213. KW Intermediaries. Arbitrage. Efficient Markets. Financial Instruments. General Equilibrium Credit Market.

AB This paper presents an explicitly decentralized general equilibrium credit market where intermediaries represent local Walrasian auctioneers. The intermediaries' role is to repackage the dividends of an incomplete set of financial instruments, thereby enlarging the set of financial contracts, possibly completing the market. Then, in the context of this model, the power of individual arbitrage to ensure efficient credit pricing when market participation is incomplete is related to the market spanning condition that characterizes complete markets.

PD July 1986. TI An Empirical Analysis of Standby Letters of Credit. AU Benveniste, Lawrence M.; Berger, Allen N. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Research Paper in Banking and Financial Economics: 85; Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 18. PR No Charge. JE 312. KW Standby Letters of Credit. Collateralization. Market Discipline. Moral Hazard.

AB A Standby Letter of Credit (SLC) is shown to be an effective substitute for a combination of a deposit and loan on bank's balance sheet. Two advantages of SLCs are i) the lender is collateralized against the failure of the bank and ii) a regulatory framework that subsidizes the substitution of SLCs for conventional financing. Three hypotheses about the relationship between the use of SLCs and the credit risk of the bank backing the SLCs are tested. The collateralization hypothesis, that riskier banks gain more from collateralizing their existing uninsured depositors from the bank's failure than safer banks, appears to dominate the decision to issue SLCs. The market discipline hypothesis, that riskier banks are more restricted than safer banks in the issue of SLCs to outside investors, appears to dominate the decisions over how many SLCs are issued. Thus, riskier banks are more likely to issue SLCs, but generally issue them in lower volume than relatively safer banks. Finally, the moral hazard hypothesis, that banks that have secret information about their own riskiness may fool unknowing lenders into accepting too many SLCs, does not appear to have applied to recent bank failures, with one important exception.

Bera, Anil K.

PD June 1986. TI A Note on the ARCH Effects in Hedge Ratio Estimation: Stock Index Futures. AU Bera, Anil K.; Park, Hun; Bubnys, Edward. AA Bera: Department of Economics, University of Illinois at Urbana-Champaign. Bubnys: Department of Finance,

Memphis State University. Park: Department of Finance, University of Illinois at Urbana-Champaign. SR University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1265; Department of Economics, University of Illinois at Urbana-Champaign, 1206 S. 6th Street, Champaign, IL 61821. PG 19. PR No Charge. JE 313, 211, 520. KW ARCH Model. Hedge Ratio. Heteroscedasticity.

AB This paper investigates the validity of the simple OLS model developed by Johnson (1960) and Stein (1961) and used by numerous subsequent studies to estimate the optimal hedge ratio using futures contracts. Focusing on the variance structure of the model, this paper provides some theoretical reasons for possible existence of heteroscedasticity (conditional as well as unconditional). Using data on three index futures we find significant heteroscedasticity and non-normality in the conventional model. Alternative hedge ratios are obtained using an autoregressive conditional heteroscedastic (ARCH) model. Information provided by empirical results in this paper suggests the importance of taking account of the ARCH effects in estimating the optimal hedge ratio.

Berger, Allen N.

PD January 1986. TI Competitive Viability In Banking: Scale, Scope, and Product Mix Economies. AU Berger, Allen N.; Hanweck, Gerald A.; Humphrey, David B. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Research Paper in Banking and Financial Economics: 82; Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 58. PR No Charge. JE 312. KW Scale Economies. Scope Economies. Banking.

AB This study of competitive viability in banking develops two new measures of scale and product mix which, along with the traditional measures of ray scale and scope economies, are used to investigate the cost behavior of different sized banks. The analysis is performed at the plant or banking office level and for the entire banking firm and for unit state and branching state banks separately, both using two approaches to measuring bank output and costs. Cross-section Functional Cost Analysis data for 1983 are used. Banks of all sizes in branching states are found to be competitively viable but large banks in unit states are not, due to scale diseconomies at overcongested unit banking offices. The slight product mix and scope diseconomies found for both types of banks are consistent with the observation that bank customers demand banking products jointly and that incentives exist to hold a diverse set of assets and liabilities to reduce default and interest rate risks. The results taken as a whole suggest that banks in branching states can withstand the increased competitive pressure from interstate banking, but that large unit state banks may have to alter their output configurations to survive interstate banking. The lack of scope economies is consistent with prior findings for savings and loans, but differs from other banking studies that find scope economies. However, the prior banking scope economy results may be due to methodological difficulties.

TI An Empirical Analysis of Standby Letters of Credit.

AU Benveniste, Lawrence M.; Berger, Allen N.

Berkowitz, M. K.

PD July 1985. TI A Disaggregate Analysis of Multi-Vehicle Holdings, Usage, and Gasoline Demand. AU Berkowitz, M. K.; Gallini, N. T.; Miller, E. J.; Wolfe, R. A. AA Berkowitz; Gallini: Department of Economics, University of Toronto. Miller: Department of Civil Engineering, University of Toronto. Wolfe: Commerce Department, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8508; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 46. PR No Charge. JE 921, 723. KW Nested Logit. Gasoline Demand. Derived Demand for Gasoline.

AB In this paper, we develop a framework for estimating the demand for gasoline that is derived from disaggregated vehicle holdings and usage decisions. The model considers three decisions made by the household: vehicle holdings, mode to work, and non-work usage, where the choices made are the outcomes of a utility-maximization problem. From these choices of vehicle type and desired usage, fuel consumption by the household is derived. While in the rich tradition of other discrete/continuous choice models, the model presented in this paper offers several extensions to prior studies: First, the work-mode decision in our model provides a careful distinction between discretionary and non-discretionary uses of the vehicle not previously considered in the literature. This submodel at the household level jointly determines mode choices for up to two household workers. Second, the theoretical treatment of multi-vehicle households allows symmetric non-work vehicle usage equations for each vehicle in the household. Third, in contrast to most other vehicle demand and usage studies, the data collection instrument used in this study was designed specifically to collect the data required for estimating the model, not vice versa. The final contribution of the paper is the analysis of the derived demand for gasoline. In doing so, we go one step beyond estimation of the vehicle holdings-mode choice-usage model to predict gasoline consumption for changes in alternative policy instruments.

Bernanke, Ben

PD July 11, 1986. TI Alternative Nonnested Specification Tests of Time Series Investment Models. AU Bernanke, Ben; Bohn, Henning; Reiss, Peter C. AA Stanford University Graduate School of Business. SR Stanford Graduate School of Business Research Paper: 890; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 43. PR No Charge. JE 023, 212, 522. KW Nonnested Tests. Investment. Monte Carlo. First Order Serial Correlation. Aggregate Investment Demand. Accelerator Model of Investment.

AB This paper develops and compares nonnested hypothesis tests for linear regression models with first-order serially correlated errors. It extends the nonnested testing procedures of Pesaran, Fisher and MacAleer, and Davidson and MacKinnon, and compares their performance on four conventional models of aggregate investment demand using quarterly United States

investment data from 1951:I to 1983:IV. The data and the nonnested hypothesis tests initially indicate that no model is correctly specified. The tests are also intransitive in their assessments. Before rejecting these conventional models of investment demand, we investigate the small sample properties of these different nonnested test procedures through a series of Monte Carlo studies. We find that nonnested tests for models without serially correlated residuals have significant finite sample size and power biases. These biases persist, but are somewhat diminished, for nonnested tests that recognize serial correlation in the disturbances. The direction of the bias in the size is toward rejection of the null model, although it varies considerably by the type of test and estimation technique. After revising our critical levels for this finite sample bias, we conclude that the accelerator model of equipment investment cannot be rejected by any of the other alternatives.

Berndt, Ernst R.

PD January 1986. TI Productivity Measurement with Adjustments for Variations in Capacity Utilization and other Forms of Temporary Equilibrium. AU Berndt, Ernst R.; Fuss, Melvyn A. AA Fuss: Department of Economics, University of Toronto. Berndt: Massachusetts Institute of Technology. SR University of Toronto Institute for Policy Analysis Working Paper: 8602; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 32. PR No Charge. JE 226. KW Productivity. Capacity Utilization. Temporary Equilibrium.

AB One of the most persistent puzzles addressed by recent productivity research is the substantial decline in measured productivity growth during the 1970's. In this paper we trace a substantial part of the measured decline to the fact that traditional methods of productivity measurement assume that producers are in long-run equilibrium when in fact they may be in short-run or temporary equilibrium. We utilize the Marshallian framework of a short-run production or cost function with certain inputs quasi-fixed to provide a theoretical basis for accounting for temporary equilibrium. Within this theoretical framework it is the value of services from stocks of quasi-fixed inputs which should be altered rather than the quantity. The empirical application to United States manufacturing data 1958-81 shows that, depending on the measurement procedure, one can attribute somewhere between 18 per cent and 65 per cent of the traditionally measured decline in TFP growth between 1965-73 and 1973-81 to the effects of temporary equilibrium.

Berrebi, Z. M.

PD January 1986. TI Interquartile Differences, Income Inequality Measurement and the Gini Concentration Index. AU Berrebi, Z. M.; Silber, Jacques. AA Department of Economics, Bar Ilan University. SR University of Southern California Modelling Research Group Working Paper: M8606; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 7. PR No Charge. JE 225, 023. KW GINI Coefficient. Income Distribution. Inequality.

AB This paper studies the properties of a new income

inequality index, I , which is equal to the sum of the squares of the symmetric interquartile share differences. I verifies most of the desired properties of an income inequality index. It will also be shown that it is closely related to Gini's concentration index. In a section at the end of the paper, an illustration is presented using data on the income distribution in various countries in 1968.

Bester, Helmut

PD April 1986. TI Bargaining, Search Costs and Equilibrium Price Distribution. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 49; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 26. PR No Charge. JE 020, 022. KW Bargaining Game. Equilibrium. Monopoly Price Paradox.

AB The paper presents a bargaining approach to equilibrium price dispersions. Consumers choose a seller at random and face search costs to switching to another store. The usual assumption that consumers are price takers is replaced by a bargaining game in which the buyer has the outside option to switch to another seller. In the market equilibrium, the prices at all stores are determined simultaneously as the perfect equilibrium of this game. Differences between the sellers' types create price dispersions; typically the number of active sellers increases with higher search costs. When search costs become small the market equilibrium converges to the competitive equilibrium under perfect information. Thus, the paper provides a solution to Diamond's (1971) monopoly price paradox.

PD May 1986. TI Open Market Operations and the Nonneutrality of Money. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 55; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 25. PR No Charge. JE 024, 311. KW Open Markets. Welfare Maximizing Monetary Policy. Monetary Policy. Nonneutrality of Money.

AB This paper analyzes open market operations and welfare in the steady state. Because of imperfections in credit and futures markets, optimizing agents hold both fiat money and a productive asset with different rates of return. Open market operations consist of government purchases of the productive asset and selling its return for money. They are shown to affect private consumption and portfolio holdings in the steady state. The welfare maximizing monetary policy uses open market operations to deflate the supply of money and the price level.

Bhagwati, Jagdish N.

PD February 1986. TI Quid Pro Quo Foreign Investment and Optimal Policy Intervention. AU Bhagwati, Jagdish N.; Brecher, Richard A.; Dinopoulos, Elias.; Srinivasan, T. N. AA Bhagwati: Columbia University. Brecher: Carleton University. Dinopoulos: Michigan State University. Srinivasan: Yale University. SR Columbia Department of Economics Working Paper: 323; Department of Economics, Columbia University, New York, NY 10027. PG 17. PR \$5.00. JE 441, 411, 422. KW Direct Foreign Investment.

Trade Restrictions. Quid Pro Quo Foreign Investment. Policy Intervention.

AB This analysis formalizes quid pro quo DFI within the framework of the two-period analysis of threatened trade restrictions that was introduced by Bhagwati and Srinivasan (1976). It indirectly serves also to generalize the well-known one-period, myopic-optimization analysis by Kemp (1966) and Jones (1967) of optimal policy intervention in an open economy with capital mobility.

PD July 1986. TI Quid Pro Quo Foreign Investment and Welfare: A Political-Economy-Theoretic Model. AU Bhagwati, Jagdish N.; Brecher, Richard A.; Dinopoulos, Elias.; Srinivasan, T. N. AA Bhagwati: Department of Economics, Columbia University. Brecher: Department of Economics, Carleton University. Dinopoulos: Department of Economics, Michigan State University. Srinivasan: Department of Economics, Yale University. SR Michigan State Econometrics and Economic Theory Workshop Paper: 8602; Department of Economics, Michigan State University, East Lansing, MI 48824. PG 16. PR No Charge. JE 420, 411, 441. KW Direct Foreign Investment. Quid-pro-quo. Future Protection. Political Economy. National Welfare.

AB The paper analyzes the phenomenon of direct foreign investment (DFI) aiming at defusing the threat of future protection by the host country (quid pro quo). A two-period, two-country general-equilibrium model is used with perfect capital mobility and perfect competition in all markets. The home-country's optimal policies with regard to its trade and direct foreign investment are analyzed in the above framework.

Bicchieri, Cristina

PD April 1986. TI Should a Scientist Abstain from Metaphor?. AA Columbia University. SR Columbia Department of Economics Working Paper: 326; Department of Economics, Columbia University, New York, NY 10027. PG 18. PR \$5.00. JE 011. KW Economic Metaphors.

AB According to McCloskey, because economists make extensive use of metaphors and analogies, they are rhetoricians. Maybe they are. But are metaphors only literary devices? Is that true that there is no difference between poetic and economic metaphors, as he repeatedly claims? Are metaphors merely ornamental, or do they convey some knowledge? I believe that they do, and that this is the reason why some of them persuade. Such is the point of this paper.

Blackorby, Charles

PD March 1986. TI Money Metric Utility: A Harmless Normalization?. AU Blackorby, Charles; Donaldson, David. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 86-09; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 19. PR \$0.20 per page Canadian to other than educational institutions. JE 024. KW Money Metrics. Utility.

AB We show, in this note, that money metrics are not concave for arbitrary reference price vectors unless household preferences are homothetic (when the

consumption set is bounded away from the origin). This non-concavity may result in social judgements that contradict normal distributional judgements.

PD June 1986. **TI** Testing for the Existence of Input Aggregates in an Economy Production Function. **AU** Blackorby, Charles; Schworm, William; Fisher, Timothy. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-26; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 55. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 022, 631. **KW** Separability. Functional Forms. Input Aggregation. **AB** In this paper, we present procedures for testing and imposing flexible separability structures on aggregate production data. We emphasize the distinction between separability conditions and conditions sufficient for the existence of input aggregates in an economy and show that separability and aggregation restrictions differ unless there are no fixed factors for firms. In this paper, we use the example of output as a factor that may be fixed for firms. The fixity of any input in production, however, would also cause a distinction between separability and aggregation conditions. We use aggregate manufacturing data for four inputs: capital, labour, energy, and materials, and assume that the technology of United States Manufacturing can be described by a production function with these four input aggregate as arguments. This is true only if firms in United States Manufacturing satisfy the restrictive conditions stated in Theorem 1 for these four input aggregates. If we assume that all types of disaggregated inputs are efficiently allocated among firms, then separability restrictions are sufficient for the existence of aggregates in United States Manufacturing. Therefore, the general model in these aggregate input measures need not satisfy any restrictions other than the usual regularity conditions for a production function or a cost function. While our general model may be false, it is theoretically consistent with a story about aggregation.

PD August 1986. **TI** Necessary and Sufficient Conditions for Factor Price Equalization. **AU** Blackorby, Charles; Schworm, William; Venables, Anthony. **AA** Blackorby and Schworm: Department of Economics, University of British Columbia. Venables: Department of Economics, University of Sussex. **SR** University of British Columbia Department of Economics Discussion Paper: 86-28; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 15. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 411. **KW** Factor Price Equalization. Behavioral Equation Restrictions. **AB** In this paper, we present necessary and sufficient conditions for factor price equalization in terms of an economy's revenue function and production function and in terms of the firms' revenue and production functions. From these characterizations, one can easily derive restrictions on behavioral equations in the economy. In particular, one can obtain the restrictions on the factor demand equations or equilibrium wage equations and the supply of traded goods equations that are necessary and sufficient for FPE. As a consequence, the conditions

presented in this paper are in a form useful for empirical work.

Blinder, Alan S.

PD May 1986. **TI** More on the Speed of Adjustment in Inventory Models. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 1913; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** \$2.00. **JE** 212, 132. **KW** Partial Adjustment Models. Inventory Models. Stock-Adjustment Models. **AB** When empirical stock-adjustment models of manufacturers' inventories of finished goods are estimated, there appear to be two local minima in the sum of squared residuals functions. At one local minimum, the estimated adjustment speed is typically quite high; at the other, it is typically quite low. Furthermore, finding two sets of estimates that fit the data almost equally well does not appear to be a quirk of this particular application. Rather, it stems from a fundamental identification problem that afflicts partial adjustment models of all kinds. In the specific context of manufacturers' inventories of finished goods, the estimation procedure employed by Maccini and Rossana seems to pick out the solution with rapid adjustment (and high serial correlation in the disturbances) whereas the solution with slow adjustment (and little serial correlation) is more often the global minimum.

Boadway, Robin

TI Social Security and the Failure of Annuity Markets. **AU** Townley, Peter; Boadway, Robin.

Bohn, Henning

TI Alternative Nonnested Specification Tests of Time Series Investment Models. **AU** Bernanke, Ben; Bohn, Henning; Reiss, Peter C.

Boothe, Paul

PD April 1985. **TI** Off the Mark: Lessons for Exchange Rate Modelling. **AU** Boothe, Paul; Glassman, Debra. **AA** Boothe: University of Alberta. Glassman: University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-14; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. **PG** 20. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 431. **KW** Non-Stationary Exchange Rates. Exchange Rate Determination. Monetary Models of Exchange Rates.

AB The major findings of this paper can be summarized as follows. The conventional version of the monetary model, as estimated by (for example) Frankel (1979), never actually enjoyed the empirical support originally ascribed to it. Its apparent support came from a combination of arbitrary static and dynamic restrictions which masked the problems stemming from the non-stationarity of exchange rates. A subsequent 'revival' of the model which relaxed the static restrictions also failed to address the issues of dynamic restrictions and non-stationarity. Finally, estimation of a more general, dynamic version of the model both rejects the dynamic

restrictions and reveals a lack of support for one of the central propositions of the monetary theory: the long-run proportionality of the exchange rate to relative money demands.

Boskin, Michael

PD May 1986. **TI** Poverty Among the Elderly: Where are the Holes in the Safety Net?. **AU** Boskin, Michael; Shoren, John B. **AA** Boskin; Shoven: Stanford University. **SR** National Bureau of Economic Research Working Paper: 1923; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** 914, 918, 915, 320. **KW** Elderly. Poverty. Social Security.

AB Using data from the longitudinal retirement history survey (RHS), we examine the economic status of the cohort of the elderly who were 68 - 73 years old by 1979 to see who fell through the safety net in the 1970s. Our most important finding is that a non-trivial fraction of the elderly in the age/vintage group we study either remained poor, became poor, or had very low replacement rates in terms of their total income. This occurred despite the enormous general improvement of the economic status of the elderly, part of which was made possible by very large increases in real Social Security benefits. Examination of the characteristics of those who fell through the safety net reveal that females, especially widows, were the most likely candidates for economic difficulty in this cohort in this stage of their life. We also note a sharp difference in realizations of retirement income expectations among those who were poor and/or had low replacement rates relative to those who were well off and/or had high replacement rates. Both groups received substantially more Social Security benefits than expected, whereas those with (ex post) low replacement rates received less in pensions and continued earnings than they had expected while those with high replacement rates received more than expected.

Bover, Olympia

TI Liquidity Constraints and Aggregation in the Consumption Function under Uncertainty. **AU** Muellbauer, John; Bover, Olympia.

TI Estimating Contaminated Limited Dependent Variable Models. **AU** Arellano, Manuel; Bover, Olympia.

PD August 1986. **TI** Some Dynamic Life-Cycle Models of Labour Supply Estimated from Panel Data. **AA** Nuffield College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 13; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL. **PG** 28. **PR** No Charge. **JE** 211, 841, 824. **KW** Labour Supply. Dynamic Models. Panel Data.

AB This paper relaxes the assumption of separability of preferences over time which, although implausible, is usually maintained in life-cycle labour supply models. Three models are presented: a simple partial adjustment specification and two habit models (myopic and rational), the latter being regarded as rationalisations of the former but all leading to similar empirical specifications. The estimation is based on a ten year sample of men from the Michigan Panel of Income Dynamics. The effect of past hours of work in determining current hours decision is

found to be very important and well determined, having allowed for permanent individual differences. The estimates of the short run elasticity range from 0.1 to 0.27 and the estimates of the elasticities of permanent changes in the wage profile range from -0.03 (for a change in the slope of the wage profile) to -0.27 (for a change in the intercept).

Bowen, Harry P.

PD May 1986. **TI** Multicountry, Multifactor Tests of the Factor Abundance Theory. **AU** Bowen, Harry P.; Leamer, Edward E.; Sveikauskas, Leo. **AA** Bowen: New York University. Leamer: University of California, Los Angeles. Sveikauskas: R.P.I. **SR** National Bureau of Economic Research Working Paper: 1918; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$2.00. **JE** 411, 421. **KW** Trade. Commodity Trade. Factor Abundance Theory.

AB This paper presents conceptually correct tests of the Heckscher-Ohlin proposition that trade in commodities can be explained in terms of an interaction between factor input requirements and factor endowments. We derive an exact specification of the H-O interaction in a multicountry, multicommodity, multifactor world in the form of the Heckscher-Ohlin-Vanek (H-O-V) theorem which equates the factors embodied in net trade to excess factor supplies. This theorem implies sign and rank propositions analogous to those implicitly studied by Leontief, but it also implies hypotheses about the parameters linking factor contents and factor supplies. Accordingly, we conduct tests of the sign and rank propositions as well as several parametric hypotheses which permit various assumptions about measurement errors, nonproportional consumption and technological differences. Our analysis uses separately measured data on trade, factor input requirements and endowments for twenty-seven countries and twelve factors in 1967.

Braid, Ralph M.

PD March 1986. **TI** Duopoly Pricing of Congested Facilities. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 322; Department of Economics, Columbia University, New York, NY 10027. **PG** 14. **PR** \$5.00. **JE** 022. **KW** Congestion. Congestion Costs.

AB This paper examines duopoly pricing of congested facilities. Efficient pricing of congested facilities requires a price that is equal to the external congestion costs imposed on other users by the marginal user. The Nash equilibrium duopoly price lies between external congestion costs and twice external congestion costs.

Brau, Eduard

PD July 1986. **TI** Export Credits: Developments and Prospects. **AU** Brau, Eduard; Dillon, K. Burke; Puckahtikom, Chanpen; Xafa, Miranda. **AA** International Monetary Fund. **SR** International Monetary Fund World Economic and Financial Survey: 7-86-A; International Monetary Fund, Washington, D.C. 20431. **PG** 34. **PR** \$10.00 (\$6.00 to university libraries, faculty, students). **JE** 420, 431. **KW** Export Credit. Export Cover. International Credit Flows.

International Trade. Industrial Countries.

AB During the next several years, it is expected that the demand for export credits and cover from official agencies will continue to increase, as will their relative importance in financing flows to developing countries. This paper is an update of export credit agencies' policies and practices and their implications for near-term export credit flows. The work is based on recent Fund staff discussions with export credit authorities of the ten major industrial countries. The paper emphasizes the role of export credits in the current international debt situation and notes in particular the increased flexibility which has permitted export credit authorities to respond to the adjustment efforts of debtor countries. The maintenance or resumption of official export credits and cover has been helpful to the adjustment efforts by assuring vital short-term trade credits and facilitating importation of capital goods necessary to renew growth.

Braverman, Avishay

PD March 1986. **TI** Rural Credit Markets and Institutions in Developing Countries: Lessons for Policy Analysis from Practice and Modern Theory. **AU** Braverman, Avishay; Guasch, J. Luis. **AA** Braverman: World Bank. Guasch: University of California at San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 86-6; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 37. **PR** \$2.00; make cheques payable to University of California Regents. **JE** 718, 315. **KW** Rural Credit Subsidization. Rural Financial Institutions. Theory of Incentives. Credit Markets. Policy.

AB This paper's purpose is to explore potentially sound methodologies for formulating effective rural credit policies in light of practical experience and new developments in theory. It is structured as follows: The first section summarizes the conclusions regarding the impact of rural credit subsidization and the funding of rural financial institutions in LDCs from case studies over the last two decades. The second section compares this evidence with the insights provided by the modern theory of incentives and credit markets. Finally, the third section suggests conceptual frameworks for: (i) a methodology for credit policy analysis which allows comparison with other policy instruments and (ii) a methodology for analyzing reforms of rural financial institutions.

Brecher, Richard A.

TI Quid Pro Quo Foreign Investment and Optimal Policy Intervention. **AU** Bhagwati, Jagdish N.; Brecher, Richard A.; Dinopoulos, Elias.; Srinivasan, T N.

TI Quid Pro Quo Foreign Investment and Welfare: A Political-Economy-Theoretic Model. **AU** Bhagwati, Jagdish N.; Brecher, Richard A.; Dinopoulos, Elias.; Srinivasan, T. N.

Brems, Ulla

TI The Controversial Norwegian Value Added Tax. **AU** Due, John F.; Brems, Ulla.

Breyer, Stephen

PD July 1986. **TI** Regulation. **AU** Breyer, Stephen; MacAvoy, Paul W. **AA** Breyer: United States Court of Appeals for the First Circuit, Boston. MacAvoy: Graduate School of Management, University of Rochester. **SR** University of Rochester Center for Research in Government Policy and Business Working Paper: PPS 86-03; Graduate School of Management, University of Rochester, Rochester, NY 14627. **PG** 23. **PR** No Charge. **JE** 613. **KW** Regulation. Regulatory Behavior.

AB Written for the "New Palgrave", this essay surveys economic theories of regulatory effects and validates these theories from empirical studies of regulatory behavior in the 1970's and 1980's. Deregulation is explained in this context.

Broadman, Harry G.

PD February 1986. **TI** Natural Gas Deregulation: A Study of Recurring Regulatory Reform. **AA** Energy and Environmental Policy Center, Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-86-05; Energy and Environmental Policy Center, J. F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 35. **PR** \$10.00. **JE** 113, 613, 721. **KW** Natural Gas. Regulation.

AB Like attempts at achieving effective regulation of economic activity where it is warranted, deregulation can entail hidden complexities and produce unintended outcomes. The principle that deregulation begets "second order" effects that may necessitate further regulatory reform is epitomized in the case of natural gas. This article shows how deregulation of natural gas wellhead markets under the Natural Gas Policy Act of 1978 resulted in a variety of distortions to emerge in other segments of the industry. It is argued that because the distortions are mutually reinforcing, no single policy, like immediate decontrol of "old" gas or subjecting pipeline companies to common carrier obligations, will solve all of them; rather an integrated program of regulatory reform is required. The article concludes by outlining such a program and commenting on how its implementation through administrative and legislative actions should be carried out in order to reduce the need for further reform in the future.

Brown, Scott J.

TI A Comparison of Adaptive Structural Forecasting Methods for Electricity Sales. **AU** Engle, Robert F.; Brown, Scott J.; Stern, Gary.

Broze, L.

PD December 1985. **TI** Reduction and Identification of Simultaneous Equations Models with Rational Expectations. **AU** Broze, L.; Gourieroux, C.; Szafarz, A. **AA** Gourieroux: CEPREMAP. Broze & Szafarz: CEME, Bruxelles. **SR** CEPREMAP Discussion Paper: 8601; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 50. **PR** 20 FF. **JE** 211. **KW** Rational Expectations. Simultaneous Equations. Reduced Form. Identification.

AB In this paper we consider simultaneous equations models with rational expectations. Before considering

estimation or testing problems, it is necessary to solve the models in order to eliminate the unobservable expectations. This is a first step for determining the observable reduced form of a Rational Expectations model. Then, by comparing this reduced form to the initial structural model, it is possible to address the problem of identification. These two aspects, reduction and identification, are examined for a class of R.E. models containing both current and future expectations.

Bruce, Neil

PD June 5, 1986. TI The Rotten-Kid Theorem meets the Samaritan's Dilemma. AU Bruce, Neil; Waldman, Michael. AA Bruce: Department of Economics, Queen's University. Waldman: Department of Economics, University of California Los Angeles. SR Queen's Institute for Economic Research Discussion Paper: 650; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 24. PR \$2.50 Canada; \$3.00 United States; \$3.50 foreign. JE 020, 851. KW Rotten-Kid Theorem. Samaritan's Dilemma.

AB In his work on the family Becker considers a one period setting and derives what is referred to as the Rotten-Kid Theorem, i.e., a child will not behave in a manner which lowers the parent's income more than it raises the child's. Not captured in Becker's analysis of a single period model, however, is that the family environment can exhibit what others have referred to as the Samaritan's Dilemma. That is, children may consume too much in early periods because by doing so they can increase the income transfers they receive in later periods. In this paper we formally consider the role played by the Samaritan's Dilemma in the family environment and, in particular, how it interacts with the Rotten-Kid Theorem in a two period version of Becker's model.

Bubnys, Edward

TI A Note on the ARCH Effects in Hedge Ratio Estimation: Stock Index Futures. AU Bera, Anil K.; Park, Hun; Bubnys, Edward.

Buiter, Willem H.

PD February 1986. TI Borrowing to Defend the Exchange Rate and the Timing and Magnitude of Speculative Attacks. AA Department of Economics, Yale University. SR Centre for Economic Policy Research Discussion Paper: 95; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. PG 33. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 431, 133, 311, 321. KW Managed Exchange-Rate Regimes. Exchange Rates. Speculative Attack. Borrowing. AB The paper extends the recent literature on the collapse of managed exchange-rate regimes by allowing explicitly for the government budget constraint and the interest cost of servicing the public debt. The policy experiment analysed in this paper is the decision by a government to replenish its stock of foreign exchange reserves through a once-off open market sale of bonds. Without a fundamental fiscal correction (i.e. a decision to reduce the primary (non-interest) deficit by an amount equal to the increase in the interest cost of servicing the debt) the consequences of this policy are as follows: in a

deterministic model, the timing of the speculative attack is brought forward (delayed) if the borrowing takes place long before (close to) the date at which without borrowing the collapse would have occurred. The magnitude of the attack (the final loss of reserves) always increases because of borrowing. In a stochastic model, borrowing reduces the probability of an early collapse and increases the likelihood of a later collapse. Under mild conditions, the expected length of the time interval until the collapse occurs is increased by borrowing.

Cameron, Trudy Ann

PD June 1986. TI Efficient Estimation Methods for "Closed-Ended" Contingent Valuation Surveys. AU Cameron, Trudy Ann; James, Michelle D. AA Cameron: Department of Economics, University of California at Los Angeles. James: Department of Fisheries and Oceans, Canada. SR University of California at Los Angeles Department of Economics Working Paper: 404; Department of Economics, University of California at Los Angeles, Los Angeles, CA 90024. PG 31. PR \$2.50. JE 212, 720, 215. KW Contingent Valuation. Non-Market Resource Valuation. Limited Dependent Variables Models.

AB Policymakers are often faced with the need to assign an economic value to a non-market resource. Experimental techniques have demonstrated the usefulness of "closed-ended contingent valuation" surveys, where respondents merely state whether they would accept or reject a hypothetical threshold amount, either as payment for giving up access to the resource, or as a fee for use of the resource. The "yes/no" responses make discrete choice techniques appropriate for analysis. We develop a maximum likelihood estimation technique which exploits the variation in the threshold values suggested to each respondent to allow direct and separate point estimates of slope coefficients and error standard deviations in units comparable to the underlying unobserved valuation. The formulation incidentally reveals that ordinary probit analysis, with the threshold value as an explanatory variable, would yield the desired point estimates as simple functions of the probit parameters. To illustrate our estimation method, we use 4161 responses to an in-person survey of recreational sport-fishermen. We examine factors which influence individual willingness-to-pay and which therefore affect the aggregate social value of the resource.

PD June 1986. TI The Determinants of Value for a Recreational Fishing Day: Estimates from a Contingent Valuation Survey. AU Cameron, Trudy Ann; James, Michelle D. AA Cameron: Department of Economics, University of California at Los Angeles. James: Department of Fisheries and Oceans, Canada. SR University of California at Los Angeles Department of Economics Working Paper: 405; Department of Economics, University of California at Los Angeles, Los Angeles, CA 90024. PG 60. PR \$2.50. JE 720, 212, 215. KW Contingent Valuation. Non-market Resource Valuation. Limited Dependent Variables Models.

AB We first develop a theoretical model describing the process whereby the demand for recreational fishing days is derived from an angler's constrained utility maximization. Within this framework, we generate an empirical model which we subsequently apply to a sample of responses to a

"closed-ended contingent valuation" survey (where respondents merely state whether they would accept or reject a hypothetical threshold amount, either as payment for giving up the opportunity to fish, or as a fee for the right to fish.) We use a new estimation technique which exploits the varying threshold values to allow direct and separate point estimates of slope coefficients and error standard deviation in units comparable to the underlying unobserved valuation. Our dataset is unique in that it provides detailed objective characteristics of the angler and the catch, as well as the angler's subjective assessment of the current fishing day. We also supplement the data (by day and location) with detailed meteorological records which control for weather. Models for two distinct measures of valuation are estimated (willingness-to-pay and compensation demanded), both separately and jointly. The fitted models allow direct simulation of the effects of enhancement measures (or restrictions) upon recreational value. This capability makes our model valuable not only for cost-benefit analyses of enhancement projects, but also for decisions regarding the allocation of the resource between commercial and recreational fishermen.

PD August 1986. TI Utilizing "Closed-Ended" Contingent Valuation Survey Data For Preliminary Demand Assessments. AU Cameron, Trudy Ann; James, Michelle D. AA Cameron: University of California at Los Angeles. James: Department of Fisheries and Oceans, Canada. SR University of California at Los Angeles Department of Economics Working Paper: 415; Department of Economics, UCLA, Los Angeles, CA 90024. PG 27. PR \$2.50. JE 921, 211, 531. KW Demand Assessment. Contingent Valuation. Truncation Bias. AB Recently, experimental economists have demonstrated the usefulness of "closed-ended contingent valuation" surveys for the assessment of demands in hypothetical markets. The literature has focused upon valuing (non-market) environmental resources. However, the interviewing strategy would seem equally appropriate for more general market research applications. We have developed a new maximum likelihood estimation technique for use with this type of survey data which solves the problem of truncation bias and readily accommodates explanatory variables. Unlike earlier methods, the estimated models are as easy to interpret as ordinary least squares regression results.

Carr, J. L.

PD January 1986. TI Unlimited Liability as a Barrier to Entry. AU Carr, J. L.; Mathewson, G. F. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8603; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 44. PR No Charge. JE 611, 510. KW Liability Rules. Agency Theory. AB Is a rule that limits the liability of the owners of a firm to their invested capital more efficient than one which leaves unlimited the owners' liability? While most firms have the freedom to choose liability rules, this freedom is not universal. Some service professions such as accounting, architecture, law, medicine and stock brokering have mandated unlimited liability rules imposed by some governments; historical examples exist as well of unlimited

liability imposed on banks and manufacturing firms. What motivates such rules? What is their impact? Why have they changed? These are the questions we address in this paper. We build a simple illustrative model of the type of agency conflict that characterizes firms with separate ownership and managerial interests. Limited liability solves these potential conflicts in the most efficient fashion for both shareholders and creditors of firms. Unlimited liability rules have resource costs - they are inefficient. The model generates several potentially testable propositions. We test some of these predictions with three data sets - on 18th century Scottish banking, on 19th century Massachusetts textile firms and on United States law firms in 1977. All tests support our model. Conditional on our model, we offer a private interest explanation for the introduction of regulated liability rules and their changes.

Carrera, Carmen

PD June 16, 1986. TI Taxation and Corporate Policy Under Uncertainty. AA Universidad Complutense de Madrid. SR Queen's Institute for Economic Research Discussion Paper: 651; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 66. PR \$2.50 Canada; \$3.00 United States; \$3.50 foreign. JE 521, 022, 611. KW Taxation. Corporate Policy Under Uncertainty. Corporate Taxation.

AB This paper analyzes the firm's choices of capital stock and mode of finance under uncertainty in the presence of personal and corporate taxation. The model allows for full progressivity in personal taxation and for the existence of legal constraints on the corporation's use of financial sources. Shareholders' preferences for dividend distribution and general financial policy are characterized by reference to their personal marginal tax rates. The assumption of marginal spanning permits the application of a well known unanimity result to the determination of the cost of capital under taxation and characterizes the breakdown of that result in the presence of constraints on borrowing or lending by the firm.

Chakravarty, Satya R.

PD July 1985. TI Axiomatizations of the Entropy Numbers Equivalent Index of Industrial Concentration. AU Chakravarty, Satya R.; Weymark, John A. AA Chakravarty: Economic Research Unit, Indian Statistical Institute and University of British Columbia. Weymark: University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-26; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 24. PR \$0.20 per page Canadian to other than educational institutions. JE 611. KW Inequality. Theil Inequality Index. Industrial Concentration. Entropy.

AB In this article we are interested in axiomatizing the entropy numbers equivalent index of concentration. We discuss a number of properties which are regarded as being intrinsic to the concept of a numbers equivalent index of concentration, analyze the decomposability properties of the entropy numbers equivalent index, and provide three characterizations of this index.

Chalfant, James A.

TI Instability in Agricultural Markets: The United States Experience. **AU** Rausser, Gordon C.; Chalfant, James A.; Stamoulis, Kostas G.

TI Input Allocation under Uncertainty: An Expected-Utility, Moment-Generating Function Approach. **AU** Babcock, Bruce A.; Chalfant, James A.; Collender, Robert N.

TI Monetary Policies and the Overshooting of Flexible Prices: Implications for Agricultural Policy. **AU** Stamoulis, Kostas G.; Chalfant, James A.; Rausser, Gordon C.

Chan, Kam Fai

TI The Determinants of the Money Multiplier in the United Kingdom. **AU** Beenstock, Michael; Chan, Kam Fai.

Chiappori, P. A.

TI Politique de Prix et Optimum Second (Price Policy and Second Best Optimum). **AU** Benard, J.; Chiappori, P. A.

Chong, Yock Y.

PD June 1986. **TI** Econometric Evaluation of Linear Macro-Economic Models. **AU** Chong, Yock Y.; Hendry, David F. **AA** Nuffield College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 10; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL. **PG** 44. **PR** No Charge. **JE** 212, 211, 132. **KW** Dynamic Simulation. Multi-Step Forecasting. Encompassing. Monte Carlo. Model Evaluation. Cointegration.

AB Although many statistical and economic criteria influence the evaluation of econometric systems, such currently popular methods as dynamic simulation tracking performance, historical ex ante forecast accuracy, and economic plausibility are shown to be inadequate for appraisal. Four alternatives are proposed: multi-step forecast confidence intervals, forecast encompassing, cointegration tests and inter-equation feedbacks. Monte Carlo analysis of multi-step forecast tests reveals reasonable size and power characteristics in small dynamic models and the non-monotonicity of the confidence intervals suggests a scientific justification for "intercept corrections". Forecast encompassing tests (related to forecast pooling) are simple to conduct although their distributions are only approximately known.

Clarke, Frank H.

PD May 1985. **TI** Coastal States, Distant Water Fishing Nations and Extended Jurisdiction: A Principal-Agent Analysis. **AU** Clarke, Frank H.; Munro, Gordon R. **AA** Clarke: Centre de Recherches de Mathematique, Universite de Montreal. Munro: Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-18; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. **PG** 37. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 721, 420. **KW** Coastal

States. Distant Water Fishing Nations. Extended Jurisdiction. Principal-Agent Analysis.

AB In this paper we address the issue of optimal long-term economic arrangements between coastal states and distant water fishing nations under Extended Jurisdiction. We consider the case of "fee fishing" in which the distant water partner both harvests the resource and processes the catch. We conclude that, if the coastal state were to impose a "fee" upon the distant water partner in the form of a tax on catch or in the form of a tax on effort alone, an incentive gap would almost certainly emerge. If, however, the coastal state were to use an appropriate mix of taxes it would be possible to eliminate an incentive gap and to achieve a first best situation. This would be true regardless of whether the distant water partner did or did not engage in significant processing of the harvested fish.

Collender, Robert N.

TI Input Allocation under Uncertainty: An Expected-Utility, Moment-Generating Function Approach. **AU** Babcock, Bruce A.; Chalfant, James A.; Collender, Robert N.

Copeland, Brian

PD May 1986. **TI** Strategic Interaction Among Nations: Negotiable and Non-Negotiable Trade Barriers. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-22; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 50. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 422, 411. **KW** Trade Barriers. Protection. Trade Policy. Trade Negotiations.

AB Trade policy is modelled as a two-stage game between governments. In the first stage of the game, which is cooperative, the levels of negotiable trade barriers are chosen. These are trade barriers, such as tariffs, which are easy to define, monitor, and specify in a binding treaty. Because of information constraints, complexity, and the overlap between domestic and foreign economic policy, it is not feasible to include all potential trade barriers in a treaty. Those which are not included in the treaty are called non-negotiable trade barriers, and are chosen non-cooperatively in the second stage of the game. Hence governments choose trade barriers during negotiations with a view to influencing the equilibrium of the non-cooperative game to follow. Trade negotiations induce substitution toward less efficient instruments of protection, but are nevertheless welfare-improving.

PD May 1986. **TI** Tariffs and Quotas: Retaliation and Negotiation With Two Instruments of Protection. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-21; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 25. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 422. **KW** Trade Barriers. Tariffs. Quotas. Protection.

AB This paper examines the equilibrium level of trade barriers when both tariffs and quotas are available as instruments of protection. It is shown that the set of

efficient equilibria is the same when either tariffs or quotas, but not both, may be negotiated. Furthermore, it is shown that the pure quota war (which arises because tariffs have been previously negotiated) will not lead to the elimination of trade, as has been suggested by previous work, unless bargaining over tariffs is inefficient. Finally, the implications of using Nash conjectures about the level of protection, rather than about the instruments of protection, are investigated.

Corhay, Albert

PD August 1986. TI Seasonality in the Risk-Return Relationship. Some International Evidence. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre. AA Corhay, Michel: University of Liege. Hawawini: New York University and INSEAD. SR New York University Salomon Brothers Center Working Paper: 392; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 35. PR \$3.00. JE 313. KW CAPM. Risk-Premium Seasonality.

AB We report evidence of seasonality in the Fama and MacBeth '8 estimate of the CAPM-based risk premium in four stock exchanges: the NYSE, and the London, Paris and Brussels exchanges. Specifically, we found that in Belgium and France risk premia are positive in January and negative the rest of the year. There is no January seasonal in the United Kingdom risk premium. Instead, we observe in this country a positive April seasonal and a negative average risk premium over the rest of the year. In the United States, the pattern of risk-premium seasonality coincides with the pattern of stock-return seasonality. Both are positive and significant only in January. We also found that the January risk-premium in the United States is significantly larger than those observed in the European markets. Interestingly, the reported patterns of risk-premium seasonality in European equity markets do not fully coincide with the observed patterns of stock-return seasonality in these markets. For example, in the United Kingdom, average stock returns are significant and positive in January and April, whereas the market risk premium is significantly positive only in April. A possible interpretation of this phenomenon is presented in the paper.

PD August 1986. TI The Pricing of Equity on the London Stock Exchange: Seasonality and Size Premium. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre. AA Corhay, Michel: University of Liege. Hawawini: New York University and INSEAD. SR New York University Salomon Brothers Center Working Paper: 393; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 20. PR \$3.00. JE 313. KW Equity Pricing. Risk-Premium Seasonality. CAPM. Size Effect.

AB In this study we examine the relationship between average monthly returns and risk for portfolios of common stocks traded on the London Stock Exchange (LSE). We test the validity of the Capital Asset Pricing Model (Sharpe (1964), Black (1970)) using a methodology similar to that of Fama and MacBeth (1973). To the best of our knowledge, this is the first empirical test of the CAPM on the LSE that uses the Fama-MacBeth methodology. Using

the LSE data we also investigate two phenomena recently observed on the New York Stock Exchange (NYSE). The first is the size effect discovered by Banz (1981). He showed that small capitalization firms earn, on average, higher risk-adjusted returns than large capitalization firms. The second phenomenon was documented by Tinic and West (1984, 1986). They showed that the estimated slope coefficient (risk premium) of the relationship between average returns and systematic risk on the NYSE is significantly positive only in January. During the rest of the year there is no significant relationship between average returns and systematic risk on the NYSE. In other words, the CAPM is valid only in January on the NYSE.

PD August 1986. TI Risk-Premia Seasonality in United States and European Equity Markets. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre. AA Corhay and Michel: University of Liege. Hawawini: New York University & INSEAD. SR New York University Salomon Brothers Center Working Paper: 394; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 34. PR \$3.00. JE 313. KW Risk-Return Relationship. Equity Pricing. Risk Premia Seasonality.

AB Tinic and West (1984) have shown that (p.562) "it is not simply that January has a larger premium than other months; rather it is that January is the only month to show a consistently positive, statistically significant relationship between expected return and risk. January is not simply the month in which overall stock returns have been high relative to the rest of the year, and when small firms' stocks have outperformed the market as a whole it is the only month when shareholders have consistently been paid for taking on risk" The purpose of this study is twofold. First, we re-examine the Tinic and West (1984) findings and extend their investigation to alternative specifications of the risk-return relationship. Second, we perform similar tests on common stocks traded in three European stock exchanges (London, Paris and Brussels) to find out if risk premia seasonality (and the uniqueness of January) is confined only to United States common stocks or whether this puzzling phenomenon, like that of seasonality in average monthly stock returns, occurs also in other exchanges around the world. In addition to providing evidence from countries other than the United States, the investigation of risk-premia seasonality in the United Kingdom (London Stock Exchange), France (Paris Bourse) and Belgium (Brussels Bourse) may also provide some clues which could help in understanding this phenomenon.

Cosimano, Thomas F.

TI A Note on Market Structure and the Durability of Goods. AU Karp, Larry S.; Cosimano, Thomas F.

Cothren, Richard

PD February 1986. TI Monetary Policy in a Simple Repeated Game. AU Cothren, Richard; McTaggart, Douglas; Salant, David. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-04-01; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA

24061. PG 28. PR No Charge. JE 026, 311. KW Monetary Policy. Nash Equilibrium. Repeated Game. Reputation. Credibility.

AB The paper analyses the game-theoretic aspects of the Barro-Gordon model of monetary authority credibility. The properties of the Nash equilibrium in the single-shot game are examined first. Then the repeated game is analysed - with emphasis on the 'reputational' equilibrium of B-G. With a slight modification of the wage-setter's utility function it is shown that a large set of supportable cooperative outcomes emerge. Thus, the conclusion that the economy will exhibit an inflation bias is shown to lack robustness.

Darby, Michael R.

PD July 1986. TI The Ins and Outs of Unemployment: The Ins Win. AU Darby, Michael R.; Haltiwanger, John.; Plant, Mark W. AA University of California, Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 411; Department of Economics, UCLA, Los Angeles, CA 90024. PG 41. PR \$2.50. JE 131, 820. KW Unemployment. Heterogeneity. Cyclical Fluctuations.

AB This paper develops a framework for analyzing unemployment in terms of variations in the number and distribution of people becoming unemployed and in individual probabilities of leaving unemployment. Contrary to the emphasis on exit probabilities in the recent macroeconomics literature, we present empirical evidence in support of the proposition that changes in the size and distribution of the inflow into unemployment are the primary determinant of the unemployment rate. Instead of falling at the beginning of a recession, the outflow rate rises (with a lag) in response to the increased inflows which drive the recession. In contrast to normal unemployment, cyclical unemployment is concentrated in groups with low normal exit probabilities; so the observed procyclical variation in the average exit probability may largely be explained by predictable distributional effects.

PD July 1986. TI Economic Events and Keynesian Ideas: The 1930's and the 1970's. AU Darby, Michael R.; Lothian, James R. AA Darby: University of California, Los Angeles. Lothian: Citicorp Investment Bank. SR National Bureau of Economic Research Working Paper: 1987; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PR \$2.00. JE 321, 300, 023, 311. KW Keynes. Fiscal Policy. Interest Rates.

AB Keynes' General Theory was a brilliant attempt to explain the paradox of low interest rates, ineffectual easy monetary policy, and low investment during the Great Depression. We argue that Keynes' failure to distinguish between low nominal and high real interest rates led him to misinterpret a tight and all too effective monetary policy and unnecessarily hypothesize a downward shift in investment demand. Keynesian ideas in turn profoundly influenced economic policy in the 1960s and 1970s. The resulting postwar inflation -- rather than scholarship on what actually happened in the 1930s -- appears to be the primary reason for the waning influence of the ideas derived from the General Theory.

Das, Sandwip Kumar

PD May 1985. TI Labour Surplus Economies and the Theory of International Trade. AA University of British Columbia; Jawaharlal Nehru University, New Delhi, India. SR University of British Columbia Department of Economics Discussion Paper Series: 85-23; Department of Economics - University of British Columbia 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 28. PR \$0.20 per page Canadian to other than educational institutions. JE 411. KW Autarkic Model. Intersectoral Wage Differentials. Labour Immobility. Two-Good-Two-Factor Model. Trade Patterns.

AB The purpose of this paper is to develop the autarkic model of a labour surplus economy where intersectoral wage differentials and labour immobility are present. The model is then extended to find an explanation of trade pattern between two similar labour surplus economies. The paper develops a two-good-two-factor model with constant-returns-to-scale production functions and perfect competition among producers and factor owners. The main findings are summarized in the following. The pattern of trade between two labour surplus economies is determined by their endowments of capital relative to the size of the agricultural labour force. Industrial employment is endogenously determined in the model. The Rybczynski theorem changes substantially. An increase in the stock of capital raises output in both sectors at constant terms of trade. An increase in the labour force employed in agriculture has the usual Rybczynski effect. In this model factor intensities are defined in value terms. Physical factor intensities do not play any important role. Under certain conditions the Samuelson-Stolper theorem partially retains its validity.

Dasgupta, Sudipto

TI A Note on Instability in Rural-Urban Migration. AU Day, Richard H.; Dasgupta, Sudipto; Datta, Samar K.; Nugent, Jeffrey B.

Dasgupta, Swapan

PD 1985. TI Intertemporal Optimality in a Closed Linear Model of Production. AU Dasgupta, Swapan; Mitra, Tapan. AA Dasgupta: Dalhousie University. Mitra: Cornell University. SR Cornell Department of Economics Working Paper: 334; Department of Economics, Cornell University Ithaca, N.Y. 14853. PG 45. PR No Charge. JE 111. KW Intertemporal Optimality. Linear Production Model. Transversality Condition.

AB The purpose of this paper is two-fold. First, it tries to present the main results on intertemporal optimality of infinite horizon programs in a simple closed linear model of production. Second it presents results on the characterization of the optimality of competitive programs in terms of a "decentralizable" condition.

Datta, Samar K.

TI A Note on Instability in Rural-Urban Migration. AU Day, Richard H.; Dasgupta, Sudipto; Datta, Samar K.; Nugent, Jeffrey B.

Day, Richard H.

PD January 1986. TI Irregular Fluctuations and

Comparative Policy Dynamics in the Keynesian Regime. AU Day, Richard H.; Lin, T. Y. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8604; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 43. PR No Charge. JE 131, 023. KW Business Cycle Model. Nonlinear Business Cycles. Chaos. Ergodic Behavior. Keynesian Regime.

AB The nonlinear Keynesian business cycle model contains a fluctuation-generating nonlinearity that derives from standard assumptions about the demand for money and for goods. This nonlinearity yields bounded fluctuations that may be periodic or nonperiodic. In the latter case the fluctuations can be equivalent to a stationary stochastic process. Using counterfactual simulations of the model we show that these results obtain and are robust for plausible parameter values. We then show how changes in the importance of induced investment and in policy instruments (money supply, government expenditures and the average tax rate) influence the qualitative character of business fluctuations.

PD March 1986. TI A Note on Instability in Rural-Urban Migration. AU Day, Richard H.; Dasgupta, Sudipto; Datta, Samar K.; Nugent, Jeffrey B. AA Dasgupta, Nugent, and Day: Department of Economics, University of Southern California. Datta: Agro-economic Research Centre, Visva Bharati University. SR University of Southern California Modelling Research Group Working Paper: M8614; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 22. PR No Charge. JE 823, 821. KW Labor Market Dynamics. Rural-Urban Migration. Economic Development.

AB Newly observed instances of reverse migration, i.e., migration from urban to rural areas, suggest the possibility that the labor market adjustment process could be unstable. This paper provides a theoretical analysis of this conjecture using a Harris-Todaro-Lewis model. A bifurcation analysis is presented that shows how various stable and unstable adjustments are possible including chaotic fluctuations and how these possibilities are related to adjustment speed, the productivity of industry and agriculture, the relative importance of industry and population size.

PD May 1986. TI The Evolving Economy. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8619; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 18. PR No Charge. JE 011, 050. KW Economic Theory. Economic Evolution. Disequilibrium. Institutional Economics.

AB A general theory of economic change, development and policy is developed. It is based on the premise that economizing involves various models of behavior in addition to purely rational choice, that exchange involves fundamental disequilibrium mechanisms that facilitate action when plans are not perfectly coordinated, and that the creative imagination plays a fundamental role both in routine economic activity and in the evolution of systems

of policy that provide for institutional evolution in place of economic and social breakdowns.

PD July 1986. TI Ergodic Fluctuations in Deterministic Economic Models. AU Day, Richard H.; Shafer, Wayne J. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8631; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 29. PR No Charge. JE 213, 131. KW Dynamical Systems. Business Cycle Theory. Ergodic Theory. Chaos.

AB Nonperiodic business fluctuations are shown to exist with positive measure generically and to behave like stationary stochastic processes in the standard dynamic macro model. The implication is that so called "chaotic" behavior is probable for random initial conditions in a large class of recursive economies with similar structure.

PD July 1986. TI A Note on Nonperiodic Demoeconomic Fluctuations with Positive Measure. AU Day, Richard H.; Kim, Kyoo Hong. AA Day: Department of Economics, University of Southern California. Kim: Department of Economics, Bowling Green University. SR University of Southern California Modelling Research Group Working Paper: M8628; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 10. PR No Charge. JE 213, 841. KW Ergodic Behaviour. Classical Economic Population Theory. Demoeconomic Fluctuations.

AB Proofs of the existence of nonperiodic behavior using sufficient chaos conditions leave open the question as to whether irregular fluctuations are probable for initial conditions drawn at random. It is known that in some cases this probability is zero, thus casting doubt on the importance of chaos as a theoretical characterization of the phenomenon of interest. In this note we consider this issue in the context of a classical demoeconomic model. We show that nonperiodic population fluctuations are probable, converging to a limit set with positive measure that is absolutely continuous with respect to Lebesgue measure.

Deaton, Angus

PD April 1986. TI Life-Cycle Models of Consumption: Is the Evidence Consistent With the Theory?. AA Princeton University. SR National Bureau of Economic Research Working Paper: 1910; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 47. PR \$2.00. JE 023, 921. KW Consumption. Life-Cycle Model.

AB The paper considers a variety of evidence that casts light on the validity of the life-cycle model of consumer behavior. In the first part of the paper, simple non-parametric tests are used to examine representative agent models of consumption and labor supply. It seems extremely unlikely that post-war United States evidence can usefully be explained by such a model, at least if the assumption of intertemporal separability is maintained. Changes in aggregate consumption bear little relationship to after tax real interest rates, and consumption has

tended to grow even during periods of negative real interest rates. Joint consideration of consumption and labor supply does nothing to resolve the problems that arise when consumption is taken by itself. It is argued that these results cast doubt, not on life-cycle theory itself, but on the representative agent assumption; there is little reason to suppose that changes in aggregate consumption should be related to the real interest rate. The second part of the paper is concerned with the time-series representation of disposable income and with its implications for the behavior of consumption under the assumptions of the life-cycle model. If real disposable income is truly a first-order autoregressive process in first differences, a process that fits the data well and is becoming increasingly popular in the macro time-series literature, then the life-cycle model implies that changes in consumption should be more variable than innovations in income, a prediction that is manifestly false. Various possible resolutions of this problem are reviewed, including habit formation and alternative representations of disposable income. The paper concludes with some evidence on the excess sensitivity question, why it is that consumption responds to anticipated changes in income. Monte Carlo evidence supports the suggestion made by Mankiw and Shapiro that the presence of time trends can cause severe problems of inference in models containing variables with unit roots, but the results make it seem unlikely that this is the cause of the widespread excess sensitivity findings.

deGorter, Harry

PD February 1985. TI On the Political Economy of Providing Public Good Inputs. AU deGorter, Harry; Zilberman, David. AA University of California at Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 355; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 23. PR No Charge. JE 020, 024, 320. KW Public Good Provision. Optimal Public Good Level. AB This paper compares and analytically evaluates the provision of an input, exhibiting public good properties, under alternative institutional arrangements. In two of the cases examined, the taxpayers finance the provision of the public good: in one of these, the determination of the quantity of the public good is controlled by consumers and, in the other, it is controlled by producers. These are two polar cases which are likely to bound the set of outcomes of situations where public good provision is financed by the taxpayers. The third case is when producers both finance the provision of the public good and determine its quantity. For each of these cases, the public good provision is compared with social optimum; the welfare of consumers and producers, as well as the welfare of society in these cases, are compared to the cases with the optimal public good level and the case of competition without intervention.

deJanvry, Alain

PD March 1984. TI The Search for Styles of Development: Lessons from Latin America and Implications for India. AA University of California at

Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 357; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 30. PR No Charge. JE 112, 121. KW Development. Latin America. Social Articulation. India. Wage Goods-Led Growth.

AB In reviewing both theory and history, my central thesis will be that the styles of development advocated in theory or implemented in history have failed to achieve the key feature of what I call "social articulation," namely, a growth pattern which is led by the production of wage goods and by the creation of effective demand for the domestic absorption of these wage goods. To defend this thesis, I will proceed in four stages. First, I will outline a theoretical framework useful to characterize and analyze alternative styles of development. Second, I will construct a genealogical tree of development theories in order to show how each theory diagnoses the problems of accumulation and poverty and what recommendation it contains for a specific style of development. Third, archetype historical experiences of styles of development in particular countries and time periods will be reviewed. I will conclude with a few immodest recommendations on what a wage goods-led style of growth could signify for Indian development and what it would take to begin its implementation.

PD January 1985. TI Disarticulation as a Theory of Inequitable Growth; Articulation as a Strategy for Equitable Growth (or Why Countries Should Beware of Jumping the Stages of Consumption. AU deJanvry, Alain; Sadoulet, Elisabeth. AA de Janvry: University of California at Berkeley. Sadoulet: University of Geneva. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 352; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 66. PR No Charge. JE 112. KW Social Articulation. Growth. Equity. Development. Stability.

AB With the application of strict monetary policies in the United States, a generalized recession in the more developed countries, and an end-of-the-debt extravaganza for the NIC, the early 1980s saw not only the return of stagnation but highly negative growth rates in many countries. This, again, redefined the main question addressed by development economists as to explaining instability. This led to a variety of proposals ranging from stabilization policies in the context of antistate austerity packages; to New Deal-style, government-led, growth programs; and to further calls for more autonomous growth and horizontal trade. The current period of stagnation of Third World economies and further worsening in the distribution of income associated with economic restructuring in some way raises simultaneously the above three questions in a normative context: Given the end of both import substitution industrialization and export-led growth, how can a new style of economic development be defined for Third World economies that can insure growth, promote equity, and offer stability over time? This paper attempts to propose a style of development with these desirable features.

PD July 1985. **TI** Integration of Agriculture in the National and World Economy: Implications for Agriculture Policies in Developing Countries. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 360; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 9. **PR** No Charge. **JE** 713. **KW** Agricultural Policy. LDC's.

AB Agriculture has become increasingly integrated in the national and world economy, and this redefines the context in which agricultural policy is made in less-developed countries. Based principally on the results of several computable general equilibrium models developed at Berkeley, this paper discusses a number of policy options for these countries including the role of prices in growth and distribution, intersectoral investment priorities, price versus nonprice instruments in stimulating agricultural growth, approaches to protect peasantries from the consequences of unequal sectoral development, food security strategies, the use of international food aid as part of a development strategy, and the impacts of less-developed country growth on demand for agricultural imports originating in the more developed countries.

Deneckere, Raymond

PD February 1986. **TI** Monopolistic Competition and Preference Diversity. **AU** Deneckere, Raymond; Rothschild, Michael. **AA** Deneckere: Northwestern University. Rothschild: University of California at San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 86-13; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 59. **PR** \$2.00; make cheques payable to University of California Regents. **JE** 022. **KW** Differentiated Products. Product Variety. Welfare. Monopolistic Competition.

AB In this paper we present a model of the demand for differentiated products which has as special cases two popular models used to analyze welfare and competition in monopolistically competitive markets. In one model aggregate demand for a group of products is generated by consumers distributed uniformly on a circle; the different products are available at stores located in various places on the circle; except for location all products are identical. The second model does not have such an appealing physical description; aggregate demand for a group of commodities is simply a function from the nonnegative orthant of R^n into itself. We show how a limiting version of the model may be derived in which the number of potentially different brands is infinite. This limit model gives rise to exactly the same demand and welfare functions as used in the analysis of competition on the circle and in the Perloff-Salop version of the representative consumer model. These sections are quite technical and are good candidates for casual reading. We use the continuum model to show both that (for some attractive cases) symmetric models are more competitive than models of competition on the circle and that the social value of additional variety is greater in the symmetric model than in the model of competition on the circle.

Desai, Padma

PD May 1986. **TI** Soviet Growth Retardation. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 327; Department of Economics, Columbia University, New York, NY 10027. **PG** 71. **PR** \$5.00. **JE** 124. **KW** Soviet Economic Growth. Soviet Union.

AB The continuing retardation of Soviet economic growth since 1950 requires explanation. It has also important policy consequences for the Soviet Union, posing choices and raising dilemmas that must be addressed by Mr. Gorbachev as he takes charge of the Soviet economy. I address both these issues in the present paper, drawing on the considerable econometric, theoretical and institutional literature that has now emerged on the Soviet economy.

Deutsch, Joseph

TI Inflation and Money Creation in Israel. **AU** Litvin, Uri; Meridor, Leora; Spivak, Avia; Deutsch, Joseph.

Dewald, William G.

PD June 1986. **TI** Government Deficits in a Generalized Fisherian Credit Market: Theory with an Application to Indexing Interest Taxation. **AA** Planning and Analysis Staff, United States Department of State. **SR** International Monetary Fund Departmental Memoranda/Staff Paper: (33)2/3; International Monetary Fund, Washington D.C. 20431. **PG** 33. **PR** No Charge. **JE** 321, 323, 023. **KW** Fiscal Analysis. Fiscal Policy. Taxation Theory. Taxation Policy. Tax-Adjusted Fisher Equation.

AB Assuming debt-financed investment and uniform tax rates, earlier literature on the tax-adjusted Fisher equation concluded that indexing interest taxation would decrease government deficits. This paper shows that this conclusion depends on inflationary investment returns being untaxed. If at least some inflationary investment returns are taxed -- for example, realized capital gains -- indexing will reduce real interest rates for fully taxed investors but will raise after-tax real rates for savers and borrowers whose investment returns are untaxed. Since government deficits are financed at an after-tax real rate, indexing interest taxation would unambiguously increase deficits under assumptions of the paper.

DeWulf, Luc

PD June 1986. **TI** The Evolving Role of Monetary Policy in China. **AU** DeWulf, Luc; Goldsbrough, David. **AA** International Monetary Fund. **SR** International Monetary Fund Departmental Memoranda/Staff Paper: (33)2/2; International Monetary Fund, Washington D.C. 20431. **PG** 34. **PR** No Charge. **JE** 311, 023, 124. **KW** Monetary Policy. China. Centrally Planned Economies. Macroeconomic Policy. Country Studies.

AB Monetary policy in China is undergoing rapid change as part of economic reforms launched in 1979. In the past, monetary policy supported the physical plan while maintaining financial stability. Now, monetary authorities contribute more actively to macroeconomic balance and must gear credit policy to stimulate efficient resource allocation. The reform of the banking system, the development of monetary policy instruments, monetary

developments in the 1979-85 period, and the enhanced scope for financial intermediation are described. The paper assesses the progress made, and the further changes needed, for China to benefit fully from the automaticity of active monetary policy.

Diamond, Peter

PD March 1985. TI Pricing and the Distribution of Money Holdings in a Search Economy. AU Diamond, Peter; Yellin, Joel. AA Diamond: Massachusetts Institute of Technology. Yellin: University of California, Santa Cruz. SR Massachusetts Institute of Technology Department of Economics Working Paper: 370; Department of Economics, MIT, Cambridge, MA 02139. PG 34. PR No Charge. JE 021, 022. KW Search. Retail Sellers and Buyers. Pricing.

AB Central to traditional microeconomics is the Walrasian auctioneer who coordinates trades and sets prices. Continuing our earlier work (Diamond and Yellin (1985a), referred to below as A), we present a two-market, general equilibrium model in which the auctioneer plays no role in the retail market. Two non-Walrasian features of observed economic behavior are captured by our model. First, most retail sellers face downward sloping demand curves. We introduce downward sloping demand by using a model based on search. We eschew the more traditional approach of monopolistic competition (e.g., Hart (1982)). Second, retail buyers are constrained by access to purchasing power. We therefore impose a finance constraint (cf. Clower (1967), Kohn (1981)), restricting purchasing power to concurrent money holdings. We do not consider credit. This work should be considered an interim step in the development of models with richer, more realistic structure in which credit plays its appropriate role.

PD August 1985. TI Search Theory. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 389; Department of Economics, MIT, Cambridge, MA 02139. PG 33. PR No Charge. JE 026. KW Search. Coordination Technologies. Information.

AB Paralleling the Walrasian framework, we will examine first individual choice and then equilibrium with different coordination technologies. There are a large number of variations on the basic search-theoretic choice problem. We will explore one set-up in detail, while mentioning some of the variations that have been developed in the literature. The mechanism for the coordination of trade can be distinguished in two different directions: information gathering about opportunities, and arrangement of individual trades. One simple case is where information gathering is limited to visiting stores sequentially, which combines the transaction costs of collecting goods with the information gathering costs. Alternatively, there can be an information gathering mechanism which is independent of the process of getting into position to order and receive delivery of the good. We will begin by analyzing equilibrium models where the only information gathering is associated with purchasing opportunities and then look at the modification of results that comes from supplementing this mechanism with an additional device for information spread.

PD September 1985. TI Equilibrium Without an Auctioneer. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 394; Department of Economics, Massachusetts Institute of Technology Cambridge, MA 02139. PG 24. PR No Charge. JE 021, 022, 023, 020. KW Search Theory. Bank Runs. Micro Foundations of Macro.

AB The development of the micro foundation of macro has been slow going; very interesting, but slow going. I want to begin with an elaboration of why this subject is hard (for me). I will then discuss two lines of research which explore what happens when economies are modeled without a Walrasian auctioneer -- search theory (Sec. I) and the theory of bank runs (Sec. II). This is, of course only one piece of the literature that identifies itself as the micro foundations of macro. I will concentrate on the flavor of results rather than the technical problems of constructing tractable macrooriented models within the micro rules of model construction.

PD June 1986. TI Stochastic Credit in Search Equilibrium. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 421; Department of Economics, MIT, Cambridge, MA 02139. PG 30. PR No Charge. JE 315, 023, 311. KW Credit. Stochastic Credit.

AB I start with a model of trade with trading frictions and then introduce credit to examine its effects. Since my mathematical techniques do not permit me to analyze money and credit simultaneously, this is a barter model. Then I ask two questions. The model is set up in a world where not only is there no money because, let us say, nobody has thought of the idea, but also there is no credit because no one has thought of that idea. If someone thinks up the idea of credit, will credit be introduced into this economy? The central focus is on the conditions one must look for with pairwise trade for credit to be introduced into an economy like this. In particular I look for conditions such that credit is not introduced into this economy. Then I consider an economy where credit is readily available with the same sorts of information and penalty rules that go with the first economy. I look for parameters such that there is a steady state equilibrium with readily available credit. The step of bringing these two models together is to ask if there is an overlap in parameter space between those parameters which allow an equilibrium with no credit and those parameters which allow an equilibrium with readily available credit. We will find that there are many such parameters.

Diebold, Francis X.

PD March 1986. TI The Exact Initial Covariance Matrix of the State Vector of a General MA(q) Process. AA University of Pennsylvania. SR University of Pennsylvania Econometrics Discussion Paper: 86-4; care/of Betty Hutt, Department of Economics, McNeil Building, 3718 Locust Walk, CR, University of Pennsylvania, Philadelphia, PA 19104. PG 10. PR \$1.00; checks payable to Department of Economics, University of Pennsylvania, United States of America - \$2.00 other. JE 211. KW Time-Series. Estimation. Prediction. State Space. Kalman Filter. Maximum-Likelihood.

Moving-Average.

AB The finite moving-average process is studied in state-space form, and its stochastic structure is exploited to derive a closed-form analytic expression for the covariance matrix of the initial state vector. The results provide interesting insight into the state-space structure of moving-average processes, and they minimize the computational requirements for exact maximum-likelihood estimation via the Kalman filter.

PD May 1986. **TI** Rational Expectations, Random Walks, and Monetary Models of the Exchange Rate. **AA** University of Pennsylvania. **SR** University of Pennsylvania Econometrics Discussion Paper: 86-2; c/o Betty Hutt, Department of Economics, University of Pennsylvania, 3718 Locust Walk (CR) Philadelphia, PA 19104-6297. **PG** 18. **PR** \$1.00; checks payable to Department of Economics, University of Pennsylvania United States of America - \$2.00 Other. **JE** 311, 431. **KW** Rational Expectations. Random Walks. Monetary Models. Exchange Rates. Co-Integration.

AB Necessary and sufficient conditions under which a rational-expectations flexible-price monetary model will lead to random-walk exchange rate behavior are developed. The implied restrictions are tested for the DM/dollar rate over the post-1973 float and are not rejected.

PD May 1986. **TI** Testing for Serial Correlation in the Presence of ARCH. **AA** Department of Economics, University of Pennsylvania. **SR** University of Pennsylvania Econometrics Discussion Paper: 86-3; care/of Betty Hutt, Department of Economics, University of Pennsylvania, 3718 Locust Walk (CR), Philadelphia, PA 19104-6297. **PG** 18. **PR** \$1.00; checks payable to Department of Economics, University of Pennsylvania United States of America - \$2.00 other. **JE** 211. **KW** Serial Correlation. Heteroskedasticity. ARCH. Time Series Specification.

AB The asymptotic properties of three important time-series model specification tools (the sample autocorrelations, the Box-Pierce test and the Box-Ljung test) are characterized in the presence of autoregressive conditional heteroskedasticity (ARCH). It is shown analytically that, in the presence of ARCH, the Bartlett standard errors and both the Box-Pierce and Box-Ljung test statistics have empirical size greater than nominal size when the usual normal and chi-squared limiting distributions are used. Appropriate ARCH corrections are developed analytically and shown to perform very well in a numerical example.

PD June 1986. **TI** Exact Maximum-Likelihood Estimation of Autoregressive Models via the Kalman Filter. **AA** Department of Economics, University of Pennsylvania. **SR** University of Pennsylvania Econometrics Discussion Paper: 86-5; care/of Betty Hutt, Department of Economics, McNeil Building, 3718 Locust Walk, CR, University of Pennsylvania, Philadelphia, PA 19104. **PG** 11. **PR** \$1.00; checks payable to Department of Economics, University of Pennsylvania, United States of America - \$2.00 other. **JE** 211. **KW** Time-Series. State Space. Initial Conditions. Prediction. Autoregression.

AB The p th-order autoregression is studied in state-space form, and a closed-form, analytic expression is obtained for

the unconditional covariance matrix of the initial state vector. It is shown that this covariance matrix depends only on the first p autocovariances, which makes exact maximum-likelihood estimation via the Kalman filter a straightforward task.

PD July 1986. **TI** Temporal Aggregation of ARCH Processes and the Distribution of Asset Returns. **AA** University of Pennsylvania. **SR** University of Pennsylvania Econometrics Discussion Paper: 86-6; c/o Betty Hutt, Department of Economics, University of Pennsylvania, 3718 Locust Walk (CR) Philadelphia, PA 19104-6297. **PG** 22. **PR** \$1.00; checks payable to Department of Economics, University of Pennsylvania. **JE** 211. **KW** ARCH. GARCH. Finance. Asset Returns. Leptokurtosis. Central Limit Theorems.

AB Limiting unconditional normality of temporal aggregates of ARCH and GARCH processes is established using central limit theorems for dependent, identically distributed observations. This property matches observed data on financial asset return distributions and cannot be explained by stable Paretian models. The results do not require existence of unconditional fourth moment.

Dierker, Hildegard

PD January 1986. **TI** Existence of Nash Equilibrium in Pure Strategies in an Oligopoly with Price Setting Firms. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 37; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 30. **PR** No Charge. **JE** 020, 021. **KW** Oligopoly. Nash Equilibrium. Aggregate Demand.

AB Consider an oligopoly model with differentiated products and with a fixed, finite number of price setting firms. We assume that cost functions are convex and demand is derived from a consumption sector with a continuum of consumers. We study existence of Nash equilibrium in pure strategies by imposing assumptions on the distribution of consumers' wealth and tastes rather than postulating a concave profit function. We employ a result of W. Hildenbrand's saying that demand for a commodity is a decreasing function, if the wealth distribution has a falling density. The necessary second order conditions on aggregate demand are derived from assumptions on the distribution of consumers' tastes which imply that preferences are price-dispersed.

Diewert, W. Erwin

PD January 1985. **TI** Neutral Business Income Taxation Revisited. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-04; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., V6T 1Y2. **PG** 30. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 323. **KW** Neutrality. Discrete Time. Finite Horizon Model. Neutral Business Taxation. Cash Flow Taxation. Taxation.

AB We show that Boadway-Bruce schemes for achieving neutral business taxation have little to offer over a conventional cash flow scheme. Indeed, under some reasonable hypotheses, our discrete time Boadway-Bruce

scheme collapses to the cash flow scheme. Along with Brown (1948) and Smith (1963:91-92), we recommend that governments seriously consider implementing a system of cash flow taxation.

PD January 1985. **TI** The Effects of An Innovation: A Trade Theory Approach. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-01; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. **PG** 48. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 621. **KW** Innovation. Trade Theory Approach. Technological Change.

AB The question we wish to address in this paper is: what are the economic effects due to the introduction of a new technology on the private production sector of a small open economy? We shall follow in the footsteps of Rodriguez (1975), who regarded a new technology as simply the existence of a new production sector in a standard two good, two factor, two country model of international trade. Our model will be less general than that of Rodriguez in that it will be a small country model that holds world prices fixed, but it will be more general in that we allow for arbitrary numbers of internationally traded goods, domestic goods and industries. Furthermore, Rodriguez did not analyze the effects on factor prices of the introduction of the new technology, a topic that we address.

PD March 1985. **TI** The Measurement of the Economic Benefits of Infrastructure Services. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-11; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. **PG** 202. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 320, 721, 615. **KW** Infrastructure Investment. Investment. Utilities. Communication. Transportation. Land Development.

AB A great deal of investment, both in developed and less developed countries, is made by governments and other public agencies in order to provide infrastructure services to consumers and producers in the affected region. The primary purpose of this report is to provide a methodology for evaluating the benefits (particularly to producers) of infrastructure investments. The specific classes of investment we have in mind are grouped into the following four broader categories: utilities, communication, transportation and land development.

PD May 1985. **TI** Incentive Compatible Primal Planning Algorithms. **AU** Diewert, W. Erwin; Neary, Hugh. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-16; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA V6T 1Y2. **PG** 36. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 022. **KW** Heal's Primal Planning Algorithm. Primal Planning.

AB The purpose of the present paper may be summarized as follows: we shall attempt to make a primal

planning algorithm (similar to that of Heal) incentive compatible. We wish to preserve the positive features of the Heal algorithm (monotonicity, feasibility, consistency with increasing returns to scale, and informational efficiency) and at the same time, set up an incentive scheme that will induce the sectoral production managers to reveal correct information to the center. Thus our paper is similar in spirit to that of Cohen '1980. The main innovation in our work over her paper is that we allow for the possibility that some sectors have increasing returns to scale.

PD November 1985. **TI** Efficiency Improving Incentive Schemes for Regulated Industries. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 85-34; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. **PG** 110. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 612, 613. **KW** Public Utility Monopoly. Regulation. Social Objective Function. Efficiency.

AB In our paper, we propose a new method for regulating a public utility monopoly, one that is solidly based on microeconomic theory. Our proposed method involves giving the public utility manager the "right" objective function to maximize. This social objective function is a very broad one; it is the amount of extra money or foreign exchange that the regional economy that is served by the public utility could earn while keeping each household at a specified level of welfare.

PD March 1986. **TI** Export Supply and Import Demand Functions: A Production Theory Approach. **AU** Diewert, W. Erwin; Morrison, Catherine J. **AA** Diewert: Department of Economics, University of British Columbia. Morrison: Tufts University, Department of Economics. **SR** University of British Columbia Department of Economics Discussion Paper: 86-10; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 30. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 411, 430. **KW** Producer Theory. Supply Functions. Exports. Imports.

AB We show how a consistent framework for simultaneously modelling a country's domestic supply, labour demand, import demand and export supply functions can be obtained using producer theory. We follow in the footsteps of Kohli '1978 and others, except that we adapt to the profit function context some of the recent work by Diewert and Wales '1985 on flexible functional forms that satisfy curvature conditions globally.

PD June 1986. **TI** Taxation and Production Structure. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-24; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 34. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 323, 022. **KW** Business Taxation. Production Structure. Deadweight Loss.

AB Bernstein and Nadiri's model of the structure of production is very general and they show how many particular production models (such as those involving endogenous depreciation, the adjustment of quasifixed factors, etc.) can be obtained as special cases of their general model. We suggest an even more general model which contains their model as a special case. By postulating this very general model of intertemporal production structure, we hope to make applied researchers more aware of the assumptions that are required to simplify a "realistic" general model down to the relatively simple models that have been used in the empirical literature. Thus the first point that we make in this comment is that a general neoclassical model of intertemporal production is exceedingly complex and hence empirical results obtained from the relatively simple neoclassical models that have appeared in the literature thus far must be viewed with a certain amount of skepticism. The second purpose of this comment is to emphasize the deadweight loss aspects of alternative systems of business taxation.

PD July 1986. **TI** Semiflexible Functional Forms. **AU** Diewert, W. Erwin; **Wales**, T. J. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-25; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 30. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 213. **KW** Flexible Functional Forms. Demand Equations. Curvature conditions.

AB In this paper we propose and test a method for imposing curvature conditions on a system of demand equations. We estimate the normalized quadratic expenditure function using Canadian per capita time series data for ten expenditure categories. This expenditure function is a flexible form in the class of functions satisfying local money metric scaling and contains $(N^2N + 3N - 4)/2$ parameters. Our procedure permits estimation of special cases of this form, which are semiflexible, while at the same time maintaining the concavity in prices property required by economic theory. Although our procedures are applied in a consumer demand context they may be applied in an analogous manner in a production context. Indeed our normalized quadratic expenditure function with minor modifications is equivalent to the Symmetric Generalized McFadden cost function (with constant returns and no technical change) introduced and estimated by Diewert and Wales (1985).

Dillon, K. Burke

TI Export Credits: Developments and Prospects. **AU** Brau, Eduard; **Dillon**, K. Burke; **Puckahtikom**, Chanpen; **Xafa**, Miranda.

Dinopoulos, Elias

TI Quid Pro Quo Foreign Investment and Optimal Policy Intervention. **AU** Bhagwati, Jagdish N.; **Brecher**, Richard A.; **Dinopoulos**, Elias.; **Srinivasan**, T N.

TI Quid Pro Quo Foreign Investment and Optimal Policy Intervention. **AU** Bhagwati, Jagdish N.; **Brecher**,

Richard A.; **Dinopoulos**, Elias.; **Srinivasan**, T N.

TI Quid Pro Quo Foreign Investment and Welfare: A Political-Economy-Theoretic Model. **AU** Bhagwati, Jagdish N.; **Brecher**, Richard A.; **Dinopoulos**, Elias.; **Srinivasan**, T. N.

TI Quid Pro Quo Foreign Investment and Welfare: A Political-Economy-Theoretic Model. **AU** Bhagwati, Jagdish N.; **Brecher**, Richard A.; **Dinopoulos**, Elias.; **Srinivasan**, T. N.

Diwan, Ishac

PD June 1986. **TI** Trade Policy, Foreign Investment and Potential Expropriation. **AU** Diwan, Ishac; **Donnenfeld**, Shabtai. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 383; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 27. **PR** \$2.00. **JE** 441. **KW** Expropriation. Foreign Investment. Trade Policy.

AB Sovereign immunity allows countries to expropriate foreign investment and they would rationally do so whenever the benefit exceeds the cost of expropriation. In this paper, the cost of such a policy was taken to be the loss of the option to engage in international trade in commodities. Because the benefit increases with the amount of the foreign investment at a higher rate than the cost, foreigners will not invest beyond a particular investment ceiling. It is shown that a tax on foreign profits increases the cost of expropriation and consequently increases the ceiling. Trade policy however, decreases the ceiling because it lowers the cost of expropriation. Finally, we argue that a subsidy on export can increase that ceiling when factors of production are costly to move between sectors because the benefits from expropriation are also reduced in that case.

Dollar, David

PD March 17, 1986. **TI** Multinational Enterprises, the Export of Invisibles, and the Changing Structure of the United States Current Account, 1958-84. **AA** University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 393; Department of Economics, University of California at Los Angeles Los Angeles, CA 90024. **PG** 38. **PR** \$2.50. **JE** 410, 442, 430. **KW** Multinational Enterprises. Export of Invisibles. Export of Services.

AB This paper indirectly addresses the question of whether the United States manufacturing sector is in decline as a result of competition from imports. What the balance of payments data show is that in the 1950s and into the 1960s the United States was a major net exporter of manufactured goods, and presumably a net exporter of the services of manufacturing production worker labor (along with other factors of course). In recent years, on the other hand, the United States has been a major net exporter of services and a net importer of goods. Taken at face value the balance of payments data suggest that the main service being exported by the United States is capital services, since the largest component of the service account surplus is net overseas investment income. However, there

is good theoretical reason to believe that hidden in this "investment income" are considerable payments to other factors of production; in particular, most multinational enterprises transfer home as "profits" what are really payments for services of the professional/managerial staff operating out of the firms' headquarters. Their activities in research and development, advertising, marketing, and managing lead to a stream of invisible exports that are difficult for the firm to price; it is for this reason that is efficient to make these exchanges intrafirm (providing a rationale for the MNE); and for the same reason it is difficult to capture this factor trade in the balance of payments statistics. Data on the occupational distribution of employment in United States manufacturing support this interpretation: the white-collar share of manufacturing employment has been increasing at an increasing rate, suggesting that the United States more and more is exporting the services of professional/managerial labor and importing the services of semi-skilled production labor.

Domar, Evsey D.

PD August 1985. TI Were Russian Serfs Overcharged for Their Land in 1861? The History of One Historical Table. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 390; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 17. PR No Charge. JE 044. KW Serfdom. Emancipation. Land Allotment.

AB That a number of historians agree that former Russian serfs were overcharged for the land allotted to them in 1861 is not surprising, but that they agree on the exact amount is. This unanimity was caused by their uncritical acceptance of the results of a single study published in Saint Petersburg in 1906. The paper shows that the magnitude of the alleged overcharge depends on the assumptions made. It is quite possible that the overcharge was much larger than anyone has ever suggested, but there remains a small chance that it did not occur at all.

Donaldson, David

PD May 1985. TI Social Choice in Economic Environments. AU Donaldson, David; Weymark, John A. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-20; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 28. PR \$0.20 per page Canadian to other than educational institutions. JE 025. KW Arrow's Axioms. Impossibility Theorem. Social Choice.

AB We establish that Arrow's axioms are consistent if the feasible set domain and the preference domain are restricted to conform with the conditions found in many economic models. However, the example used to establish this consistency is not particularly appealing. It is therefore of interest to see if this possibility theorem is preserved with the addition of further desirable axioms, such as anonymity. We also demonstrate that an impossibility theorem is obtainable in the public goods case with the addition of independence of Pareto irrelevant

alternatives to our list of conditions. It is an open question whether a similar impossibility theorem is obtained either with convex feasible sets when there are three or more public goods or with private goods.

TI Money Metric Utility: A Harmless Normalization?. AU Blackorby, Charles; Donaldson, David.

PD June 1986. TI Social Choice in Economic Environments with Dimensional Variation. AU Donaldson, David; Roemer, John E. AA Donaldson: Department of Economics, University of British Columbia. Roemer: University of California at Davis. SR University of British Columbia Department of Economics Discussion Paper: 86-27; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 28. PR \$0.20 per page Canadian to other than educational institutions. JE 025. KW Independence of Irrelevant Alternatives. Consistent Ordering Across Dimension. Social Choice.

AB In this paper, we replace the independence axiom with a new axiom that is appropriate for economic environments of allocations of private goods. We assume that individuals possess concave utility functions that represent selfish preferences or interests and the model allows for the possibility of interpersonal comparisons of utility. A separate social-evaluation functional is defined for each goods environment. The new axiom, called consistent ordering across dimension or COAD requires that, if two allocations contain suballocations in common, and if individual utility functions are projected down to the smaller economy where the allocations change, then these small allocations must be ranked in the same way that their ancestral allocations were. We show COAD, a natural and simple axiom has strong implications for social evaluation in economic environments. It permits a compelling argument to be made for full welfarism without invoking independence of irrelevant alternatives (thereby eliminating both positional rules and rules based on "mechanical" representations of preferences like money metrics). In addition, it provides an intuitively appealing basis for welfarist social evaluation with limitations on interpersonal information, allowing results in that general subject area to be applied to economic environments.

Donnenfeld, Shabtai

TI Trade Policy, Foreign Investment and Potential Expropriation. AU Diwan, Ishac; Donnenfeld, Shabtai.

Drazen, Allan

PD June 1986. TI On the Organization of Rural Markets and the Process of Economic Development. AU Drazen, Allan; Eckstein, Zvi. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 31-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PR No Charge. JE 112, 111, 820, 718. KW Dual Economy. Rural Markets. Development.

AB We consider how the organization of rural markets in a dual economy model will affect saving and the accumulation of capital in a dual economy model. We use an overlapping generations model and consider the effect of

rural land or labor markets being imperfectly competitive. First, we find that the steady-state capital stock will be lower in a model where both rural markets are competitive than in one where only the labor market is competitive, land not being traded. Second, we find that when neither rural market is competitive, rural workers receiving a fixed share of agricultural output, the steady state capital stock will be still lower, if the given share of labor is less than the competitive share. In short, the move away from competitive rural markets may increase the steady-state capital stock and welfare in a dynamic model.

PD July 1986. **TI** Involuntary Unemployment and Aggregate Demand Spillovers in an Optimal Search Model. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 32-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PR** No Charge. **JE** 023, 131, 821. **KW** Unemployment. Aggregate Demand. Search. Spillovers.

AB A general equilibrium model is presented which combines search and aggregate demand approaches to unemployment. Search is modelled as a matching process. Unemployed workers must search for vacant firms and vice-versa, where the search intensity of each side depends on the other side's intensity. Even when unemployed workers search optimally and wages have been endogeneously driven down to their minimum feasible level, involuntary unemployment dependent on spillovers of insufficient aggregate demand is possible. For a reasonable specification of product demand, any level of unemployment can be an equilibrium.

Due, John F.

PD April 28, 1986. **TI** The Controversial Norwegian Value Added Tax. **AU** Due, John F.; Brems, Ulla. **AA** Department of Economics, University of Illinois at Urbana-Champaign. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1245; Bureau of Economic and Business Research Faculty Working Papers, University of Illinois at Urbana-Champaign, 1206 S. 6th Street, Champaign, IL 61821. **PG** 20. **PR** No Charge. **JE** 323. **KW** Value Added Taxation. Norway.

AB With the entry of Spain and Portugal into the EEC, all countries of Western Europe have shifted their sales taxes to the value added form except Switzerland and Finland. In all of the countries with one exception the tax is generally accepted, although there have been controversies over certain features. The exception is Norway, in which the VAT has been under substantial criticism from groups which seek return to the retail sales tax form previously used. Almost nothing has been written in English on the Norwegian tax; this paper is based upon a translation of a 1985 report by the Norwegian Treasury on the issues relating to the tax. The primary arguments used by the opponents of the tax center around the claim that the tax is more costly for business firms and the tax administration than a retail sales tax would be. But little evidence is provided, and the defenders of the present tax stress the usual advantages of the VAT form. Like the taxes of Sweden and Denmark, the Norwegian VAT is a very broad based levy with very

few exemptions, coverage of farmers, and exclusion of only the very small firms. The tax rate is uniform. Only the New Zealand VAT now being implemented is broader in overall coverage.

Dungan, Peter

PD November 1985. **TI** New Technology and Unemployment: A Simulation of Macroeconomic Impacts and Responses in Canada. **AU** Dungan, Peter; Younger, Arthur. **AA** Dungan: Institute for Policy Analysis University of Toronto. Younger: Bank of Nova Scotia. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8514; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 42. **PR** No Charge. **JE** 122, 023. **KW** Technology. Unemployment. Productivity.

AB The paper addresses important macroeconomic issues of the debate over high technology and unemployment. A macro-econometric simulation model with a number of special features is used to examine alternative scenarios of enhanced productivity performance in Canada over the next decade. Responses of wages, prices and the monetary authorities are shown to be quantitatively important in determining the impact on employment. The type of productivity change and aggregate fiscal-policy response are shown to be of less importance.

Dutta, Prajit K.

PD July 1985. **TI** Maximum Theorems for Convex Structures with an Application to the Theory of Optimal Intertemporal Allocation. **AU** Dutta, Prajit K.; Mitra, Tapan. **AA** Cornell University. **SR** Cornell Department of Economics Working Paper: 335; Department of Economics, Cornell University Ithaca, N.Y. 14853. **PG** 15. **PR** No Charge. **JE** 213. **KW** Optimal Intertemporal Allocation. Berge's Maximum Theorem. Continuity Properties. Convex Structures.

AB A mathematical result used often in economic theory, is Berge's Maximum Theorem. This establishes continuity of the value function and upper semicontinuity of the maximisers' correspondence. However the theorem requires the return function and the feasible correspondence to be continuous. For some applications in economics, it is difficult to justify these strong continuity requirements but quite possible to explain some "convex structures" to the problem. The main purpose of this paper is to prove maximum theorems under convex structures but with weaker continuity requirements. We then illustrate the usefulness of our results by an application to a problem encountered in the theory of optimal intertemporal allocation.

Ebert, Udo

PD February 1986. **TI** A Note on Social Welfare Orderings. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 42; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 4. **PR** No Charge. **JE** 021, 024. **KW** Pareto Principle. Social Welfare. Gevers Theorem.

Eckstein, Zvi

TI On the Organization of Rural Markets and the

Process of Economic Development. AU Drazen, Allan; Eckstein, Zvi.

Economides, Nicholas

PD April 1986. TI One-sided and Two-sided Commitments. AA Columbia University. SR Columbia Department of Economics Working Paper: 325; Department of Economics, Columbia University, New York, NY 10027. PG 13. PR \$5.00. JE 026, 611, 531. KW Commitment. Credible Commitment. Advertising. Price Duopoly.

AB In this paper we analyse with the help of examples the significance of credible commitment in a strategic variable. There are numerous situations where firms have the option to commit themselves. For example, firms can commit themselves by acting earlier rather than later or by writing binding contracts about their actions in later periods. That a firm may be better off by committing in some strategic variable is known. Here we want to discuss the effects of precommitment on the opponent firm which may also have the possibility to commit itself. In particular we are interested to compare market structures where both firms can commit themselves to ones where only one firm can commit itself and to market structures where no firm can make a credible commitment. We discuss a number of games in the context of a simple example of advertising and price duopoly.

Edison, Hali J.

PD May 1986. TI Is the ECU an Optimal Currency Basket?. AA International Finance Division, Federal Reserve Board. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 282; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 36. PR No Charge. JE 430, 422. KW Exchange Rate. EMS. ECU. Currency Basket.

AB Recently the role of the ECU has increased and there has been concern whether it is sustainable. The first part of this paper examines the composition of the ECU and investigates the impact of changes in this composition on the value of the ECU. The results show that when there is little exchange rate variability among the currencies that comprise the ECU or when the changes in composition are small the value of the ECU remains stable. The second part of this paper constructs an alternative, optimal basket of currencies for Germany and compares this basket to the ECU. The path of the optimal basket resembles the ECU path but is dramatically different from the DM/\$.

Edwards, Sebastian

PD May 1986. TI Real Exchange Rate Variability: An Empirical Analysis of the Developing Countries Case. AA University of California Los Angeles. SR National Bureau of Economic Research Working Paper: 1930; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 23. PR \$2.00. JE 431, 400, 121. KW Real Exchange Rate Variability. Developing Countries.

AB The purpose of this paper is to investigate the potential role of monetary and real factors in explaining real exchange rate variability in developing countries. For this purpose two indexes of real effective exchange rate

variability that measure short-term and long-term variability were constructed for 30 countries. The results obtained, using a generalized least squares procedure on cross section data, indicate that real exchange rate variability has been affected both by real and monetary factors. In particular it was found that more unstable nominal exchange rate policies were reflected in higher real exchange rate instability in the short-run; more unstable domestic credit policies resulted in higher short-term real exchange rate variability; and more unstable external terms of trade also affected positively the degree of real exchange rate instability.

Eichenbaum, Martin

PD May 1986. TI Do Equilibrium Real Business Cycle Theories Explain Post-War United States Business Cycles?. AU Eichenbaum, Martin; Singleton, Kenneth J. AA Carnegie-Mellon University. SR National Bureau of Economic Research Working Paper: 1932; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 70. PR \$2.00. JE 131, 212, 311. KW Business Cycles. Monetary Business Cycle. Monetary Growth. Output Growth.

AB This paper presents and interprets some new evidence on the validity of the Real Business Cycle approach to business cycle analysis. The analysis is conducted in the context of a monetary business cycle model which makes explicit one potential link between monetary policy and real allocations. This model is used to interpret Granger causal relations between nominal and real aggregates. Perhaps the most striking empirical finding is that money growth does not Granger cause output growth in the context of several multivariate VARs and for various sample periods during the post war period in the United States. Several possible reconciliations of this finding with both real and monetary business cycles models are discussed. We find that it is difficult to reconcile our empirical results with the view that exogenous monetary shocks were an important independent source of variation in output growth.

Elbers, C. E.

PD November 1984. TI Steady State Equilibria with Savings for Retirement Purposes: An Overlapping Generations Approach. AU Elbers, C. E.; Weddepohl, H. N. AA University of Amsterdam. SR University of Amsterdam Actuarial Science and Econometrics Report: 13/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 29. PR No Charge. JE 111, 310, 915. KW Saving. Pensions. Overlapping Generations. Steady State Equilibria. Retirement.

AB Two alternative behavioural rules for saving in overlapping generations models are studied: a uniform pension scheme and a scheme where each consumer saves individually. First exchange economies are considered and secondly economies with production. The paper mainly deals with two generations models, but the results are generalised for continuous time models with many generations.

Elliehausen, Gregory E.

TI Pensions and Social Security In Household Portfolios: Evidence From the 1983 Survey of Consumer Finances. AU Avery, Robert; Elliehausen, Gregory E.; Gustafson, Thomas A.

Else, Mitchell Rae

PD April 14, 1986. TI Accountability in Intergovernmental Fiscal Transfers. AU Else, Mitchell Rae; Saunders, Cheryl A. AA Else-Mitchell: Commonwealth Grants Commission, Canberra. Saunders: Intergovernmental Relations Programme, Victoria. SR Australian National University Centre for Federal Financial Relations Occasional Paper: 38; Australian National University, G.P.O. Box 4, Canberra City, A.C.T. 2601. PG 25. PR No Charge. JE 324, 325. KW Federal Finance. Intergovernmental Fiscal Transfers. Conditional Grants. Accountability. Audit. Intergovernmental Fiscal Transfers.

AB These papers examine the constitutional basis and administrative practices of fiscal transfers by the Commonwealth to the States in the Australian federal system where those transfers are made for purposes specified by the Commonwealth. The growth in the number, amount and range of these specific purpose transfers in Australia in recent times has been such as to pre-empt State policies and priorities and to create problems of accountability, as well as difficulties in administrative control and audit of the expenditure of the funds transferred. Both authors argue for inter-governmental transfers by the Commonwealth to the States being in the form of general revenue or unconditional grants and they advance reasons for that view based upon economy, efficiency and political responsibility. Dr Saunders' paper, in addition, directs attention to the comparable situation in the United States of America where similar problems have emerged and examines a number of measures devised at Federal and State levels to ensure the co-ordination of grants management and the review of accounting and auditing practices relating to the disbursement of the funds transferred.

Engineer, Merwan

TI The Distribution of Income in a Despotism Society. AU Usher, Dan; Engineer, Merwan.

Engle, Robert F.

PD June 1986. TI A Comparison of Adaptive Structural Forecasting Methods for Electricity Sales. AU Engle, Robert F.; Brown, Scott J.; Stern, Gary. AA University of California at San Diego. SR University of California at San Diego Department of Economics Discussion Paper: 86-12; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. PG 46. PR \$2.00; make cheques payable to University of California Regents. JE 132, 723. KW Electricity Sales. Forecasting. Electric Utility Forecasting.

AB This paper presents the results of a study to determine whether new forecasting technologies might be of use to electric utilities for sales forecasting up to three years into the future. The methods considered included

ordinary least squares on dynamic structural models, autocorrelated error models, adaptive variance and adaptive parameter models. Overall, the more adaptive models performed best, but most of the methods proved vastly superior to simple least squares models which do not take dynamics into account.

Epstein, Larry G.

PD January 1985. TI A Simple Dynamic General Equilibrium Model. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8501; Department of Economics, University of Toronto, Ontario, CANADA M5S 1A1. PG 73. PR No Charge. JE 021, 022, 111. KW Simple Dynamic General Equilibrium Model. Recursive Utility. General Equilibrium. Wealth Distribution.

AB This paper analyses an economy with $H > 1$ infinitely-lived agents that operate in a continuous time framework. The major simplification in the model is the assumption that there is only a single good, as in the Koopmans-Cass growth model. Both efficient and perfect foresight competitive equilibrium allocations are considered. The existence and stability of such allocations are investigated locally, i.e., in a neighbourhood of steady state allocations. The model is shown to be useful for explaining the distribution of wealth and consumption across agents, and for analysing the way in which wealth redistribution can affect the dynamics of aggregate economic variables.

PD June 1985. TI The Global Stability of Efficient Intertemporal Allocations. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8507; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 44. PR No Charge. JE 021, 022, 111. KW Global Stability. Efficient Allocations.

AB A multiple agent, multiple capital goods, continuous time model is considered. The utility functionals of agents are recursive but not additive. A turnpike proposition is proven under a restriction on the levels of discounting of all agents. It is argued that the analysis provides an important step in the development of a theory of the long-run distribution of wealth in a competitive economy.

PD February 1986. TI Infinite Horizon Temporal Lotteries and Expected Utility Theory. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8604; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 24. PR No Charge. JE 022, 026. KW Temporal Lotteries. Expected Utility.

AB This paper presents a normative argument for expected utility theory in the context of a multiperiod choice setting, where decisions are made sequentially and subject to changing information about the state of the world. Two particularly appealing features of the analysis are: (i) the key axioms emerge naturally from the temporal framework, and (ii) the analysis has implications for the specification of preference orderings in multiperiod consumption-savings models.

Esfahani, Hadi S.

PD June 5, 1986. TI Reputation and Uncertainty: Towards an Explanation of Quality Problems in Competitive Markets. AA Department of Economics, University of Illinois at Urbana-Champaign. SR University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1261; Department of Economics, University of Illinois at Urbana-Champaign, 1206 S. 6th Street, Champaign, IL 61821. PG 30. PR No Charge. JE 022, 026. KW Reputation. Uncertainty. Quality. Competition.

AB This paper attempts to explain the puzzle of low and variable qualities in seemingly competitive markets. We show that under cost or demand uncertainty in a market with free entry, reputation may not be sufficient to solve the problem of asymmetric information. Since markets with a multiplicity of producers are more likely to suffer from cost and demand uncertainties, they are also more susceptible to suffering from quality problems as well. The derived conditions for the persistence of quality problems furthermore contribute to the explanation of quality differences between similar markets in developed and less developed countries.

Estrin, Saul

PD July 1986. TI The Micro-Economic Effects of Profit-Sharing: The British Experience. AU Estrin, Saul; Wilson, Nick. AA Estrin: London School of Economics. Wilson: University of Bradford. SR London School of Economics Centre for Labour Economics Discussion Paper: 247; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. PG 41. PR No Charge. JE 824, 825, 510. KW Profit-Sharing. Employment. Labor Productivity.

AB The paper focuses on the effects of profit-sharing on worker motivation, employment and pay at the enterprise level. The conditions for profit-sharing to increase enterprise employment are specified and the effects on pay analysed. In the absence of unions, one would expect profit-sharing to be associated with increased employment and reduced pay, provided there is no binding constraint on the labour supply side. The outcome is less straightforward in a model with unions, but if profit-sharing enhances labour productivity it will also increase employment. These propositions are tested on a United Kingdom data set covering medium sized firms over the period 1978-82. Profit-sharing firms cannot be distinguished from their more traditional counterparts with respect to size, employment and pay, though there are indicators of a superior economic performance. Simultaneous estimation of labour demand and wage equations, however, suggests that profit-sharing increases employment by around 13 per cent. Some 3 per cent of this derives from lower pay and the remainder from a Weitzman-type wedge between the marginal and average cost of labour and productivity effects.

Evans, Robert G.

PD December 1984. TI Illusions of Necessity - Evading Responsibility for Choice in Health Care. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-09;

Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 51. PR \$0.20 per page Canadian to other than educational institutions. JE 913. KW Health Care. Canadian Health Care.

AB The problems of health care delivery are rooted in the health care system itself. They are generated, not by external forces - demographic shifts, technological evolution, culturally determined moral imperatives - but by the way in which the health care system responds to these and other forces. And that response, as in any other organization or complex system, depends on the pattern of information and incentives available to or bearing upon the participants in it. If their behaviour is to be changed, this pattern must shift. And if the behaviour of such participants in the United States is not changed, the resources are unlikely to be available to extend, or even maintain, the range of public benefits for the elderly or anyone else. Allegations of inevitable external forces serve to divert attention from this task. The good news from Canada is that it is possible to contain the growth of the acute-care system, without any negative impact on the perceived, or as far as we can tell, the actual, health status of the population, and to remain very popular politically while doing it.

PD May 1985. TI The Political Economy of Health Care. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-24; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 29. PR \$0.20 per page Canadian to other than educational institutions. JE 913. KW Political Economy of Health Care.

AB This paper discusses health care in Canada and its relationship to things political.

Farrell, Joseph

PD May 1985. TI Owner Consumers and Efficiency. AA GTE Laboratories Inc. SR Massachusetts Institute of Technology Department of Economics Working Paper: 380; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 8. PR No Charge. JE 022. KW Consumer Surplus. Marginal-Cost Pricing. Efficiency. Profits.

AB We show if each household owns the same fraction of a firm as its share of consumption, shareholders unanimously want marginal-cost pricing. Otherwise, profits are overemphasized relative to consumer surplus.

PD May 1985. TI Allocating and Abrogating Rights: How Should Conflicts Be Resolved Under Incomplete Information?. AA GTE Laboratories Inc. SR Massachusetts Institute of Technology Department of Economics Working Paper: 381; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 35. PR No Charge. JE 026. KW Coase Theorem. Private Information. Allocation of Rights. Negotiation.

AB In this paper, I show, first, that the Coase theorem does not extend to a world with private information. Secondly, I argue that one view of rights is consistent with the Pareto principle when there are externalities. Some

decisions should be allocated to particular people simply because they care the most or have the most information about them. Finally, I clarify the conditions under which allocation of rights will produce more efficient outcomes than some feasible alternatives. From a utilitarian viewpoint, rights are sometimes a good institution, but they are by no means the best feasible solution to all conflicts.

PD May 1985. **TI** How Effective Is Potential Competition. **AA** GTE Laboratories Incorporated. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 375; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 8. **PR** No Charge. **JE** 022, 611. **KW** Potential Competition. Contestability. Limit-Pricing. Average Cost Pricing.

AB In this paper, we present a simple analysis of the question, "How effective is potential competition in doing what actual competition is meant to do?" We study a model of an incumbent facing potential entry, and examine his limit-pricing behavior. The claim by Schwartz and Reynolds (1983), that contestability's conclusion of average-cost pricing is not robust to small changes in assumption, is not borne out in our model; but neither is the claim by Baumol, Panzar and Willig (1983) that "where there are almost no sunk costs, markets are almost perfectly contestable."

PD May 1985. **TI** Voluntary Disclosure: Robustness of the Unraveling Result, and Comments on its Importance. **AA** GTE Laboratories Incorporated. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 374; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 20. **PR** No Charge. **JE** 613. **KW** Disclosure. Unraveling. Voluntary Disclosure. Compulsory Disclosure.

AB The principal existing model of voluntary disclosure is due (independently) to Grossman (1981) and Milgrom (1981). It is summarized below. The "unraveling result" claims that voluntary disclosure will lead to the same results as compulsory disclosure, and therefore it makes no real difference whether disclosure is required or not. Plainly, something is missing in that model, for the passion brought to bear in the 1980-1982 lobbying battle testifies that, whatever the results may be, it does matter. A natural candidate for modification is the assumption made by Grossman and Milgrom that it is common knowledge that sellers are fully informed about their products. I use a simplification of a model in Farrell and Sobel (1983) to examine the effects of having not all sellers informed. Although we reproduce the continuity result of Farrell and Sobel, we also see in this version that continuity may be misleading, in a sense I discuss. I use the Farrell-Sobel model to examine whether disclosure requirements will actually increase the amount of information acquired and disclosed. The result is ambiguous. I also try to evaluate the allocative gains from information. Although the models just discussed lack welfare benefits from information, there clearly are such benefits. However, by considering reasonable numerical examples, I show that the benefits of simple allocative efficiency may be surprisingly small.

PD June 1985. **TI** Credible Neologisms in Games of Communication. **AA** GTE Laboratories Incorporated. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 386; Department of Economics, MIT, Cambridge, MA 02139. **PG** 43. **PR** No Charge. **JE** 026. **KW** Communication. Credible Neologism. Sequential Equilibrium.

AB In a sequential equilibrium, no agent can profitably lie. We introduce a plausible condition expressing the further equilibrium requirement that no agent can profitably deviate by coining a credible neologism. We showed that this rules out some implausible sequential equilibria; and that sometimes it rules out all sequential equilibria. We then simulate adaptive behavior in a game with no neologism-proof equilibrium, and find that the predictions of sequential equilibrium are not fulfilled.

PD June 1985. **TI** Communication Equilibrium in Games. **AA** GTE Laboratories Inc. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 382; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 22. **PR** No Charge. **JE** 026. **KW** Communication. Bayesian Equilibrium. Correlated Equilibrium. Mediation.

AB In this paper, we introduce the concept of a communication equilibrium: an outcome that is an equilibrium when players can talk to one another in a specified way. We show that every Bayesian equilibrium is a communication equilibrium, but not vice versa, and that every communication equilibrium is a correlated equilibrium, but not vice versa. Thus on the one hand costless direct communication can count; on the other hand, a mediator can have positive value. We then ask what kinds of information can be revealed by unmediated communication. In the standard case of independently distributed types, we show that there are invariants that are always preserved under unmediated communication, but need not be preserved when a mediator is available. This represents the fact that, without a mediator, it is impossible for each of two players to make his revelation contingent on what the other says.

PD July 1985. **TI** Moral Hazard as an Entry Barrier. **AA** GTE Laboratories Incorporated. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 387; Department of Economics, MIT, Cambridge, MA 02139. **PG** 17. **PR** No Charge. **JE** 611. **KW** Moral Hazard. Entry Barriers.

AB Moral hazard, such as arises in a seller's choice of quality of an experience good, can lead to a barrier to entry. In particular, hit-and-run entry is likely to lead to low quality choice, and, if buyers foresee that, they will be unwilling to buy from an entrant. The scale of entry may affect quality incentives, and therefore introductory offers may assure buyers of an entrant's quality, but this cannot happen under constant returns.

PD August 1985. **TI** Installed Base and Compatibility, with Implications for Product Preannouncements. **AU** Farrell, Joseph; Saloner, Garth. **AA** Farrell: GTE Laboratories Incorporated. Saloner: Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department

of Economics Working Paper: 385; Department of Economics, MIT, Cambridge, MA 02139. PG 39. PR No Charge. JE 621. KW Innovation. Compatibility.

AB When compatibility is important, an installed base of durable goods or training may affect the likelihood and desirability of innovation. In this paper we analyze the private and social incentives for the adoption of a new technology which is incompatible with the installed base. In the presence of compatibility benefits, an individual or firm that switches to a new, superior technology obtains the full benefit of the improved standard only if other current users also switch and if new users adopt the new technology. Thus users face a coordination problem. Each user would be happy to switch if it knew that others would too, but it may be reluctant to switch on its own. There is thus the possibility of "excess inertia": a tendency not to switch to a superior new standard when important network externalities are present in the current one. We study this phenomenon.

PD October 1985. TI Economic Issues in Standardization. AU Farrell, Joseph; Saloner, Garth. AA Farrell: GTE Laboratories Inc. Saloner: Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 393; Department of Economics, Massachusetts Institute of Technology Cambridge, MA 02139. PG 25. PR No Charge. JE 621, 022. KW Compatibility. Standardization. Network Externalities.

AB Standardization is extremely important in modern economies, especially in the information processing industries. While it has many benefits, it may also have serious social costs. There has been little economic analysis of the policy problems. There is no easy prescription for microeconomic policy in markets in which network externalities play an important part. In this paper and in our other work, we identify some of the factors that should be kept in mind, and we show how certain standard lessons of economics must be treated cautiously.

PD June 1986. TI Cheap Talk in Bargaining Games. AU Farrell, Joseph; Gibbons, Robert. AA Farrell: GTE Laboratories Incorporated. Gibbons: Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 422; Department of Economics, MIT, Cambridge, MA 02139. PG 18. PR No Charge. JE 026. KW Cheap Talk. Communication. Bargaining. Efficient Trading. Mechanism Design. Game Theory.

AB This paper shows that cheap talk can matter in bargaining. We analyze a two-stage bargaining game in which cheap talk may be followed by serious negotiation. Cheap talk matters because it can affect whether negotiation ensues. The conventional wisdom, that all buyers would claim to have low reservation prices, assumes that participation is determined exogenously, and is incorrect in our model. One of the equilibria in this game maximizes both the ex-ante expected gains from trade and the ex-ante probability of trade, but does not involve cheap talk in an important way. We focus on a different equilibrium -- one in which cheap talk is central. This equilibrium performs less well ex-ante, but once they learn

their reservation prices, exactly as many types of each party strictly prefer the cheap-talk equilibrium as strictly prefer the ex-ante efficient equilibrium.

Feinstone, Lauren J.

PD June 1985. TI Minute by Minute: Efficiency, Normality and Randomness in Intradaily Asset Prices. AA University of Rochester. SR University of Rochester, Center for Economic Research Working Paper: 15; Department of Economics, University of Rochester, Rochester, NY 14627. PG 41. PR No Charge. JE 313, 020. KW Asset Markets. Efficiency. Intradaily Futures Prices. Deutsche-Mark.

AB In this study we test the efficiency of asset markets at intervals as short as thirty seconds. We also describe the properties of a simple new stochastic process as a potential model of the behavior of asset prices and test it on intradaily Deutsche Mark futures prices. According to this process, asset prices are constant between economically relevant events, which occur at the random times generated by a Poisson process. At the moments of these events, prices jump to new values; the size of the jump is drawn from a normal distribution. Tests of this process indicate that it cannot be rejected for almost all days in the sample.

Figlewski, Stephen

PD June 1986. TI Arbitrage-Based Pricing of Stock Index Options. AA New York University. SR New York University Salomon Brothers Center Working Paper: 384; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 39. PR \$2.00. JE 313. KW Stock Index Options. Arbitrage. Future's Prices. Contingent Claims Pricing. Arbitrage Based Pricing.

AB Financial theory provides valuation models for futures and options based upon arbitrage between the contingent claim and its underlying asset. In practice, this arbitrage is difficult to do and never riskless, especially for stock index options. Arbitrage to eliminate theoretical mispricing is therefore not a dominant strategy, but just one of many different trading techniques investors will employ. The paper first examines how closely market prices for options on the NYSE Composite stock index correspond to model values. We find broad agreement overall but some fairly large deviations. We then consider option values based on the strategy of trading options against NYSE index futures. This is an easier strategy to follow, but not an exact arbitrage. We find a strong connection between the futures and options prices, which is in many cases closer than the arbitrage-based relationship between the option prices and the underlying stock index. This suggests that to understand contingent claims pricing in real-world markets, one needs to consider both theoretical arbitrage relationships, and also the other trading strategies that may be in use.

Fisher, Anthony C.

PD July 1985. TI Quasi-Option Value: Some Misconceptions Dispelled. AU Fisher, Anthony C.; Hanemann, W. Michael. AA University of California at Berkeley. SR University of California at Berkeley

Department of Agricultural and Resource Economics (CUDARE) Working Paper: 374; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 12. PR No Charge. JE 026, 721. KW Dependent Learning. Independent Learning. Quasi-Option Value.

AB In this note we discuss some issues raised in the recent article by Freeman '4 on quasi-option value. Arrow and Fisher (AF) '1 originally introduced the concept in the context of an irreversible development decision where information about the future consequences of development would arrive with time independently of the development decision itself. We shall refer to this scenario as "independent learning." Within this framework, AF showed that there is a positive quasi-option value of preservation and argued that, when the possibility of acquiring this information is recognized, there is a stronger case for postponing irreversible development actions than when no such possibility exists. In the first part of his paper, Freeman reviews this issue and appears to disagree with both of these conclusions. We show below that the AF conclusions are correct and that the source of Freeman's difference is a confusion between quasi-option value, which is always positive, and the net benefit of preservation which is not. In the second part of his paper, Freeman considers a different scenario where the relevant information can be obtained only by undertaking some development and shows that this changes AF's conclusions. The same point was made independently by Miller and Lad '6. We refer to this scenario as "dependent learning." We shall offer some comments on the significance of this scenario and expose the similarities, as well as the differences, with the independent learning scenario.

Fisher, Franklin M.

PD May 29, 1986. TI Pan American to United: The Pacific Division Transfer Case. AA Department of Economics, Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 420; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 35. PR No Charge. JE 615, 613, 635. KW Mergers. Airline Deregulation. Deregulation.

AB United Airlines recent acquisition of Pan American's Pacific Division will greatly increase concentration, especially in United States - Japan service -- an important market with high entry barriers. Price competition will disappear. United will dominate the market by biased use of its computer reservation system and by combining its own giant domestic feeder system with Pan American's Tokyo hub, both legacies of regulation. Without the acquisition, the resulting efficiencies could have been achieved in a less restrictive way with three carriers competing to provide efficient service. The Department of Transportation took a very narrow view of its post-deregulation responsibilities in approving the acquisition.

Fisher, Timothy

TI Testing for the Existence of Input Aggregates in an Economy Production Function. AU Blackorby, Charles;

Schworm, William; Fisher, Timothy.

Flam, Harry

PD May 1986. TI Trade Dynamics. AU Flam, Harry; Helpman, Elhanan. AA Flam: University of Stockholm. Helpman: Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 25-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 51. PR No Charge. JE 400, 410, 411, 630. KW Trade. Technical Progress. Comparative Advantage. AB We study the evolution of international trade in a world that consists of an advanced and a less developed country which produce a homogeneous and a vertically differentiated product. The advanced country has comparative advantage in high qualities of the differentiated product and the less developed country has comparative advantage in low qualities. There exists a nondegenerate income distribution in every country, resulting in a demand for a large spectrum of qualities. The dynamics that result from population growth and technical progress lead to the introduction of higher quality products and the abandoning of low quality products. They also bring about the emergence of a product cycle in medium quality products; that is, the advanced country abandons the production of some qualities that are adopted by the less developed country. We study the evolution of intersectoral and intraindustry trade.

Florenzano, M.

PD November 1986. TI A Note on the Gale-Nikaido-Debreu Lemma and the Existence of General Equilibrium. AU Florenzano, M.; Le, Van C. AA CNRS. SR CEPREMAP Discussion Paper: 8603; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 7. PR 20 FF. JE 021. KW Upper Semi-Continuous Correspondence. Partition of Unity. Retraction. Transitive General Quasi-Equilibrium. Free Disposability. AB In this note, we give another version of the generalized Gale-Nikaido-Debreu lemma which has as a direct corollary the usual statement without weakening any conclusion. We give also another simple way for discarding free disposability.

Frankel, Allen B.

PD June 1986. TI A Framework for Analyzing the Process of Financial Innovation. AU Frankel, Allen B.; Mann, Catherine L. AA International Finance Division, Federal Reserve Board. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 283; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 29. PR No Charge. JE 312, 313, 314, 433, 441, 442. KW Financial Innovation. International Financial Markets. Commercial Banking. AB The following note presents a framework for analyzing financial management techniques and financial product innovation. The framework attempts to illustrate how characteristics of the economic system and its participants motivate financing needs and encourage innovations in financing techniques. New sets of financial contracts are the joint product of (1) changes in technology

and in the international macro environment of asset prices; (2) the interplay of individual market participants' existing financial exposures; and (3) the presence of fruitful cross-market arbitrage opportunities based on differing national jurisdictions and structures. We use stylized examples to explore several different manifestations of this process and we offer general observations on how financial innovation may change the character of international money and credit markets. Finally, in thinking about official attitudes toward the process of innovation policies, it is necessary to form a view of the counterfactual world. How would the world economies have functioned without innovation?.

Frankel, Jeffery A.

PD May 1986. TI The Sources of Disagreement Among the International Macro Models and Implications for Policy Coordination. AA University of California, Berkeley. SR National Bureau of Economic Research Working Paper: 1925; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 80. PR \$2.00. JE 431, 423, 132. KW Policy Coordination. Macroeconometric Models.

AB This paper makes use of the simulation results of 12 leading large international econometric models, as to the effects of commonly specified changes in monetary and fiscal policy, conducted under the Brookings exercise "Empirical Macroeconomics for Interdependent Economies." The first half of the paper examines disagreement among the models on the signs of policy multipliers, and how such disagreement compares to the ambiguities appearing in the theoretical literature. There turns out to be relatively little disagreement as to the effects on output, prices and the exchange rate. The greatest disagreement is rather over the question whether a monetary expansion worsens or improves the current account. The second half of the paper examines the implications for international macroeconomic policy coordination. The existing literature makes the unrealistic assumption that policy-makers all know the true model, from which it follows that the Nash bargaining solution is in general superior to the Nash competitive solution. But everything changes once we recognize that policy-makers' models, as the models in the Brookings simulations, differ from each other and therefore from the "true" model. When the central bank and fiscal authorities subscribe to conflicting models, it is still true that (1) the competitive equilibrium is sub-optimal, and that (2) the two authorities will in general be able to agree on a cooperative policy package that each believes will improve the objective function; however, (3) the bargaining solution is as likely to move the target variables in the wrong direction as in the right direction, in the light of a third true model. Out of 1,210 possible combinations of different models subscribed to by the two policy authorities and models representing reality, bargaining raises welfare in only 819 cases. The conclusion is that disagreement as to the true model may be a more serious obstacle to successful policy coordination than is institutional failure to enforce Pareto-improving solutions.

Friedman, Joseph

PD February 1985. TI The Demand for Tenure

Security in Developing Countries. AU Friedman, Joseph; Jimenez, Emanuel E.; Mayo, Stephen K. AA Friedman: University of Pennsylvania. Jimenez: University of Western Ontario. Mayo: The World Bank. SR University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 85-2; Department of Economics, McNeil 160/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. PG 41. PR No Charge. JE 121, 932. KW Squatter Sector. Tenure. Tenure Security. Philippines.

AB This paper uses data from a sample of Metro Manila households to confirm earlier results from another Philippine city, Davao, that there are significant differences in housing values between squatter and formal sectors of the housing market, even when housing characteristics are held constant. On average dwelling units in the squatter sector of Manila would rent for 11 percent more or sell for 23 percent more had they been in the formal sector. These magnitudes are similar to the figures of 18 percent and 58 percent found for Davao. It was also found that older squatter units are apparently perceived to be safer than newer squatter units, as the price differential for the former is lower than for the later. In addition, it appears that characteristics such as a concrete foundation, water and sanitation connections, a good roof and more than one story signal low eviction risk. Therefore, the implicit prices for these characteristics are higher in the squatter sector than in the formal sector. As was found for Davao, better off households tend to outbid poorer ones for safer -- as measured by low risk premia -- locations. This implies that projects that provide secure tenure over a wide area will bestow comparatively greater benefits on lower income households, since the risks that they bear initially are greater. Also, since risk premia are greater for owners than for renters, increasing security of tenure confers differential benefits by tenure group. Similarly, benefits will be expected to be greater for newer, less established, squatter areas than for older, more established, areas. The discussion is based on market valuations of secure tenure.

Fudenberg, Drew

PD May 1985. TI Predation Without Reputation. AU Fudenberg, Drew.; Tirole, Jean. AA Fudenberg: University of California, Berkeley. Tirole: Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 377; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 22. PR No Charge. JE 022, 611. KW Predatory Pricing. Reputation. Predation.

AB This paper offers a new explanation of predatory pricing which does not depend on reputation effects. We assume that the entrant is uncertain of its future profitability, and uses its current profit to decide whether or not to remain in the market. Moreover, the established firm can take some competitive actions which are not (fully) observed by the entrant, such as secret price cutting. Because these actions lower the distribution of the entrant's realized profits, they increase the probability of exit and so the established firm will compete more than it would if the entrant were certain to remain active. This is

predation, in the sense of lower prices (or higher expenditures on non-price competition) than would have occurred were exit not a factor. In equilibrium, the established firm "preys", reducing both its own and the entrant's profits, even though the entrant is not "fooled" by the predation and leaves the market only when it would have left without predation. Nevertheless, predation may be of some benefit to the predator, because it lowers the expected profitability of entering the market. The fact that the established firm can, on the margin, increase the probability of exit by predation makes the threat to prey credible, thus discouraging entry.

PD April 1986. **TI** On the Robustness of Equilibrium Refinements. **AU** Fudenberg, Drew; Kreps, David M.; Levine, David K. **AA** Fudenberg: University of California Berkeley, Department of Economics. Kreps: Stanford University School of Business. Levine: University of California at Los Angeles Department of Economics. **SR** University of California at Los Angeles Department of Economics Working Paper: 398; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. **PG** 18. **PR** \$2.50 (checks payable to U.C. Regents). **JE** 020, 026. **KW** Game Theory. Perfection. Stability. Nash Equilibrium. Equilibrium Refinements. **AB** We show that refinements of Nash equilibrium, such as stability, or even more strongly strictness, do not survive small perturbations of the extensive form.

Fuss, Melvyn A.

TI Productivity Measurement with Adjustments for Variations in Capacity Utilization and other Forms of Temporary Equilibrium. **AU** Berndt, Ernst R.; Fuss, Melvyn A.

Gallini, N. T.

TI A Disaggregate Analysis of Multi-Vehicle Holdings, Usage, and Gasoline Demand. **AU** Berkowitz, M. K.; Gallini, N. T.; Miller, E. J.; Wolfe, R. A.

Gay, Robert S.

PD August 1985. **TI** Profits, Concessions, and the Wage Equations. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 54; Economic Activity Section, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 18. **PR** No Charge. **JE** 134, 824, 832. **KW** Wage Determination. Collective Bargaining. Wage Concessions.

AB One of the most striking, and perhaps least expected, economic developments during the first half of the 1980s was the abrupt and sustained reduction in wage inflation. One question raised by this experience is whether the reduction in wage adjustments was more than might have been predicted on the basis of historical relationships with inflation and the degree of slack in the labor market. The first part of this paper examines the hypothesis that the downward shift in wage inflation was confined mainly to the union sector, as an unprecedented number of union members accepted wage cuts and freezes. To the extent that aggregate variables such as the national unemployment rate do not fully capture the extreme

adversity faced by many unionized industries, conventional wage equations may not pick up an added influence from union wage concessions. If nontraditional union settlements are responsible for the downward shift, then any assessment of aggregate wage behavior in the 1980s must explicitly address why wage determination has deviated from past practices. The second part of the paper examines this issue and offers a number of possible explanations.

Ghosh, Damayanti

TI Me and My Shadow: Estimating the Size of the United States Underground Economy from Time Series Data. **AU** Aigner, Dennis J.; Schneider, Friedrich; Ghosh, Damayanti.

Gibbons, Robert

TI Cheap Talk in Bargaining Games. **AU** Farrell, Joseph; Gibbons, Robert.

Gilboa, Itzhak

PD May 1986. **TI** The Complexity of Computing Best Response Automata in Repeated Games. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 27-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 18. **PR** No Charge. **JE** 026. **KW** Repeated Games. Bounded Rationality. Finite Automata.

AB The following problem is examined: given a game and the opponents' finite automata, find a best response automaton for a certain player in the repeated game. It is shown that the problem is relatively "easy" (i.e. of polynomial time complexity) if the number of players is fixed, but "difficult" otherwise.

PD June 1986. **TI** Information and Meta-Information. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 30-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 18. **PR** No Charge. **JE** 026. **KW** Information. Common Knowledge. States of the World.

AB A model of information is presented, in which statements such as "the information sets are common knowledge" may be formally stated and proved. The model can also be extended to include the statement: "this model is common knowledge" in a well-defined manner, using the fact that when an event A is common knowledge, it is common knowledge that A is common knowledge. Finally, the model may also be used to define a "natural" topology on informations.

Glassman, Debra

TI Off the Mark: Lessons for Exchange Rate Modelling. **AU** Boothe, Paul; Glassman, Debra.

Goldberg, Linda S.

PD June 1986. **TI** Collapsing Fixed Exchange Rate Regimes: An Extended Framework. **AA** Department of Economics, Princeton University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 112; Woodrow Wilson School, Princeton University,

Princeton, NJ 08544. PG 26. PR No Charge. JE 400, 431. KW Exchange Rate. Exchange Rate Crisis. Balance of Payments Crisis. Collapsing Exchange Rates.

AB This work extends the theory and analyzes the empirical evidence on exchange rate and balance of payments crises. Models of exchange rate crises depict a drainage of Central Bank reserves due to deficits in the balance of payments, followed by speculative attacks by private agents on the Central Bank's remaining reserves. These models determine the lower bound on the size of the currency devaluation, as well as on the date of transition between fixed and floating exchange rates. This paper modifies Flood and Garber's (1984) discrete time model of a crisis. It relaxed the assumptions of purchasing power parity and interest rate parity, and introduces currency substitution and income elasticity into the demand for real balances. The results define a lower bound on the rate of domestic credit creation that is certain to bring about a regime collapse. The results also show that, in a world without purchasing power parity, a country can eliminate the possibility of collapse only by allowing the domestic money growth rule to be known and completely nonrandom. Given that the government seeks to follow a fixed rate regime while retaining some flexibility in domestic credit creation, we are left with a nonzero probability of collapse.

Goldberg, Michael A.

TI Market Discipline in Regulating Bank Risk: New Evidence From the Capital Markets. **AU** Avery, Robert; Belton, Terrence M.; Goldberg, Michael A.

Goldfeld, Stephen M.

PD June 5, 1986. **TI** Effects of Multiple Uncertainty on Rationing. **AU** Goldfeld, Stephen M.; Quandt, Richard E. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 70; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 16. **PR** \$2.00. **JE** 026, 210, 022. **KW** Rationing. Disequilibrium. Uncertainty. Multiplier Uncertainty.

AB We analyze the problem of a policy maker who chooses an instrument and rations so as to minimize a loss function in the face of additive and multiplicative uncertainty. Theoretical and computational results are provided.

Goldman, Fred

TI An Assessment of the Benefits of Air Pollution Control: The Case of Infant Health. **AU** Joyce, Theodore J.; Grossman, Michael; Goldman, Fred.

Goldsbrough, David

TI The Evolving Role of Monetary Policy in China. **AU** DeWulf, Luc; Goldsbrough, David.

Goldstein, Morris

PD June 1986. **TI** Evaluating Fund Stabilization Programs with Multicountry Data: Some Methodological Pitfalls. **AU** Goldstein, Morris; Montiel, Peter. **AA** Goldstein: International Monetary Fund. Montiel: The World Bank. **SR** International Monetary Fund

Departmental Memoranda/Staff Paper: (33)2/5; International Monetary Fund, Washington D.C. 20431. **PG** 41. **PR** No Charge. **JE** 212, 310, 400, 133. **KW** International Monetary Fund Program Effects. Statistical Analysis and Bias. International Economics.

AB The problems associated with "before-after" methods to estimate the counterfactual in studies of Fund program effects using multicountry data are well known. This paper focuses on the statistical problems of the alternative "control-group" methodology. Because theory and evidence indicate that assignment of countries to program status is not random, the control-group approach is subject to "sample-selectivity" bias. Estimates of program effects that control for observable differences between program and nonprogram countries are therefore quite different from those that do not. Consequently, considerable caution is needed in estimating and interpreting Fund program effects using multicountry data.

Goodwin, Richard M.

PD January 1986. **TI** The Economy As an Evolutionary Pulsator. **AA** Universita di Siena, Italy. **SR** University of Southern California Modelling Research Group Working Paper: M8605; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 15. **PR** No Charge. **JE** 131, 051. **KW** Long Waves. Business Cycles. Capitalism.

AB The problem of Long Waves is formalized as one of the dynamical coupling of a relatively steady flow of new techniques and goods along with the endemic tendency of capitalism to evolve in a cyclical fashion. This implies a strong exogenous influence which renders any precise periodicity unlikely. The model is illustrated by a hypothetical, historically determined potential which controls the path in time of the economy.

Goovaerts, M. J.

TI Best Bounds for Positive Distributions with Fixed Moments. **AU** Kaas, R.; Goovaerts, M. J.; Leuven, K. U.

PD October 1984. **TI** A Note on a Formula for Profit Return. **AU** Goovaerts, M. J.; Kaas, R. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 24/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 4. **PR** No Charge. **JE** 213, 511. **KW** Profit Return. Incomplete Information.

AB An upper bound for the profit return in case of incomplete information on the claim size distribution is obtained.

TI Computing Moments of Compound Distributions. **AU** Kaas, R.; Goovaerts, M. J.

Gourieroux, C.

TI Reduction and Identification of Simultaneous Equations Models with Rational Expectations. **AU** Broze, L.; Gourieroux, C.; Szafarz, A.

Graham, John W.

PD May 1986. TI The Effect of Child Support Payments on the Labor Supply of Female Family Heads. AU Graham, John W.; Beller, Andrea H. AA University of Illinois at Urbana-Champaign. SR University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1248; Department of Economics, University of Illinois at Urbana-Champaign, 1206 S. 6th Street, Champaign, IL 61821. PG 42. PR No Charge. JE 824, 841, 826, 911, 813. KW Female Labor Supply. Child Support. AFDC.

AB Previous research has found that the income of divorced/separated mothers who received child support exceeds the income of those who do not by more than the value of child support income, because women with a child support award are more likely to work and to work longer hours than women with no award. This paper analyzes the impact of child support of AFDC participation and labor supply in a multiple regression framework using the combined 1979/1982 Match Files of the CPS. It attempts to correct for the fact that women with child support income also differ in other ways (some observable and some not) from women without child support. The results have policy implications for current efforts designed to improve enforcement of existing child support contracts and to increase the percentage of women due child support.

Greenberg, Joseph

PD December 1985. TI Stable Coalition Structures in Consecutive Games. AU Greenberg, Joseph; Weber, Shlomo. AA Weber: Department of Economics, University of Toronto. Greenberg: University of Haifa. SR University of Toronto Institute for Policy Analysis Working Paper: 8519; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 24. PR No Charge. JE 026. KW Coalition Games.

AB Consider an arbitrary cooperative game without side payments (N, V) . A consecutive coalition is a subset S of N such that wherever i, k are in S then j is in S for all j, i less or equal to j less or equal to k . Let D be an arbitrary finite collection of consecutive coalitions. We prove that there exists a partition of the individuals into consecutive coalitions and a corresponding payoff vector such that no coalition in D could do better on its own.

Grosh, Margaret E.

TI A Dynamic Approach to Watershed Management with Emphasis on Soil Erosion. AU Magrath, William B.; Grosh, Margaret E.

Grossman, Gene M.

PD May 1986. TI Foreign Counterfeiting of Status Goods. AU Grossman, Gene M.; Shapiro, Carl. AA Princeton University. SR National Bureau of Economic Research Working Paper: 1915; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$2.00. JE 022, 411. KW Trademarks. Counterfeiting.

AB We study the positive and normative effects of counterfeiting, i.e., trademark infringement, in markets where consumers are not deceived by forgeries. The fact

that consumers are willing to pay more for counterfeits than for generic merchandise of similar quality suggests that they value the prestige, or status, associated with brand-name trademarks. Counterfeiters of status goods impose a negative externality on consumers of genuine items, as fakes degrade the status associated with a given label. But counterfeits allow consumers to unbundle the status and quality attributes of the brand-name products, and alter the competition among oligopolistic trademark owners. We analyze two policies designed to combat counterfeiting: enforcement policy which increases the likelihood of confiscation of illegal items, and the imposition of a tariff on low-quality imports.

PD May 1986. TI Foreign Counterfeiting of Status Goods. AU Grossman, Gene M.; Shapiro, Carl. AA Woodrow Wilson School of International and Public Affairs, Princeton University. SR Princeton Woodrow Wilson School Discussion Paper in Economics: 109; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. PG 29. PR No Charge. JE 022, 411. KW Counterfeit-Product Trade. Status Goods. Snob Appeal. Trademarks.

AB We study the positive and normative effects of counterfeiting, i.e., trademark infringement, in markets where consumers are not deceived by forgeries. The fact that consumers are willing to pay more for counterfeits than for generic merchandise of similar quality suggests that they value the prestige, or status, associated with brand-name trademarks. Counterfeiters of status goods impose a negative externality on consumers of genuine items, as fakes degrade the status associated with a given label. But counterfeits allow consumers to unbundle the status and quality attributes of the brand-name products, and alter the competition among oligopolistic trademark owners. We analyze two policies designed to combat counterfeiting: enforcement policy which increases the likelihood of confiscation of illegal items, and the imposition of a tariff on low-quality imports.

Grossman, Michael

TI An Assessment of the Benefits of Air Pollution Control: The Case of Infant Health. AU Joyce, Theodore J.; Grossman, Michael; Goldman, Fred.

Grossman, Sanford

PD April 1985. TI The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration. AU Grossman, Sanford; Hart, Oliver. AA Grossman: University of Chicago. Hart: Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 372; Department of Economics, MIT Cambridge, MA 02139. PG 45. PR No Charge. JE 511, 022, 611. KW Contracts. Residual Rights. Ownership. Control.

AB What is a firm? What are the determinants of how vertically or laterally integrated are the activities of the firm? This paper builds on the foundations laid by Coase (1937), Williamson (1979) and Klein et al (1978) which emphasize the benefits of "control" in response to situations where there are difficulties in writing or enforcing complete contracts. We define the firm as being composed of the assets (e.g. machines, inventories) which it owns. We present a theory of costly contracts which

emphasizes that contractual rights can be of two types: specific rights and residual rights. When it is too costly for one party to specify a long list of the particular rights it desires over another party's assets, it may be optimal to purchase all the rights except those specifically mentioned in the contract. Ownership is the purchase of these residual rights of control. We show that there can be harmful effects associated with the wrong allocation of residual rights. In particular a firm which purchases its supplier, thereby removing residual rights of control from the manager of the supplying company, can distort the manager's incentives sufficiently to make common ownership harmful. We develop a theory of integration based upon the attempt of parties in writing a contract to allocate efficiently the residual rights of control between themselves.

Guasch, J. Luis

TI Rural Credit Markets and Institutions in Developing Countries: Lessons for Policy Analysis from Practice and Modern Theory. AU Braverman, Avishay; Guasch, J. Luis.

Guesnerie, Roger

PD December 1985. TI Stationary Sunspot Equilibria in an n Commodity World. AA Centre d'Economie Quantitative et Comparative, E.H.E.S.S. SR University of Southern California Modelling Research Group Working Paper: M8532; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 31. PR No Charge. JE 213, 131, 020. KW Markov Processes. Sunspot Equilibria. Price Dynamics. Deterministic Stationary Equilibrium. AB This article considers one-step forward looking economic systems, whose dynamics are governed by non-linear relationship between prices today and prices tomorrow. Attention is focussed on a category of rational expectations equilibria, stationary sunspot equilibria correlated with a 2-state exogenous Markov process (2-SSE). Theorem 1 provides a sufficient existence condition only involving the characteristics of the deterministic stationary equilibrium (DTS). Theorem 2 exhibits connections between multiple deterministic equilibria and semi-trivial SSE. Theorems 3-4 show that 2-SSE close to the DTS have characteristics relating to those of the stable manifold of the deterministic system.

Gustafson, Thomas A.

TI Pensions and Social Security In Household Portfolios: Evidence From the 1983 Survey of Consumer Finances. AU Avery, Robert; Eliehausen, Gregory E.; Gustafson, Thomas A.

Gyourko, Joseph

PD May 1986. TI An Analysis of Public and Private Sector Wages Allowing for Endogenous Choices of Both Government and Union Status. AU Gyourko, Joseph; Tracy, Joseph. AA Gyourko: University of Pennsylvania. Tracy: Yale University. SR National Bureau of Economic Research Working Paper: 1920; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 46. PR \$2.00. JE 824, 831, 822. KW Wages.

Public/Private Wage Differentials. Union Status.

AB Studies of public/private sector wage differentials typically assume that the government and union status of a worker are exogenous variables. Recently, some studies have relaxed this assumption slightly by allowing the union status to be endogenous. In this paper, we consider a more general selection model in which a worker selects among four labor markets: private/nonunion, private/union, public/nonunion and public/union. A multinomial logit model is estimated to capture this selection decision. Consistent wage equation estimates are then derived using a generalization of the now familiar two-step estimation procedure. Some evidence is found for selection bias in the private/nonunion and the public/union sectors. The pattern of these selection effects produces larger union wage premiums in the public as compared to the private sector. While this is in contrast to the standard findings, the standard errors on the public sector union wage differentials are quite high. In addition, the data indicates that the public/private sector wage differential is largest for federal workers despite the "comparability" process determining their wages.

PD May 1986. TI On the Political Economy of Land Value Capitalization and Local Public Sector Rent-Seeking in a Tiebout Model. AU Gyourko, Joseph; Tracy, Joseph. AA Gyourko: University of Pennsylvania. Tracy: Yale University. SR National Bureau of Economic Research Working Paper: 1919; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 42. PR \$2.00. JE 931, 320. KW Tiebout Model. Public Sector Rent Seeking. Property Values. Land Value Capitalization.

AB In this paper we examine the political economy of capitalization in a Tiebout model when there is a rent-seeking public bureaucracy. A new approach is suggested for testing for the influence of successful local public sector rent-seeking on local property values. We present empirical evidence showing that property values are lower in cities which pay their public sector workers significantly more than similar public sector workers earn in other cities. Finally, we discuss how the regulatory process can be used to distribute rents arising from a short-run Tiebout disequilibrium to landowners, public sector workers, and renters.

Haberler, Gottfried

TI William H. White (1922-83): An Appreciation. AU Polak, J. J.; Haberler, Gottfried; Thorn, Richard S.; Argy, Victor.; Heller, H. Robert.

Hahn, Sangmoon

PD August 1, 1986. TI Optimal Information Lag and the Natural Rate of Unemployment. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-06-02; Working Paper Coordinator, Department of Economics Sandy Hall, Blacksburg, VA 24061. PG 27. PR No Charge. JE 023, 026, 821. KW Information Lag. Natural Rate of Unemployment. Search. Productivity.

AB A simple search model in a continuous time framework is used to study how an agent's information lag is determined and how it affects the natural rate of

unemployment. It is shown that under certain restrictions the length of an agent's information lag varies with search cost, discount rate and inversely with a measure of fluctuations in productivities. An increase in the frequency of productivity changes or the rate of state change has an ambiguous effect even though it implies a first order stochastic dominance. More specifically, if the initial information lag is relatively small (large), an increase in the rate of state change may decrease (increase) an agent's information lag. It is also shown that the natural rate of unemployment varies with the length of an agent's information lag except when an increase in the rate of state changes reduces the length of an agent's information lag less than proportionally.

Haller, Hans H.

PD July 1986. TI Equilibria of a Class of Nonatomic Generalized Games. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E-86-07-01; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 13. PR No Charge. JE 021, 022, 026. KW Existence of Equilibrium. Generalized Games. Nonatomic Games. Abstract Economies.

AB In the specific class of nonatomic generalized games investigated, only other players' "aggregate action" enters a player's payoff function -- in addition to his own action -- and affects his choice opportunities. Due to the convexifying effect of a nonatomic space of players, existence of a non-cooperative Nash equilibrium can be shown without any convexity assumption on preferences and constraints. Economic applications are indicated.

Haltiwanger, John

PD February 1986. TI The Role of Altruism in Economic Interaction. AU Haltiwanger, John; Waldman, Michael. AA Department of Economics, University of California at Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 391; Department of Economics, University of California at Los Angeles, Los Angeles, CA 90024. PG 39. PR \$2.50. JE 022, 036, 026. KW Altruism. Shirking. Monitoring. Theft. Prisoner's Dilemma. Pollution. Voluntary Blood Donations.

AB In this paper we analyze a question first considered by Becker - if an environment consists of a mix of altruists and egoists, which type of agent tends to be disproportionately important in the resulting equilibrium? In the first half of the paper we derive some general results concerning this question. In the second half of the paper we then apply these results to four common economic environments: (1) a world where workers decide whether or not to shirk, and firms invest in monitoring in order to detect shirking; (2) the classic problem called the Prisoner's Dilemma; (3) a world where agents decide whether or not to pollute the environment; and (4) a world where agents decide whether or not to donate blood.

PD April 1986. TI Limited Rationality and Synergism: The Implications for Macroeconomics. AU Haltiwanger, John; Waldman, Michael. AA University of California at Los Angeles. SR University of California at Los Angeles Department

of Economics Working Paper: 389; Department of Economics, UCLA Los Angeles, CA 90024. PG 44. PR \$2.50. JE 023, 026. KW Rationality. Synergism. Macroeconomics. Information.

AB In this paper we consider the implications of heterogeneity in information processing abilities for macroeconomic models that exhibit what we refer to as synergism. Synergism is the same concept that has received much attention in the recent macro literature under the heading of either Keynesian coordination problems, positive trading externalities, or strategic complementarities. The paper is concerned with the following question. When agents vary in terms of their ability to form expectations, is it the agents who form expectations in a "sophisticated" manner who have a disproportionately large effect on macroeconomic equilibrium, or is it the "naive" who are disproportionately important? We find that if macroeconomic interaction exhibits synergism, then it is the naive agents who have a disproportionate impact on equilibrium. Further, we show that this disproportionate impact can be helpful in explaining significant hump shaped persistence in response to one period macroeconomic shocks.

TI The Ins and Outs of Unemployment: The Ins Win. AU Darby, Michael R.; Haltiwanger, John.; Plant, Mark W.

Hanemann, W. Michael

TI Quasi-Option Value: Some Misconceptions Dispelled. AU Fisher, Anthony C.; Hanemann, W. Michael.

Hannah, Leslie

PD April 1986. TI Occupational Pension Funds: Getting the Long-Run Answers Right. AA London School of Economics. SR Centre for Economic Policy Research Discussion Paper: 99; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 42. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 314, 915. KW Pensions. Defined-Contribution Schemes. Defined-Benefit Schemes. Inflation. Fund Insolvency.

AB The impact of the British government's new proposals for personal portable pensions and of the parallel reduction of the benefits in the state earnings-related pension scheme are examined in the light of historical evidence on the behaviour of pension saving. Defined contribution pension schemes are forecast to become more popular, against the currently dominant defined-benefit schemes. The present inflation-proofing for the vested rights of leavers may prove inadequate. The risk to pension plan members of fund insolvency may rise to United States levels as competition in the industry increases. Costs of running the more flexible new system will rise. A wider range of financial services are likely to be retailed through pension funds, particularly if tax subsidies are not re-assessed.

Hansen, Ronald W.

PD July 1986. TI Stimulating Product Innovation and Reforming the Health Care Reimbursement System. AA The Graduate School of Management, University of Rochester. SR University of Rochester Center for

Research in Government Policy and Business Working Paper: GPB 86-1; Graduate School of Management, University of Rochester, Rochester, NY 14627. PG 29. PR No Charge. JE 913. KW Health Care Reimbursement. Medical Technology. Medical Innovation. AB Although the health status of Americans continues to improve, the concern with the rapidly rising cost of health care has generated several proposals for reforming the health care reimbursement system, some of which already have been implemented. This paper explores the expected impact of these reforms on the development of new medical technologies. The paper begins by examining the process of innovation in health care products and surveys measures of the effects of innovations on health care and its costs. The manner in which new technologies are treated in the health care reimbursement plans is described and the effects of health care payment systems on the adoption and use of technologies is explored. The final section relates changes in the health care reimbursement system to the development of new technologies.

Hanushek, Eric A.

PD June 20, 1986. TI Formula Budgeting: The Economics and Analytics of Fiscal Policy Under Rules. AA University of Rochester. SR University of Rochester Center for Economic Research Working Paper: 46; Department of Economics, University of Rochester, Rochester, NY 14627. PG 38. PR No Charge. JE 320, 322. KW Fiscal Policy. Budgeting. Gramm-Rudman. Formula Budgeting. Fiscal Rules. Congress. AB The dramatic change in aggregate fiscal policy in recent years has contributed to a shift from process rules to allocation rules in federal budgeting. Although the allocation rules inherent in formula budgeting seem to offer fairness in times of fiscal constraint, they actually impose arbitrary program-level budgets that reflect the peculiarities of baselines, accounting conventions, and time horizons. Formula budgeting also changes the analytical environment, forcing policy analysts to pay greater attention to institutional arrangements.

Hanweck, Gerald A.

TI Competitive Viability In Banking: Scale, Scope, and Product Mix Economies. AU Berger, Allen N.; Hanweck, Gerald A.; Humphrey, David B.

Haque, W.

PD June 1985. TI Transversal Mappings and Disequilibrium Analysis. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8506; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 36. PR No Charge. JE 022. KW Mappings. Disequilibrium. Transversality. AB The hypotheses of transversal openness, density and isotopy theorems are not exactly suitable for economic theory. In this paper, some supplements to the Abraham-Robbin transversality results have been made. Properties of disequilibrium states of economies have been discussed in the light of these modified results.

Harrell, Thomas W.

PD July 1986. TI Dual Career Couples: Anxiety of MBA Couples Compared with Traditional Couples. AU Harrell, Thomas W.; Baack, Jane. AA Harrell: Graduate School of Business, Stanford University. Baack: Management and Marketing Department, School of Business, San Francisco State University. SR Stanford Graduate School of Business Research Paper: 889; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 20. PR No Charge. JE 824. KW Anxiety. Dual Career Couples. MBAs. Traditional Couples.

AB The anxiety of members of dual career couples was compared with that of more traditional couples where only the husband worked outside the home. MBA husbands with children whose MBA wives were also employed outside the home showed more anxiety. Least anxiety was shown by traditional wives who stayed home with the children while their husbands worked in business outside the home. Anxiety was measured by the State-Trait Anxiety Inventory consisting of 40 multiple choice questions. The sample consisted of 53 married couples, 24 of whom where both wife and husband had MBA degrees and both worked full-time out of the home. Twenty-nine couples made a control group in which the MBA husband worked outside, but the wife stayed home with children.

Hart, Oliver

TI The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration. AU Grossman, Sanford; Hart, Oliver.

PD March 1986. TI The Theory of Contracts. AU Hart, Oliver; Holmstrom, Bengt. AA Hart: Massachusetts Institute of Technology. Holmstrom: Stanford University and Yale University. SR Massachusetts Institute of Technology Department of Economics Working Paper: 418; Department of Economics, MIT Cambridge, MA 02139. PG 132. PR No Charge. JE 022. KW Contracts. Agency Theory. Incomplete Contracts. Labor Contracting. AB This paper surveys recent developments in the theory of contracts. The topics covered include agency theory, labor contracting, and incomplete contracts.

Hasbrouck, Joel

PD July 1986. TI The Efficiency of Stock Exchange and Over-the-Counter Markets. AU Hasbrouck, Joel; Schwartz, Robert A. AA New York University. SR New York University Salomon Brothers Center Working Paper: 390; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 42. PR \$3.00. JE 313. KW Securities Market Pricing. Efficiency. Stock Exchange Efficiency. AB The paper presents a simple method for assessing the efficiency of pricing in securities markets. Empirical tests based on a two month transaction record for 2,060 New York Stock Exchange, Amex and NASDAQ/NMS stocks suggest that, for most stocks, short-period price volatility is greater than would be expected if prices followed a random walk in very brief intervals. Cross-sectional analysis (which takes separate account of a stock's bid/ask spread, price level, and value of shares outstanding) gives

evidence of a market center effect; the exchanges appear to be more efficient than the NASDAQ/NMS. The execution costs implied by the excess short-period volatility are also computed; these costs, on average for the full sample, are on the same order of magnitude as commissions, but are appreciably higher for many issues.

Hastings, Nicholas A. J.

TI Scheduling the Factory of the Future. AU White, Christopher; Hastings, Nicholas A. J.

Hau, Timothy D.

PD June 25, 1985. TI Distributional Cost-Benefit Analysis in Discrete Choice. AA Department of Economics, University of California at Davis. SR University of California at Davis Economics Department Working Paper: 260; Department of Economics, University of California at Davis, Davis, CA 95616. PG 23. PR No Charge. JE 933, 615. KW Distribution. Cost-Benefit Analysis. Discrete Choice. AB The theory and practice of performing cost-benefit analysis in a distributional framework is explored within the discrete choice context. The social welfare methodology employed builds on the conventional Marshallian approach and the Hicksian approach to efficiency cost-benefit analysis developed by the author. The theoretical framework is then applied to an eight-alternative demand-supply corridor simulation model of the San Francisco Bay Area. The equity impacts of a policy are analyzed by segmenting a sample according to income group and trip type. Various standard social welfare functions are found to be particular parameterizations of a selected family of functional forms for distributional weights.

Hawawini, Gabriel

TI Seasonality in the Risk-Return Relationship. Some International Evidence. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre.

TI The Pricing of Equity on the London Stock Exchange: Seasonality and Size Premium. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre.

TI Risk-Premia Seasonality in United States and European Equity Markets. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre.

Heijmans, R. D. H.

PD August 1984. TI Testing the Differences in Consumption Patterns of One- and Two-Earner Families. AU Heijmans, R. D. H.; Renes, G. AA Heijmans: University of Amsterdam. Renes: University of Leyden. SR University of Amsterdam Actuarial Science and Econometrics Report: 23/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 21. PR No Charge. JE 211, 921. KW Consumption Patterns. One- And Two-Earner Families.

AB In this paper the authors investigate whether there are any differences in consumption patterns, as given by a system of Engel curves, of one- and two-earner families. We test for these differences under the assumption of

identical and of different covariance matrices of the disturbances. We also test these assumptions. In most cases we reject the hypothesis of equal consumption patterns of one and two-earner families. But the assumption of identical covariance matrices is rejected in all cases. We conclude that the erroneous use of this assumption can lead to wrong conclusions.

PD October 1984. TI On the First-Order Efficiency and Asymptotic Normality of the Maximum Likelihood Estimator Obtained from Dependent Observations. AU Heijmans, R. D. H.; Magnus, J. R. AA Heijmans: University of Amsterdam; Magnus: London School of Economics. SR University of Amsterdam Actuarial Science and Econometrics Report: 21/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 40. PR No Charge. JE 211. KW First Order Efficiency. Asymptotic Normality. Maximum Likelihood Estimator. Dependent Observations. AB In this paper we study the first-order efficiency and asymptotic normality of the maximum likelihood estimator obtained from dependent observations. Our conditions are somewhat weaker than usual, in that we do not require convergences in probability to be uniform or third-order derivatives to exist; moreover, the conditions will appear to be readily verifiable. This paper builds on Witting and Nolle's result concerning the asymptotic normality of the maximum likelihood estimator obtained from dependent and identically distributed observations, and on a martingale theorem by McLeish.

Heller, H. Robert

TI William H. White (1922-83): An Appreciation. AU Polak, J. J.; Haberler, Gottfried; Thorn, Richard S.; Argy, Victor.; Heller, H. Robert.

Helliwell, John F.

PD March 1985. TI Energy Deregulation and Uncertain World Oil Prices: What are the Connections?. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8505; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 25. PR No Charge. JE 723, 613. KW Energy Policy. Oil Prices. Canadian Energy Policy. Energy Taxation. Deregulation.

AB This paper examines the likely extent and meaning of deregulation for Canadian oil and natural gas, including the implications of natural gas price deregulation in the United States for the Canadian natural gas industry. The paper uses the MACE model to derive quantitative estimates of the effects of deregulation in the face of alternative assumptions about future world oil prices. The consequences of deregulation are also compared to the continuation of the current Canadian energy policy regime. Finally, the model is used to assess the need for and the consequences of further changes in Canadian energy taxation from the perspective of consumers, producers and governments.

PD November 1985. TI New Directions for Canadian Energy Policy: The Western Accord and the 1985 Alberta

Royalty Changes. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8515; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 31. PR No Charge. JE 723, 613. KW Canadian Energy Policy. Oil Price Deregulation.

AB The Western Accord marks the opening up to world markets of the pricing and production of the Canadian petroleum industry. The Accord, and the subsequent tax and royalty changes by both levels of government, also mark a major transfer of revenues from the federal government to the producing firms. The combination of these two changes was intended to make the petroleum industry an 'engine of growth' for the rest of the economy, especially in Western Canada. This paper uses the MACE model to analyse the overall effects of these two aspects of the Western Accord. The net effect of deregulation on prices, energy revenues, and economic activity is fairly modest, while the tax changes are likely to have much larger effects. They slightly increase the efficiency of extraction, but reduce net economic rents accruing to Canadians. The direct macroeconomic impacts of the tax and royalty changes will indeed be positive, but these effects are estimated to be more than offset if other taxes are raised to pay for the Accord.

Helpman, Elhanan

TI Trade Dynamics. AU Flam, Harry; Helpman, Elhanan.

Hendry, David F.

TI Econometric Evaluation of Linear Macro-Economic Models. AU Chong, Yock Y.; Hendry, David F.

Heuser, Uwe Jean

PD May 1986. TI Analyse der Organisationsstrukturänderung der Bayer AG zum 1.1.1984. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D 2; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 72. PR No Charge. JE 511. KW Organisationsstrukturänderung. Motivation und Bewertung.

Hirschberg, Joseph G.

PD January 1986. TI A Comparison of Three Flexible Cost Functions Using Establishment Level Electricity Use Data. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8607; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 32. PR No Charge. JE 723, 022. KW Electricity Use. Separability. Input Demand. Cost Functions.

AB This paper compares the performance of three related systems of input demand equations. They are derived from the Translog, Generalized Leontief, and the Quadratic-Squareroot flexible cost function specifications. The data used in the estimation are firm-level monthly

observations of seven time differentiated electricity inputs. Linear demand equations are specified in order to facilitate the firm-level estimation. The assumption of symmetric separability so often employed in demand studies of this nature has been relaxed in favor of non-symmetric separability which allows the substitution of non-electric inputs for electricity inputs. Comparisons of these specifications are made on the basis of both measures of in-sample prediction and the precision of the price elasticity estimates. The results are reported for the aggregate and in terms of individual firm model comparisons.

Hoffer, George E.

TI The Efficacy of Minimum Quality Certification in the Used Vehicle Market. AU Pratt, Michael D.; Hoffer, George E.

Holmstrom, Bengt

TI The Theory of Contracts. AU Hart, Oliver; Holmstrom, Bengt.

Holtz, Eakin Douglas

PD March 1986. TI Short Run Dynamics of Municipal Budgets. AA Columbia University. SR Columbia Department of Economics Working Paper: 320; Department of Economics, Columbia University, New York, NY 10027. PG 32. PR \$5.00. JE 324. KW Municipal Budgeting. Municipal Expenditure.

AB This paper examines the dynamic structure of municipal revenues, expenditures and grants. To date, economists have conducted little theoretical or empirical investigation of the determinants of intertemporal movements in municipal budgets. Instead, the primary focus has been on the sources of cross-sectional variation in service levels, tax structures, debt burdens, etc. This paper is intended to fill this gap by studying intertemporal movements in municipal budgets. Several important observations emerge. Municipal expenditures by type and revenues by source vary greatly over time and this variation is not explained by appeal to period-specific macroeconomic events. The estimated within-budget dynamics show foremost that budgetary variables interact in a manner which produces persistent, typically cyclical responses to transitory innovations in revenues and expenditure. In size, spending reactions to revenues shocks are substantially larger than the reverse, and the impact and cumulative effects depend importantly the type of revenue affected. Finally, current expenditure reacts more than capital expenditure in the short run and less in the long run to innovations in revenues. These reactions summarize the outcome of an underlying model of intertemporal choice by municipal budget authorities. A natural extension of this research is the explication and testing of such models.

PD May 1986. TI Testing for Individual Effects in Dynamic Models Using Panel Data. AA Columbia University. SR Columbia Department of Economics Working Paper: 328; Department of Economics, Columbia University, New York, NY 10027. PG 15. PR \$5.00. JE 211. KW Individual Effects. Panel Data.

AB This note presents a simple, linear test for individual effects in dynamic models using panel data. It builds upon

the techniques of Holtz-Eakin, Newey, and Rosen (HNR) '1985 for estimating vector autoregressions using panel data. HNR present estimation and testing procedures for dynamic models under the maintained assumption that the data under analysis contain individual-specific effects which are unobserved by the econometrician. Below, this set of procedures is modified to test for the presence of individual effects in the sample under analysis.

Horsky, Dan

PD July 1986. TI Does It Pay to Change Your Company's Name? A Stock Market Perspective. AU Horsky, Dan; Swyngedouw, Patrick. AA Graduate School of Management, University of Rochester. SR University of Rochester Managerial Economics Research Center Working Paper: 86-06; Graduate School of Management, University of Rochester, Rochester, NY 14627. PG 12. PR No Charge. JE 531, 630. KW Name Change. Event Study. Marketing.

AB Recently, International Harvester decided to change its name to Navistar. Changing a company's name is a major policy decision contemplated by many firms and actually implemented by some each year. The purpose of this paper is to attempt to examine, albeit indirectly, whether a name change can improve the profit performance of a firm and what type of a firm is more likely to succeed in doing so. We borrow the "event study" methodology developed in finance to examine the above questions with respect to 40 corporations that changed their names in 1982-1984. Our findings are that for most of the firms name changes are associated with improved performance, and that the greatest improvement tends to occur in relatively small firms that produce industrial goods and whose performance prior to the change was relatively poor. Our findings do not support, however, the contention that a name change will enhance demand for the firm's products. Rather, it seems to be a signal that other measures to improve performance such as organizational changes and changes in product offerings will be seriously and successfully undertaken.

Hubbard, R. Glenn

PD February 1986. TI Contracting and Price Adjustment: An Application to Oil and Copper Markets. AU Hubbard, R. Glenn; Weiner, Robert J. AA Energy and Environmental Policy Center, Harvard University. SR Harvard Energy and Environmental Policy Center Discussion Paper: E-86-02; Energy and Environmental Policy Center, J. F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 25. PR \$10.00. JE 721, 227, 022. KW Oil Markets. Copper Markets. Contracts. Spot Transactions. Two-price System.

AB This paper characterizes price adjustment in markets where trade takes place through both "contract" and "spot" transactions. We develop a model of the effects of a two-price system on price adjustment to transitory shocks, demonstrating that the persistence effects of these shocks on prices depends on, *inter alia*, the fraction of trades carried out through term contracts. In our applications, we focus on the copper and petroleum markets, though many other commodity and industrial product markets have experienced multiple-price regimes. Empirical tests

of the model provide strong support for the notion that the increase in the importance of the spot market in the two markets is associated with a significant change in the price adjustment process. Some implications for public policies for price stabilization in commodity markets are discussed.

Humphrey, David B.

TI Competitive Viability In Banking: Scale, Scope, and Product Mix Economies. AU Berger, Allen N.; Hanweck, Gerald A.; Humphrey, David B.

IMF

PD April 1985. TI World Economic Outlook, April 1985. AA International Monetary Fund. SR International Monetary Fund World Economic and Financial Survey: 4-85-A; International Monetary Fund, Washington, D.C. 20431. PG 283. PR \$15.00 (\$11.00 to university libraries, faculty, students). JE 123, 133. KW Global Economy. Medium-Term Forecasts. Balance of Payments Adjustment. Macro Policies. World Economic Outlook.

AB The World Economic Outlook consists of several chapters, supported by supplementary notes as background documentation, and a statistical appendix. The report discusses the problems of balance of payments adjustment by the major groups of countries, the key policy options available to them, issues of inflation and interest rates, debt, and capital flows. In addition, the report features detailed scenarios for the evolution of the world economy over the medium term under various policy options. The World Economic Outlook is usually published in April; beginning in 1984 an additional, updated version has been issued later in the year. From 1980 to 1984 the World Economic Outlook was published as part of the International Monetary Fund Occasional Paper series.

PD October 1985. TI World Economic Outlook, October 1985: Revised Projections. AA International Monetary Fund. SR International Monetary Fund World Economic and Financial Survey: 10-85-A; International Monetary Fund, Washington, D.C. 20431. PG 109. PR \$10.00 (\$6.00 to university libraries, faculty, students). JE 123, 133. KW Global Economy. Medium-Term Forecasts. Balance of Payments Adjustment. Macro Policies World Economic Outlook.

AB The World Economic Outlook consists of several chapters, supported by supplementary notes as background documentation, and a statistical appendix. The report discusses the problems of balance of payments adjustment by the major groups of countries, the key policy options available to them, issues of inflation and interest rates, debt, and capital flows. In addition, the report features detailed scenarios for the evolution of the world economy over the medium term under various policy options. The World Economic Outlook is usually published in April; beginning in 1984 an additional, updated version has been issued later in the year. From 1980 to 1984 the World Economic Outlook was published as part of the International Monetary Fund Occasional Paper series.

PD April 1986. TI World Economic Outlook, April 1986. AA International Monetary Fund. SR International Monetary Fund World Economic and Financial Survey: 4-86-A; International Monetary Fund,

Washington, D.C. 20431. PG 288. PR \$15.00 (\$11.00 to university libraries, faculty, students). JE 123, 133. KW Global Economy. Medium-Term Forecasts. Balance of Payments Adjustment. Macro Policies. World Economic Outlook.

AB The World Economic Outlook consists of several chapters, supported by supplementary notes as background documentation, and a statistical appendix. The report discusses the problems of balance of payments adjustment by the major groups of countries, the key policy options available to them, issues of inflation and interest rates, debt, and capital flows. In addition, the report features detailed scenarios for the evolution of the world economy over the medium term under various policy options. The World Economic Outlook is usually published in April; beginning in 1984 an additional, updated version has been issued later in the year. From 1980 to 1984 the World Economic Outlook was published as part of the International Monetary Fund Occasional Paper series.

PD May 1986. **TI** Primary Commodities: Market Developments and Outlook. **AA** International Monetary Fund. **SR** International Monetary Fund World Economic and Financial Survey: 5-86-A; International Monetary Fund, Washington, D.C. 20431. PG 74. PR \$10.00 (\$6.00 to university libraries, faculty, students). JE 131, 123, 133, 411. KW Non-Fuel Primary Commodities. International Trade. Commodity Market Fluctuations.

AB This study provides an analysis of recent developments relating to the major non-fuel primary commodities entering international trade. Particular attention is devoted to market price movements from mid-1984 through 1985 and to the factors underlying these movements. In this period commodity prices fell considerably, both in United States dollars and in real terms. Supply factors as well as changes in world economic activity, inflation, and exchange rates are discussed in the context of their contribution to the movements in commodities prices. The study also provides an outlook for commodity prices for the remainder of 1986 and projects an increase in the overall index of commodity prices during that period, particularly for coffee, sugar, hides, aluminum, and tropical woods.

PD July 1986. **TI** Staff Studies for the World Economic Outlook. **AA** International Monetary Fund. **SR** International Monetary Fund World Economic and Financial Survey: 7-86-B; International Monetary Fund, Washington, D.C. 20431. PG 207. PR \$15.00 (\$11.00 to university libraries, faculty, students). JE 123, 133. KW Global Economy. Medium-Term Forecasts. Balance of Payments Adjustment. Macro Policies.

AB Prepared by staff members of the Research Department of the Fund, these studies comprise supporting material for the World Economic Outlook published in April 1986 and provide a more detailed examination of the theory and evidence on some major issues. The five studies are "Differences in Employment Behavior Among Industrial Countries," by Charles Adams, Paul R. Fenton, and Flemming Larsen; "Labor Markets, External Developments, and Unemployment in Developing Countries," by Omotunde E. G. Johnson; "The Velocity of Money, and the Practice of Monetary Targeting," by Peter Isard and Liliana Rojas-Suarez; "Effects of Exchange Rate

Changes in Industrial Countries," by James M. Boughton, Richard D. Haas, Paul R. Masson, and Charles Adams; and "The Transmission of Economic Influences from Industrial to Developing Countries," by David Goldsbrough and Iqbal Zaidi. Like the World Economic Outlook, this volume is useful for those professionally interested in international economic issues with a monetary, financial, or development emphasis.

PD October 1986 (forthcoming). **TI** World Economic Outlook, October 1986: Revised Projections. **AA** International Monetary Fund. **SR** International Monetary Fund World Economic and Financial Survey: 10-86-A; International Monetary Fund, Washington, D.C. 20431. PG 110 (est). PR \$12.00 (\$8.00 to university libraries, faculty, students). JE 123, 133. KW Global Economy. Medium-Term Forecasts. Balance of Payments Adjustment. Macro Policies.

AB The World Economic Outlook consists of several chapters, supported by supplementary notes as background documentation, and a statistical appendix. The report discusses the problems of balance of payments adjustment by the major groups of countries, the key policy options available to them, issues of inflation and interest rates, debt, and capital flows. In addition, the report features detailed scenarios for the evolution of the world economy over the medium term under various policy options. The World Economic Outlook is usually published in April; beginning in 1984 an additional, updated version has been issued later in the year. From 1980 to 1984 the World Economic Outlook was published as part of the International Monetary Fund Occasional Paper series.

Islam, Shafiqul

PD May 1986. **TI** Fiscal Policy and the Dollar: A Post-Plaza Perspective. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8607; Federal Reserve Bank of New York, New York, NY 10045. PG 35. PR No Charge. JE 431, 321, 023. KW Dollar. Exchange Rate. Fiscal Deficit. Policy Mix. Macroeconomic Policy.

AB We develop a broad conceptual framework within which we examine the role of United States fiscal expansion and foreign fiscal contraction in the rise of the dollar and the United States trade deficit. Our conceptual framework also provides some perspective on the dollar's recent decline and its medium term outlook in view of considerable uncertainty that surrounds the future path of United States fiscal policy. Our analysis suggests that though United States fiscal policy cannot be held responsible for the initial rise of the dollar, it appears to have contributed importantly to the dollar's prolonged strength by influencing what may be called the policy-performance-confidence (ppc) mix. The most decisive role in shaping this ppc mix has been played by United States monetary policy -- its actual conduct, and perhaps more importantly, the credibility it has gained in the financial markets. The effects of the United States policy mix have been further reinforced by the contractionary fiscal policies pursued in Europe and Japan. The dollar's recent decline seems to reflect a change in the current and anticipated course of United States monetary/fiscal policy mix as well as a clear shift in the United States administration's attitude toward the desirability of a strong dollar.

Jacquemin, Alexis

PD February 1986. TI Cartels, Collusion and Horizontal Merger. AU Jacquemin, Alexis; Slade, Margaret. AA Jacquemin: Universite Catholique de Louvain. Slade: University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 86-05; Department of Economics, University of British Columbia, 997-1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 124. PR \$0.20 per page Canadian to other than educational institutions. JE 611. KW Cartels. Collusion. Horizontal Mergers.

AB In this paper we attempt to highlight the principal theoretical and practical problems of the economics of cartels, collusion, and horizontal merger. Due to space limitations, not all issues can be covered in depth or given equal weight. Where coverage is summary, the interested reader can make use of the references at the end of the chapter.

James, Michelle D.

TI Efficient Estimation Methods for "Closed-Ended" Contingent Valuation Surveys. AU Cameron, Trudy Ann; James, Michelle D.

TI The Determinants of Value for a Recreational Fishing Day: Estimates from a Contingent Valuation Survey. AU Cameron, Trudy Ann; James, Michelle D.

TI Utilizing "Closed-Ended" Contingent Valuation Survey Data For Preliminary Demand Assessments. AU Cameron, Trudy Ann; James, Michelle D.

Jimenez, Emanuel E.

TI The Demand for Tenure Security in Developing Countries. AU Friedman, Joseph; Jimenez, Emanuel E.; Mayo, Stephen K.

Jones, Stephen R. G.

PD August 1984 Revised November 1984. TI Unemployment Insurance and Involuntary Unemployment. AA University of California, Berkeley; University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-07; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 31. PR \$0.20 per page to other than educational institutions. JE 821, 822. KW Unemployment Insurance. Involuntary Unemployment.

AB In this paper we develop a characterization of insurance against involuntary unemployment. It is shown that, in contrast to many models in the search cum contracting paradigm, firms would not have an incentive to provide Unemployment Insurance. Furthermore, the state would optimally provide some partial UI in the present framework. The extent of this UI provision is shown to depend both on technology available and on preferences.

PD February 1985. TI Demand Disturbances and Aggregate Fluctuations: The Implications of Near Rationality. AU Jones, Stephen R. G.; Stock, James H. AA Jones: University of California at Berkeley and

University of British Columbia. Stock: Harvard University. SR University of British Columbia Department of Economics Discussion Paper: 85-13; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 35. PR \$0.20 per page Canadian to other than educational institutions. JE 023, 131. KW Intermediate Class of Macro-Economic Models. Macro Models. Business Cycles. Near-Rationality. Rules of Thumb. Demand Management.

AB This paper shows how, contrary to some views, a lot of Harberger triangles can indeed add up to an Okun gap. It illustrates how adherence to a near rational rule of thumb can dramatically alter the properties of short run macroeconomic equilibria. Otherwise classical models are shown to exhibit aggregate fluctuations in response to demand disturbances. Further, two seeming puzzles in the classical framework, Okun's Law and the relative constancy of real wages over the cycle, are shown to arise quite naturally as products of an interaction between two types of firms, the maximizers and the near rational. Finally, perhaps the most important implication of our work is that, despite clearing labor markets, demand management can play a useful short run role.

PD April 1985. TI Unemployment Insurance and Involuntary Unemployment: The Case of Adverse Selection. AA University of California, Berkeley; University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-21; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 37. PR \$0.20 per page Canadian to other than educational institutions. JE 821, 822. KW Unemployment Insurance. Involuntary Unemployment. Screening.

AB This paper examines the provision of Unemployment Insurance in the context of involuntary unemployment. It shows how, contrary to some earlier work, firms will not wish to supply UI, even if explicit and enforceable contracts are available and even if its applicant pool members are highly risk averse. The reason is that the same unobserved heterogeneity of workers which makes the wage operate as a sorting device and hence generates the involuntary unemployment also means that uniform UI provision is a bad screening mechanism: the more a worker wants the UI coverage, the less desirable that worker must be to the firm. In contrast to this private outcome, we show that, recognizing the same informational constraints, the state will always pay some UI benefits at the welfare optimum. Such a uniform benefit policy has costs, of course, given that agents are different: there are distortions in the participation decision and some ex post inefficiencies arise as a result of the UI policy. On balance, however, our results show that public insurance against this involuntary unemployment is always beneficial.

PD May 1986. TI Have Your Lawyer Call My Lawyer: Bilateral Delegation in Bargaining Situations. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 86-19; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T

1Y2. PG 30. PR \$0.20 per page Canadian to other than educational institutions. JE 026, 916. KW Bargaining. Bilateral Commitment. Negotiators. Self-Representation.

AB Many bargaining situations involve simultaneous attempts to commit by the parties involved. This paper studies the consequences of bilateral commitment by delegation, modelling the parties' noncooperative choice of negotiators at stage one contingent on the bargaining outcome these negotiators achieve at stage two. In a leading case, we find a unique interior Nash equilibrium where, except when tastes are identical, both parties genuinely delegate. Although one party may gain at the expense of the other by this process, relative to self-representation, it is often the case that both parties lose by such strategic manoeuvring.

Joskow, Paul L.

PD July 1985. TI The Performance of Coal-Burning Electric Generating Units in the United States: 1960-1980. AU Joskow, Paul L.; Schmalensee, Richard. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 379; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 42. PR No Charge. JE 723, 211, 610. KW Electricity. Panel Data. Electric Utility Performance.

AB This paper studies the factors that determine the thermal efficiency and reliability of coal-burning electric generating units. Existing econometric techniques for the analysis of panel data that allow for the presence of unobservable unit-specific effects that may be correlated with observable variables are extended to allow for an unbalanced panel and applied to a new and comprehensive data set. Consistent and efficient estimates of the effects of unit age, vintage, scale, operating practices, and coal quality are obtained. Separate estimates are provided for two major technological groups. Some evidence is found that large utilities integrated into design and engineering obtain superior generating unit performance. The results have implications for the computation and evaluation of the life-cycle costs of generating electricity, the application of generating unit performance norms by regulators, the nature of technological change in steam-electric generating technology, and public policies toward mergers in the electric power industry.

Joyce, Theodore J.

PD May 1986. TI An Assessment of the Benefits of Air Pollution Control: The Case of Infant Health. AU Joyce, Theodore J.; Grossman, Michael; Goldman, Fred. AA Joyce: Iona College. Grossman: City University of New York. Goldman: New School for Social Research. SR National Bureau of Economic Research Working Paper: 1928; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 48. PR \$2.00. JE 913, 722. KW Air Pollutants. Neonatal Mortality Rates.

AB This paper contains estimates of the impacts of air pollutants on race-specific neonatal mortality rates based on data for heavily populated counties of the United States in 1977. Unlike previous research in this area, these

estimates are obtained from a well specified behavioral model of the production of health, which is estimated with the appropriate simultaneous equations techniques. The results suggest that sulfur dioxide is the dominant air pollutant in newborn survival outcomes. There is also evidence that an increase in sulfur dioxide raises the neonatal mortality rate by raising the percentage of low-birth weight births. Based on marginal-willingness-to-pay computations, we estimate that the benefits of a 10 percent reduction in sulfur dioxide levels range between \$54 million and \$1.09 billion in 1977 dollars.

Kaas, R.

PD 1984. TI Best Bounds for Positive Distributions with Fixed Moments. AU Kaas, R.; Goovaerts, M. J.; Leuven, K. U. AA University of Amsterdam. SR University of Amsterdam Actuarial Science and Econometrics Report: 15/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 21. PR No Charge. JE 213. KW Bounds. Spectrum Constraints. Moment Constraints.

AB Suppose for a distribution function F the first n moments are known. In '1 we derived bounds for integral from minus infinity to epsilon of $f(x)dF(x)$ for arbitrary values of epsilon and non-negative functions f having n non-negative derivatives. Here we refine the techniques used in '1 to obtain bounds in case the spectrum of F is required to be in '0,b or in R -positive, which is often realistic in insurance applications. It is shown that the bounds obtained are precise, in the sense that extremal distributions are given attaining these bounds. These extremal distributions are (limits of) distribution functions satisfying the moment and spectrum constraints.

TI A Note on a Formula for Profit Return. AU Goovaerts, M. J.; Kaas, R.

PD October 1984. TI Computing Moments of Compound Distributions. AU Kaas, R.; Goovaerts, M. J. AA University of Amsterdam. SR University of Amsterdam Actuarial Science and Econometrics Report: 20/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 6. PR No Charge. JE 213, 520. KW Moments. Compound Distributions.

AB The first few moments of compound distributions may be obtained by conditioning on the number of terms. It is shown how this method can be adapted to construct a recursive scheme for computing higher order moments of compound distributions.

Kahn, Qaiser M.

PD 1985. TI Will a 'IMF-Type' Austerity Package Always Work? The Macroeconomics of Agricultural Development and Food Consumption in an Economy Inside its Production Possibility Frontier. AA Bowdoin College. SR University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 85-5; Department of Economics, McNeil 160/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. PG 38. PR No Charge. JE 023, 121. KW Bangladesh. IMF-type Austerity

Package. Agricultural Development.

AB This paper investigates the possible consequences of an IMF-type austerity package in a very low income country. The results for Bangladesh show that if a country is inside its production possibility frontier an IMF-type package may not achieve its goals such as stability of long-term balance of payments, economic growth, reduction in budget deficits etc. There will be disastrous consequences for equity. The paper proceeds by developing linkages between government development and current expenditures as well as money supply on prices, output and eventually employment. Effects on consumers is simulated using an endowment constrained framework for demand. The poorer groups benefit from stimulative policies. Indeed under the circumstances similar to Bangladesh specific types of stimulative macropolicies will achieve expansion of both equity and efficiency.

PD September 1985. **TI** A Model of Endowment Constrained Demand for Food in an Agricultural Economy with Empirical Applications to Bangladesh. **AA** Bowdoin College. **SR** University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 85-4; Department of Economics, McNeil 160/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. **PG** 22. **PR** No Charge. **JE** 718, 921, 711, 913. **KW** Bangladesh. Food Demand. Undernutrition.

AB This paper explores the relationship between distribution of assets and systematic undernutrition in rural populations. A formal theoretical model is developed to explore the impact of short-term price changes on the nutrition of various economic classes. An empirical simulation model is developed for rural Bangladesh using data from the agricultural census, the land occupancy survey and two household demand surveys. This model links endowments like land, labor, and livestock to demand for food using prices and incomes and intermediate variables. The results suggest that the landless would consume about half their minimum requirements even if production were 50 per cent above requirements and prices remained stable. When prices rise the picture gets much worse. Of course this analysis precludes assistance from better-off neighbors or the state but it demonstrates conclusively how much of starvation is due to income and asset distribution rather than shortfalls in food availability per capita. Increased production of food while providing some necessary conditions for eliminating starvation do not provide sufficient conditions. Prices and incomes have to be taken into account.

Kalaba, Robert

PD June 1986. **TI** Automation of Nested Matrix and Derivative Operations. **AU** Kalaba, Robert; Plum, Thomas; Tesfatsion, Leigh. **AA** Tesfatsion: Department of Economics, University of Southern California. Plum: Department of Biomedical Engineering, University of Southern California. Kalaba: Departments of Electrical and Biomedical Engineering, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8627; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 30. **PR** No Charge. **JE** 213, 214.

KW Automatic Derivative Evaluation. Matrix Operations. Wengert's Method.

AB In Kalaba, Tesfatsion, and Wang (1983) an algorithm FEED is introduced for the systematic exact evaluation of higher-order partial derivatives of functions of many variables. In Kalaba and Tesfatsion (1986) the FEED library is extended to permit the automatic differentiation of functions expressed in terms of the derivatives of other functions. Building on this work, the present paper further extends the FEED library to permit the automatic differentiation of expressions involving nested matrix and derivative operations. The need to differentiate such expressions arose naturally in the course of designing sequential filters for a class of nonlinear location problems.

Kanbur, S. M. Ravi

PD April 1986. **TI** Intergenerational Mobility and Dynastic Inequality. **AU** Kanbur, S. M. Ravi; Stiglitz, Joseph E. **AA** Kanbur: Department of Economics, University of Essex and Woodrow Wilson School. Stiglitz: Department of Economics, Princeton University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 111; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. **PG** 30. **PR** No Charge. **JE** 024. **KW** Mobility. Inequality. Dynasty. Intertemporal Social Welfare.

AB This paper is a contribution to the comparison of mobility in a social welfare framework. In particular, we emphasize the consequences of alternative mobility structures for dynastic inequality. This means that we consider social welfare functions which are not simply additive across dynastic welfare. We derive a necessary and sufficient characterization of social welfare dominance in this framework, and relate the implied partial ordering of mobility structures to several conventional views on what constitutes a more mobile society.

Kaneda, Hiromitsu

PD September 3, 1986. **TI** Rural Resource Mobility and Intersectoral Balance in Early Modern Growth. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 281; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 36. **PR** No Charge. **JE** 112, 710, 120. **KW** Concurrent Growth. Early Modern Growth of Japan. Two-Sector Model of Labor Migration. Growth. Income Distribution. Sources and Rates of Agricultural Growth.

AB The spring-board of this analysis is Kazushi Ohkawa's "concurrent growth" thesis which emphasizes the developments in both agriculture and the nonagricultural sector that enabled agriculture, with its overwhelming majority of the labor force, to develop along with the rapidly growing industry in the early phases of Japan's modern growth before World War I. This paper reviews proximate factors responsible for the concurrent growth of the two sectors and, extending J. Vislie's two-sector model of labor migration, highlights sectoral rates of per-capita earnings growth as well as those of changes in labor productivity. It offers additional evidence on growth and distribution during Japan's early phases of modern economic growth. It also adapts a method of analysis of

factorial experiments in decomposing the gains in labor productivity to analyze the sources and rates of agricultural growth under conditions of concurrent growth and agricultural stagnation in the 1920's.

Kaneko, Mamoru

PD March 1985. TI The Core of a Game with a Continuum of Players and Finite Coalitions: Nonemptiness with Bounded Sizes of Coalitions. AU Kaneko, Mamoru; Wooders, Myrna Holtz. AA Kaneko: Institute of Socio-Economic Planning University of Tsukuba. Wooders: University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8503; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 44. PR No Charge. JE 021, 026. KW Core. Continuum. Finite Coalitions.

AB In this paper, we continue our study of the core, called the *f*-core, of a game with a continuum of players and finite coalitions. In previous work, we demonstrated nonemptiness of the *f*-core with the assumption that the players can be partitioned into a finite number of types. Here, we relax this assumption. To do this, we consider games where players are described by points in some space of attributes and the characteristic function is determined by the attributes of the players in each coalition. To formulate this structure, we take as given a pregame, a correspondence associating a set of "attainable payoffs" with every finite list of attributes. A game is then determined by the pregame and an attribute function, which ascribes attributes to each player. To obtain our theorem, we assume essential coalitions are bounded in size (i.e. numbers of players). Relaxing the type assumption of the previous paper makes it necessary for us to also assume a strong comprehensiveness property — nevertheless, a weak condition. The theorem is applied to market games and other, immediate, applications are noted.

Karp, Larry S.

PD January 1985. TI Tariffs with Dynamic Supply Response. AA University of California at Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 353; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California Berkeley, Berkeley, CA 94720. PG 34. PR No Charge. JE 411, 422. KW Optimal Tariffs.

AB This paper studies the optimal tariff in a dynamic framework. The effects of the supplier's rationality and of the type of strategy available to the importer are discussed. With rational sellers, the optimal tariff is dynamically inconsistent; the consistent tariff is extremely myopic and may be worse than free trade for the importer. The paper concentrates on the case in which the traded good is a reproducible commodity. This is compared to the situation in which the traded good is a nonrenewable resource. The plausibility of the consistent equilibrium, in the absence of binding commitments, is discussed.

PD February 1985. TI Higher Moments in the Linear-Quadratic-Gaussian Problem. AA University of California at Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 356; Department

of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 20. PR No Charge. JE 211, 411. KW Linear-Quadratic-Gaussian Problem. Quadratic Payoff. Higher Moments. Dynamic Optimal Tariff.

AB A generalization of the linear-quadratic-Gaussian problem is discussed. This provides a family of control rules, which result in different combinations of moments of the quadratic payoff. A method of approximating higher moments of the payoff is given. A recursive formula for calculating the second moment is derived. A dynamic optimal tariff example illustrates the methods.

PD June 1985. TI Dynamic Hedging with Uncertain Production. AA University of California at Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 371; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 29. PR No Charge. JE 313, 026. KW Hedging. Dynamic Hedging. Myopic Hedge. Futures.

AB A dynamic hedging problem with production uncertainty is solved and analyzed; the results are compared to the solution of the static analog. Several insights are obtained. It is shown, among other things, that the myopic hedge provides a downwardly biased approximation of the initial optimal dynamic hedge. The magnitude of this bias varies directly with the extent to which the current futures price is a biased estimator of cash price at harvest; it varies inversely with the degree of absolute risk aversion. A second insight concerns the expected direction of change of the individual's position in futures. Normal backwardation, for example, is consistent with either an expected increase or decrease in futures sales over the production period. A systematic decrease in the level of futures sales suggests a high degree of bias relative to risk aversion; it does not suggest whether the current futures price is an upwardly or downwardly biased estimator of cash price at harvest. Intuition might suggest that the myopic hedge would lie between the initial and expected final hedges in the dynamic problem. This intuition is correct only if there is a large degree of bias relative to risk aversion or, paradoxically, if the bias is 0. In the second case, the myopic hedge equals the initial dynamic hedge.

PD July 1985. TI A Note on Market Structure and the Durability of Goods. AU Karp, Larry S.; Cosimano, Thomas F. AA Karp: University of California at Berkeley. Cosimano: Texas A and M University. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 378; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 9. PR No Charge. JE 611. KW Market Structure. Durability of Goods. Steady State.

AB A number of papers (see Abel for references) have discussed the relation between market structure and the durability of goods. These analyses concentrate on comparison of steady-state optima for the various market structures. We extend the analysis by considering the second variation around a steady state. We show that the Hessian of the dynamic problem evaluated at the steady

state can be decomposed into two asymmetric matrices. The quadratic forms of these matrices give, respectively, the second-order terms of the Taylor expansion of the benefit of an instantaneous arrival at a neighboring (suboptimal) steady state (the "static benefit") and the benefit of the journey (the "adjustment benefit"). The sum of these benefits must be negative, but either may be positive.

Kasper, Hirschel

PD August 1986. TI On Understanding the Rise in Non-Tenure Track Appointments. AA Oberlin College. SR Princeton Industrial Relations Section Working Paper: 211; Industrial Relations Section, Princeton University, Princeton N.J. 08544. PG 15. PR No Charge. JE 912, 824. KW Non-Tenure Faculty.

AB This short paper discusses some aspects of the recent increase in the number of full-time non-tenure track faculty appointments. It considers alternative explanations for the growth and concludes that the predominant cause seems to be that institutions have elected to offer non-tenure track appointments, not that they are forced to by inadequate finances or projections of declines in student enrollment. This tentative conclusion rests on some statistics which imply that tenure track appointments tend to be offered more frequently in fields where there is also more upward pressure on salaries and where new faculty appointments may have a wider choice of alternatives.

Kern, W.

TI On Sticky Matroids. AU Bachem, A.; Kern, W.

Kesselman, Jonathan R.

PD August 1985. TI Role of the Tax Mix in Tax Reform. AA University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-27; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 79. PR \$0.20 per page Canadian to other than educational institutions. JE 323. KW Australia. Tax Mix. Tax Reform.

AB This study examines the principal assertions made to support a change in the tax mix and found most to be either misleading or overstated. Earlier advocacy of tax mix change has considered the need for base reform of the indirect tax but has exaggerated its importance relative to personal income tax reform (and parallel corporate income tax reform). If a government could get fundamental reform of the income tax base and enforcement, it would have achieved most of the potential gains in terms of work incentives, efficient allocation of capital, horizontal equity, avoidance and evasion, and taxpayer acceptance. Any additional gains in these areas then attainable by shifting the mix away from direct and toward indirect taxation would be comparatively modest, though this would improve savings incentives. In contrast, a partial shift of the tax mix undertaken alone would be a hollow victory if not accompanied by significant PIT and corporate tax reforms. Hence, the major benefits of changing the tax mix arise only in conjunction with fundamental measures to reform the income tax base and enforcement. The

strongest argument for a tax mix change is that it could facilitate the selling and adoption of tax reform measures - for both direct and indirect bases - that for economic, political, and perceptual reasons might prove difficult to undertake alone. A partial change in the tax mix and fundamental tax reform can therefore be viewed as complementary components in an overall taxation policy package.

Khan, M. Ali

PD February 1985. TI Weak Sequential Convergence in $L_1(u, X)$ and an Approximate Version of Fatou's Lemma. AU Khan, M. Ali; Majumdar, Mukul. AA Kahn: University of Illinois. Majumdar: Cornell University. SR Cornell Department of Economics Working Paper: 330; Department of Economics, Cornell University, Ithaca, N.Y. 14853. PG 6. PR No Charge. JE 213. KW Weak Sequential Convergence. Fatou's Lemma. Bochner Integrable Functions.

AB In this paper we present a characterization of weak sequential convergence in the space of Bochner integrable functions. This allows us to present an approximate version of Fatou's Lemma for the vector case. Our results generalize Artstein's '1 work in the spirit of Khurana's '11 generalization of the Grothendieck-Peressini characterization of weak sequential convergence in the space of essentially bounded measurable functions. Our results are motivated by problems in mathematical economics.

Khandker, Rezaul

PD May 1986. TI Offer Heterogeneity in a Two State Model of Sequential Search. AA Department of Economics University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8626; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 31. PR No Charge. JE 211, 824. KW Optimal Sequential Search. Mixed Poisson. Offer Heterogeneity. Separation Rate. Competing Risk. Recoverability. Cause-Specific Hazard. Failure Specific Subdensity. Delta Method.

AB The econometric method in the Flinn and Heckman (1982) model for estimating a Markovian model of search unemployment and job tenure is further augmented by introducing a possibility that jobs may differ by separation rates or non-wage attributes. A set of reservation wages is obtained as a solution to the value functions and the unemployment spell distribution is characterized as one of competing risk based on which type of job is finally accepted.

Kim, Kyoo Hong

TI A Note on Nonperiodic Demoeconomic Fluctuations with Positive Measure. AU Day, Richard H.; Kim, Kyoo Hong.

King, Maxwell L.

PD July 1986. TI Further Results on Testing AR(1) Against MA(1) Disturbances in the Linear Regression Model. AU King, Maxwell L.; McAleer, Michael. AA King: Monash University. McAleer: Australian National University. SR Monash Department of

Econometrics and Operations Research Working Paper: 8/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 27. PR No Charge. JE 211. KW Autoregressive Errors. Cox Test. Linear Regression. Moving Average Errors. Non-Nested Tests. Power.

AB This paper examines the non-nested problem of testing for AR(1) disturbances against MA(1) disturbances in the linear regression model. A Monte Carlo experiment compares the small sample properties of the Cox test, some linearized Cox tests, and an approximate point optimal test, as well as a Lagrange multiplier test of AR(1) disturbances against more general ARMA(1,1) disturbances. The main findings are that the true sizes of the asymptotic non-nested tests can differ considerably from their nominal sizes, the Lagrange multiplier test's sizes are reasonably accurate and the point optimal test is generally more powerful than the other tests when appropriate critical values are used.

PD July 1986. TI An Alternative Test for Regression Coefficient Stability. AA Monash University. SR Monash Department of Econometrics and Operations Research Working Paper: 9/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG Ten. PR No Charge. JE 211. KW Random Regression Coefficients. Locally Best Invariant Test. Random Walk Regression Coefficients. Autoregressive Process. Diagnostic Test.

AB This note considers the problem of testing for a constant regression coefficient against the alternative hypothesis that the coefficient follows a stationary first-order autoregressive process. Rather than testing for zero variance in the autoregressive process as Watson and Engle (1985) have proposed, we suggest testing for lack of variation in the regression coefficient. This allows one to construct a locally best invariant test whose critical values can be found exactly or approximated using standard computational techniques. This test is also locally best invariant against the hypothesis that the coefficient follows a random walk process.

Kling, Arnold S.

PD February 1986. TI Futures Markets and Transaction Costs. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Research Paper in Banking and Financial Economics: 83; Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 23. PR No Charge. JE 521, 313. KW Financial Futures. Market Microstructure. Futures Markets. Transactions Costs.

AB In this paper I suggest that the primary function of financial futures markets is to provide a more liquid trading mechanism than the spot markets in financial instruments. I present empirical evidence indicating that futures markets do offer lower transaction costs than those present in the underlying markets, particularly in the case of stock index futures. Moreover, the existence of futures markets appears to have lowered transaction costs in the underlying markets for Treasury securities, as dealers have used futures markets to reduce their own costs.

Koenker, Roger W.

PD February 7, 1986. TI Asymptotic Theory and Econometric Practice. AA Department of Economics, University of Illinois at Urbana-Champaign. SR University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1222; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. PG 12. PR No Charge. JE 211. KW Asymptotic Theory. M-Estimators. Poisson Regression.

AB The classical paradigm of asymptotic theory rests on the following "willing suspension of disbelief." We are asked to imagine a colleague with an extremely diligent research assistant in the throes of specifying an econometric model. Daily, the RA arrives with buckets full of independent new observations, but our colleague is so uninspired by curiosity and convinced of the validity of his original model, that each day he simply reestimates this original model without alteration using larger and larger samples. We estimate a poisson model of the specification of wage equations in the econometric literature based on a sample of 733 equations from 156 papers. The results strongly suggest that the classical paradigm is seriously flawed: the number of parameters estimated in wage equations, say p tends to infinity as the sample size tends to infinity, and, roughly, $(p^{**4})/n$ tends to a constant. Should we abandon our cherished beliefs in consistency and asymptotic normality to the dustbin of irrelevance? On the contrary, the forthright admission that in realistic econometric settings p approaches infinity with n , offers an opportunity for an even more challenging (and informative) asymptotic theory. Huber(1973) was apparently the first to observe that under rather mild regularity conditions on the sequence of designs, consistency and asymptotic normality of the least squares estimator in linear models was possible if p/n approaches 0. Portnoy(1984,1985) extending results of Huber and others has shown that similar results may be established for a broad class of M-estimators for linear models when $p \log(p)/n$ approaches 0. We survey these results and report on some similar results for L-estimators for the linear model of the type proposed in Koenker and Bassett(1978).

Kokoski, Mary F.

PD February 1986. TI Indices of Household Welfare and the Value of Leisure Time. AA Division of Price and Index Number Research, United States Bureau of Labor Statistics. SR Bureau of Labor Statistics Working Paper: 159; Bureau of Labor Statistics, 441 G Street, Northwest/Room 2021 Washington, D.C. 20212. PG 20. PR No Charge. JE 225, 229, 824. KW Real Wage Index. Labor/Leisure Choice. Welfare Index.

AB Leisure-inclusive welfare change indices incorporate the labor/leisure choice into the determination of welfare changes due to price and wage changes. Previous studies have calculated these indices using national aggregate data, ignoring decreases in leisure consumption at the household level due to the entry of secondary earners into the labor force. This study uses household level data (1972 and 1980 Consumer Expenditure Survey) to show that the welfare increases indicated by aggregate time series data may be misleading. Including leisure in the household's

consumption vector produces welfare change indices which are smaller than their index counterparts based on goods consumption only (i.e. the quantity index complements of the price or cost-of-living index). In addition, the micro data results suggest differences in leisure-inclusive welfare changes across demographic subsets of the population.

PD February 1986. **TI** Cost-of-Living Measures and Substitution Bias by Demographic Group. **AA** Division of Price and Index Number Research, Bureau of Labor Statistics. **SR** Bureau of Labor Statistics Working Paper: 158; Bureau of Labor Statistics, 441 G Street, Northwest/Room 2021 Washington, D.C. 20212. **PG** 25. **PR** No Charge. **JE** 227. **KW** Cost-of-Living. Substitution Bias. Demographic Groups.

AB Despite its nature as a fixed weight price index representative of the United States noninstitutional population, the Consumer Price Index is used to determine compensatory changes in components of income for specific demographic subsets of the population. Given this premise, it may be important to know the effect of differences in expenditure patterns, as well as substitution bias, on price indices across demographic groups. Using the 1972 and 1980 CE Survey data, a set of demographic group-specific price indices is compared. For each group superlative (Tornqvist and Fisher) indices are calculated in order to assess the substitution bias inherent in their fixed weight counterparts. The results indicate that stratification of households by only a few demographic attributes may or may not provide price indices closer to those of more specific demographic subsets of the population. The substitution bias, even for demographic groups with small sample sizes, never exceeds two percent across the two survey periods.

Kolodko, Grzegorz W.

PD April 1986. **TI** Stagflation and Shortageflation: A Comparative Approach. **AU** Kolodko, Grzegorz W.; McMahon, Walter W. **AA** Kolodko: Central School of Planning and Statistics, Warsaw, Poland and Department of Economics, University of Illinois at Urbana-Champaign. McMahon: Department of Economics, University of Illinois at Urbana-Champaign. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1224; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. **PG** 32. **PR** No Charge. **JE** 053, 134. **KW** Inflation. Stagflation. Repressed Inflation. Centrally Planned Economies. Shortageflation.

AB This paper compares the sources of inflation and unemployment in western market economies with the sources of repressed inflation and persistent shortages common in centrally planned economies. Stagflation and shortageflation have much in common, and a similar theoretical structure is offered. Measures of stagflation for the OECD countries and a first approximation of a measure of shortageflation for the eastern European socialist countries reveal that Italy and Poland have the most severe, and West Germany and East Germany have the lowest rates. Furthermore, where relative prices fail to reflect relative scarcities, then queuing, gluts, and other allocative inefficiencies arise that can slow growth.

PD April 1986. **TI** The Repressed Inflation and Inflationary Overhang under Socialism. **AA** Central School of Planning and Statistics, Warsaw, Poland, and Department of Economics, University of Illinois at Urbana-Champaign. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1228; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. **PG** 29. **PR** No Charge. **JE** 134, 052. **KW** Inflation. Repressed Inflation. Inflationary Overhang. Socialism.

AB The paper discusses the macroeconomic causes and consequences of the repressed inflation in the centrally planned economies. There are supply shortages leading to the forced savings and so-called inflationary overhang. Some of these compulsory savings are not invested and thereby it results in allocative inefficiency and relatively slower growth of output. Chronic disequilibrium and shortages, with their negative implications for economic efficiency, appear as a main feature of contemporary socialist economy. The paper takes a closer look at the notion of inflationary overhang and in particular at the socio-economic process that lies behind the repressed inflation.

PD April 1986. **TI** International Transmission of Inflation. Its Economics and Its Politics. **AA** Central School of Planning and Statistics, Warsaw, Poland, and Department of Economics, University of Illinois at Urbana-Champaign. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1234; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. **PG** 26. **PR** No Charge. **JE** 134. **KW** Inflation. Transmission of Inflation.

AB This paper discusses major conduits for the international transmission of inflation with special attention to the system of exchange rates, money and capital markets, and the terms of trade, and the mechanism of transmission between West, South and East. Contemporary worldwide inflation reflects the economic contradictions not only within individual countries, but on the world scale as well. At present inflation cannot be combatted within a single country. With inflation internationalized, it is now too late for this. But at the same time, it is too early-as usual, for political reasons-for the launching of necessary measures coordinated on the global scale.

Kreps, David M.

TI On the Robustness of Equilibrium Refinements. **AU** Fudenberg, Drew; Kreps, David M.; Levine, David K.

PD July 17, 1986. **TI** Contributions to The New Palgrave. **AU** Kreps, David M.; Roberts, John; Wilson, Robert B. **AA** Stanford University Graduate School of Business. **SR** Stanford Graduate School of Business Research Paper: 892; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 79. **PR** No Charge. **JE** 020. **KW** Auction Theory. Exchange. Large Economies. Lindahl Equilibrium. Nash Equilibrium. Perfectly and Imperfectly Competitive.

Markets.

AB This "paper" consists of six separate, individually authored entries to appear in "The New Palgrave: A Dictionary of Economic Theory and Doctrine". The contributions are: "Nash Equilibrium" by Kreps, "Large Economies," "Lindahl Equilibrium and "Perfectly and Imperfectly Competitive Markets" by Roberts, and "Auction Theory" and "Exchange" by Wilson.

Kreuter, Beate

PD May 1986. **TI** Zur Effizienz von Organisationsstrukturen. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D 3; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 68. **PR** No Charge. **JE** 511. **KW** Organisationsstruktur. Effizienzkonzepte. Transaktionskosten.

Krueger, Alan B.

PD June 1986. **TI** Reflections on the Inter-Industry Wage Structure. **AU** Krueger, Alan B.; Summers, Lawrence H. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 1968; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$2.00. **JE** 824. **KW** Wages. Inter-Industry Wage Structure.

AB This paper reviews available evidence on the inter-industry wage structure. The inter-industry wage structure is remarkably similar in different eras, in different countries, and among different types of workers. Industries with high capital-to-labor ratios, monopoly power and high profits pay relatively high wages. We conclude that the competitive model cannot without substantial modification provide an adequate explanation of the inter-industry wage structure. The implications of this finding for micro and macro economic theory and policy are examined.

Krugman, Paul R.

PD August 1985. **TI** Fiscal Policy, Interest Rates, and Exchange Rates: Some Simple Analytics. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 391; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 13. **PR** No Charge. **JE** 321. **KW** Fiscal Policy. Integrated World Economy. Feldstein Doctrine. United States Dollar. Interest Rates.

AB The so-called "Feldstein doctrine," which attributes both high United States real interest rates and the strong real dollar to expansionary United States fiscal policy, has been widely accepted as a working hypothesis. Surprisingly, however, there have been few simple presentations of the analytical basis for this doctrine. The purpose of this note is to provide a simple analytical exposition of the role of fiscal policy in an integrated world economy; in addition, I offer a back-of-the-envelope quantitative assessment. The model on which this exposition is based is a direct formalization of the famous Feldstein presentation to the Council on Foreign Relations (Feldstein 1983). Recently Branson (1985) has presented a

lucid analysis of the effects of fiscal policy in an open economy, and this note draws directly on his paper. The only difference is that where Branson assumes that his country cannot affect foreign real interest rate - an unsatisfactory assumption for the United States - I allow for full international repercussions.

PD May 1986. **TI** Pricing to Market When the Exchange Rate Changes. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 1926; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 41. **PR** \$2.00. **JE** 431. **KW** Exchange Rate. Import Prices. Pricing to Market.

AB It has been widely remarked that United States import prices have not fully reflected movements in the exchange rate. This paper begins with an investigation of the actual extent of "pricing to market" by foreign suppliers. It shows that pricing to market is a real phenomenon, but not universal; in particular, evidence on German export prices suggests that stickiness of import prices is largely confined to machinery and transport equipment. The paper then considers a number of possible models. While the evidence is not sufficient to distinguish among these models, it seems probable that a full explanation will involve both dynamics and imperfect competition.

Kune, U. B.

TI pensioenvb: toelichting op een programma voor de berekening berekening van de pensioenaankleding voor zelfstandige vrife-beroepsbeoefenaren. **AU** Remmerswaal, U. C. M.; Kune, U. B.

Kuran, Timur

PD April 1986. **TI** Chameleon Voters and Public Choice. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8618; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 39. **PR** No Charge. **JE** 025. **KW** Voting. Open Voting. Secret Voting. Public Choice/Social Choice. Preference Falsification. Pressure Groups/Special-Interest Groups. Decision Mechanisms. Threshold Models.

AB A model is presented of an open-voting public choice process that features pressure groups vying for society's support. Individuals choose what policy to advocate on the basis of their private preferences, which are those they would express in a secret ballot; endogenous social pressures; and the utility they gain from integrity. They falsify their preferences when the benefits of doing so outweigh the costs. An implication is that a policy advocated by few people in private might receive strong public support. The paper goes on to explore why secret voting, which eliminates this possibility, might not be adopted.

Lazear, Edward P.

PD May 1986. **TI** Incentive Contracts. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 1917; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** \$2.00. **JE** 821,

853. KW Incentive Contracts. Labor Relations.

AB Labor relations involve incentive problems. The market solves these problems by developing a variety of institutions. This paper describes and assesses the various forms of incentive contracts.

Le, Van C.

TI A Note on the Gale-Nikaido-Debreu Lemma and the Existence of General Equilibrium. **AU** Florenzano, M.; Le, Van C.

Leamer, Edward E.

TI Multicountry, Multifactor Tests of the Factor Abundance Theory. **AU** Bowen, Harry P.; Leamer, Edward E.; Sveikauskas, Leo.

PD June 1986. **TI** Errors in Variables in Linear System. **AA** University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 406; Department of Economics, University of California at Los Angeles Los Angeles, CA 90024. **PR** \$2.50 (checks payable to U.C. Regents). **JE** 210, 211. **KW** Measurement Errors. Linear Systems. Errors in Variables.

AB This paper extends the simple errors-in-variable bound to the setting of systems of equations. Both diagonal and nondiagonal measurement error covariance matrices are considered. In the nondiagonal case, the analogue of the simple errors-in-variable interval of estimates is an ellipsoid with diagonal equal to the line segment connecting the direct least squares with a two-stage least squares estimate. For the diagonal case, the set of estimates under some conditions must lie within the convex hull of 2k points.

Lee, Henry

PD January 1986. **TI** Natural Gas Trade in North America: Obstacles and Opportunities. **AA** Energy and Environmental Policy Center, Harvard University. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-86-01; Energy and Environmental Policy Center, J. F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 43. **PR** \$10.00. **JE** 723, 422. **KW** Natural Gas Trade. Gas Exports. Regulatory Policy -- Canada.

AB This paper analyzes the factors shaping the future level of gas imports into the United States from Canada, Mexico, Alaska, and the OPEC nations. The first half focuses on the geologic and economic potential for gas supplies from these four sources. The second explores the institutional issues influencing Canadian gas export policy, since these issues, more than any other factor, will shape the character of gas trade with the United States.

Lehmann, Bruce N.

PD January 1986. **TI** Residual Risk Revisited. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 321; Department of Economics, Columbia University, New York, NY 10027. **PG** 37. **PR** \$5.00. **JE** 026, 313. **KW** Residual Risk. Single Index Market Model. Expected Returns.

AB There is considerable evidence that the residuals

from the single index market model contain factors which are associated with nonzero risk premia. Consequently, the idiosyncratic variances from the one factor model should partially reflect exposure to these omitted sources of systematic risk and, hence, should help explain expected returns. There are two plausible explanations for the inability to obtain statistically reliable estimates of a linear residual risk effect in the previous literature: (1) nonlinearity of the residual risk effect and (2) the inadequacy of the statistical procedures employed to measure it. The results presented below indicate that the econometric methods employed previously are the culprits. Pronounced residual risk effects are found in the whole sample and in numerous subperiods as well when weighted least squares estimation is coupled with the appropriate measurement error corrections. In addition, the evidence suggests that it is important to take account of the nonnormality and heteroskedasticity of security returns when making the appropriate measurement error corrections in cross-sectional regressions. Finally, the results are sensitive to the specification of the model for expected returns.

Lehmer, Carola

PD June 1986. **TI** A Multi-Series Heuristic for Exponential Smoothing. **AU** Lehmer, Carola; Snyder, Ralph D. **AA** Monash University. **SR** Monash Department of Econometrics and Operations Research Working Paper: 5/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 11. **PR** No Charge. **JE** 211. **KW** Exponential Smoothing. Adaptive Forecasting. Multi-variate Time Series Analysis. Wool Price Forecasts.

AB In this paper the problem of obtaining appropriate values for the smoothing parameter for use with forecasting systems based on exponential smoothing is considered. Two heuristics are suggested, which can be applied in a multi-series environment where there is a relatively high concordance in movements across the series. They are tested against other well known methods using wool price data. One of the multi-series heuristics is shown to result in more accurate forecasts than all other methods considered in the paper.

Leuven, K. U.

TI Best Bounds for Positive Distributions with Fixed Moments. **AU** Kaas, R.; Goovaerts, M. J.; Leuven, K. U.

Levine, David K.

TI On the Robustness of Equilibrium Refinements. **AU** Fudenberg, Drew; Kreps, David M.; Levine, David K.

Lichtenberg, Erik

PD January 1985. **TI** Heterogeneous Production and Input Regulation in Agriculture: A Conceptual Framework for Welfare Analysis. **AU** Lichtenberg, Erik; Zilberman, David. **AA** Lichtenberg: Western Consortium for the Health Professions. Zilberman: University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics

(CUDARE) Working Paper: 354; Department of Agriculture and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 32. PR No Charge. JE 613, 713, 722, 024. KW Environmental Regulation. Agricultural Policy. Pest Management. Heterogeneous Technology. Welfare Analysis.

AB This paper develops a methodology for analyzing the impact of government intervention in industries characterized by heterogeneous production such as agriculture. Application of the method in the context of environmental regulation elucidates some of the main dynamics involved in policy formation in this arena. Specifically, it shows that the characteristic features of United States agriculture -- heterogeneity and inelastic demand -- tend to generate support for environmental regulation in the form of a mixed coalition of producers in regions unlikely to be affected directly by regulatory efforts and environment minded consumers; that the firmest opposition to regulation should come from antienvironmentalist consumers; and that producers in regions affected directly by regulation may gain or lose and, hence, support or oppose regulation. Analysis of the role of agricultural and trade-related policies shows that these two sets of policies play an important part in preventing the formation of the aforementioned mixed coalitions and in creating in their place the standard producer-versus-consumer standoff. Both types of policies reduce the size of the gains farmers stand to earn from regulation. In addition, agricultural policy increases the amounts farmers stand to lose from regulation at the same time as it exacerbates problems of agricultural pollution both in the short run and in the long run. These results suggest that regulators may find reform of these policies, especially farm policy, to be one of the most effective tools for creating a broader constituency for regulatory efforts and an enhancement of environmental quality.

Lin, T. Y.

TI Irregular Fluctuations and Comparative Policy Dynamics in the Keynesian Regime. AU Day, Richard H.; Lin, T. Y.

Lipietz, Alain

PD 1985. TI Reflexions autour d'une fable. Pour un statut marxiste des concepts de regulation et d'accumulation. (The Hunter-Fisher Tale Revisited: A Marxist Foundation to the Concepts of Accumulation and Regulation). AA CEPREMAP - CNRS. SR CEPREMAP Discussion Paper: 8530; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 38. PR \$10.00. JE 011, 613. KW Marxism. Regulation. AB Starting with the well known tale by Adam Smith about fishers and hunters, this text introduces progressively the main concepts of the so-called "French school of regulation". The marxist roots of these concepts are shown, but it is emphasized that, contrary to classical marxism, the subjectivity of actors of economic relations should be taken into account. (Paper in French.).

PD November 7-8-9, 1985. TI Trois crises. Metamorphoses du capitalisme et mouvement ouvrier. (Three Crisis). AA CEPREMAP - CNRS. SR CEPREMAP Discussion Paper: 8528; CEPREMAP,

142 rue du Chevaleret, 75013 Paris, FRANCE. PG 43. PR 10 FF. JE 041, 051, 830. KW Economic History. Labour Movement. Marxism.

AB There exist two misleading ways of telling the truth about history of capitalism. First, the labour movement sees it as the struggle between two exterior enemies. The second presents some inner logic of Capital, from stage to stage, long wave to long wave, regime to regime. The fallacies of these presentations are shown here. One cannot understand the metamorphosis of capital without introducing the reformist action of one its inner elements, the labour movement. (Paper in French.).

Litrin, Uri

PD 1985. TI Inflation and Money Creation in Israel. AU Litrin, Uri; Meridor, Leora; Spivak, Avia; Deutsch, Joseph. AA Litvin; Meridor: Bank of Israel. Deutsch: Bar-Ilan University. Spivak: University of Pennsylvania. SR University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 85-3; Department of Economics, McNeil 160/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. PG 25. PR No Charge. JE 122, 134, 311. KW Israel. Inflation. Money Creation. Hyperinflation.

AB This paper examines the process of money creation in Israel. It is found that more inflation creates more money and that the Central Bank partly offsets changes in the money stock due to other sources. Our evidence tends to suggest that dependency of the money supply on the price level is a result of an intended policy stemming from the need to finance higher volume of nominal transactions. It is shown that such money-supply policy leads to higher inflation and may be one of the causes for the recent Israeli hyperinflation.

Los Cornelis, A.

PD December 1985. TI EMEPS User Manual: Computer Programs for the Estimation and Prediction of Econometric Models with Evolutionary Parameter Structures. AU Los Cornelis, A.; McKell, Christopher. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8510; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 121. PR No Charge. JE 211, 214. KW Varying Parameter Estimation. Latent Variables. Maximum Likelihood. Structural Change. Forecasting. EM Algorithm. Kalman Filter.

AB EMEPS is an integrated set of user-friendly microcomputer programs for the estimation and prediction of a wide variety of Dynamic Generalized Linear Models (DGLMs) with stochastic, time-varying parameters or other latent variables and a single measurement equation. The programs run on the IBM PC, XT, AT or compatible microcomputers. The generic EMEPS model encompasses at least 16 types of statistical models, including bilinear, switching and random coefficient models. Also the individual equations of the new Bayesian Vector Autoregression (BVAR) can be estimated and predicted. EMEPS consists of four independent programs. EMEPS-1 is a global, search-type maximum likelihood (ML) estimator. It searches efficiently over a restricted,

multidimensional, rectangular search domain for the optimal estimates of the constant hyperparameters. EMEPS-2 is a local, derivative-free ML estimator, applying the EM approach. It estimates both the trajectories of the evolutionary parameters and the constant hyperparameters. It produces many helpful diagnostics. EMEPS-3 determines if the proposed model configuration is Uniform, Complete, Stochastic Observable and Controllable. EMEPS-4 is the prediction program, projecting the trajectories of the parameters and of the dependent variable. It may be operated as a conventional Kalman filter. It provides adaptive and extrapolative prediction and summary statistics of the accuracy of the predictions.

PD March 1986. TI The Ghost in the Box: Comment on "What Will Take the Con out of Econometrics?". AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8601; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 9. PR No Charge. JE 210, 311, 023. KW Collinearity. Money Demand Equation. Quality Control. Instability. Reporting. Modeling. AB If one applies minimally necessary conditions, or quality control standards, for the analysis and presentation of applied economic research on the model by McAleer, Pagan and Volker (1985), it will not survive. Their model suffers from severe collinearity among the regressors, is unstable, and should be considered "fragile" or "incredible".

PD April 1986. TI Quality Control of Empirical Econometrics: A Status Report. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8606; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 80. PR No Charge. JE 210, 030. KW Objectives of Econometric Research. Restrictive Conditions. Evaluation. Forecasting Performance. Sources of Information. Professional Concerns. Professional Standards. Modeling Techniques. Specification Criteria. Collinearity.

AB This paper discusses the need for quality control standards for empirical econometrics. It describes first what econometrics can and cannot do for policymakers. In particular it points out that econometrics can be used under only very restrictive conditions. Econometricians should fully concentrate on the conditions under which certain modeling techniques can and cannot be applied and critically evaluate the research results. Following David Hendry, six quality control standards are suggested: data coherency, legitimacy of conditioning, robustness of parameter estimates and of forecasting performance, consistency with underlying economic theory and with the system of measurement, and, finally, encompassment of rivaling models. However, additional professional concerns are raised, like what to do about the usual collinearity among the explanatory variables, which indicates the existence of relationships not captured by the model and which may cause problems for the suggested quality control standards. It appears that the prevalence of regression analysis in empirical econometrics is not warranted by the way it has been practiced. The historical practice of econometrics is scrutinized, applying the six

quality control standards, and it is concluded that so far only two of these standards -- data coherency and theory consistency -- have received any attention by the profession. Arguments are provided why this is insufficient to warrant credible conclusions. It is suggested that a larger effort should be made to put empirical econometrics on a professional footing.

Lothian, James R.

TI Economic Events and Keynesian Ideas: The 1930's and the 1970's. AU Darby, Michael R.; Lothian, James R.

MacAvoy, Paul W.

TI The Practical Advantages of Tax Over Regulatory Policies in Controlling Industrial Air Pollution. AU Yohe, Gary W.; MacAvoy, Paul W.

TI Regulation. AU Breyer, Stephen; MacAvoy, Paul W.

MacGregor, Mary E.

TI Energy Deregulation and Uncertain World Oil Prices: What are the Connections?. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre.

TI New Directions for Canadian Energy Policy: The Western Accord and the 1985 Alberta Royalty Changes. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre.

Machina, Mark J.

PD December 1985. TI Expected Utility Hypothesis. AA University of California at San Diego. SR University of California at San Diego Department of Economics Discussion Paper: 86-4; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. PG 25. PR \$2.00; make cheques payable to University of California Regents. JE 022, 026. KW Risk. Expected Utility.

AB This paper contains a discussion of the expected utility hypothesis and covers topics such as its axiomatic development, its history, its evidence, and alternative hypotheses.

MacKinnon, James G.

PD July 18, 1986. TI Testing for Transformations of the Dependent Variable. AU MacKinnon, James G.; Magee, Lonnie. AA MacKinnon: Queen's University. Magee: McMaster University. SR Queen's Institute for Economic Research Discussion Paper: 655; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 30. PR \$2.50 Canada; \$3.00 United States; \$3.50 foreign. JE 211. KW Box-Cox Transformation. Lagrange Multiplier Test. Double-Length Regression. Artificial Regression.

AB We propose a family of transformations which, unlike the Box-Cox transformation, can sensibly be applied to variables of either sign which may be near or far from zero. We derive two forms of the Lagrange Multiplier test for the null hypothesis that the dependent variable has not been transformed against the alternative that a transformation of this family has been applied to it. One

form is based on a double-length artificial regression, the other on the "outer product of the gradient" artificial regression. These tests turn out to be closely related to one version of the well-known RESET test; the latter can be thought of as an approximation to the former. We provide Monte Carlo evidence on the performance of the two forms of our test under the null. We also provide evidence, based on both asymptotic analysis and sampling experiments, on the power of our test and of competing tests against certain alternatives.

Magee, Lonnie

TI Testing for Transformations of the Dependent Variable. AU MacKinnon, James G.; Magee, Lonnie.

Magnus, J. R.

PD September 1984. TI Matrix Differential Calculus with Applications to Simple, Hadamard, and Kronecker Products. AU Magnus, J. R.; Neudecker, H. AA Magnus: London School of Economics; Neudecker: University of Amsterdam. SR University of Amsterdam Actuarial Science and Econometrics Report: 19/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 28. PR No Charge. JE 213. KW Matrix Differential Calculus. Kronecker Product. Commutation Matrix. Hadamard Product.

AB A method of matrix differential calculus based on differentials is presented. Several definitions of matrix derivatives are examined, but only one is retained. The resulting formulae are applied to matrix functions of a more complicated character.

TI On the First-Order Efficiency and Asymptotic Normality of the Maximum Likelihood Estimator Obtained from Dependent Observations. AU Heijmans, R. D. H.; Magnus, J. R.

Magrath, William B.

TI A Dynamic Approach to Watershed Management with Emphasis on Soil Erosion. AU Magrath, William B.; Grosh, Margaret E. AA Cornell University. SR Cornell Department of Economics Working Paper: 336; Department of Economics, Cornell University, Ithaca, N.Y. 14853. PG 21. PR No Charge. JE 713, 717. KW Forests. Watershed Management.

AB Recent efforts to enhance management of forests and wildlands, especially in developing countries, have been justified as providing badly needed forest products to low income rural populations and environmental services that benefit both local populations and residents of relatively distant locales. While the analysis of projects providing forest products is well developed, less attention has been devoted to understanding the economic dimensions of the environmental services of forestland. In this paper we develop and explore a simple dynamic model of watershed management. The insights of this model help to provide a framework for the analysis of certain wildland management problems and suggest directions for further research.

Mahlob, Abdelhamid

PD May 1986. TI The North's Demand for Southern

Exports and Immiserization of the South. AU Mahlob, Abdelhamid; Nugent, Jeffrey B. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8624; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 17. PR No Charge. JE 411. KW North-South Trade. Export-Led Growth. Immiserizing Growth. Migration.

AB This paper constructs an alternative model of North-South trade to the controversial one of Chichilnisky for purposes of demonstrating that export-led growth can be immiserizing for the South even when the source of export growth is an increase in the North's demand for the South's export. The model relies on a dualistic labor market, a relatively substantial urban unemployment rate and a Harris-Todaro migration function which serves as an adjustment mechanism additional to that of the terms of trade. Since the dualistic labor market constitutes a distortion, the model represents another special case of Bhagwati's "general theory of immiserizing growth".

Maizels, Alfred

PD 1985. TI The Determinants of Military Expenditure in Developing Countries. AU Maizels, Alfred; Nissandre, M. AA University College London. SR University College London Discussion Paper: 85:18; Department of Political Economy, University College London, Gower Street, London WC1E 6BT, ENGLAND. PR 1.50 pounds sterling. JE 114, 121. KW Military Expenditure. Economic Growth. Developing Countries.

AB The past decade has witnessed a sharp expansion in military expenditures in a large number of developing countries, a trend which would appear to run counter to their domestic development needs. This expansion in the military establishment has also stimulated much interest among economists regarding the impact of military expenditure on economic growth. However, little empirical analysis has yet been attempted to answer the question as to why, if military expenditure does, in fact, retard growth; do developing countries increase such expenditure? The present article attempts a quantitative assessment of some of the more important factors which influence the level of military expenditure in developing countries by means of cross-country multiple regression analysis for a recent period (the average of the years 1978 to 1980). But first a brief review of the literature on the first issue mentioned - i.e. the impact of military expenditure on economic growth - is called for.

PD April 1985. TI The Determinants of Military Expenditures in Developing Countries. AU Maizels, Alfred; Nissanke, Machiko K. AA Department of Economics, University College, London. SR University College London Discussion Paper: 85-18; Department of Economics, University College London, Gower Street, London WC1E 6BT, ENGLAND. PR No Charge. JE 114, 121. KW Developing Countries. Military Expenditures. Military Regimes. Domestic Conflict.

AB This paper begins with a review of the literature on the effects of military expenditures on the rate of economic growth of developing countries. The various econometric studies, including one undertaken by the present authors, indicate fairly conclusively that military expenditures have

a negative impact on economic growth. The paper then proceeds to discuss the possible reasons why developing countries nevertheless spend a substantial proportion of their GDP for military purposes. A conceptual matrix is developed, including domestic, regional and global influences on the level of military expenditure, each influence being sub-divided into political, military and economic elements. Cross-country regressions are computed for the period 1978-1980 using statistics which represent, to a greater or lesser extent, the principal influences identified. The results indicate that military expenditures are influenced significantly by the prevalence of military activity-as was only to be expected-but also by economic linkages with the rest of the world, and by the existence or otherwise of links with a global power bloc.

PD April 1986. **TI** The Impact of Currency Devaluation on Commodity Production and Exports of Developing Countries. **AA** University College, London. **SR** University College London Discussion Paper: 86-07; Department of Economics, University College London, Gower Street, London WC1E 6BT, ENGLAND. **PR** No Charge. **JE** 430, 121, 710. **KW** Devaluation. Commodity Production. Commodity Prices Trade Balance.

AB While currency depreciation is generally acknowledged to be an appropriate mechanism for dealing with an adverse trade balance for a country whose internal costs and prices have become uncompetitive, the appropriateness of currency devaluation has been called into question in recent years in relation to developing commodity-exporting countries which have experienced sharp deterioration in their external accounts as a result of a contraction in world demand for their commodity exports. This paper considers the conditions under which devaluation can be expected to have the perverse result of engendering an expansion of production and exports from developing countries of commodities already in over-supply on the world market, thus still further depressing the world price. A statistical analysis for a selection of agricultural products over the period 1978 to 1984 indicates that such a perverse effect appears to have operated where there has been a substantial degree of real currency depreciation.

Majd, Saman

PD May 1986. **TI** Tax Asymmetries and Corporate Income Tax Reform. **AU** Majd, Saman; Myers, Stewart C. **AA** Majd: University of Pennsylvania. Myers: M.I.T. **SR** National Bureau of Economic Research Working Paper: 1924; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 51. **PR** \$2.00. **JE** 321. **KW** Tax Reform. Investment Tax Credit. Tax Asymmetries.

AB This paper investigates the impact of tax asymmetries (the lack of full loss offsets) under current corporate income tax law and a stylized tax reform proposal. The government's tax claim on the firm's pretax cash flows is modelled as a series of path-dependent call options and valued by option pricing procedures and Monte Carlo simulation. The tax reform investigated reduces the statutory tax rate, eliminates the investment tax credit and sets tax depreciation approximately equal to economic depreciation. These changes would increase the effective tax rate on marginal investments by firms that

always pay taxes, but dramatically reduce the potential burden of tax asymmetries. "Stand-alone" investments, which are exposed to the greatest burden, are uniformly more valuable under this reform, despite the loss of the investment tax credit and accelerated depreciation. These general results are backed up by a series of numerical experiments. We vary investment risk, inflation (with and without indexing of tax depreciation), and investigate how allowing interest on loss carryforwards would affect after-tax project value.

Majumdar, Mukul

PD October 1984. **TI** Optimal Growth in a Stochastic Environment: Some Sensitivity and Turnpike Results. **AU** Majumdar, Mukul; Zilcha, Itzhak. **AA** Majumdar: Cornell University. Zilcha: The Johns Hopkins University. **SR** Cornell Department of Economics Working Paper: 331; Department of Economics, Cornell University Ithaca, N.Y. 14853. **PG** 26. **PR** No Charge. **JE** 111. **KW** Dynamic Optimization. Optimal Growth. Stochastic Productive Economy. Optimal Savings. Investment Planning.

AB In this paper, we consider the problem of dynamic optimization under uncertainty in the context of an aggregative model. Our framework includes, as special cases, both the "discounted" and "undiscounted" models of Ramsey's optimal growth 'studied by Brock and Mirman (1972), (1973), Mirman and Zilcha (1975), (1977) and others. It also includes the "linear" models of Levhari - Srinivasan (1969) 'who pursued the Phelps problem of optimal savings under uncertainty and Leland (1974) 'who studied investment planning in a labor - surplus economy. Indeed, a stochastic version of the "productive" economy of Gale - Sutherland (1968) 'not studied so far can also be handled as yet another special case.

TI Weak Sequential Convergence in $L_1(u, X)$ and an Approximate Version of Fatou's Lemma. **AU** Khan, M. Ali; Majumdar, Mukul.

Malinvaud, Edmond

PD August 19, 1986. **TI** The Legacy of European Stagflation. **AA** I.N.S.E.E. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8607; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 20. **PR** No Charge. **JE** 134. **KW** Stagflation. Investment. Indebtedness. Unemployment.

AB Confronted with stagflation, economists failed to reorient their reflection toward medium term phenomena, to announce what was going to happen, or to issue a coherent message on what ought to have been done; our future behavior should take account of these failures. In practice, stagflation leaves in Europe mass unemployment and weak enterprises; but the process that generated these results is not yet well understood. Among the many questions that recent evolution raises for macroeconomic research, particularly noteworthy are those concerning the role of profitability and indebtedness on the demands for capital and labor. Actual indebtedness must moreover be seen in comparison with a desired indebtedness that also varies. This paper deals with these issues.

Mann, Catherine L.

TI A Framework for Analyzing the Process of Financial Innovation. AU Frankel, Allen B.; Mann, Catherine L.

Manne, Alan S.

PD May 1986. TI Toward Incorporating Money in Age Models. AU Manne, Alan S.; Rutherford, Thomas F.; Waelbroeck, Jean L. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 86-18; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 22. PR \$0.20 per page Canadian to other than educational institutions. JE 311, 021. KW Tax on Money. Money. Age Models. AB This paper describes the behavior of a single representative wealth owner. We analyze a special case of uncertainty - a stationary stochastic process in which it is optimal to allocate constant fractions of initial wealth between current consumption, "outside money" and risky real assets. All prices and yields are calculated in real terms, net of inflation. In this surprise-free world, money is neutral, and finance ministries are unable to levy an inflation tax. They can, however, impose a "seigniorage" tax on money because of its risk-free properties. We conclude with some suggestions on how this single-agent analysis might be extended to a more general case - a market equilibrium model with multiple agents and non-stationarity.

Marini, Giancarlo

TI Output and Employment Effects of Countercyclical Policy: Empirical Evidence for OECD Countries. AU Attanasio, Orazio; Marini, Giancarlo.

Marquez, Jaime

PD December 1984. TI Cooperative Policies Among the North, the South, and OPEC: An Optimal Control Approach. AU Marquez, Jaime; Pauly, Peter. AA Marquez: The Federal Reserve Board. Pauly: University of Pennsylvania. SR University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 84-46; Department of Economics, McNeil 180/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. PG 50. PR No Charge. JE 110, 423, 411. KW Policy Cooperation. Optimal Control. OPEC. North-South Trade.

AB While the benefits of a global policy coordination effort are known in theory, empirical estimates of the gains of such a move are difficult to come by casting doubts on whether global policy coordination will ever occur. In this paper we assess, empirically, the viability of cooperative policies among the North, the South, and OPEC. To this end we apply stochastic optimal control to a nonlinear stochastic dynamic econometric model of a three region world economy that highlights the channels of international transmission of oil price effects and the feedback effects of policy responses to oil price changes. Even if cooperative policies exist, and are implemented, not all the parties involved will benefit to the same extent. Thus we also examine the sensitivity of the distribution of income gains (or losses) between the North, the South, and

OPEC to alternative specifications of the welfare function.

Marston, Richard C.

PD May 1986. TI Real Exchange Rates and Productivity Growth in the United States and Japan. AA University of Pennsylvania. SR National Bureau of Economic Research Working Paper: 1922; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 36. PR \$2.00. JE 226, 430, 431. KW Dollar/Yen Exchange Rate. Competitiveness of United States Goods. Dollar Depreciation.

AB Real exchange rates between the yen and dollar based on general price indexes overestimate the competitiveness of the United States relative to Japan. High productivity growth in the traded sector of the Japanese economy results in a continuous fall in the prices of traded goods relative to nontraded goods in Japan. In order to keep United States traded goods competitive, the real exchange rate based on general price series like the GDP deflator or the CPI index must continually fall resulting in a real appreciation of the yen. This paper provides estimates of how far real exchange rates based on general price series would have had to fall over the 1973-83 period in order to keep United States traded goods competitive. The real exchange rate based on GDP deflators, for example, would have had to fall by 38 per cent relative to the real exchange rate based on unit labor costs in the traded sector. The GDP series remained roughly constant over the period, thus giving the misleading impression that United States goods were still competitive despite a sharp rise in the relative price of United States traded goods. The paper also provides estimates of the relative wage changes which would have to occur to restore the competitiveness of United States traded goods.

Martin, Stephen

PD July 1986. TI The Measurement of Profitability and the Diagnosis of Market Power: II. AA Department of Economics, Michigan State University. SR Michigan State Econometrics and Economic Theory Workshop Paper: 8601; Department of Economics, Michigan State University, East Lansing, MI 48824. PG 36. PR No Charge. JE 611, 612. KW Market Power. Accounting Data.

AB This paper develops a model which yields the specification of an empirical test for the difference between price and marginal revenue, which will be significantly positive if a firm has power to control price. The test can be carried out with any of a number of commonly used measures of accounting profitability, and embodies a specific functional form for the consideration of non-constant returns to scale. The model is estimated for four firms in the medical-surgical supply industry, four firms in the motor vehicle industry, and six firms in the food industry. The results are consistent with the hypothesis that product differentiation is an important basis for firm-specific market power; import quotas are shown to increase market power in the motor vehicle industry. The test developed here is suitable for policy applications, and has some implications for empirical tests of structure-conduct-performance relationships.

Maskin, Eric

PD April 1985. TI A Theory of Dynamic Oligopoly, II: Price Competition. AU Maskin, Eric; Tirole, Jean. AA Maskin: Harvard University. Tirole: Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 373; Department of Economics, MIT Cambridge, MA 02139. PG 53. PR No Charge. JE 022, 611. KW Vertical Integration. Ownership. Costly Contracts. Residual Rights.

AB Our theory of costly contracts emphasizes that contractual rights can be of two types: specific rights and residual rights. When it is costly to list all specific rights over assets in the contract, it may be optimal to let one party purchase all residual rights. Ownership is the purchase of these residual rights. When residual rights are purchased by one party they are lost by a second party, and this inevitably creates distortions. Firm 1 purchases firm 2 when 1's control increases the productivity of firm 1's management more than the loss of control decreases the productivity of firm 2's management.

Mathewson, G. F.

PD July 1985. TI Incentives and Exclusive Dealing in Franchise Contracts. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8509; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 59. PR No Charge. JE 611, 022. KW Exclusive Dealing. Franchise Contracts.

AB Exclusive dealing is a contractual restriction imposed on retailers by manufacturers requiring retailers not to carry the substitute products of competing manufacturers; franchise contracts usually invoke exclusive dealing. An inspection of franchise contracts reveals that firms in the market that impose exclusive dealing may also impose price and quantity restrictions on retailers but simultaneously offer them territorial guarantees on the size of their local market. When is exclusive dealing invoked in franchise contracts by manufacturers? Why are price and quantity restrictions used? When are these restrictions, exclusive dealing and territorial guarantees complements? These are the questions we address in this paper. Exclusive dealing is invoked when local advertising spillovers are significant across competing products or product design differentiation is limited relative to travel costs for consumers in a spatial retail market. Exclusive dealing is efficiency enhancing if it protects the quasi-rents earned on sunk entry fees from appropriation (free-riding) by others. As this applies to both incumbents and entrants, exclusive dealing facilitates both market development and competition. Territorial guarantees are offered to retailers in a franchise when the manufacturers impose downstream price or quantity restrictions on the retailers.

PD October 1985. TI Is Exclusive Dealing Anti-Competitive?. AU Mathewson, G. F.; Winter, R. A. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8517; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 22. PR No Charge. JE 611.

KW Exclusive Dealing.

AB This paper analyzes the competitive impact of exclusive dealing, the restriction placed on a retailer against carrying substitute brands. Exclusive dealing may allow a manufacturer to exclude a rival from a retail sub-market. But under exclusive dealing manufacturers compete through wholesale prices for the right to be selected by a retailer: Potential competition replaces actual competition as the disciplining force in the market. With exclusive dealing, the retail price of the successful manufacturer may fall and welfare rise, even when the market is monopolized.

TI Unlimited Liability as a Barrier to Entry. AU Carr, J. L.; Mathewson, G. F.

Mayo, Stephen K.

TI The Demand for Tenure Security in Developing Countries. AU Friedman, Joseph; Jimenez, Emanuel E.; Mayo, Stephen K.

McAleer, Michael

TI Further Results on Testing AR(1) Against MA(1) Disturbances in the Linear Regression Model. AU King, Maxwell L.; McAleer, Michael.

McGee, Robert T.

PD March 1986. TI Resolving Fisher's Paradox. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8605; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PG 12. PR No Charge. JE 310, 134. KW Interest Rates. Inflation. Fisher Effect. Inflation Expectations.

AB A simple model is presented to distinguish the long-run and short-run "Fisher effect" of inflation on interest rates. The paper explains the theoretical basis for the long-run effect to be present while the short-run effect is absent. The distinction between the long-run and short-run Fisher effect is suggested as the source of "Fisher's paradox" - the failure of empirical tests to support Fisher's theoretical relationship between interest rates and inflation. The paradox can arise because econometric procedures eliminate the long-run effect and therefore test only the short-run effect, which is more likely to test negative. The paper uses the empirical tests of Carmichael and Stebbing in the September 1983 American Economic Review to show how the long-run effect can be inadvertently discarded from empirical tests.

McKell, Christopher

TI EMEPS User Manual: Computer Programs for the Estimation and Prediction of Econometric Models with Evolutionary Parameter Structures. AU Los Cornelis, A.; McKell, Christopher.

McMahon, Walter W.

TI Stagflation and Shortageflation: A Comparative Approach. AU Kolodko, Grzegorz W.; McMahon, Walter W.

McRae, Robert N.

TI Energy Deregulation and Uncertain World Oil

Prices: What are the Connections?. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre.

TI New Directions for Canadian Energy Policy: The Western Accord and the 1985 Alberta Royalty Changes. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre.

McTaggart, Douglas

PD January 1986. TI Modeling Macroeconomic Linkages in Sectoral Trade Models. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-03-01; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 43. PR No Charge. JE 132, 212, 411. KW Macromodel. Rational Expectations. Sectoral Trade Model. Method of Undetermined Coefficients.

AB This paper presents a structural model of a multisectoral open economy for purposes of consistent full information estimation. The foundations of the model are the relevant budget constraints of the agents in the economy. From these an aggregate version of Walras Law is derived. Behavioral equations are assumed and linearized. Because the model involves unobserved expectations variables, a variation of the Aoki-Canzoneri method of undetermined coefficients in moving averages is used to solve the model. Closed form solutions for prices, outputs and the exchange rate are derived.

TI Monetary Policy in a Simple Repeated Game. AU Cothren, Richard; McTaggart, Douglas; Salant, David.

PD April 1986. TI Time Consistency and Subgame Perfect Equilibria. AU McTaggart, Douglas; Salant, David. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-06-01; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 22. PR No Charge. JE 026. KW Time Consistency. Subgame Perfect Nash Equilibria.

AB The paper demonstrates the equivalence of i) weakly time consistent policies and the set of Nash equilibria; and ii) strongly time consistent policies and the set of subgame perfect Nash equilibria. By use of several examples, a case is made for the regular application of the strong definition of consistency.

PD June 1986. TI Equilibrium Exchange Rate and Interest Rate Policies in a Two Country Model. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-06-04; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 26. PR No Charge. JE 311, 432, 026. KW Monetary Policy. Nash Equilibrium. Exchange Rate Management.

AB Closed form solutions for Nash equilibrium monetary policies are derived for opposing central banks in a one-shot game, where a monetary policy specifies the degree of exchange rate and domestic nominal interest rate management. The set of equilibrium policies is shown to

be very large but with one dominant equilibrium emerging - though some communication between players or international coordination of policies would be required to ensure their particular equilibrium is played. Other benefits from cooperation also exist as the equilibrium is not on the utility possibilities frontier. In general domestic monetary policy is seen to be independent of the variability of foreign monetary policy.

Melino, Angelo

PD March 1985. TI Estimation of Unit Averaged Diffusion Processes. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8502; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 36. PR No Charge. JE 211. KW Time Averaging. Stochastic Process. Continuous Line. Diffusion Processes.

AB Empirical application of stochastic continuous time models has been hampered by the computational challenges that they present. This paper examines the problem of estimation given unit averaged observations on a closed, linear first order process, with reference also to the point sampled case. A new algorithm is proposed that has wider applicability and appears to be numerically sounder than existing approaches.

PD January 1986. TI The Term Structure of Interest Rates: Evidence and Theory. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8601; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 62. PR No Charge. JE 313, 311. KW Term Structure. Interest Rates.

AB The term structure of interest rates is an old topic. Over the years, both the hypotheses debated and the research techniques used have changed considerably. Two fairly recent developments which distinguish current research are the widespread adoption of rational expectations and the integration of the term structure with the general theory of asset pricing. This survey reviews previous work from this perspective. The main objective is to catalog available evidence about term premia and to interpret this evidence in light of alternative models of term premia determination.

Meridor, Leora

TI Inflation and Money Creation in Israel. AU Litvin, Uri; Meridor, Leora; Spivak, Avia; Deutsch, Joseph.

Michel, Pierre

TI Seasonality in the Risk-Return Relationship. Some International Evidence. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre.

TI The Pricing of Equity on the London Stock Exchange: Seasonality and Size Premium. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre.

TI Risk-Premia Seasonality in United States and European Equity Markets. AU Corhay, Albert; Hawawini, Gabriel; Michel, Pierre.

Milgrom, Paul R.

PD July 10, 1986. TI Quasirents, Influence and Organization Form. AA Yale University. SR Yale Cowles Foundation Discussion Paper: 797; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 41. PR No Charge. JE 511. KW Efficient Organization Design. Influence Costs.

AB When changing jobs is costly, efficient employment arrangements are characterized by complex contracts, rather than simply wages. Under these contracts, workers are not generally fully compensated for the effects of post-employment events or decisions. As a consequence, if there is a central office executive with discretionary authority to make decisions, employees will be led to waste valuable time in attempts to influence his decisions. Efficient organization design balances these "influence costs" against the benefits of improved appraisal, coordination and planning that such an executive can provide. Identifying influence costs requires first identifying the kinds of decisions about which employees will care. We identify several: With efficient employment contracts, employees prefer more on-the-job consumption and better opportunities to learn and display their abilities and to acquire human capital. They also prefer to occupy jobs where continuity of employment is particularly important to the employer, because such jobs carry higher wages. Applications of our perspective, which focuses on influence processes and the trade-off between influence costs and improved decisionmaking, appears to have wide and fruitful application to questions of organization theory, industrial organization, contract theory, and related areas.

Miller, E. J.

TI A Disaggregate Analysis of Multi-Vehicle Holdings, Usage, and Gasoline Demand. AU Berkowitz, M. K.; Gallini, N. T.; Miller, E. J.; Wolfe, R. A.

Mitra, Tapan

TI Intertemporal Optimality in a Closed Linear Model of Production. AU Dasgupta, Swapan; Mitra, Tapan.

TI Maximum Theorems for Convex Structures with an Application to the Theory of Optimal Intertemporal Allocation. AU Dutta, Prajit K.; Mitra, Tapan.

Montiel, Peter

TI Evaluating Fund Stabilization Programs with Multicountry Data: Some Methodological Pitfalls. AU Goldstein, Morris; Montiel, Peter.

Mookherjee, Dilip

PD June 13, 1986. TI Optimal Auditing, Insurance, and Redistribution. AU Mookherjee, Dilip; Png, Ivan. AA Stanford University. SR Stanford Graduate School of Business Research Paper: 891; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 40. PR No Charge. JE 323, 024. KW Tax Auditing. Auditing. Insurance. Income Redistribution.

AB The objective of this paper is to analyse optimal tax and audit strategies for a principal seeking to redistribute income among a population of taxpayers when the principal can observe the income of an individual at a cost.

We show that in very general circumstances, it is optimal for the principal to audit some reports randomly, and reward taxpayers who are audited and found to have reported truthfully. We also investigate whether it is optimal for (post-tax) consumption, taxes, and probabilities of audit to be monotone in income. The same analysis applies to optimal insurance contracts where insurers can observe the ex-post income of insureds at a cost.

PD June 18, 1986. TI Optimal Auditing, Insurance, and Redistribution. AU Mookherjee, Dilip; Png, Ivan. AA Mookherjee: Graduate School of Business, Stanford University. Png: Graduate School of Management, University of California Los Angeles. SR Stanford Graduate School of Business Research Paper: 887; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 40. PR No Charge. JE 026, 024, 916, 323. KW Income Tax Evasion. Insurance. Debt Contracts. Auditing.

AB The objective of this paper is to analyse optimal tax and audit strategies for a principal seeking to redistribute income among a population of taxpayers when the principal can observe the income of an individual at a cost. We show that in very general circumstances, it is optimal for the principal to audit some reports randomly, and reward taxpayers who are audited and found to have reported truthfully. We also investigate whether it is optimal for (post-tax) consumption, taxes, and probabilities of audit to be monotone in income. The same analysis applies to optimal insurance contracts where insurers can observe the ex-post income of insureds at a cost.

Morrison, Catherine J.

TI Export Supply and Import Demand Functions: A Production Theory Approach. AU Diewert, W. Erwin; Morrison, Catherine J.

Moulin, Herve

PD May 5, 1986. TI Condorcet's Principle Implies the No Show Paradox. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-05-01; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 17. PR No Charge. JE 025. KW Majority Winner. Condorcet Consistency. No Show Paradox.

AB In elections with variable (and potentially large) electorate, Brams and Fishburn's No Show Paradox arises when a voter is better off by not voting rather than casting a sincere ballot. Scoring methods do not generate the paradox. We show that every Condorcet consistent method (viz. electing the Condorcet winner when there is one) must generate the paradox among four or more candidates.

Moulton, Brent R.

PD February 1986. TI Random Group Effects and the Precision of Regression Estimates. AA Division of Price and Index Number Research, Bureau of Labor Statistics. SR Bureau of Labor Statistics Working Paper: 157; Bureau of Labor Statistics, 441 G Street, Northwest/Room 2021 Washington, D.C. 20212. PG 25.

PR No Charge. **JE** 211. **KW** Variance Components. Random Coefficients. Grouped Populations. Standard Error Estimation.

AB When explanatory variable data in a regression model are drawn from a population with grouped structure, the regression errors are often correlated within groups. Error component and random coefficient regression models are considered as models of the intraclass correlation. This paper analyzes several empirical examples to investigate the applicability of random effects models and the consequences of inappropriately using ordinary least squares (OLS) estimation in the presence of random group effects. The principal findings are that the assumption of independent errors is usually incorrect and the unadjusted OLS standard errors often have a substantial downward bias, suggesting a considerable danger of spurious regression.

PD February 1986. **TI** Diagnostics for Group Effects in Regression Analysis. **AA** Division of Price and Index Number Research, United States Bureau of Labor Statistics. **SR** Bureau of Labor Statistics Working Paper: 156; Bureau of Labor Statistics, 441 G Street, Northwest/Room 2021 Washington, D.C. 20212. **PG** 26. **PR** No Charge. **JE** 211. **KW** Regression Diagnostics. Variance Components. Grouped Population. Specification Tests.

AB The diagnostic tools examined in this paper are applicable to regressions estimated with panel data or cross-sectional data drawn from a population with grouped structure. The diagnostic tools considered include (1) tests for the existence of group effects under both fixed and random effects models, (2) checks for outlying groups, and (3) specification tests for comparing the fixed and random effects models. A group-specific counterpart to the studentized residual is introduced. The methods are illustrated using a hedonic housing price regression.

Muellbauer, John

PD June 1986. **TI** Liquidity Constraints and Aggregation in the Consumption Function under Uncertainty. **AU** Muellbauer, John; Bover, Olympia. **AA** Nuffield College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 12; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL. **PG** 54. **PR** No Charge. **JE** 220, 921. **KW** Aggregate Consumption. Liquidity Constraints. Aggregation. Euler Equations. Life-Cycle Consumption Theory.

AB Hall (1978) and Hall and Mishkin (1982) suggested that aggregate consumer behaviour may be a mixture of the behaviour of a minority of "rule of thumb" consumers who are liquidity constrained and a majority for whom the Euler equation (the first order inter-temporal efficiency condition) holds. They suggest that the rate of growth of consumption for the liquidity constrained is just equal to the rate of growth of income and this is consistent with empirical findings by Flavin, Hayashi and others on the "excess sensitivity to income" of consumption. In this paper we suggest a somewhat more sophisticated treatment of the behaviour of the liquidity constraint. This gives rise to a model consistent with the consumption function of Davidson, Hendry, Srba and Yeo (DHSY) (1978). Among other things we show that this interpretation implies an

ambiguous real rate of return effect in contrast to the positive effect corresponding to intertemporal substitution in Euler equations of the Hansen and Singleton (1982, 3) type. The effect of uncertainty is also ambiguous. We also analyse the problem of aggregation over retired and non-retired households but in the context of Euler equations rather than for solved out consumption functions as in the classic paper by Modigliani and Brumberg (1954). We suggest that, in the absence of liquidity constraints, an increased consumption share of the retired is associated with a lower planned rate of growth of aggregate consumption. One implication is another reason for an ambiguous rate of return effect. Another is to lend further support to the DHSY consumption function. Our empirical work is for United States quarterly data recently analysed by Bean (1986). We treat the time aggregation problem systematically and use instruments dated $t-2$ to estimate our Euler equations. The results are generally consistent with our theoretical interpretation.

Munro, Gordon R.

TI Coastal States, Distant Water Fishing Nations and Extended Jurisdiction: A Principal-Agent Analysis. **AU** Clarke, Frank H.; Munro, Gordon R.

Murphy, Kevin J.

PD July 1986. **TI** The Determinants of Executive Compensation: Are Managers Entrepreneurs or Employees?. **AA** The Graduate School of Management, University of Rochester. **SR** University of Rochester Managerial Economics Research Center Working Paper: 86-02; Graduate School of Management, University of Rochester, Rochester, NY 14627. **PG** 36. **PR** No Charge. **JE** 820, 824. **KW** Executive Compensation. Age-Earnings Profiles.

AB Many theories of managerial wage determination have treated executives as entrepreneurs and residual claimants, while others have focused on the executive's role as an employee hired by the firm's shareholders. This paper examines empirically the entrepreneurial and employee aspects of executive compensation, and compares the results for executives to those documented for more conventional labor groups. Managerial earnings profiles are found to be similar to those of other workers, but there are some important inconsistencies which are better explained by focusing on the executive's unique dual role in the production process.

Myers, Stewart C.

TI Tax Asymmetries and Corporate Income Tax Reform. **AU** Majd, Saman; Myers, Stewart C.

Naslund, Bertil

PD August 1986. **TI** Financial Innovations: A Comparison with R and D in Physical Products. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 391; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 17. **PR** \$3.00. **JE** 621, 310. **KW** R and D. Research and Development. Financial Innovations. Product Life Cycle.

AB Three important areas in R and D research

concerning physical products are (a) the sources of ideas (2) organization of the R and D work (3) the product life cycle. These three areas are studied for financial innovations. Based upon some specific characteristics of financial innovations and upon interviews with 20 representatives of exchanges, banks and investment banks some differences and similarities were found. Some of these are (a) demand pull is relatively more important for financial innovation (b) relatively more money is allocated to later stages in the innovative process for financial innovations (c) there exists a life cycle for financial innovators but it has strategic implications that are different from the life cycle for physical products.

Neary, Hugh

TI Incentive Compatible Primal Planning Algorithms. AU Diewert, W. Erwin; Neary, Hugh.

Neary, J. Peter

PD January 1985. TI Protection, Economic War and Structural Change: The 1930s in Ireland. AU Neary, J. Peter; OGrada, Cormac. AA Department of Political Economy, University College Dublin. SR University of British Columbia Department of Economics Discussion Paper: 86-06; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 32. PR \$0.20 per page Canadian to other than educational institutions. JE 044, 422. KW Economic War. Ireland. Tariffs.

AB Little thorough analysis of economic change in the 1930s in Ireland exists. The consequences of the new policies for output and employment, and for commodity and factor flows, have yet to be fully examined. This paper makes a start, aiming to show that the period offers scope for the analysis of the effect of tariffs on employment, factor flows, and income distribution. Our aim is to show what an economic approach can bring to our understanding of the 1930s in Ireland.

Neelin, Janet

PD May 1986. TI An Experimental Test of Rubinstein's Theory of Bargaining. AU Neelin, Janet; Sonnenschein, Hugo; Spiegel, Matthew. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 207; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544. PG 22. PR No Charge. JE 026. KW Bargaining. Equal Split Hypothesis.

AB This note reports the results of an experiment which was designed to test Rubinstein's (1982) theory of bargaining. We were particularly interested in how it would compare with the hypothesis that bargainers tend to split a pie 50-50. We duplicated Binmore, Shaked and Sutton's (1986) result that the equal split hypothesis is rejected in a two round game with alternating offers. However, we show that in similar games with more than two rounds Rubinstein's theory is also rejected. Thus their conclusion, that subjects behave as "gamesmen" (i.e. in a manner consistent with the predictions of game theory), was premature. In experiments with varying numbers of rounds, our first players consistently offered their opponents shares equal to the value of the second round pie. In a two round game this behaviour by definition

yields offers consistent with Rubinstein's theory. In games with more rounds it does not. In each game, the majority of first players chose to make the same offer. In fact, the regularity of their behaviour is perhaps our strongest result. While neither Rubinstein's theory nor the equal split model explain our findings, the regularity of our subjects' behaviour suggests that there is hope of finding a model of bargaining which does.

Neudecker, H.

TI Matrix Differential Calculus with Applications to Simple, Hadamard, and Kronecker Products. AU Magnus, J. R.; Neudecker, H.

PD October 1984. TI The Mean and Variance of rec *symbol*, When rec x Has a Normal Distribution with Mean rec M' and Variance U x V. AA University of Amsterdam. SR University of Amsterdam Actuarial Science and Econometrics Report: 22/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 6. PR No Charge. JE 211, 213. KW Covariance Matrix. Kronecker Product. Noncentral Wishart Distribution. Commutation Matrix. AB Matrix expressions for the mean and covariance matrix of a general second degree matrix polynomial are derived by applying the Kronecker product and the commutation matrix.

Nicol, Christopher J.

PD June 1986. TI A Simple Test for Specification Error. AA Department of Economics, Queen's University. SR Queen's Institute for Economic Research Discussion Paper: 654; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L3N6. PG 9. PR \$2.50 Canada; \$3.00 United States; \$3.50 Foreign. JE 211. KW Specification Error. Flexible Functional Forms. Test.

AB We propose a test which could be widely applied to determine the adequacy of models which approximate unknown functional forms. As an illustration, the translog system of budget-share equations is rejected as an appropriate specification using Christensen, Jorgenson and Lau's (1975) data.

Nissanke, Machiko K.

TI The Determinants of Military Expenditures in Developing Countries. AU Maizels, Alfred; Nissanke, Machiko K.

Nissanre, M.

TI The Determinants of Military Expenditure in Developing Countries. AU Maizels, Alfred.; Nissanre, M.

Novos, Ian E.

PD February 1986. TI Complementarity and Partial Nonexcludability: An Analysis of the Software/Computer Market. AU Novos, Ian E.; Waldman, Michael. AA Novos: Department of Economics, University of Southern California. Waldman: Department of Economics, University of California at Los Angeles. SR University of Southern California Modelling Research Group Working Paper: M8608; Department of

Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 30. PR No Charge. JE 635, 024, 022. KW Underproduction Loss. Underutilisation Loss. Partially Nonexcludable. Complementary. Software. Computer. Welfare Loss.

AB Previous authors have considered markets for partially nonexcludable commodities in a variety of contexts. It is well known that two social welfare losses, the underproduction and underutilization losses, arise in such markets. This paper considers such a market in the context of a partially nonexcludable commodity -- a software package -- being complementary to a second good -- here a computer. Our results indicate that the underproduction and underutilization losses that occur in software markets depend both on the market structure for computers and on whether computer manufacturers are permitted to enter the software market.

PD May 1986. TI The Emergence of Copying Technologies: What Have We Learned. AU Novos, Ian E.; Waldman, Michael. AA Novos: Department of Economics, University of Southern California. Waldman: Department of Economics, University of California, Los Angeles. SR University of Southern California Modelling Research Group Working Paper: M8625; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 19. PR No Charge. JE 611, 612, 621. KW Public Policy. Copying. Complementarity. Partial Nonexcludability. Government Responses. Market Responses. Property Rights Enforcement. Production Loss. Underutilisation Loss. Social Welfare Loss.

AB The last few decades have seen dramatic advancements in the technology of copying and the diffusion of copying technology to the general public. In this paper we survey some of the recent academic literature which deals with markets where copying is an issue. In particular, our survey concentrates on two topics: (i) what is the effect of varying the extent of property rights enforcement by the government; and (ii) what are possible responses by producers of originals to the ability of consumers to produce copies?.

Nugent, Jeffrey B.

PD January 1986. TI Arab Multinationals: Problems, Potential and Policies. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8603; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 24. PR No Charge. JE 121, 110, 442. KW Multinationals. Arab. Development. Learning-By-Doing. Technological Adaptation.

AB After developing a somewhat different and more dynamic rationale for Third World Multinationals, the paper reviews the experience of an important but much neglected set of such multinationals, namely Arab multinationals. While this experience reveals several noteworthy accomplishments, in other important respects, including learning-by-doing and technological adaptation, Arab multinationals are performing well below their potential. The paper identifies some of the factors responsible for the identified shortcomings and proposes policy changes for overcoming or at least reducing them.

TI A Note on Instability in Rural-Urban Migration. AU Day, Richard H.; Dasgupta, Sudipto; Datta, Samar K.; Nugent, Jeffrey B.

TI The North's Demand for Southern Exports and Immiserization of the South. AU Mahlob, Adbelhamid; Nugent, Jeffrey B.

OGrada, Cormac

TI Protection, Economic War and Structural Change: The 1930s in Ireland. AU Neary, J. Peter; OGrada, Cormac.

Pandit, V.

PD April 1985. TI Supply, Demand and Monetary Policy in an LDC: An Empirical Analysis of India. AA University of Pennsylvania and Delhi School of Economics. SR University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 85-1; Department of Economics, McNeil 160/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. PG 37. PR No Charge. JE 023, 311, 121. KW Monetary Policy. India. Supply Constraints. Demand Constraints.

AB Until recently econometric analysis of macroeconomic policy in LDCs has generally been based on models which ignore either supply or demand. This has led to policy prescriptions which have a built-in biases of one kind or the other. This paper attempts to suggest an empirical model for India which allows for output being constrained either by demand or by supply. The model is estimated on a priori sample separation between the two regimes and is used to show how far the demand constraint has been serious. The model is then simulated to examine the role of monetary policy during the seventies. Our results show that the economy has in different years been constrained by demand as well as supply. Consequently, the disequilibrium model performs markedly better than the pure demand model. As expected under these conditions the effectiveness of monetary policy depends critically on whether the economy is supply-constrained or demand-constrained.

Park, Hun

TI A Note on the ARCH Effects in Hedge Ratio Estimation: Stock Index Futures. AU Bera, Anil K.; Park, Hun; Bubnys, Edward.

Paterson, Donald G.

PD May 1986. TI Terminating Building Societies in Quebec City 1850-1864. AU Paterson, Donald G.; Shearer, Ronald A. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 86-20; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 57. PR \$0.20 per page CANADIAN to other than educational institutions. JE 042. KW Surplus Funds. Terminating Building Societies. Quebec City.

AB Terminating building societies appear like phantoms in the history of the Canadian financial system. We know they existed, but did not thrive; and, while we have a

general understanding of their principles, we know very little about their operations. Yet they were an innovative approach to the problem of a small and very imperfect capital market, and, although flawed in concept, they were an important early link in an evolutionary chain which ends with the modern mortgage loan company. They merit further research. In this paper we draw on the experience of two terminating building societies established in Quebec City in 1850 to explore the transitory nature of this institutional form in Canada. We discuss the concept and basic principles of a terminating building society and review the life cycles of two Quebec City societies. The Quebec Building Society was the largest and most successful; the People's Building Society was considerably smaller and designed to attract a different membership. We also have some evidence on the Union Building Society, established at the same time, but not enough to analyze its life cycle. Our primary concern in this analysis is the emergence of the problem of surplus funds and how they coped with it.

PD May 1986. **TI** The Supply of Canadian Money, 1842-1871: Estimates and Implications. **AU** Paterson, Donald G.; Shearer, Ronald A. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-17; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 71. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 042, 311. **KW** Banking. Canada. Business Cycles. Money Supply. **AB** The basic mechanisms and institutions of the modern Canadian macroeconomy emerged in a very short time in the middle of the nineteenth century, a period in Canadian economic history little documented and analyzed. In particular, the macroeconomic features of the mid-19th century economy are largely unknown including information on the behaviour of the money supply and the mechanism of its provision. The purpose of this paper is to begin to fill this gap by presenting new estimates of the money supply and analyzing their behaviour. We revise the existing money supply estimates for the post-1856 years and extend them backwards from 1856 to 1842 thus providing the basis for a monetary history of the period, and we discuss conceptual issues in the measurement of the mid-nineteenth century money supply and review the available data. In Part III we present wholly new monthly estimates for 1842-1871, and suggest some implications of our estimates for the interpretation of Canada's macroeconomic history.

Pauls, B. Dianne

PD July 1986. **TI** Comovements in Aggregate and Relative Prices: Some Evidence on Neutrality. **AA** International Finance Division, Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 285; International Finance Division Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 29. **PR** No Charge. **JE** 133, 134. **KW** Relative Prices. Inflation. Rational Expectations. Exogeneity. **AB** This paper develops an alternative test of the neutrality of anticipated monetary policy. A multi-good equilibrium model along the lines of Barro and Hercowitz

is used to derive a neutrality proposition for anticipated movements in the aggregate price level and to demonstrate econometrically its equivalence to the exogeneity of relative prices with respect to the aggregate price level. Multivariate causality tests provide a basis for testing these restrictions. The empirical results provide mixed evidence for the equilibrium models, while the variation in the findings across industries suggests a role for supply-side disturbances in explaining comovements in aggregate and relative prices.

Pauly, Peter

PD December 1984. **TI** An Empirical Evaluation of the McKinnon Proposal. **AU** Pauly, Peter; Peterson, Christian E. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analysis of Developing Economies (CADE) Working Paper: 84-45; Department of Economics, McNeil 160/CR, 3718 Locust Walk, University of Pennsylvania, Philadelphia, PA 19104-6297. **PG** 25. **PR** No Charge. **JE** 311, 423. **KW** Project LINK. Currency Realignment. Monetary Policy. World Inflation. McKinnon Proposal. **AB** In this note we present the results of an attempt to assess empirically the implications of the McKinnon proposal for currency realignment via domestic monetary policy. It seems as if the solution, which implies major adjustments in Germany and Japan, minor changes of the stance of monetary policy in the United States, and some accommodating action by other industrial countries has the potential of reducing world inflation. In particular for Germany, and somewhat less for other European countries and Japan, this requires, however, a substantial sacrifice in terms of real activity. It remains questionable whether such a policy would be acceptable to any of these countries. The gains in the United States on balance do not outweigh the losses in the major European countries. Hence, in the short-run world economic activity could be expected to fall as a consequence of the implied exchange rate realignments. After an adjustment period of about two years, however, interregional multiplier effects lead to an improvement of total world GDP via gains for the developing region.

TI Cooperative Policies Among the North, the South, and OPEC: An Optimal Control Approach. **AU** Marquez, Jaime; Pauly, Peter.

Peleg, Bezalel

PD May 7, 1986. **TI** Cores and Capacities of Compound Simple Games. **AA** Virginia Polytechnic Institute and State University. **SR** Virginia Polytechnic Institute and State University Working Paper in Economics: E86-05-02; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. **PG** 17. **PR** No Charge. **JE** 026. **KW** Compound Simple Games. Cores of Voting Games. Strong Representations of Committees. Nakamura Number. **AB** We provide an exact formula for the Nakamura number of a compound simple game. Also, we investigate the capacity of compound games. In particular, we show that if the components are not weak, then the capacity of the compound game is 2.

Perloff, Jeffrey M.

TI Alternate Bearing in Californian Pears and Avocados. AU Allen, Roy E.; Perloff, Jeffrey M.

Pesando, James E.

PD December 1985. TI Discontinuities in Pension Benefit Formulas and the Spot Model of the Labour Market: Implications for Financial Economists. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8520; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 39. PR No Charge. JE 313, 821. KW Pension Benefit Formulas. Spot Model of the Labor Market.

AB When analyzing tax and related issues, financial economists typically invoke the simplest and the most tractable model of the labor market. This is the spot model, in which the worker's cash wage plus accruing pension benefit must equal the value of the worker's marginal product in each and every period. This paper first identifies the discontinuities in a worker's cash wage that must occur under the spot model if the pension plan has typical "cliff" vesting and early retirement provisions. The paper then calculates the pension benefits actually accrued, at and around the dates of eligibility for these benefits, by members of five pension plans in Canada. Both exercises serve to discredit the spot model. The paper reviews the underfunding puzzle, the measurement of pension liabilities, and the recapture of surplus assets in overfunded plans in light of these findings.

PD March 1986. TI The October 1979 Change in the Monetary Regime: Its Impact on the "Forecastability" of Interest Rates. AU Pesando, James E.; Plourde, Andre. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8605; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 33. PR No Charge. JE 311, 132. KW Forecasting. Interest Rates. Rational Expectations.

AB Subsequent to the October 1979 shift in monetary policy in the United States, interest rates in North America not only reached unprecedented levels, but also exhibited unprecedented volatility. This paper shows that the anticipated quarterly changes in long-term rates associated with the rational expectations model have remained small during this post-shift period. Recorded forecasts of long-term interest rates in Canada continue to prove inferior to the no-change prediction of the martingale model. The "perverse" relationship between the slope of the yield curve and the subsequent movement in long-term rates exists in the Canadian data, but is of only modest value in a forecasting context. The excess return on long-term bonds implicit in the recorded forecasts of the level of interest rates varies sharply, yet there is no evidence that forecasters have identified a predictable component of a time-varying term premium.

Peters, Michael

PD November 1985. TI Ex Ante Price Offers in Matching Games. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8516;

Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 32. PR No Charge. JE 022, 026. KW Bargaining. Matching. Search. Nash Bargaining Solution.

AB In this paper the usual ex post bargaining solution used to set prices in matching games is modified to allow sellers to make price offers before buyers begin search. By specifying restrictions on buyers' search behaviour, in order to derive the search technology endogenously, the impact that price competition has on the matching technology can be analyzed. The equilibrium for the game is characterized and compared to the equilibrium that results from ex post Nash bargaining solutions. It is shown that ex ante price setting can make traders better off.

Peterson, Christian E.

TI An Empirical Evaluation of the McKinnon Proposal. AU Pauly, Peter; Peterson, Christian E.

Phillips, Peter C. B.

PD June 1986. TI Weak Convergence to the Matrix Stochastic Integral "Integral from 0 to 1 of BdB^m". AA Cowles Foundation, Yale University. SR Monash Department of Econometrics and Operations Research Working Paper: 6/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 17. PR No Charge. JE 211. KW Integrated Process. Invariance Principle. Near Integrated Time Series. Stochastic Integral. Vector Autoregression. Weak Convergence.

AB The asymptotic theory of regression with integrated processes of the ARIMA type frequently involves weak convergence to stochastic integrals of the form: integral from 0 to 1 of WdW, where W(r) is standard Brownian motion. In multiple regressions and vector autoregressions with vector ARIMA processes the theory involves weak convergence to matrix stochastic integrals of the form integral from 0 to 1 of BdB' (=Q(r)) where B(r) is vector Brownian motion with non scalar covariance matrix. This paper studies the weak convergence of sample covariance matrices to Q(r) under quite general conditions. The theory is applied to vector autoregressions with integrated processes.

Picard, Pierre

PD November 1985. TI On the Design of Incentive Schemes under Moral Hazard and Adverse Selection. AA CEPREMAP. SR CEPREMAP Discussion Paper: 8602; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 39. PR 20 FF. JE 020. KW Incentive Mechanism. Adverse Selection. Moral Hazard.

AB This paper aims at characterizing optimal incentive mechanisms in a simple principal-agent model with both adverse selection and moral hazard. When a monotonic hazard rate property is satisfied it is shown that an optimal solution is using incentive schemes where the agent's reward depends linearly on observed outcome. The optimal solution is also characterized in the general case and we show that this solution can be approximated as closely as desirable by means of quadratic incentive schemes. Lastly, the model is applied to a number of incentives problems including the regulatory policy for

firms under cost observability, optimal investment banking contracts or decentralized planning with production targets.

Pindyck, Robert S.

PD May 1986. TI Risk Aversion and Determinants of Stock Market Behavior. AA M.I.T. SR National Bureau of Economic Research Working Paper: 1921; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 22. PR \$2.00. JE 313, 026. KW Equity Pricing. Risk Aversion. Stock Market. Profitability. Variance of Returns.

AB A simple model of equity pricing is developed to address two related questions. First, to what extent can unanticipated changes in such "fundamental" variables as profitability, real interest rates, inflation, and the variance of returns account for the observed behavior of the stock market? Second, how risk averse are investors in the aggregate? We find that the pretax profit rate and the variance of returns are both significant explanators of the market, and interest rates somewhat less so. Estimates of the index of relative risk aversion are obtained that put that parameter in the range of 3 to 4.

Plant, Mark W.

TI The Ins and Outs of Unemployment: The Ins Win. AU Darby, Michael R.; Haltiwanger, John.; Plant, Mark W.

Plourde, Andre

TI Energy Deregulation and Uncertain World Oil Prices: What are the Connections?. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre.

TI New Directions for Canadian Energy Policy: The Western Accord and the 1985 Alberta Royalty Changes. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre.

TI The October 1979 Change in the Monetary Regime: Its Impact on the "Forecastability" of Interest Rates. AU Pesando, James E.; Plourde, Andre.

Plum, Thomas

TI Automation of Nested Matrix and Derivative Operations. AU Kalaba, Robert; Plum, Thomas; Tesfatsion, Leigh.

Png, Ivan

TI Optimal Auditing, Insurance, and Redistribution. AU Mookherjee, Dilip; Png, Ivan.

TI Optimal Auditing, Insurance, and Redistribution. AU Mookherjee, Dilip; Png, Ivan.

Poirier, Dale J.

PD July 1985. TI Rationalizing the Anomalous Performance of Models in Different Data Sets. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8510; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S

1A1. PG 48. PR No Charge. JE 036, 212. KW Lakatos. Model Occurrence. Monetary Neutrality. Replication.

AB Replication is a goal toward which all sciences strive, but in the social sciences where experimental control is minimal even in "social experiments", replication is an especially elusive goal. The existence of rival theories in economics is prima facie evidence of variable model performance and the anomalous results that arise when replication is attempted in economics. This study argues that the concept of model occurrence (Poirier and Klepper (1981) provides the requisite framework for reconciling such conflicts. It extends earlier work by explicitly permitting more than two models as well as permitting that none of the models being considered is ex post true. The conceptual framework developed is related to the work of Imre Lakatos in the philosophy of science literature and to recent model specification work in the econometrics literature.

PD August 1985. TI Individual Household Demand for Electricity in the Ontario Time-of-Use Pricing Experiment. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8513; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 91. PR No Charge. JE 212, 723. KW Electricity Time-of-Use Pricing. Demand Model. Non-Homothetic Preferences. Non-Separable Preferences.

AB This paper describes an econometric model designed to analyze short-run household electricity demand in the on-going Ontario Time-of-Use Rate Experiment. The model assumes neither homotheticity nor separability of the demands for electricity and "other" commodities. Furthermore, weather-sensitive electricity demand is disaggregated across forty-eight commodities: hourly demands for typical weekdays and typical weekend days. The parameters characterizing preferences for the forty-eight electricity commodities are "smoothed" by use of periodic cubic splines. The analysis herein provides the first stage of an overall two-stage model. In the first stage households are analyzed individually. As a result of the limited price variation faced by a single household, it is possible to only partially identify the "deep" parameters characterizing household preferences. Nonetheless, smoothing, separability and homotheticity restrictions can still be tested, albeit not fully. Empirical results for this first stage of analysis will be presented elsewhere when available. The second stage of analysis, in which variation in deep parameters across households is linked to variation in observable household characteristics, is described in detail in Poirier (1985).

PD August 1985. TI The Role of Econometrics in Economic Methodology. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8512; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 47. PR No Charge. JE 036, 212. KW Methodology. Econometrics. Research Program. Model Occurrence.

AB This paper discusses the possible goals of economic research, the role econometrics plays therein, and the available principles for discriminating among methods

which purport to lead researchers to these goals. In particular the model occurrence framework is suggested as a possible statistical interpretation of many of the ideas suggested by Imre Lakatos.

PD November 1985. TI A Finely Disaggregated, Non-Separable, Non-Homothetic Demand Model for a Commodity Priced by Time-of-Use. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8518; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 38. PR No Charge. JE 212, 723. KW Time-of-Use Pricing. Non-Separable Preferences. Non-Homothetic Preferences.

AB It is common practice to vary price according to time-of-use (TOU) in many areas of the telecommunications, travel and entertainment industries. In North America over the past decade, TOU pricing of electricity has also received a great deal of attention. The primary thesis of this paper is that there are common issues that arise in formulating a demand model for a commodity priced by TOU, and hence studying a model developed for use in one area can have substantial benefits to other areas. Specifically, this paper outlines a demand model for analysing the effects of TOU pricing of electricity in the Ontario Time-of-Use Rate Experiment, and points how the model addresses many issues common to TOU pricing of other commodities (e.g., telephone calls).

Polak, J. J.

PD June 1986. TI William H. White (1922-83): An Appreciation. AU Polak, J. J.; Haberler, Gottfried; Thorn, Richard S.; Argy, Victor.; Heller, H. Robert. AA Polak: International Monetary Fund. Haberler: American Enterprise Institute. Thorn: University of Pittsburgh. Argy: Macquarie University, Sydney, Australia. Heller: Bank of America, San Francisco (Board of Governors of the United States Federal Reserve System - current nominee). SR International Monetary Fund Departmental Memoranda/Staff Paper: (33)2/1; International Monetary Fund, Washington, D.C. 20431. PG 10. PR No Charge. JE 031, 311, 321. KW Monetary Theory History. Fiscal Theory History. William White.

AB William H. White joined the International Monetary Fund in its early days, in 1948, and spent his entire professional life in the Fund's Research Department. Present and past staff members, many of whom benefited from his advice, have asked that his contribution to the work of the Fund receive recognition in Staff Papers. This appreciation draws on excerpts from written recollections of some of his colleagues and includes a selected bibliography of his work in monetary economics.

Poterba, James M.

PD April 1985. TI A Tax-Based Test for Nominal Rigidities. AU Poterba, James M.; Rotemberg, Julio J.; Summers, Lawrence H. AA Poterba and Rotemberg: Massachusetts Institute of Technology. Summers: Harvard University. SR Massachusetts Institute of Technology Department of Economics Working Paper: 376; Department of Economics, Massachusetts Institute of

Technology, Cambridge, MA 02139. PG 50. PR No Charge. JE 131, 311, 321. KW Nominal Rigidities. Wage Rigidities. Keynesian Model. Value Added Tax. Indirect Taxes.

AB In classical macroeconomic models with flexible wages and prices, whether a tax is levied on producers or consumers does not affect its incidence. However, if wages or prices are rigid in the short run, as they are in Keynesian macroeconomic models, then shifting a tax from one side of the market to the other may have real effects. Tax changes therefore provide potential tests for the presence of nominal rigidities. This paper examines the price and output effects of revenue-neutral shifts between direct and indirect taxation. The results, based on post-war data from both Great Britain and the United States, reject the view that wages and prices are completely flexible in the short run.

PD June 1985. TI Public Policy Implications of Declining Old-Age Mortality. AU Poterba, James M.; Summers, Lawrence H. AA Poterba: Massachusetts Institute of Technology. Summers: Harvard University. SR Massachusetts Institute of Technology Department of Economics Working Paper: 378; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 55. PR No Charge. JE 913, 918. KW Old Age. Like Table Rectangularization. Medicare. Retirement. Health Status of the Elderly.

AB This paper explores some policy implications of declining mortality among the elderly population. There are two views of how health progress will affect the social burden of caring for the aged. One holds that prolonging the lives of frail individuals will result in rapidly increasing medical and other costs per aged person. A second view suggests that health progress and behavioral changes will reduce both mortality and morbidity rates, lowering the average cost per person of caring for the aged. This paper investigates recent trends in the health status of the elderly to distinguish between these two views. The findings suggest that reductions in morbidity and mortality have been roughly counterbalanced by the rising frailty of the surviving population. Age specific institutionalization rates and medical cost patterns have been relatively stable for the last two decades, suggesting neither dramatic improvements nor sharp reductions in the health status of the elderly.

Powers, Imelda Yeung

PD August 1986. TI Limiting Distributions of the Number of Pure Strategy Nash Equilibria in n-Person Games. AA Yale University. SR Yale Cowles Foundation Discussion Paper: 799; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 44. PR No Charge. JE 026. KW Pure Strategy. Nash Equilibria. Random n-Person Game. Strictly and Weakly Ordinal Game.

AB In this paper, we study the number of pure strategy Nash equilibria in a "random" n-person non-cooperative game in which all players have a countable number of strategies. We provide explicit expressions for the expected number of pure strategy Nash Equilibria, and show that the distribution of the number of pure strategy

Nash Equilibria approaches the Poisson distribution with mean 1 as the numbers of strategies of two or more players go to infinity.

Pratt, Michael D.

PD July 1986. TI The Efficacy of Minimum Quality Certification in the Used Vehicle Market. AU Pratt, Michael D.; Hoffer, George E. AA Virginia Commonwealth University. SR Federal Trade Commission Bureau of Economics Working Paper: 140; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Avenue NW, Washington, D.C. 20580. PG 19. PR No Charge. JE 921. KW Information Asymmetry. Lemons Market. Used Cars. Disclosure Requirements.

AB This paper investigates whether certain state used vehicle disclosure laws affect the quality mix of traded vehicles. Using data on used truck sales, the study finds no evidence that the currently mandated disclosure requirements in Wisconsin and Iowa are effective in increasing the number of good quality vehicles traded in these markets. These tests suggest either that no significant information asymmetry exists between buyers and sellers in the used truck market or that the laws are ineffective in dealing with it.

Puckahtikom, Chanpen

TI Export Credits: Developments and Prospects. AU Brau, Eduard; Dillon, K. Burke; Puckahtikom, Chanpen; Xafa, Miranda.

Quandt, Richard E.

TI A Test of Market Efficiency in 'Exotic' Racetrack Betting. AU Asch, Peter; Quandt, Richard E.

TI Effects of Multiple Uncertainty on Rationing. AU Goldfeld, Stephen M.; Quandt, Richard E.

Randolph, William C.

PD February 1986. TI Price Measurement When Designs are Changed: Estimation Theory with Application to Computers. AA Division of Price and Index Number Research, Bureau of Labor Statistics. SR Bureau of Labor Statistics Working Paper: 155; Bureau of Labor Statistics, 441 G Street, N.W./Room 2021 Washington, D.C. 20212. PG 63. PR No Charge. JE 211, 227, 022. KW Price Measurement. Computers. Hedonic Estimates.

AB We develop general hedonic econometric estimates of fixed weight bounds for theoretical economic output price indexes when producers change design attributes. The methods are applied to computer tape drives. Operationally feasible non-regression index estimates are also developed and empirically examined.

PD April 1986. TI Estimation of Housing Depreciation: Short Term Quality Change and Long Term Vintage Effects. AA Division of Price and Index Number Research, Bureau of Labor Statistics. SR Bureau of Labor Statistics Working Paper: 160; Bureau of Labor Statistics, 441 G Street, Northwest/Room 2021 Washington, D.C. 20212. PG 28. PR No Charge. JE 932, 227, 212. KW Housing Depreciation. Vintage Effects.

AB Estimates of housing depreciation could be used to correct the Consumer Price Index for aging bias. In this paper, I analyze the problem of identifying and estimating housing depreciation by using a hedonic rent regression model. Depreciation is modeled as the rate of change in a latent housing quality variable. I demonstrate that in the presence of vintage effects in latent quality, depreciation can not generally be estimated from longitudinal data without an identifying assumption. I then derive a depreciation estimate under the assumption that average market latent housing quality is stable. In an application of my method to Annual Housing Survey data, I am able to further explore the nature and reasonableness of my assumption relative to the more common assumption that vintage effects are negligible.

Rausser, Gordon C.

PD March 1985. TI Macroeconomics and United States Agricultural Policy. AA University of California at Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 358; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 130. PR No Charge. JE 023, 713. KW Agricultural Sector Policies.

AB This paper provides partial answers to a number of questions. First, is the overshooting-externalities story consistent with the empirical facts? Second, what are the major linkages between and among the macroeconomy, international economy, and agricultural economy? Third, what is the order of magnitude of effects of policy changes originating in agriculture, the macroeconomy, and the international economy on the three sectors after consideration of the direct, indirect, and feedback effects? Fourth, given the importance of agriculture in the United States economy 'food products contribute approximately 20 percent to the weight of the consumer price index (CPI), what role have commodity markets had on the path (inflationary or deflationary) of general economy wages and prices? Fifth, what is the differential impact of macroeconomic policies (fiscal and monetary) versus agricultural sector policies on the performance of the United States agricultural sector? Sixth, should agricultural sector policies be conditional on shocks to macroeconomy and international economy emanating from United States fiscal and monetary policies?.

PD March 1985. TI Instability in Agricultural Markets: The United States Experience. AU Rausser, Gordon C.; Chalfant, James A.; Stamoulis, Kostas G. AA University of California at Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 359; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 10. PR No Charge. JE 712. KW Agricultural Commodity Market Instability. Government Intervention. AB This paper discusses the American experience with instability in agricultural markets.

TI Monetary Policies and the Overshooting of Flexible Prices: Implications for Agricultural Policy.

AU Stamoulis, Kostas G.; Chalfant, James A.; Rausser, Gordon C.

Reiss, Peter C.

TI Alternative Nonnested Specification Tests of Time Series Investment Models. **AU** Bernanke, Ben; Bohn, Henning; Reiss, Peter C.

Remmerswaal, U. C. M.

PD 1984. **TI** pensioenvb: toelichting op een programma voor de berekening berekening van de pensioenaankleding voor zelfstandige vrijeberoepsbeoefenaren. **AU** Remmerswaal, U. C. M.; Kune, U. B. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 10/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 55. **PR** No Charge. **JE** 214.

AB In het rapport Aankleding Norminkomens Vrijeberoepsbeoefenaren (hierna kortweg aan te duiden als "rapport") van de Werkgroep Inkomens Vrije Beroepsbeoefenaren wordt aangegeven op welke wijze rekening gehouden kan worden met sociaaleconomische en rechtspositionele verschillen tussen vrije beroepsbeoefenaren en ambtenaren bij het vaststellen van norminkomens voor de eerstgenoemden. Deze documentatie is bedoeld als toelichting op een programma dat op grond van dit rapport een deel van het norminkomen, t.w. de pensioenaankleding, berekent. Het computerprogramma is bijgevoegd als appendix 1. Bij dit programma wordt de gebruiker telkens gevraagd de specifieke gegevens van elke variant in te geven via een terminal: dit wordt besproken in Hoofdstuk 2. Een voorbeeld van het invoeren van gegevens is te vinden in appendix 2. De vormen van pensioen die worden opgebouwd, de berekening van deze opbouw en van de bijbehorende premies worden alle besproken in Hoofdstuk 3. In Hoofdstuk 4 wordt dan tenslotte de uitvoer van het programma besproken, waarvan een voorbeeld wordt gegeven in appendix 3.

Renes, G.

TI Testing the Differences in Consumption Patterns of One- and Two-Earner Families. **AU** Heijmans, R. D. H.; Renes, G.

Rey, Patrick

PD April 1985. **TI** The Logic of Vertical Restraints. **AU** Rey, Patrick; Tirole, Jean. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 396; Department of Economics, Massachusetts Institute of Technology Cambridge, MA 02139. **PG** 41. **PR** No Charge. **JE** 611. **KW** Vertical Restraints. Anticompetitive Restraints.

AB The first theme of this paper is that direct (product) competition acts as a tournament between retailers when informational problems (or transaction costs) prevent the manufacturer from using contracts based on their relative performances. Anti-competitive restraints such as exclusive territories and resale price maintenance (which, we show, are not necessarily good substitutes) may or may

not be privately desirable. The second theme of the paper is that privately desirable anti-competitive restraints may not be socially desirable. In our model, consumers prefer competition because its good insurance properties for the retailers do not force the manufacturer to raise the wholesale price; and because, for a given wholesale price, they prefer the competitive price adjustment to cost and demand shocks.

PD August 1985. **TI** Vertical Restraints from a Principal-Agent Viewpoint. **AU** Rey, Patrick; Tirole, Jean. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 395; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 43. **PR** No Charge. **JE** 611. **KW** Vertical Restraints. Private Desirability. Social Desirability. Control Problems. Uncertainty. **AB** The purpose of this paper is to survey and classify some ideas associated with vertical restraints. We will discuss their rationale (the issue of "private desirability") and mention their social consequences (that of "social desirability").

Rhoades, Stephen A.

PD April 1986. **TI** The Operating Performance of Acquired Firms in Banking Before and After Acquisition. **AA** Board of Governors. **SR** Board of Governors of the Federal Reserve System Staff Studies: 149; Special Studies Section, Board of Governors of the Federal Reserve, Stop 180, 20th and C Streets, Washington, D.C. 20551. **PG** 31. **PR** No Charge. **JE** 312, 611. **KW** Bank Acquisitions. Mergers. Performance.

AB This paper presents results of an empirical investigation of whether acquired firms are poor performers (due to bad management or other reasons) and whether mergers generally improve the operating performance of acquired firms. The analysis is based on a large sample of bank acquisitions over the period 1968-78. For mergers completed during this period, the paper presents an analysis of six years of postacquisition experience: that is, the postacquisition performance of banks acquired in 1978 is analyzed through 1984. Multiple regression analysis is used in an attempt to determine whether banks that are acquired differ from other banks in terms of (1) profitability, (2) operating expenses, and (3) changes in market share both before and after acquisition.

Ridder, G.

PD 1984. **TI** An Event History Approach to the Evaluation of Training, Recruitment and Employment Programs. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 14/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 38. **PR** No Charge. **JE** 811. **KW** Training. Recruitment. Employment Programs. Female Workers. Minority Workers.

AB In this paper I evaluate a number of training, recruitment and employment programs. The evaluation method is a combination of a quasi-experimental design (a simple pre-treatment post-treatment design) and a stochastic process model to describe the response variables.

I conclude that the programs have no effect on older workers. Female and minority workers benefit most from the programs. The training programs are less effective than the recruitment programs which are less effective than the employment programs.

PD 1984. TI Statistische Methoden voor het Steekproefonderzoek Enquete Regionale Bedrijfsontwikkeling-II. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 9/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 43. **PR** No Charge. **JE** 211. **KW** Sampling.

AB Dit rapport bevat een verslag van een onderzoek naar de statistische methoden van ERBO (Enquete Regionale Bedrijfsontwikkeling). Dit rapport kan op twee niveau's gelezen worden. De technisch geïnteresseerde lezer begint vooraan en houdt op de laatste bladzijde op en bestudeert ook de voetnoten. Degene die alleen in de uitkomsten geïnteresseerd is leest paragraaf 1 en de teksten van de volgende paragrafen (vluchtig) en negeert de formules. Deze formules zijn natuurlijk nodig als we het schrijftafelstadium te boven willen komen. Alleen door het opnemen van de geschetste methoden in de ERBO-procedure kunnen we er achter komen wat ze waard zijn.

Roberds, William

PD July 1986. **TI** Solution of Linear-Quadratic-Gaussian Dynamic Games Using Variational Methods. **AA** Research Department, Federal Reserve Bank of Minneapolis. **SR** Research Department Staff Report: 105; Federal Reserve Bank of Minneapolis 250 Marquette Avenue, Minneapolis, MN 55480. **PG** 45. **PR** No Charge. **JE** 026, 023. **KW** Dynamic Games. Linear-Quadratic Models. Rational Expectations.

AB Methods are presented for solving a certain class of rational expectations models, principally those that arise from dynamic games. The methods allow for numerical solution using spectral factorization algorithms and for estimation of these models using maximum likelihood techniques.

Roberts, John

TI Contributions to The New Palgrave. **AU** Kreps, David M.; Roberts, John; Wilson, Robert B.

Roemer, John E.

TI Social Choice in Economic Environments with Dimensional Variation. **AU** Donaldson, David; Roemer, John E.

PD July 3, 1986. **TI** Egalitarianism and Responsibility. **AA** Economics Department, University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 279; Department of Economics, University of California at Davis, Davis CA 95616. **PG** 62. **PR** No Charge. **JE** 024, 026. **KW** Egalitarianism. Bargaining Theory. Resource Allocation.

AB Different theories of egalitarianism are predicated upon assigning different degrees of responsibility to agents for their preferences, traits, and choices. Equality-of-

opportunity theories hold the person more responsible than do equality-of-outcome theories. In this paper, several theorems which relate equality-of-resources to equality-of-welfare, proved earlier by the author, are discussed with a view to shedding light on the question: How can one draw a line to separate those traits of a person for which he should be responsible from those for which society should compensate him? The approach is a methodological one, studying the axioms of the model, and asking how they succeed or fail in representing our intuitions on the problem.

PD July 3, 1986. **TI** Exploitation, Property Rights, and Preferences. **AA** Economics Department, University of California Davis. **SR** University of California at Davis Economics Department Working Paper: 280; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 35. **PR** No Charge. **JE** 024, 051, 053. **KW** Exploitation. Property Rights. Egalitarianism. Marxism.

AB When preferences of agents are allowed to be suitably general, and treated with due respect, then the classical Marxian definition of exploitation which compares labor embodied in goods consumed to labor expended in production ceases to reflect ethically condemnable inequality. It is argued that if preferences are treated seriously, then the Marxian theory merges with contemporary theories of resource egalitarianism, associated with philosophers such as John Rawls and Ronald Dworkin. These theories are concerned, inter alia, with the proper compensation which is due people on account of unequal distribution of inalienable resources (talents) in the birth lottery. The paper concludes with some puzzles which emerge in trying to design resource allocation mechanisms to 'equalize talents.'

Romer, Paul M.

PD March 1984. **TI** Tax Effects and Transaction Costs for Short Term Market Discount Bonds. **AA** University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 2; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 36. **PR** No Charge. **JE** 521. **KW** Tax Effects. Capital Gains Taxation. T-Bills. United States Government Bonds.

AB This paper reports little evidence of tax-effects in the prices of low coupon United States Treasury bonds and notes around the time one capital gain holding period prior to maturity. Those departures from zero-tax pricing that are found are consistent with small transaction costs that limit an arbitrage opportunity available to dealers. No meaningful, representative tax-rate can be inferred from them. Neglecting the much larger transaction costs apparently faced by individuals, T-bills were dominated assets, and profitable opportunities for tax-trading were available, for anyone in at least a 30 per cent tax bracket.

Rose, John T.

PD May 1986. **TI** Statistical Cost Accounting Models in Banking: A Reexamination and an Application. **AU** Rose, John T.; Wolken, John D. **AA** Rose: Baylor University. Wolken: Board of Governors. **SR** Board of Governors of the Federal Reserve System Staff Studies: 150; Special Studies Section, Board of Governors of the

Federal Reserve, Stop 180, 20th and C Streets, Washington, D.C. 20551. PG 13. PR No Charge. JE 312, 541. KW Statistical Cost Accounting. Bank Earnings. Commercial Banks.

AB The purpose of this study is to reexamine the statistical cost accounting model, evaluate previous studies that have used the model, and apply the correctly specified model to a sample of commercial banks. First, we present the basic model, discuss the implications of incorporating the balance sheet identity in the model and the potential for specification bias, and briefly review previous statistical cost accounting studies for specification error. Then we examine the problem of heteroskedasticity and of testing for it in the statistical cost accounting model. Last, we apply the model to a sample of commercial banks.

Rotemberg, Julio J.

TI A Tax-Based Test for Nominal Rigidities. AU Poterba, James M.; Rotemberg, Julio J.; Summers, Lawrence H.

PD April 1985. TI Strategic Inventories and the Excess Volatility of Production. AU Rotemberg, Julio J.; Saloner, Garth. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 371; Department of Economics, MIT, Cambridge, MA 02139. PG 43. PR No Charge. JE 611, 022. KW Inventories. Collusion. Volatility of Production.

AB In this paper we analyze the role of inventories in supporting collusion. This role of inventories derives from their usefulness in punishing deviators from a collusive understanding and is quite different from the one stressed in standard neoclassical models.

PD September 1985. TI Price Leadership. AU Rotemberg, Julio J.; Saloner, Garth. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 388; Department of Economics, MIT, Cambridge, MA 02139. PG 47. PR No Charge. JE 611. KW Price Leadership. Collusive Price Leadership.

AB The goal of this paper is to develop a model of collusive price leadership. We study markets in which duopolists attempt to achieve monopolistic outcomes by exploiting the fact that they have repeated encounters over time. In particular, they attempt to collude by threatening to revert to noncooperative behavior if any firm deviates from implicitly agreed upon behavior. The key feature of the markets that we model is that the firms may be asymmetrically informed about industry demand conditions.

PD May 1986. TI Quotas and the Stability of Implicit Collusion. AU Rotemberg, Julio J.; Saloner, Garth. AA M.I.T. SR Massachusetts Institute of Technology Department of Economics Working Paper: 419; Department of Economics, MIT, Cambridge, MA 02139. PG 40. PR No Charge. JE 422. KW Import Quotas. Protection. Implicit Collusion.

AB This paper shows that the imposition of an import quota by one country can lead to increased international competitiveness: protection can reduce the price in the country that imposes the quota, the foreign country, or

both. This somewhat paradoxical result emerges from a model of implicit collusion. In such a setting the firms in an industry sustain collusive prices by the threat that more competitive pricing will ensue if any firm deviates. The more powerful the threat, the more collusion that can be sustained. Since a quota reduces the ability of the foreign firms to punish a deviating domestic firm, the amount of collusion that can be sustained is correspondingly diminished. We study both the case in which sales and the case in which prices are the strategic variables. Our results are strongest when prices are the strategic variables: quotas always make monopolization of the domestic market more difficult in that case. This is in sharp contrast to the results in static imperfect competition models in which quotas tend to make it easier for the domestic firm to act as a monopolist at home. It is also different from the impact of tariffs which, in a dynamic setting like the one studied here, do not necessarily make it more difficult for the firms to sustain collusive outcomes.

Rothschild, Michael

TI Monopolistic Competition and Preference Diversity. AU Deneckere, Raymond; Rothschild, Michael.

Rutherford, Thomas F.

TI Toward Incorporating Money in Age Models. AU Manne, Alan S.; Rutherford, Thomas F.; Waelbroeck, Jean L.

Sadoulet, Elisabeth

TI Disarticulation as a Theory of Inequitable Growth; Articulation as a Strategy for Equitable Growth (or Why Countries Should Beware of Jumping the Stages of Consumption. AU deJanvry, Alain; Sadoulet, Elisabeth.

PD April 1985. TI Compatible Investment Strategies and Income Policies for Equitable Growth. AA University of Geneva, Switzerland. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 364; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 29. PR No Charge. JE 024, 111. KW Investment Strategies. Income Policies. Distribution of Income. Growth. Egalitarian Growth.

AB In all planning efforts, the problem of compatibility between various economic and social objectives such as economic growth and income equality, industrialisation and agricultural growth, and agricultural and rural development is central. To assess these compatibilities requires a detailed study of the adjustment mechanisms which regulate the interactions between these different economic and social variables. This paper deals with the issue of the compatibility between investment strategy and income policy in the design of a strategy of egalitarian growth.

Safra, Zvi

PD July 1986. TI Connectedness of Manipulable Sets. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 33-86; Department of Economics, Tel

Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL.
 PG 28. PR No Charge. JE 021.
 KW Manipulation. Strategic Behavior. Coalition.
 AB This work deals with coalitional manipulation that is carried out by advantageous reallocations of the coalitions' endowments. It is shown that the set of manipulable states is arc-connected whereas the set of non-manipulable states need not have this property.

Sagari, Silvia B.

PD July 1986. TI Bank Examination and Deposit Insurance Reform: A Proposal. AU Sagari, Silvia B.; Vdell, Gregory F. AA Sagari: The World Bank. Vdell: New York University. SR New York University Salomon Brothers Center Working Paper: 386; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 25. PR \$3.00. JE 312.
 KW Deposit Insurance Premiums. FDIC. Bank Monitoring.

AB Risk-related premiums offer the most attractive remedy to the moral hazard problem that characterizes the current FDIC deposit insurance contract. Bank examinations provide regulators with the best available information on which to base risk-related premiums. Unfortunately, because bank examinations are costly, they are conducted on average only once per year. This one year interval affords banks a window of opportunity to exploit the type of risk-related contracts currently under consideration. To avoid this problem we propose that the FDIC offer a deposit insurance contract that requires each bank to continuously set its own risk-related premium based on private information. In order to encourage banks to set their premiums based on an honest evaluation of their true risk, our proposal also requires a fundamental reform of the current bank examination procedures in combination with an ex post penalty function.

Saillard, Yves

PD December 1985. TI Fonctionnement des systemes de soins et crise economique: quelques elements de synthese de comparaisons internationales. (Health Systems and Crisis: Elements for a Synthesis). AA CNRS. SR CEPREMAP Discussion Paper: 8529; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 67. PR 20 FF. JE 913. KW Health Expenditures. Fringe Benefit. Health Policy. Privatisation.

AB Growth of health expenditures is a general phenomenon in industrial countries. But no explanatory factor is directly emerging. Yet, looking at health expenditures in different countries (ten OECD countries) we can see they are not bended in the same way by the economic crisis. A comparative study between United-States, France and Great-Britain relates to health policies during crisis. So we can seize how different Health Insurance Apparatus can move and change. Finally, observing recent evolutions in Health systems, we try to characterize how Health Insurance Apparatus can react to the economic crisis. (Paper in French.).

Salant, David

TI Monetary Policy in a Simple Repeated Game.
 AU Cothren, Richard; McTaggart, Douglas; Salant,

David.

TI Time Consistency and Subgame Perfect Equilibria.
 AU McTaggart, Douglas; Salant, David.

Saloner, Garth

PD April 1985. TI Predation, Mergers and Incomplete Information. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 383; Department of Economics, MIT, Cambridge, MA 02139. PG 34. PR No Charge. JE 022, 611.
 KW Predatory Pricing. Predation. Asymmetric Information. Mergers.

AB This paper presents a model of rational predation based on asymmetric information. We show that the presence of asymmetric information substantially alters the conclusions that should be drawn about predatory pricing. First, even when friendly takeovers are anticipated (and permitted), predation may occur. Second, actions that would be judged to be predatory under the leading formulations of legal rules for such practices, and hence that would be punishable under Section 2 of the Sherman Act if those rules were applied, may actually be welfare enhancing.

TI Strategic Inventories and the Excess Volatility of Production. AU Rotemberg, Julio J.; Saloner, Garth.

TI Installed Base and Compatibility, with Implications for Product Preannouncements. AU Farrell, Joseph; Saloner, Garth.

TI Price Leadership. AU Rotemberg, Julio J.; Saloner, Garth.

TI Economic Issues in Standardization. AU Farrell, Joseph; Saloner, Garth.

TI Quotas and the Stability of Implicit Collusion. AU Rotemberg, Julio J.; Saloner, Garth.

Saunders, Anthony

PD June 1986. TI The Interbank Market, Contagion Effects and International Financial Crises. AA New York University. SR New York University Salomon Brothers Center Working Paper: 385; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 61. PR \$2.00. JE 312, 310. KW Contagion. Interbank Market. Interest Rate Spreads. Loan/Deposit Flows. Bank Equity.

AB In this paper, the potential sources of contagion in the interbank market are analysed and empirical evidence regarding contagion effects on interest-rate spreads, loan/deposit flows and bank equity market values are discussed. Policy questions as to what types of (Central bank) regulatory response should be forthcoming are also addressed.

PD July 1986. TI The Effects of Shifts in Monetary Policy and Reserve Accounting Regimes on Bank Reserve Management Behavior In the Federal Funds Market. AU Saunders, Anthony; Urich, Thomas. AA New York University. SR New York University Salomon Brothers Center Working Paper: 388; Salomon Brothers Center, Graduate School of Business Administration, New York

University, 100 Trinity Place, New York, NY 10006.
 PG 20. PR \$3.00. JE 311, 312. KW Reserve Requirement Regimes. Bank Reserve Adjustment. Federal Funds Market.

AB The objective of this paper is to examine whether the February 1984 shift in reserve requirement regimes had any significant impact on the daily reserve management behavior of large banks in the market for bank reserves (the Fed funds market). Two dimensions of this impact are examined: (i) that on the level and variability of funds rates on different days of the reserve maintenance period and (ii) that on the size and direction of large bank net purchases of Fed funds on different days of the reserve maintenance period. That is, we examine both the price and quantity dimensions of large bank reserve adjustment. In addition, we examine the effects, on large banks' Fed funds behavior, of the change in the Fed's targeting regime, from NRT to BRT, in October 1982. By doing so it is possible to examine whether the shift in Fed targets had a greater (lesser) impact on Fed funds rates and bank reserve management policies than the shift from LRR to CRR.

Saunders, Cheryl A.

TI Accountability in Intergovernmental Fiscal Transfers. AU Else, Mitchell Rae; Saunders, Cheryl A.

Schadler, Susan M.

PD June 1986. **TI** Effect of a Slowdown in Industrial Economies on Selected Asian Countries. **AA** International Monetary Fund. **SR** International Monetary Fund Departmental Memoranda/Staff Paper: (33)2/6; International Monetary Fund, Washington D.C. 20431. **PG** 28. **PR** No Charge. **JE** 131, 132, 121. **KW** Economic Fluctuations. Economic Forecasting. Developing Countries. Asia. Industrial Countries.

AB This paper investigates the linkage between economic developments in industrial economies and in six Asian developing countries in a simple model focusing on the Asian countries' external position, output growth, and absorption. Unlike earlier studies, the paper explicitly examines the role in the Asian countries of policy adjustments to offset any current account deterioration associated with slower growth in the industrial countries. Simulations of economic performance in 1985 and 1986 under a high-growth scenario (with industrial country growth of 5 percent) are compared with those under a low-growth scenario (with industrial country growth of 3 percent).

Schinasi, Garry J.

TI Should Fixed Coefficients be Reestimated Every Period for Extrapolation?. AU Swamy, P. A. V. B.; Schinasi, Garry J.

Schmalensee, Richard

TI The Performance of Coal-Burning Electric Generating Units in the United States: 1960-1980. AU Joskow, Paul L.; Schmalensee, Richard.

Schneider, Friedrich

TI Me and My Shadow: Estimating the Size of the United States Underground Economy from Time Series

Data. AU Aigner, Dennis J.; Schneider, Friedrich; Ghosh, Damayanti.

Schwartz, Robert A.

TI The Efficiency of Stock Exchange and Over-the-Counter Markets. AU Hasbrouck, Joel; Schwartz, Robert A.

Schwartz, Sandra L.

PD May 1986. **TI** Innovation Management and Market Evolution. **AA** Department of Economics, University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 86-23; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. **PG** 16. **PR** \$0.20 per page Canadian to other than educational institutions. **JE** 621, 611. **KW** Innovation Management. Industrial Development. Transilience Model.

AB This paper discusses the transilience model of industrial development and its implications for innovation management. The model is applied to several industries including steel, semi-conductors, PBX and fibre optics. These analyses along with extensions of the model, suggest procedures for innovation management in the information age.

Schworm, William

TI Testing for the Existence of Input Aggregates in an Economy Production Function. AU Blackorby, Charles; Schworm, William; Fisher, Timothy.

TI Necessary and Sufficient Conditions for Factor Price Equalization. AU Blackorby, Charles; Schworm, William; Venables, Anthony.

Segal, Uzi

PD March 1986. **TI** The Ellsberg Paradox and Risk Aversion: An Anticipated Utility Approach. **AA** University of California at Los Angeles. University of Toronto. **SR** University of California at Los Angeles Department of Economics Working Paper: 362; Department of Economics, UCLA Los Angeles, CA 90024. **PG** 43. **PR** \$2.50. **JE** 026, 022. **KW** Ellsberg Paradox. Anticipated Utilities. Independence Axiom. Lottery.

AB This paper describes a decision process under which it is rational to prefer a lottery with known probabilities to a similar ambiguous lottery where the decision maker does not know the exact values of the probabilities (the "Ellsberg paradox"). This is done by modelling an ambiguous lottery as a two-stage lottery, by assuming the independence axiom without the reduction of compound lotteries axiom, and by using the Anticipated Utility (rather than the Expected Utility) functional. This paper also gives conditions under which a less ambiguous lottery is preferred to a more ambiguous one and presents some comparative statics analysis, as well as some interpersonal comparisons. Finally, the connection between risk aversion and ambiguity aversion and between the Ellsberg paradox and other non-expected utility phenomena are discussed, and it is proved that within the Anticipated Utility framework, risk aversion and ambiguity aversion

are almost identical. This is in contrast with other theories, where ambiguity (or uncertainty) and risk are treated as different concepts.

Shafer, Wayne J.

TI Ergodic Fluctuations in Deterministic Economic Models. AU Day, Richard H.; Shafer, Wayne J.

Shapiro, Carl

TI Foreign Counterfeiting of Status Goods. AU Grossman, Gene M.; Shapiro, Carl.

TI Foreign Counterfeiting of Status Goods. AU Grossman, Gene M.; Shapiro, Carl.

Shearer, Ronald A.

TI Terminating Building Societies in Quebec City 1850-1864. AU Paterson, Donald G.; Shearer, Ronald A.

TI The Supply of Canadian Money, 1842-1871: Estimates and Implications. AU Paterson, Donald G.; Shearer, Ronald A.

Sheffrin, Steven M.

PD July 11, 1986. TI Fiscal Policy Tied to the Mast: What Has Gramm-Rudman Wrought?. AA University of California, Davis. SR University of California at Davis Research Program in Applied Macro and Macro Policy: 39; Department of Economics, University of California at Davis, Davis, CA 95616. PG 20. PR No Charge. JE 320, 322. KW Gramm-Rudman. Balanced Budget.

AB Gramm-Rudman was an historic attempt to apply rules of self-restraint to the fiscal process. This paper analyzes the logic of the Gramm-Rudman approach from an economic, legal, and budgetary perspective. Although the United States Supreme Court ruled that the law was unconstitutional, the Gramm-Rudman law did aid in deficit reduction. The features that led to its success were its careful design and construction which could not be duplicated by a constitutional amendment.

Shoren, John B.

TI Poverty Among the Elderly: Where are the Holes in the Safety Net?. AU Boskin, Michael; Shoren, John B.

Silber, Jacques

TI Interquantile Differences, Income Inequality Measurement and the Gini Concentration Index. AU Berrebi, Z. M.; Silber, Jacques.

PD May 1986. TI Factor Components, Income Classes and the Computation of the Gini Index of Inequality. AA Department of Economics, Bar Ilan University. SR University of Southern California Modelling Research Group Working Paper: M8620; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 8. PR No Charge. JE 024, 225. KW Concentration Ratios. Decomposition of Inequality. Factor Component. Gini Index of Inequality. Income Class. Income Range. Income share. Pseudo Gini. Rank. AB The purpose of this note is to propose a simple technique, based on matrix algebra, to compute the Gini

Index of Inequality, to obtain a decomposition of this index by factor component when detailed data on the various components are available, and to derive a breakdown of the inequality into within and between classes inequality when the income units are grouped by income range.

Simon, Carol J.

PD June 1986. TI Investor Information and the Performance of New Issues. AA Department of Economics, University of California at Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 413; Department of Economics, University of California at Los Angeles Los Angeles, CA 90024. PR \$2.50. JE 613, 520, 313. KW Securities Regulation. Information. Disclosure. Common Stock.

AB This paper empirically investigates the economic effects of financial disclosure regulation in the market for new issues of common stock. Changes in investor information are related to changes in the distribution of returns earned by new issues investors. The information generated by private market information sources and institutions is evaluated in addressing the role for government intervention in markets characterized by asymmetric information.

Sims, Christopher A.

PD July 1986. TI Asymptotic Normality of Coefficients in a Vector Autoregression with Unit Roots. AA Department of Economics, University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 229; Department of Economics, 1035 Management and Economics, University of Minnesota Minneapolis, MN 55455. PG 14. PR No Charge. JE 211. KW Unit Roots. Vector Autoregression. Cointegrated Process.

AB In a multivariate autoregression, the presence of unit roots in the characteristic function implies nonstationary behavior in the data and is known to complicate the asymptotic distribution theory. This paper points out that the complications are nonetheless limited to a subspace of the parameter space, so that, for example, the usual method of constructing statistics for individual regression coefficients is ordinarily justified even in the presence of unit roots. This result implies that differencing for the purpose of inducing stationarity is never helpful in simplifying the asymptotic distribution theory for coefficients in the differenced model.

Singleton, Kenneth J.

TI Do Equilibrium Real Business Cycle Theories Explain Post-War United States Business Cycles?. AU Eichenbaum, Martin; Singleton, Kenneth J.

Slade, Margaret

TI Cartels, Collusion and Horizontal Merger. AU Jacquemin, Alexis; Slade, Margaret.

Smits, J. J. A. M.

PD 1984. TI UV-Analyse; een Belichting van de Arbeidsmarkt Nadar Bekeken. AA University of Amsterdam. SR University of Amsterdam Actuarial

Science and Econometrics Report: 6/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 47. PR No Charge. JE 824. KW Unemployment. Labor Market.

AB In deze scriptie wordt een economische theorie over het functioneren van de arbeidsmarkt onder de loep genomen. Deze theorie zoekt wegen om de grootte van de werkloosheid die er bestaat omdat de arbeidsmarkt niet perfect werkt te meten. De relaties die in de theorie een rol spelen worden vaak nogal 'kaal' (weinig variabelen) en statisch gespecificeerd. Met behulp van econometrische tijdreeksanalyse wordt hier naar een dynamischer relatie gezocht, waarmee tevens de lange-termijn-consequenties van de theorie bepaald kunnen worden. In de tweede paragraaf wordt dieper ingegaan op de arbeidsmarktwerking en de gebreken daarvan; in de derde paragraaf wordt de betreffende theorie uiteengezet; in paragraaf vier wordt een overzicht gegeven van eerder werk; in de vijfde paragraaf wordt een zijstap gemaakt naar aanleiding van een door een eerdere auteur gebruikte variabele; in de zesde paragraaf wordt het data-materiaal beschreven; de bij de tijdreeksanalyse gebruikte model-selectie wordt verantwoord in de zevende paragraaf en de daarbij gebruikte toetsen in de achtste paragraaf; de schatting en de selectie van een algemeen model worden in de negende paragraaf beschreven; in paragraaf tien worden enige opmerkingen naar aanleiding van de resultaten geplaatst en de elfde paragraaf bevat de conclusies; paragraaf 12 sluit af met de lijst van gebruikte literatuur.

Snyder, Ralph D.

TI A Multi-Series Heuristic for Exponential Smoothing. **AU** Lehmer, Carola; Snyder, Ralph D.

PD July 1986. **TI** Modified Mixed Autoregressive-Moving Average Processes. **AA** Monash University. **SR** Monash Department of Econometrics and Operations Research Working Paper: 10/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 12. PR No Charge. JE 211. KW Time Series Analysis. Maximum Likelihood Estimation. Mixed Autoregressive-Moving Average Processes.

AB The traditional mixed autoregressive-moving average model is geared to stationary time series. In this paper a modified version capable of representing nonstationary time series is considered. The key advantage is that maximum likelihood methods can be applied directly to the data to estimate the modified model without pre-processing the data with differencing operations to induce stationarity.

PD August 1986. **TI** Estimation of a Dynamic Linear Model with Unknown Starting Values. **AA** Monash University. **SR** Monash Department of Econometrics and Operations Research Working Paper: 12/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 29. PR No Charge. JE 211. KW Kalman Filtering. Exponential Smoothing. Mixed Autoregressive-Moving Average Models. Time Series Analysis.

AB A dynamic linear statistical model is proposed for forecasting univariate time series. Its distinguishing

feature is that it involves unknown starting values which must be estimated implicitly or explicitly before generating forecasts. Normally such models would be estimated using a Kalman filter seeded with a diffuse prior distribution. However, it is shown that it is possible to estimate the model with an equivalent procedure involving a form of exponential smoothing together with the method of linear least squares. It is then possible to circumvent the problem of numerical instability arising from the use of a large number as a surrogate infinity in the seed precision matrix of the Kalman filter. Applications to regression analysis, various forms of exponential smoothing, and a modified version of the autoregressive-moving average process are considered.

Sonnenschein, Hugo

TI An Experimental Test of Rubinstein's Theory of Bargaining. **AU** Neelin, Janet; Sonnenschein, Hugo; Spiegel, Matthew.

Spiegel, Matthew

TI An Experimental Test of Rubinstein's Theory of Bargaining. **AU** Neelin, Janet; Sonnenschein, Hugo; Spiegel, Matthew.

Spivak, Avia

TI Inflation and Money Creation in Israel. **AU** Litvin, Uri; Meridor, Leora; Spivak, Avia; Deutsch, Joseph.

Sprague, Alison

PD June 1986. **TI** Post-War Fertility and Female Labour Force Participation Rates. **AA** Hertford College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 9; Institute of Economics and Statistics Saint Cross Building, Manor Road, Oxford OX1 3UL. PG 40. PR No Charge. JE 826, 841, 813. KW Fertility. Female Participation.

AB This paper provides an explanation for the change in fertility and female labour supply over the post-war period. A model of fertility and labour force participation is outlined and estimated over the period 1953-82 for six age groups of women. The most significant factors to influence fertility and participation are found to be male and female earnings and education. Interest rates, number of children and the state of the labour market are also important. The findings suggest that fertility and participation rates are expected to continue at their present levels. No significant changes are anticipated, unless, that is, there is a major change in education of women, or male and female earnings vary greatly; both relatively and absolutely.

Spulber, Daniel F.

PD May 1986. **TI** The Second Best Core. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8622; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 16. PR No Charge. JE 021. KW Cooperative Games. Core. Second Best Pricing. Economies of Scale.

AB An economy with a single output and input is considered for the case of economies of scale in production. Equilibria are studied for a cooperative game of joint

production in which goods are allocated by a price system. The paper proposes a second best core in which allocations that are feasible for a coalition must be attainable by a price system. Existence is examined and properties of second best allocations are analysed.

PD May 1986. **TI** Variety and Efficiency: Monopolistic Competition with Nonlinear Price Schedules. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8623; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 18. **PR** No Charge. **JE** 022, 611. **KW** Nonlinear Pricing. Differentiated Products. Monopolistic Competition. Product Variety.

AB A market with free entry monopolistic competition is studied. Nonlinear pricing is shown to be the Bertrand-Nash equilibrium strategy for firms. Given small per capita fixed costs, the nonlinear pricing equilibrium approaches the perfectly competitive equilibrium with marginal cost pricing. Nonlinear pricing is associated with greater product variety than linear pricing. Increased variety leads to efficient pricing.

Srinivasan, T N.

TI Quid Pro Quo Foreign Investment and Optimal Policy Intervention. **AU** Bhagwati, Jagdish N.; Brecher, Richard A.; Dinopoulos, Elias.; Srinivasan, T N.

Srinivasan, T. N.

TI Quid Pro Quo Foreign Investment and Welfare: A Political-Economy-Theoretic Model. **AU** Bhagwati, Jagdish N.; Brecher, Richard A.; Dinopoulos, Elias.; Srinivasan, T. N.

Stamoulis, Kostas G.

TI Instability in Agricultural Markets: The United States Experience. **AU** Rausser, Gordon C.; Chalfant, James A.; Stamoulis, Kostas G.

PD June 1985. **TI** Monetary Policies and the Overshooting of Flexible Prices: Implications for Agricultural Policy. **AU** Stamoulis, Kostas G.; Chalfant, James A.; Rausser, Gordon C. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 372; Department of Agricultural and Resource Economics, 313 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 19. **PR** No Charge. **JE** 311, 713, 711, 431. **KW** Monetary Policy. Agricultural Sector. Overshooting. Exchange Rates. Real Effects.

AB In this paper, we focus on monetary policy and discuss a model of price and exchange rate dynamics in which macroexternalities are present. It begins with the exchange-rate overshooting model of Dornbusch, in which exchange rate changes in response to money growth can exceed, or overshoot, their long-run equilibrium values. Unlike the Dornbusch model, in which all real sector prices are fixed, agricultural prices are assumed to be flexible, and we focus on the importance of this assumption for the agricultural sector. The model is consistent with rational expectations and asset market equilibrium at every point

in time, and with the long-run neutrality of money. As in Dornbusch, flexible prices overshoot their long-run equilibrium. Thus, unanticipated changes in the growth rate of the money supply can be shown to change the relative price of agricultural products in the short run, thus representing either a tax or a subsidy to agricultural producers due to the short-run non-neutrality of money. The paper's contribution can therefore be viewed as identifying one set of conditions sufficient for monetary policy to cause real effects in the agricultural sector, and examining some factors affecting the extent of overshooting.

Steinberg, Richard

PD July 1986. **TI** Optimal Contracts need not be Contingent: The Case of Nonprofit Firms. **AA** Virginia Polytechnic Institute and State University. **SR** Virginia Polytechnic Institute and State University Working Paper in Economics: E86-07-02; Working Paper Coordinator, Department of Economics Sandy Hall, Blacksburg, VA 24061. **PG** 22. **PR** No Charge. **JE** 022, 513, 636, 825. **KW** Nonprofit Organizations. Efficient Contracts. Principal-Agent Problems. Fundraising.

AB In principal-agent problems where the effort of the agent is not observable, optimal contracts induce agent effort by specifying that payment is partly contingent on performance. Yet, even when permitted by law, such 'profit-sharing' or 'contingent' contracts are rare among and within nonprofit firms. This rarity does not always reflect legal restrictions or a lack of managerial competence -- a fixed contract is often optimal for nonprofit firms. The innovation of this paper is to show that contracts of nonprofit firms inherently involve a third agent -- the potential donor. It is demonstrated that contingent contracts raise the effective price of donations to potential contributors. When the loss of donations exceeds the net returns to induced effort a fixed contract is optimal. Two contracting situations are analyzed in more detail. First, I analyze contracting with a fundraising consultant. The two major professional organizations for such consultants regard contingent contracts as violations of their codes of ethics. This proscription is usually consistent with optimality. Second, I analyze profit-sharing contracts between the board of directors and the managers of nonprofit firms, which are of questionable legality. In this case, the optimal contract is even less likely to be contingent. Thus, legal restrictions on profit-sharing are unlikely to be necessary and would be inappropriate when binding.

Stern, Gary

TI A Comparison of Adaptive Structural Forecasting Methods for Electricity Sales. **AU** Engle, Robert F.; Brown, Scott J.; Stern, Gary.

Stiglitz, Joseph E.

TI Intergenerational Mobility and Dynastic Inequality. **AU** Kanbur, S. M. Ravi; Stiglitz, Joseph E.

Stock, James H.

TI Demand Disturbances and Aggregate Fluctuations: The Implications of Near Rationality. **AU** Jones, Stephen R. G.; Stock, James H.

Subbarao, K.

TI Some Dynamic Aspects of Rural Poverty in India.
 AU Adelman, Irma; Subbarao, K.; Vashistha, P. S.

Summers, Lawrence H.

TI A Tax-Based Test for Nominal Rigidities.
 AU Poterba, James M.; Rotemberg, Julio J.; Summers, Lawrence H.

TI Public Policy Implications of Declining Old-Age Mortality. AU Poterba, James M.; Summers, Lawrence H.

TI Reflections on the Inter-Industry Wage Structure.
 AU Krueger, Alan B.; Summers, Lawrence H.

Sveikauskas, Leo

TI Multicountry, Multifactor Tests of the Factor Abundance Theory. AU Bowen, Harry P.; Leamer, Edward E.; Sveikauskas, Leo.

Swamy, P. A. V. B.

PD August 1988. TI Should Fixed Coefficients be Reestimated Every Period for Extrapolation?. AU Swamy, P. A. V. B.; Schinasi, Garry J. AA Swamy: Special Studies, Federal Reserve Board. Chinasi: International Finance Division, Federal Reserve Board. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 287; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 22. PR No Charge. JE 132, 211. KW Prediction. Minimum Mean Square Error. Minimum Variance. Sequential Estimation.

AB This paper demonstrates that forecast accuracy is not necessarily improved when fixed coefficient models are sequentially reestimated, and used for prediction, after updating the database with the latest observation(s). This is at variance with the now popular method (see Meese and Rogoff (1983, 1985)) of sequentially reestimating fixed coefficient models for prediction as new data "rolls" in. It is argued that although "rolling" may minimize the variance of predictions for some classes of estimators, "rolling" does not necessarily yield accurate predictions (i.e., predictions that are close to actual data). Minimizing the mean squared prediction errors is a necessary condition for maximizing the probability that a given predictor is more accurate than other predictors. This minimization need not require, and may even exclude, the most recent data. A by-product of the demonstration is that for predictors based on the same sample size, a predictor with smaller variance need not be more accurate than another predictor with a larger variance.

Swyngedouw, Patrick

TI Does It Pay to Change Your Company's Name? A Stock Market Perspective. AU Horsky, Dan; Swyngedouw, Patrick.

Szafarz, A.

TI Reduction and Identification of Simultaneous Equations Models with Rational Expectations.
 AU Broze, L.; Gourieroux, C.; Szafarz, A.

Taira, Koji

PD February 1986. TI Delight or Plight of Old Age in Japan? Problems of Work, Leisure and Equality. AA Department of Economics, University of Illinois at Urbana-Champaign. SR University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1227; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. PG 37. PR No Charge. JE 813, 824, 918. KW Old Age. Japan. Labor Force. Equality. Lifetime Employment.

AB This paper explores a structure of social injustice in Japan's labor market processes and outcomes: inequalities and disadvantages in the labor market suffered by Japan's older persons (55 years and older). Statistical data are examined to shed light on the issue, with respect to labor force participation, type of employment, "lifetime employment" for the young, life after mandatory retirement, and labor market conditions for the aged. Male-female differentials are emphasized. Welfare and policy implications are also considered.

Tello, Mario D.

PD January 1986. TI Imperfect International Markets, Multinational Enterprises and Manufactured Exports from Developing Countries. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8602; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 43. PR No Charge. JE 442, 420, 112. KW International Trade. Trade Policy. Multinationals. Development. Imperfect International Markets.

AB This paper presents a partial equilibrium model for the analysis of some aspects of international trade and trade policy for a less developed country which exports intermediate goods in an imperfectly competitive market structure and within which some competing firms are multinational enterprises (MNEs). It then examines the effects on exports and the gains from trade for a LDC of exogenous shocks originating in the economies involved in trade; the effects of a higher degree of foreign ownership of the export activities of the LDC; and the effects of an increase in the degree of competitiveness among firms serving the market for the finished product which uses the intermediate goods exported by the LDC.

PD May 1986. TI Manufactured Exports from Developing Countries and Government Policy under Imperfect International Markets: Corporate Income Taxes and Exchange Rates. AA Department of Economics, University of Toronto. SR University of Southern California Modelling Research Group Working Paper: M8621; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 32. PR No Charge. JE 411, 323, 431. KW Oligopolistic Market. Degree of Internalization. Arm's Length Market. Multinational Enterprises.

AB This paper deals with the effects of corporate income tax and exchange rate policies on exports of intermediate goods from a developing country, the foreign exchange earnings, and welfare derived from them under different forms of organization and ownership of foreign firms with

activities in the export sector of that country. These foreign firms are competing in an oligopolistic market for the finished goods which use the intermediate goods produced in the developing country. The analysis is simple and the conditions for optimal policy intervention have direct empirical content.

Tesfatsion, Leigh

TI Automation of Nested Matrix and Derivative Operations. AU Kalaba, Robert; Plum, Thomas; Tesfatsion, Leigh.

Thorn, Richard S.

TI William H. White (1922-83): An Appreciation. AU Polak, J. J.; Haberler, Gottfried; Thorn, Richard S.; Argy, Victor.; Heller, H. Robert.

Tirole, Jean

TI The Logic of Vertical Restraints. AU Rey, Patrick; Tirole, Jean.

TI A Theory of Dynamic Oligopoly, II: Price Competition. AU Maskin, Eric; Tirole, Jean.

TI Predation Without Reputation. AU Fudenberg, Drew.; Tirole, Jean.

TI Vertical Restraints from a Principal-Agent Viewpoint. AU Rey, Patrick; Tirole, Jean.

Townley, Peter

PD June 30, 1986. TI Social Security and the Failure of Annuity Markets. AU Townley, Peter; Boadway, Robin. AA Townley: Acadia University. Boadway: Queen's University. SR Queen's Institute for Economic Research Discussion Paper: 652; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 38. PR \$2.50 Canada; \$3.00 United States; \$3.50 foreign. JE 020, 915, 026. KW Social Security. Annuity Markets. Asymmetric Information.

AB This paper investigates the effect of asymmetric information on the market for annuities when individuals are assumed to differ in the probability distribution of dying. Individual behaviour under life-insured and term-insured annuities is investigated. The market for such annuities is studied when the insurer cannot distinguish long-lived from short-lived cohorts. Unlike the well-known results of Rothschild and Stiglitz, it is shown that, if an equilibrium exists, it must be a pooling equilibrium. Given the same information as the private sector, a planner will be able to achieve an optimum under certain circumstances.

Tracy, Joseph

TI An Analysis of Public and Private Sector Wages Allowing for Endogenous Choices of Both Government and Union Status. AU Gyourko, Joseph; Tracy, Joseph.

TI On the Political Economy of Land Value Capitalization and Local Public Sector Rent-Seeking in a Tiebout Model. AU Gyourko, Joseph; Tracy, Joseph.

Trajtenberg, Manuel

PD July 1986. TI The Welfare Analysis of Product

Innovations with an Application to CT Scanners. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 34-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 75. PR No Charge. JE 621, 024, 630, 212. KW Product Innovations. Welfare Analysis. Multinomial Logit.

AB The main goal of this paper is to put forward a methodology for the measurement of product innovations using a value metric, i.e., equating the 'magnitude' of innovations with the welfare gains that they generate. This research design is applied to the case of Computed Tomography (CT) Scanners, a revolutionary innovation in medical technology. The econometric procedure centers on the estimation of a discrete choice model (the nested multinomial logit), that yields the parameters of a utility function defined over the - changing - quality dimensions of the innovative product. The estimated flow of social gains from innovation is used primarily to compute a social rate of return to R and D, to explore the interrelation between innovation and diffusion, and to trace the time profile of benefits and costs, the latter suggesting the possible occurrence of 'technological cycles'.

Tzannatos, Zafiris

PD June 1986. TI A General Equilibrium Model of Discrimination and its Effects on Income. AA University of Buckingham. SR London School of Economics Centre for Labour Economics Discussion Paper: 244; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. PG 28. PR No Charge. JE 820, 917. KW Discrimination. Incomes. Women.

AB A general equilibrium model is utilised to examine the effects of the narrowing of an arbitrary wage differential between two groups of workers upon factor incomes. The empirical section draws upon the recent experience of female workers in Britain after the introduction of the Equal Pay Act. The results suggest that profits are more likely to decrease when arbitrary wage differentials narrow and this conclusion casts doubt on whether many of the neoclassical theories of discrimination are relevant to the empirical study of discrimination.

Ulph, Alistair

PD May 1985. TI The Incentives to Make Commitments in Wage Bargains. AA University of Southampton; University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 85-17; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C., CANADA, V6T 1Y2. PG 47. PR \$0.20 per page Canadian to other than educational institutions. JE 830, 832, 821. KW Multinational Firm Bargaining. Commitments. Unions.

AB In this paper I explore the incentives for unions to make binding commitments in a model of wage bargaining where two sets of commitments are involved -- the commitment by unions to abide by wage bargains struck with a firm, and the commitment by unions to cooperate

with each other in bargaining with the firm. I show that these two commitments interact with each other in interesting ways -- in particular although it can be to the unions disadvantage to be without either set of commitment taken individually they are better off without them taken together, compared not only to the case where one set of commitments is missing, but also to the case where there are full binding commitments. Using particular examples I show that the absence of both sets of binding commitments can lead to firms overinvesting in capital, rather than underinvesting as was previously supposed.

Urich, Thomas

TI The Effects of Shifts in Monetary Policy and Reserve Accounting Regimes on Bank Reserve Management Behavior In the Federal Funds Market. **AU** Saunders, Anthony; Urich, Thomas.

Usher, Dan

PD July 3, 1986. **TI** The Distribution of Income in a Despotic Society. **AU** Usher, Dan; Engineer, Merwan. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 653; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 32. **PR** \$2.50 Canada; \$3.00 United States; \$3.50 foreign. **JE** 025, 822. **KW** Distribution of Income. Despotic. Violence.

AB A distribution of income between rulers and subjects, or among ranks in a ruling hierarchy, cannot be derived from considerations of marginal products of owned factors of production. Such a distribution can be derived as a balance of income and violence. Society is organized in ranks, and the ruler provides occupants of each rank with incomes just sufficient that it is not in their interest to rebel. To model such behaviour, it is necessary to introduce phenomena that are normally excluded from economic analysis: combat, violence, mortality rates (from natural causes and from violence) as a component of the utility function, and a rudimentary technology of control.

vanHoek, I.

TI The Stochastic Model in Life Assurance Mathematics (Dutch). **AU** Wolthuis, H.; vanHoek, I.

Vashistha, P. S.

TI Some Dynamic Aspects of Rural Poverty in India. **AU** Adelman, Irma; Subbarao, K.; Vashistha, P. S.

Vdell, Gregory F.

TI Bank Examination and Deposit Insurance Reform: A Proposal. **AU** Sagari, Silvia B.; Vdell, Gregory F.

Veitch, John M.

PD January 1986. **TI** Repudiations and Confiscations by the Medieval State. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8601; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 8. **PR** No Charge. **JE** 043, 916. **KW** Property Rights. Loan Repudiations. Property Confiscation. Medieval State.

AB Loan repudiations and property confiscations were common between medieval kings and individuals. Traditional accounts of these confiscations focus on factors affecting the kings, ignoring the motivations of the victims. This deficiency may be remedied by considering the problems faced on both sides of any agreement between a king and a group of citizens. A model is presented which explains the timing and the form of repudiations and confiscations without resorting to an assumption of irrationality by either party. It is general enough to address a persistent problem in the property rights view of government: how can an individual protect himself from abuses by his protector?.

PD April 1986. **TI** Wavering Virgins, the Deficit and Gramm-Rudman. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8617; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 18. **PR** No Charge. **JE** 322. **KW** Gramm-Rudman. Deficit Targets. Voluntary Cutbacks. Self-Command Mechanisms.

AB The Gramm-Rudman-Hollings Balanced Budget Act has been the center of controversy since its passage. Critics claim that the act reflects Congress' fiscal irresponsibility. At best they contend it is a doomsday device forcing negotiations by endangering the "quality of American life". A simple model of the budget process is presented to show that Gramm-Rudman's use is not as a threat. Rather it is the best way for Congress to attain a deficit target given competing interests inherent in the budget process. Gramm-Rudman is a "self-command" mechanism which Congress has willingly imposed on itself in order to meet a deficit target it could not otherwise obtain.

PD July 1986. **TI** The Optimality of Loan Commitment Contracts in the Extension of Credit. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8629; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 34. **PR** No Charge. **JE** 315. **KW** Asymmetric Information. Optimal Lending Arrangements. Noisy Signalling. Loan Commitment Contracts. Credit.

AB Loan commitment contracts are used extensively by commercial banks in making commercial, industrial and real estate loans. These commitment contracts always involve a maximum loan amount which the lender agrees to make available to a borrower. This paper investigates the structure of lender-borrower relationships under asymmetric information and derives the conditions under which a commitment contract dominates a traditional loan agreement from a lender's point of view. It is shown that the explicit loan maximum of the commitment helps the lender to offset the superior information of potential borrowers.

Venables, Anthony

TI Necessary and Sufficient Conditions for Factor Price Equalization. **AU** Blackorby, Charles; Schworm, William; Venables, Anthony.

Vickery, William S.

PD 1986. TI Budget -- Smudget: Why Balance What, How and When?. AA Columbia University. SR Columbia Department of Economics Working Paper: 86-24; Department of Economics, Columbia University, New York, NY 10027. PG 15. PR \$5.00. JE 322. KW Budgets. Balanced Budget.

AB This paper discusses balanced budgets, with the central thesis being that an insistence on a balanced budget, however properly defined, can have no justification.

Wachtel, Paul

PD July 1986. TI Deficit Announcements and Interest Rates. AU Wachtel, Paul; Young, John. AA New York University. SR New York University Salomon Brothers Center Working Paper: 387; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10008. PG 13. PR \$3.00. JE 322, 311. KW Government Deficits. Interest Rates. Announcement Effect. Future Deficits.

AB In this paper, we provide some striking evidence of the existence of an empirical link between interest rates and future government deficits. On the day that government agencies release information about projected Federal deficits, financial markets respond to these announcements. An increase in the projected deficit leads to an increase in interest rates. The announcement effect is felt on government securities of all maturities but is more significant on longer term yields.

Wachter, Michael L.

PD July 1986. TI Cyclical Fluctuations in Productivity in a Long-run Demand Equation. AU Wachter, Michael L.; Wascher, William L. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 61; Economic Activity Section, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 23. PR No Charge. JE 226, 825, 131. KW Productivity. Labor Demand.

AB In this paper, we examine cyclical fluctuations in labor demand and productivity embedded in a long-run optimization model that allows for the differentiation between the systematic effect on factor intensities generated by changes in "anticipated" factor prices and the stochastic element resulting from "unanticipated" price shocks. Our results indicate that factor prices played very different roles when comparing the oil and non-oil related recessions. Controlling for the extent of the decline in output, factor prices had either a negligible or moderating impact on productivity during the non-oil shock recessions. During the oil price recessions of 1973-75 and 1980, however, input price effects significantly worsened the productivity decline.

Waelbroeck, Jean L.

PD January 1986. TI Some Pitfalls in Applied General Equilibrium Modelling. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of

Economics Discussion Paper: 86-01; Department of Economics, University of British Columbia, 997 - 1873 East Mall, Vancouver, B.C. CANADA V6T 1Y2. PG 40. PR \$0.20 per page Canadian to other than educational institutions. JE 021, 212, 132. KW Applied General Equilibrium Modelling. General Equilibrium.

AB The "applied general equilibrium modelling product cycle" is fifteen years old. There is no general rule about the length of such cycles, they can be short or long according to the interest and the complexity of the topic. The question to ask is whether there remain research avenues of which we do not yet know whether they may lead to breakthroughs or prove to be dead ends. It is in this spirit that the paper focuses on the difficulties of the approach as they can be perceived today.

TI Toward Incorporating Money in Age Models. AU Manne, Alan S.; Rutherford, Thomas F.; Waelbroeck, Jean L.

Wakker, Peter

PD June 1986. TI Derived Strength of Preference Relations on Coordinates. AA University of Nijmegen, Department of Mathematics, The Netherlands. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 29-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 16. PR No Charge. JE 026, 022. KW Strength of Preferences. Additively Decomposable Function. Cardinal Coordinate Independence. Preferences.

AB A way is indicated to derive, from a preference relation on a Cartesian product, strength of preference relations on the coordinate sets. These strength of preference relations are then used to reformulate several well-known properties of preference relations on Cartesian products, and make their meaning more transparent. A new result for dynamic contexts is given.

Waldman, Michael

TI The Role of Altruism in Economic Interaction. AU Haltiwanger, John; Waldman, Michael.

TI Complementarity and Partial Nonexcludability: An Analysis of the Software/Computer Market. AU Novos, Ian E.; Waldman, Michael.

TI Limited Rationality and Synergism: The Implications for Macroeconomics. AU Haltiwanger, John; Waldman, Michael.

TI The Emergence of Copying Technologies: What Have We Learned. AU Novos, Ian E.; Waldman, Michael.

TI The Rotten-Kid Theorem meets the Samaritan's Dilemma. AU Bruce, Neil; Waldman, Michael.

Wales, T. J.

TI Semiflexible Functional Forms. AU Diewert, W. Erwin; Wales, T. J.

Wascher, William L.

TI Cyclical Fluctuations in Productivity in a Long-run Demand Equation. AU Wachter, Michael L.; Wascher, William L.

Weber, Shlomo

PD September 1985. TI On Existence and Pareto-Optimality of Contract Equilibria in a Market with Indivisible Commodities. AU Weber, Shlomo; Wiesmeth, Hans. AA Weber: Department of Economics, University of Toronto. Weismeth: University of Bonn. SR University of Toronto Institute for Policy Analysis Working Paper: 8511; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 33. PR No Charge. JE 024, 932. KW Pareto Optimality. Contract Equilibria. Regional Housing Market.

AB This paper studies existence and optimality of competitive equilibria in a market with indivisibilities. Especially, this investigation refers to a regional housing market, where the allocation of dwellings is governed by an allocation of contracts in a regulated contract market. Existence of a competitive equilibrium is shown under very mild assumptions on the agent's characteristics. But as a consequence of indivisibility effect, this equilibrium is not necessarily Pareto-optimal. In fact, an example shows that each competitive allocation can be Pareto-dominated by another allocation.

TI Stable Coalition Structures in Consecutive Games. AU Greenberg, Joseph; Weber, Shlomo.

Weddepohl, H. N.

TI Steady State Equilibria with Savings for Retirement Purposes: An Overlapping Generations Approach. AU Elbers, C. E.; Weddepohl, H. N.

Weiller, Kenneth J.

PD March 25, 1986. TI Money Demand, Transactions Proxies, and the Effects of Fiscal Policies in Open Economies. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8602; Research and Statistics Function, Federal Reserve Bank of New York, New York, NY 10045. PG 64. PR No Charge. JE 023, 123, 311, 321. KW Money Demand. Fiscal Policy. Transactions Proxies. Tax Cuts.

AB This paper examines the impact of fiscal policy in an open economy when alternative transactions proxies are used in the money demand function. The underlying logic behind the avenue of research is to recognize that different types of fiscal policy affect the composition of spending in different ways. Using absorption, private absorption or consumption as the scale variable in a money demand function, along with the corresponding price index to deflate money, I show that tax cuts are potentially contractionary, while in two of three cases government spending is more expansionary than in the standard model. Money demand equations using each of the proxies as well as income are estimated and compared. Consumption is found to produce the "best" estimated money demand functions in five of the six countries studied.

PD March 25, 1986. TI The Effects of Using Consumption in the Money Demand Function for the Impact of Fiscal Policies in Open Economies: A Simulation Approach. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York, Research Paper: 8603; Research and Statistics Function, Federal Reserve Bank of New York, New York, NY 10045. PG 36.

PR No Charge. JE 321, 023. KW Money Demand. Fiscal Policy. Tax Cut.

AB This paper extends earlier work by myself and Mankiw and Summers which examines the impact of fiscal policies when consumption is the scale variable in the money demand function. The consumption money demand function is embedded into four large macroeconomic simulations models to assess the impact of the change in specification. Tax cuts are found to be less expansionary than in the standard model while increases in government spending tend to produce larger effects. The paper fails to support the strong conclusion of Mankiw and Summers and Weiller, that tax cuts are likely to be contractionary, but it does indicate that the presence of consumption in the money demand reduces the effect of a tax cut.

Weimer, Theodor

PD April 1986. TI Betriebswirtschaftliche Erklärungen zur Existenz von Organisationen. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D 1; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 38. PR No Charge. JE 511. KW Organisationstheorie. Produktionstheoretischer Ansatz. Soziologischer Ansatz. Unsicherheitsreduzierender Ansatz. Transaktionskostenansatz.

Weiner, Robert J.

TI Contracting and Price Adjustment: An Application to Oil and Copper Markets. AU Hubbard, R. Glenn; Weiner, Robert J.

Weiss, Andrew A.

PD July 1986. TI Estimating Nonlinear Dynamic Models Using Least Absolute Error Estimation. AA Department of Economics, University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8630; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 44. PR No Charge. JE 211. KW Least Absolute Error. MAD. Asymptotic Theory. Testing.

AB We consider least absolute error estimation in a nonlinear dynamic model with neither independent nor identically distributed errors. Under the null hypothesis and local alternatives, the estimator is shown to be consistent and asymptotically normal, with asymptotic covariance matrix depending upon the heights of the density functions of the errors at their median (zero). A consistent estimator of the asymptotic covariance matrix of the estimator is given, and the Wald, Lagrange multiplier and Likelihood ratio tests for linear restrictions on the parameters in the regression equation are discussed. The Wald and Lagrange multiplier tests are distributed as central chi-square under the null and non-central chi-square under local alternatives. The Likelihood ratio test on the other hand is not always equivalent to the other two tests and may not be asymptotically distributed as chi-square. A simple artificial regression form of the Lagrange multiplier test is available in omitted variables problems, making this test attractive in many testing

situations. Since the form of the covariance matrix and tests depend on the presence or absence of heteroscedasticity, a Lagrange multiplier test based on the absolute residuals is analysed.

Weitzman, Martin L.

PD October 1985. TI The Japanese Bonus - Profit Share or Disguised Wage. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology Department of Economics Working Paper: 392; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 21. PR No Charge. JE 821, 023. KW Japan. Bonuses. Employment. Profit Sharing.

AB The bonus payment system is one of the exotic features of Japanese labor markets that have long fascinated outsiders. Recently interest has been heightened by the realization that the bonus system may have important macroeconomic implications. It is at least conceivable that some limited part of Japan's remarkable ability to stabilize unemployment at low, steady rates is due to the automatic pay flexibility that comes with profit sharing. For a subject of such potential importance, the Japanese bonus system has been relatively little studied. This paper is primarily directed at addressing what seems to me to be the most basic first question to ask: From an overall macroeconomic perspective, is it more accurate to view the Japanese bonus system as having significant profit-sharing elements, or should we see it more like a disguised wage?

West, Kenneth D.

PD March 1986. TI Asymptotic Normality, When Regressors Have a Unit Root. AA Woodrow Wilson School, Princeton University. SR Princeton Woodrow Wilson School Discussion Paper in Economics: 110; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. PG 60. PR No Charge. JE 211, 212. KW Unit Root. Random Walk. Asymptotic Normality.

AB Under fairly general conditions, ordinary least squares and linear instrumental variables estimators of parameters of a regression equation with a single nonstationary right hand side variable are asymptotically normal. Standard formulas may be used to calculate a consistent estimate of the asymptotic variance covariance matrix of the estimated parameter vector. So inference may proceed in the usual way. The key requirement is that the unconditional mean of the first difference of the nonstationary variable is nonzero. These results imply that in many cases often encountered in practice, linear estimators of parameters of regression equations with more than one nonstationary right hand side variable are also asymptotically normal, with standard formulas again appropriate for inference.

Wettstein, David

PD June 1986. TI Implementation Theory in Economies with Incomplete Information. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 26-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 46. PR No Charge. JE 025, 026, 022.

KW Implementation. Incomplete Information. Rational Expectations Equilibria. Signalling. Monotonicity.

AB This paper studies the problem of implementation in economies with incomplete information, in a continuous framework. We show that monotonicity is a necessary condition if the implementing game form satisfies certain properties. Next we show that if monotonicity, non-exclusivity of information and some further technical assumptions are satisfied, a continuous game form, implementing a given social choice correspondence, can be constructed. In the second part of the paper we define signalling structures and show that once you allow signalling to take place, basically the same theorems hold with monotonicity replaced by monotonicity in the wide sense. Then we use the above framework to investigate the problem of implementing constrained rational expectations equilibria. We construct a continuous mechanism implementing the Social Choice Correspondence induced by the constrained rational expectations equilibria.

Weymark, John A.

TI Social Choice in Economic Environments. AU Donaldson, David; Weymark, John A.

TI Axiomatizations of the Entropy Numbers Equivalent Index of Industrial Concentration. AU Chakravarty, Satya R.; Weymark, John A.

White, Christopher

PD August 1986. TI Scheduling the Factory of the Future. AU White, Christopher; Hastings, Nicholas A. J. AA Monash University. SR Monash Department of Econometrics and Operations Research Working Paper: 11/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 22. PR No Charge. JE 630, 621, 500. KW Production. Scheduling.

AB This paper presents scheduling techniques that have been successfully implemented in firms employing highly advanced production methods in the printing and glass-making industries. The techniques presented have been found to be computationally at least 13 times as fast as heuristic techniques such as "Shortest Processing Time", and to produce working schedules of comparable or better quality.

Wiesmeth, Hans

TI On Existence and Pareto-Optimality of Contract Equilibria in a Market with Indivisible Commodities. AU Weber, Shlomo; Wiesmeth, Hans.

Wilson, Nick

TI The Micro-Economic Effects of Profit-Sharing: The British Experience. AU Estrin, Saul; Wilson, Nick.

Wilson, Robert B.

TI Contributions to The New Palgrave. AU Kreps, David M.; Roberts, John; Wilson, Robert B.

Winter, R. A.

TI Is Exclusive Dealing Anti-Competitive?. AU Mathewson, G. F.; Winter, R. A.

Wolfe, R. A.

TI A Disaggregate Analysis of Multi-Vehicle Holdings, Usage, and Gasoline Demand. AU Berkowitz, M. K.; Gallini, N. T.; Miller, E. J.; Wolfe, R. A.

Wolken, John D.

TI Statistical Cost Accounting Models in Banking: A Reexamination and an Application. AU Rose, John T.; Wolken, John D.

Wolthuis, H.

PD March 1984. TI The Stochastic Model in Life Assurance Mathematics (Dutch). AU Wolthuis, H.; vanHoek, I. AA University of Amsterdam. SR University of Amsterdam Actuarial Science and Econometrics Report: 2/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. PG 75. PR No Charge. JE 213, 026. KW Life Assurance. Individual Risk Theory. AB The report gives a survey of the traditional field of individual risk theory in relation to the more recent stochastic approach to actuarial functions for single life assurances. The stochastic approach is generalized for the Markov chain model in life assurance.

Wooders, Myrna Holtz

PD March 1985. TI A Tiebout Theorem. AA Department of Economics, University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8504; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 31. PR No Charge. JE 021, 024, 022, 611. KW Tiebout. Local Public Goods. Equilibria. Optimality. AB Tiebout (1956) conjectured that when public goods are local rather than pure, competitive forces tend to make local governments provide the public goods in a near-optimal manner. He hypothesized that "the greater the number of communities and the greater the variety among them, the closer the consumer will come to fully realizing his preference position." In this paper, a model with potential "entry" of jurisdictions is considered. In equilibrium, no firm could enter, form a new jurisdiction, and charging possibly discriminatory admittance fees, earn a positive profit. A Tiebout-type entry equilibrium with lump-sum taxes is shown to exist for all sufficiently large economies. An equilibrium jurisdiction structure and the associated lump-sum taxes are constrained only by the property that entry is unprofitable. The equilibrium is of the type suggested by Tiebout in that equilibrium states of the economy are approximately optimal and, the larger the economy and the smaller the costs of forming a jurisdiction, the closer an equilibrium is to an optimum. To characterize the Tiebout equilibrium, we develop another highly specific equilibrium concept, called a competitive equilibrium. In this equilibrium, agents pay Lindahl prices for the local public goods, and receive payments (possibly negative) for their effects on the production and/or consumption possibilities of the other agents. The competitive equilibrium states of the economy are Pareto-optimal. It is shown that the Tiebout equilibrium states of the economy converge to the

competitive states as the economy grows large.

TI The Core of a Game with a Continuum of Players and Finite Coalitions: Nonemptiness with Bounded Sizes of Coalitions. AU Kaneko, Mamoru; Wooders, Myrna Holtz.

Xafa, Miranda

TI Export Credits: Developments and Prospects. AU Brau, Eduard; Dillon, K. Burke; Puckahtikom, Chanpen; Xafa, Miranda.

Yannelis, Nicholas C.

PD July 1986. TI Non-Cooperative Random Games. AA Department of Economics, University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 231; Department of Economics, 1035 Management and Economics, University of Minnesota Minneapolis, MN 55455. PG 21. PR No Charge. JE 026. KW Random Games. Random Equilibria. Random Fixed Points. Caratheodory Selections. AB We provide random equilibrium existence theorems for games with a countable number of players. Our results give as corollaries random versions of the ordinary equilibrium existence Theorems of Nash '10, Fan '5 and Browder '1.

PD July 1986. TI Fatou's Lemma in Infinite Dimensional Spaces. AA Department of Economics, University of Minnesota. SR University of Minnesota Center for Economic Research Discussion: 232; Department of Economics, 1035 Management and Economics, University of Minnesota Minneapolis, MN 55455. PG 15. PR No Charge. JE 213, 021, 022. KW Radon Nikodym Property. Diestel's Theorem on Weak Compactness. Fatou's Lemma. Lyapunov's Theorem. Integral of a Correspondence. Integration Preserves Upper-Semicontinuity. Measurable Selection. AB Employing recent results of M. Ali Khan we prove an infinite dimensional version of the Fatou Lemma, which includes as a special case the result of Khan-Majumdar '15.

Yellin, Joel

TI Pricing and the Distribution of Money Holdings in a Search Economy. AU Diamond, Peter; Yellin, Joel.

Yohe, Gary W.

PD July 1986. TI The Practical Advantages of Tax Over Regulatory Policies in Controlling Industrial Air Pollution. AU Yohe, Gary W.; MacAvoy, Paul W. AA Yohe: Department of Economics, Wesleyan University. MacAvoy: Graduate School of Management, University of Rochester. SR University of Rochester Center for Research in Government Policy and Business Working Paper: PPS 85-04; Graduate School of Management, University of Rochester, Rochester, NY 14627. PG 23. PR No Charge. JE 613, 722. KW Emissions Standard. Effluent Charge/Input Tax. Pollution Control Mechanism. Acid Rain. AB Three alternative pollution-control policies are evaluated - the current system of mandated equipment requirements, taxes on effluent discharges, and subsidy/tax systems on factory inputs and byproducts. The current

scheme is found to be Pareto Suboptimal, but also practical in the sense of having potentially lower regulatory costs of monitoring and enforcing this system. The second and third alternatives are Pareto optimal, and the third could be as practical as the current scheme. To assess practicality with emerging policy, estimates are made of costs of curtailing acid rain under each of the alternatives.

Young, John

TI Deficit Announcements and Interest Rates.
AU Wachtel, Paul; Young, John.

Younger, Arthur

TI New Technology and Unemployment: A Simulation of Macroeconomic Impacts and Responses in Canada.
AU Dungan, Peter; Younger, Arthur.

Zaidi, Iqbal M.

PD June 1986. TI Currency Depreciation and Nonclearing Markets in Developing Countries. AA International Monetary Fund. SR International Monetary Fund Departmental Memoranda/Staff Paper: (33)2/4; International Monetary Fund, Washington D.C. 20431. PG 28. PR No Charge. JE 431, 112. KW Exchange Rate Adjustment. Balance of Payments. Labor-Output Market Equilibrium. Developing Countries. AB This paper uses a disequilibrium model to analyze the effects of exchange rate policy in a developing economy. The disequilibrium model takes into account the effect that rationing of consumers or producers in particular markets has on their demands or supplies in other markets. The analysis highlights the macroeconomic adjustment process when there is wage rigidity. The contractionary effects that currency depreciation has on the supply side of an economy with imported intermediate goods and credit rationing are also considered.

Zellner, Arnold

PD March 1986. TI Further Results on Bayesian Minimum Expected Loss (MELO) Estimates and Posterior Distributions for Structural Coefficients. AA H.G.B. Alexander Research Foundation, Graduate School of Business, University of Chicago. SR University of Southern California Modelling Research Group Working Paper: M8609; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 20. PR No Charge. JE 211. KW Bayesian Structural Estimation. Bayesian Minimum Expected Loss Estimates. Extended Generalized Quadratic Loss Functions. K and Double K-Class Estimation. Simultaneous Equation Model. MELO.

AB After reviewing previous work on Bayesian minimum expected loss (MELO) estimation results for structural coefficients in simultaneous equation models, new Bayesian MELO estimates for an extended loss function that reflects goodness of fit and the extent to which restrictions are satisfied are derived. When a diffuse prior distribution is employed, the resulting MELO estimate is in the form of a "double K-class" estimate with given values of the K parameters. MELO estimates are also derived based on informative prior distributions and a Monte Carlo simulation approach for computing posterior distributions

is described.

PD March 1986. TI Bayesian Analysis in Econometrics. AA H.G.B. Alexander Research Foundation, Graduate School of Business, University of Chicago. SR University of Southern California Modelling-Research Group Working Paper: M8610; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 36. PR No Charge. JE 211. KW Bayesian Analysis. Statistical Foundations. Econometric Methodology. Philosophy of Science. Bayesian Applications.

AB Five basic propositions relating to econometric methodology are put forward and discussed. To sharpen the discussion, specific challenges associated with each proposition are presented. Then Bayesian solutions to nine central estimation and decision problems are described and briefly compared with some non-Bayesian solution.

PD March 1986. TI A Tale of Forecasting 1001 Series: The Bayesian Knight Strikes Again. AA H.G.B. Alexander Research Foundation, Graduate School of Business, University of Chicago. SR University of Southern California Modelling Research Group Working Paper: M8611; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 7. PR No Charge. JE 211, 132. KW Bayesian Forecasting. Loss Functions and Forecasting. Performance of Bayesian Forecasts.

AB In this paper it is pointed out that a Bayesian forecasting procedure performed better according to an average mean square error (MSE) criterion than the many other forecasting procedures utilized in the forecasting experiments reported in an extensive study by Makridakis et al. (1982). This fact was not mentioned or discussed by the authors. Also, it is emphasized that if criteria other than MSE are employed, Bayesian forecasts that are optimal relative to them should be employed. Specific examples are provided and analyzed to illustrate this point.

PD March 1986. TI Biased Predictors, Rationality and the Evaluation of Forecasts. AA H.G.B. Alexander Research Foundation, Graduate School of Business, University of Chicago. SR University of Southern California Modelling Research Group Working Paper: M8612; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 7. PR No Charge. JE 211, 132. KW Biased Predictors. Rational Forecasts. Forecast Error Analysis. Bayesian Forecasting.

AB Optimal, rational forecasts are often biased and thus the empirical finding that actual forecasts are biased is not necessarily evidence of irrational behavior. Using an asymmetric loss function and a regression forecasting problem, these points are explicitly demonstrated.

PD March 1986. TI Bayesian Estimation and Prediction Using Asymmetric Loss Functions. AA H.G.B. Alexander Research Foundation, Graduate School of Business, University of Chicago. SR University of Southern California Modelling Research Group Working Paper: M8613; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 20. PR No

Charge. JE 211, 132. KW Estimation. Prediction. Asymmetric Loss Functions. Bayesian Estimation and Prediction. Inadmissibility of Scalar Sample Mean. AB Estimators and predictors that are optimal relative to Varian's asymmetric LINEX loss function are derived for a number of well known models. Their risk functions and Bayes risks are derived and compared with those of usual estimators and predictors. It is shown that some usual estimators, e.g. a scalar sample mean or a scalar least squares regression coefficient estimator are inadmissible relative to asymmetric LINEX loss by providing alternative estimators that dominate them uniformly in terms of risk.

Zilberman, David

TI Heterogeneous Production and Input Regulation in Agriculture: A Conceptual Framework for Welfare Analysis. AU Lichtenberg, Erik; Zilberman, David.

TI On the Political Economy of Providing Public Good Inputs. AU deGorter, Harry; Zilberman, David.

Zilcha, Itzhak

TI Optimal Growth in a Stochastic Environment: Some Sensitivity and Turnpike Results. AU Majumdar, Mukul; Zilcha, Itzhak.