

**THE PHILLIPE MONASTER CENTER
FOR ECONOMIC RESEARCH**

ACTIVITY REPORT

2002/03

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I. MEMBERS OF THE MONASTER CENTER FOR ECONOMIC RESEARCH

Dr. Suleiman Abubader
Prof. Arie Arnon
Dr. Gila Benisti
Prof. Tuvia Blumenthal
Dr. Tomer Blumkin
Prof. Uri Benzion
Prof. Ezra Einy
Prof. Mark Gradstein
Dr. Yossi Hadar
Dr. Ori Haimanko
Mr. Gadi Hazak
Prof. Samuel Hollander
Prof. Oded Hochman
Prof. Moshe Justman
Dr. Yaakov Khazanov
Prof. Israel Luski, Chairman
Prof. Uri Regev
Dr. Bradley Ruffle
Dr. Aner Sela
Prof. Haim Shalit
Prof. Avia Spivak
Prof. Oscar Volij
Prof. Jimmy Weinblatt, Rector of the University
Prof. David Wettstein, Director of the Monaster Center for Economic Research

STEERING COMMITTEE:

Prof. Moshe Justman
Prof. David Wettstein
Dr. Aner Sela

II. SUMMARY OF ACTIVITIES

During 2002-2003 the Monaster Center continued its support of economic research through its sponsorship of seminars, visits from abroad, conferences, and direct grants to specific projects. David Wettstein replaced Moshe Justman as Director of the Center for the period 2002-2003, and just recently Aner Sela has assumed responsibility.

This year the Department made two senior appointments. One is Oscar Volij who comes to us from Iowa State University. Prof. Volij is an economic theorist. His specialties include the foundations of bargaining solutions, measurement of intellectual influence and auctions. Our second new member is Yossi Hadar who just received his Ph.D. degree from Tel Aviv University. Dr. Hadar's research focuses on urban economics and labor economics.

Several members of the Monaster Center take an active part in addressing important economic and social issues related to Israeli society. Uri Benzion carries out research and consulting on finance and options and futures, specifically their application to the medical and industrial sectors and to banking. Avia Spivak continues to serve as Deputy Governor of the Bank of Israel. Arie Arnon continues his work on issues related to the Palestinian economy in the West Bank and Gaza. He is head of the Israeli group participating in the research workshop "The Potential for Economic Cooperation in the Middle East: the Israeli-Palestinian Perspective" as well as co-chair of "Commitment to Peace and Social Justice" - NGO, which deals mainly with problems related to unemployment. Uri Regev serves on the advisory committee of the Central Bureau of Statistics and the Minister of the Environment's steering committee for determining environmental regulations. Moshe Justman is a member of the steering committee on scientific and technological infrastructure at the Ministry of Science, Culture and Sport. He is also on the Executive Committee of the International Joseph A. Schumpeter Society, and Deputy Editor of Economic Quarterly. Jimmy Weinblatt continues to serve as Rector of the University

Major focal points of this year's research in the Center are summarized in the following. Suleiman Abubader and Aamer Abu-Qarn carry on their research on military expenditures and causality in the Middle East as well as growth-related issues. Tomer Blumkin works on framing effects and taxation issues. Ezra Einy, Aner Sela and Ori Haimanko continue their work on information in auctions. Prof. Einy also investigates the effects of differential information in Cournot models; Dr. Sela, the design of optimal auctions; and Dr. Haimanko the provision of public goods in a society comprised of distinct communities. Israel Luski and David Wettstein study competition for multinational and innovation races. Prof. Wettstein focuses on non-cooperative foundations for cooperative solution concepts. Oded Hochman continues to probe into theoretical aspects of urban economics. Uri Regev researches environmental issues. Samuel Hollander continues to work on the history of economic thought, particularly the writings of the British and French classical economists and Karl Marx. Mark Gradstein and Moshe Justman analyze the political economy of education. Haim Shalit continues his research on financial markets. Bradley Ruffle

works on cooperation in different societies and continues with his projects in experimental economics.

As every year, we acknowledge the invaluable support of Ronen Massad who is in charge of computer-related consultation and services. This year Anatoly Fleitman joined the his staff. Finally, this report would not be complete without giving special thanks to the Monaster Center's administrative coordinator, Ms. Ella Ginzburg, and the department's English secretary, Ms. Estelle Schulgasser, for their dedication to the Center and their efforts in producing this report.

Professor David Wettstein, Director
Monaster Center for Economic Research

III. ACTIVITIES IN DETAIL

1) Special Lectures organized under the auspices of the Center and the Department of Economics

The Second Annual Memorial Lecture Series in Memory of Dr. Adam Klug was held on June 10, 2002. The key lecture "The Vicissitudes of Free Trade" was delivered by Prof. Douglas A. Irwin from Dartmouth College and was followed by a talk by Professor Warren Young of Bar-Ilan University entitled "Adam Klug on Economic Models and Economic Methodology." The Third Memorial Lecture in Adam's name was held on May 19, 2003. Prof. Elchanan Helpman from Tel-Aviv University delivered the key lecture, entitled "Growth and Interdependence." Prof. Joan Flanders' closed the day with some remembrances of Adam.

2003 inaugurated another memorial lecture series, this one in remembrance of our cherished colleague Professor Ehud Zuscovitch who passed away in September 2000. Professor Morris Teubal from Hebrew University spoke on "Venture Capital Policy: Israel and Other Countries" and then Eliezer Menor from Global Catalyst Partners gave a talk on "Development of Hi-Tech and Venture Capital in Israel: The Global Dimension of Venture Capital Investment." To conclude, Professor Jimmy Weinblatt, Rector of the University and member of the department, spoke a few words in Ehud's memory.

2) Guests of the Center and the Department of Economics

Support from the Center allows us to invite economists from abroad. This year we hosted the following guest lecturers:

11/03	Rusty Tchernis, Harvard Medical School
12/03	Ronny Manos, Loughborough University
12/03	Dafna M. DiSegni Eshel, University of California
01/03	Moshe Hazan, MIT
01/03	Evgeny Lyandres, W.E. Simon, Graduate School of Business, Rochester
02/03	Ofer Azar, Northwestern University
03/03	Eli Berman, Rice University
05/03	Oscar Volij, Iowa State University
06/03	Alan S. Manne, Stanford University
07/03	Pradeep Dubey, State University of New York at Stony Brook

3) Seminar Lectures Presented by Department Members and Guests from Israel and Abroad

24.10.02	Tal Shavit, Ben-Gurion University "Trading in Lotteries by Auctions - An Experimental Study"
16.11.02	Yaakov Gilboa, Ben-Gurion University "Kibbutz Education - Implications for Cultivation of Underprivileged Children"

- 21.11.02 Aamer S. Abu-Qarn, Ben-Gurion University
“A Versus K Revisited, Evidence from Selected MENA Countries”
- 28.11.02 Rusty Tchernis, Harvard Medical School
“Job Mobility and Wages: A Predictive Distributions Approach”
- 19.12.02 Ronny Manos, Loughborough University
“The Impact of Microstructure Innovations in Emerging Stock Markets: Evidence from Mumbai, India”
- 26.12.02 Dafna M. DiSegni Eshel, University of California
“Community Involvement in Tradable Permit Systems”
- 02.01.03 Moshe Hazan, MIT
“Labor Market Experience and the Gender Gap”
- 09.01.03 Arad Nir, Tel-Aviv University
“A Behavioral Model of Consumption Pattern: The Effect of Cognitive Dissonance”
- 16.01.03 Evgeny Lyandres, W.E. Simon, Graduate School of Business, Rochester
“Strategic Cost of Conglomeration - Theory and Evidence; Job Market Paper”
- 27.02.03 Ofer Azar, Northwestern University
“The Slowdown in Turnaround Times of Academic Journals: Can it be Beneficial”
- 06.03.03 Robert M. Sauer, Hebrew University
“Doctors Without Borders: The Returns to an Occupational License for Soviet Immigrant Physicians in Israel”
- 11.03.03 Eli Berman, Rice University
“ Hamas, Taliban and the Jewish Underground: An Economist’s View of Radical Religious Militias”
- 13.03.03 Isaac Barzuza
“On the Integration of Marketing Tools into an Economic Model of the Industry”
- 20.03.03 Doron Lavee, Ben-Gurion University
“Waste Recycling: Can Monopolization Yield a Pareto Improvement”
- 10.04.03 David Balan, Bureau of Economics Federal Trade Commission
“On Morals and Economic Performance”

- 24.04.03 Daniel Levy, Bar-Ilan University
“The Real Thing: Nominal Price Rigidity of the Nickel Coke, 1886-1959”
- 01.05.03 Leif Danziger, Bar-Ilan University
“Real Uncertainty and Delays in Renewal of Labor Contracts”
- 08.05.03 Yishay D. Maoz, University of Haifa
“More on the ‘Bad News Principle’”
- 15.05.03 Oscar Volij, Iowa State University
“The Measurement of Intellectual Influence”
- 22.05.03 Arthur Fishman, Bar-Ilan University
“Rational Overconfidence: Shakeout with First Mover Advantage”
- 29.05.03 Yacov Tsur, Hebrew University
“Scarcity, Growth and R&D”
- 17.06.03 Alan S. Manne, Stanford University
“Energy, the Environment and the Economy: Hedging our Bets”
- 08.07.03 Pradeep Dubey, State University of New York at Stony Brook
“Perfect Competition in a Bilateral Monopoly”

4) Research Contracts and Fellowships

In 2003 David Wettstein was awarded a two-year grant from The Israel Science Foundation (ISF) for a research project entitled “An Ordinal Shapley Value for Economic Environments.”

Arie Arnon and Avia Spivak received a grant from the Israeli Research Foundation in Education for their project entitled: “Income Resources of the Old.” Prof. Arnon also continues his work on a research project focusing on the Israeli labor market.

Uri Benzion received a grant from the Technion Institute of Management (TIM) to do work on a case study of Elscint Ltd. entitled “The Value of the Parts is Greater than the Value of the Whole” (with G. Harel). He was also awarded a Joseph Kasierer Grant to study the topic “An evaluation of R&D expenditure by firms: A methodological approach” (with H. Falk and D. Weiss).

Ezra Einy and Aner Sela (together with Binyamin. Shitovitz from the Technion, Haifa) continue their work on a two-year research grant (\$40,000) from The Israel Science Foundation (Israel Academy of Sciences and Humanities) for their study “Information Advantage in Economic Models with Asymmetric Information.”

Uri Regev (together with G. Regev-Yochay, R. Dagan, M. Raz, and E. Rubinstein) is the recipient of a three-year research grant (NIS 750,000) from the Israel National Institute for Health Policy and Health Services Research (NIHP). The project is entitled “Can a change in physicians’ practices of antibiotic prescription decrease carriage of resistant pneumococci in the community?”

Bradley Ruffle holds the following grants: 1) a grant extending from 2003-2005 from the Israel Science Foundation, entitled “The Origins of Cooperation and Social Conventions” (with T. Kaplan); 2) a grant extending from the years 2003-2004 from the Economic and Social Research Council entitled “The Origins of Cooperation and Social Conventions” (with T. Kaplan); 3) a grant extending from 2002-2003 from the Nuffield Foundation, Social Sciences Small Grants Scheme entitled “Buyer Power and Implications for Retail Consolidation: An Experimental Investigation” (with H. Normann and C. Snyder); and 4) a grant for the period 2000-2003 from the Binational Science Foundation (BSF), “The Impact of Religiosity and Privatization on Intra-Group Trust” (with R. Sosis).

5) Cooperation with Other Institutions in Israel and Abroad

Many of the members of the Center collaborate on a regular basis with investigators from various research centers and academic institutions in Israel and abroad.

From 1993-present, Arie Arnon serves on the Editorial Board of The European Journal of the History of Economic Thought. For the period 2002-2003, he is serving as Head of the Israeli group in a research workshop on “The Potential for Economic Cooperation in the Middle East: the Israeli-Palestinian Perspective.” Prof. Arnon is also co-chair of “Commitment to Peace and Social Justice” - NGO, an organization which deals mainly with employment problems.

Uri Benzion is head of the committee to evaluate the Industrial Engineering Program of the Open University.

Since 2003, Ezra Einy serves as a member of the committee for evaluation of Bikura proposals.

Ori Haimanko is engaged in a research project with S. Weber (Southern Methodist University, Dallas, Texas), and M. Le Breton (Universite de la Mediteranee, Marseille, France) on the subject of efficiency and stability of coalition structures. Other joint projects include a research study of labor contests and learning in games with P. Dubey from SUNY at Stony Brook, NY, an institution which Dr. Haimanko visits regularly, and work on congested markets with R. Steinberg from Cambridge University.

Moshe Justman serves on the following committees: Investments Committee, First International Bank Investment Fund; the National Steering Committee on Scientific and Technological Infrastructure, Ministry of Science, Culture and Sport; and

Executive Committee, International Joseph A. Schumpeter Society. He is also Deputy Editor of the Economic Quarterly

Israel Luski is the Coordinator of Economics Studies at the Air Force Academy.

Uri Regev continues his collaboration with A.P. Gurierez and D. Zilberman at the University of California at Berkeley on biological economic foundations of renewable resource exploitation and problems of pest resistance to pesticides. He also continues to cooperate with Kupat Holim, Israel's major health care agency, on a project that deals with bacteria resistance to antibiotics. In addition, he is a consultant on coal pricing for the State of Israel Public Authority for Electricity Regulation.

Bradley Ruffle collaborates on experimental projects with J. Engle-Warnick (Oxford University) on inferring buyer strategies to determine the impact of buyer concentration on pricing; with H.-T. Normann (Royal Holloway University) and C. Snyder (George Washington University) on buyer market power and the implications for retailer consolidation; with A. Weiss (Bar-Ilan University) on coordination in markets with network externalities in which a critical mass of consumers is needed, with R. Sosis (University of Connecticut, Anthropology) on the impact of religious observance on intra-group cooperation; with O. Tykocinski (Ben-Gurion University, Behavioral Sciences) on rational reasons for delaying making a decision and with T. Kaplan (University of Exeter) on the origins of cooperation.

Avia Spivak continues to serve as deputy governor of the Bank of Israel

IV. PARTICIPATION OF MEMBERS OF THE CENTER IN CONFERENCES AND PAPERS PRESENTED

Suleiman Abubader

“Financial Deepening and Economic Growth: Time Series Evidence from Egypt” Eastern Economic Association 29th Annual Conference, N.Y.C., N.Y., February 2003.
 “A Versus K Revisited: Evidence from Selected MENA Countries” EEA – Eastern Economic Association 29th Annual Conference, N.Y.C., N.Y., February 2003 (with A. Abu Qarn).

EEA – European Economic Association 18th Annual Congress, Stockholm, Sweden, August 2003.

Arie Arnon

“On the Shortcomings of the Invisible and Visible Hands Under the Current Recession” - An invited presentation for the Israeli Economic Association: A Panel On Economic Policy, Maale Hahamisha, Israel, May 2002.

“The Links between the Israeli and Palestinian Economies,” Conference, Pavia, Italy, June 2002

“The Potential for Economic Cooperation in the Middle East: the Israeli-Palestinian Perspective” - Workshop, Aix En Provence Group, Aix En Provence, France, July 2002.

“The Future Trade Regime between the Israeli and Palestinian Economies,” Workshop - Aix En Provence Group, Paris, France, October 2002.

“‘Out of the Mud’ – Long Term: Trade” and “‘Out of the Mud’ – Short Term,” Istanbul, France, April 2003.

“‘Out of the Mud’ – An Economic Road Map” Workshop - Aix En Provence Group, Paris, France, June 2003

“Compensation and the Absorption of Returnees in a Viable Palestinian State” (with N. Kanafani) and “Incomplete Contracts, the Port of Gaza and the Case for Economic Sovereignty”(with A. Spivak and O. Sussman), Conference on Economic Policy and Institutional Reform for a Viable Palestinian State, St. Andrews, Scotland, August 2003

Uri Benzion

“A Behavioral Study of Risk Aversion” (with Joseph Yagil), American Risk and Insurance Association, Montreal, Canada, August 2002.

“Model of Coupon Rationale” (with U. Spiegel and A. Hibshoosh), INFORMS Annual Meeting, San Jose, November 17-20, 2002

“A Model of Option on Pension Insurance” (with R. Yosef), 9th Symposium on Money and Banking, University of Karlsruhe, Germany, December 11-15, 2002.

“Portfolio Selection and Risk Aversion: A Behavioral Approach” (with Joseph Yagil), Midwest Finance Association, St. Louis, Missouri, March 2003.

“An Experimental Study of Subjective Discount Rates” (with Joseph Yagil), Eastern Finance Association, Lake Buena Vista, FL, April 2003.

Tomer Blumkin

Paper presentation at the conference of the Association of Public Economic Theory, Duke University, June 2003.

Ezra Einy

International Conference on Game Theory and Economic Theory, SUNY at Stony Brook, July 2002.

Fifth Spanish Meeting on Game Theory, Seville, July 2002.

International Conference on Game Theory and its Applications, Mumbai, India, January 2003.

International Conference on Game Theory and Economic Theory, SUNY at Stony Brook, July 2003.

Mark Gradstein

Annual Meetings of the Israeli Economic Association, 2002.

CESifo Second Public Economics Conference, Munich, 2002.

CESifo-ISPS Conference on Labor Markets Regulations, Cadenabbia, Italy, 2002.

CESifo Third Public Economics Conference, Munich, 2003.

CEPR Conference on Education and Inequality, Paris, 2003.

Conference on Horizontal Inequality, the World Bank, 2003.

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Ori Haimanko

Indian Statistical Institute, New Delhi, September 2002, Invited Lecture.

International Conference on Game Theory and Economic Theory, July 2002, July 2003.

Samuel Hollander

“Economic Organization, Distribution and the Equality Issue: the Marx-Engels Perspective” (Carleton Economic Papers, Ottawa Canada, 02-05, February 2002). Paper read at History of Economics Society section, A.E.A. annual meetings, Atlanta, USA, 4 January 2002.

Moshe Justman

“Public Education and the Melting Pot” (with M. Gradstein), Colloquium in Honor of E. Hochman. Rehovoth, Israel, 2002.

Organizing Committee, Colloquium in Memory of E. Zuscovitch. Strasbourg, France, 2002.

Israel Luski

“Government Grants to Non-Profit Organizations: An Econometric Analysis” presented at the annual meeting of the ICTR, The Dead Sea, April 2002.

“Innovative Activity and Sunk Cost” (with T. Kaplan and D. Wettstein), presented at the 11th Annual WZB Conference on Industrial Organization, Berlin, October 2002.

“Government Grants to Non-Profit Organizations: An Econometric Analysis,” presented at the Annual Arnova Conference in Montreal, November 2002.

Bradley Ruffle

“Cooperation and the In-Group-Out-Group Bias: A Field Test on Israeli Kibbutz Members and City Residents,” American Economic Association Meetings, Atlanta, GA, U.S.A., January 2002.

“99: Are Retailers Best Responding to Rational Consumers? Experimental Evidence,” Economic Science Association, Strasbourg, France, September 2002.

“Does Religious Ritual Promote Cooperation? Field Experiments on Israeli Religious and Secular Kibbutzim,” Economic Science Association, Boston, MA, U.S.A., June 2002; Economic Science Association, Strasbourg, France, September 2002.

Haim Shalit

“Derivation of the Mean-Gini Efficient Frontier,” presented at European Working Group on Financial Modelling, Agia Napa, Cyprus, November 2002; International French Finance Association Meetings, Lyon, June 2003; European Financial Management Association, Helsinki, Finland, June 2003.

David Wettstein

“Bidding for the Surplus: Realizing Efficient Outcomes in General Economic Environments” (with D. P. Castrillo and S. Mutuswami), 57th European Meeting of the Econometric Society, Venice, Italy, 2002 and Workshop on the (Shapley) Value at 50, Stony Brook, 2003.

“An Ordinal Shapley Value for Economic Environments” (with D.P. Castrillo), The Taj Conference on Game Theory and its Applications, Mumbai, India, 2003 and 14th International Conference on Game Theory at Stony Brook, 2003.

V. PUBLICATIONS, 2002-2003 (names of Center members appear in capital letters)

ABUBADER, S. (2002) "Institutional Changes and Breakpoints in Israeli Trade," *Applied Economics*, 34, pp.1893-1901.

ABUBADER, S. and ABU QARN, A. "Government Expenditures, Military Spending and Economic Growth: Causality Evidence from Egypt, Israel and Syria," forthcoming in *Journal of Policy Modelling*.

ARNON, A. and Young, W. (eds.) (2002) *The Open Economy Macromodel: Past, Present and Future*, Kluwer Academic Publishing.

ARNON, A. "Thomas Tooke," entry in the *New Dictionary of National Biography*, H.C.G. Matthew (Ed.), Oxford: Oxford University Press.

ARNON, A. (2002) "The Implications of Economic Borders between Israel and Palestine," *Israel Palestine Journal*, 9(3), pp. 32-39.

ARNON, A. and Kanafani, N. "Compensation and the Absorption of Returnees in a Viable Palestinian State" in D. Cobham and N. Kanafani (eds.) *Economic Policy and Institutional Reform for a Viable Palestinian State*, Routledge. (forthcoming)

ARNON, A., SPIVAK, A. and Sussman, O. "Incomplete Contracts, the Port of Gaza and the Case for Economic Sovereignty" in D. Cobham and N. Kanafani (eds.) *Economic Policy and Institutional Reform for a Viable Palestinian State*, Routledge. (forthcoming)

BENZION, U. and Yagil, J. (2002) "Decisions in Financial Economics: An Experimental Study of Discount Rates," *Advances in Financial Economics*, 7, JAI, Elsevier Science, Oxford, UK, pp. 19-40.

BENZION, U., Sonsino, D. and Mador, G. (2002) "The Complexity Effects on Choice with Uncertainty – Experimental Evidence," *The Economic Journal*, 112(482) pp. 936-965.

BENZION, U., Shavit, T. and Sonsino, D. (2002) "On the Evaluation of Lotteries and Options – An Experimental Study," *Journal of Psychology and Financial Markets* 3(3), 168-182.

BENZION, U., Klein, P., Shachmurove, Y. and Yagil, J. (2003) "Efficiency Differences Between the S&P 500 and the Tel-Aviv 25 Indices: A Moving Average Comparison," *International Journal of Business*, 8(3), pp. 267-284, 2003.

BENZION, U. and Yagil, Y. "Portfolio Composition Choice: A Behavioral Approach," *Journal of Behavioral Finance*. (forthcoming)

- BENZION, U., Shachmurove, Y., and Yagil, J. "Subjective Discount Functions – An Experimental Approach," *Applied Financial Economics*. (forthcoming)
- BLUMKIN, T. and E. Sadka, E., "Estate Taxation." (forthcoming in the *Journal of Public Economics*)
- EINY, E., HAIMANKO, O., Orzach, R. and SELA, A. (2002) "Dominant Strategies, Superior Information and Winner's Curse in Second-Price Auctions," *International Journal of Game Theory*, 30, pp. 405-419.
- EINY, E., HAIMANKO, O., Orzach, R. and SELA, A. (2002) "Dominance Solvability of Second Price Auctions with Differential Information," *Journal of Mathematical Economics*, 37, pp. 247-258.
- EINY, E., Moreno, D. and Shitovitz B. (2002) "Information Advantage in Cournot Oligopoly," *Journal of Economic Theory*, 106, pp. 151-160.
- EINY, E. and Shitovitz, B. (2003) "Symmetric von Neumann-Morgenstern Stable Sets in Pure Exchange Economies," *Games and Economic Behavior*, 43, pp. 28-43.
- EINY, E., Moreno, D. and Shitovitz, B. (2003) "The Value of Public Information in a Cournot Duopoly," *Games and Economic Behavior*, 44, pp. 272-285.
- GRADSTEIN, M. and JUSTMAN, M. (2002) "Education, Social Cohesion, and Economic Growth," *American Economic Review*, 92, pp. 1192-1204.
- GRADSTEIN, M. (2002) "Rules, Stability, and Growth," *Journal of Development Economics*, 67, pp. 471-484.
- GRADSTEIN, M., Glazer, A. and Rajan, P. (2003) "Consumption Variety and Urban Agglomeration" (forthcoming in *Regional Science and Urban Economics*).
- EINY, E., HAIMANKO, O., Orzach, R., and SELA, A. (2002) "Dominant Strategies, Superior Information and Winner's Curse in Second-Price Auctions," *International Journal of Game Theory*, 30(3), pp. 405-419.
- Dubey, P. and HAIMANKO, O. (2002) "Optimal Scrutiny in Multi-Period Promotion Tournaments," *Games and Economic Behavior*, 42(1), pp. 1-24.
- EINY, E., HAIMANKO, O., Orzach, R. and SELA, A. (2002) "Dominance Solvability of Second-Price Auctions with Differentiable Information," *Journal of Mathematical Economics*, 37(3), pp. 247-258.
- HAIMANKO, O. "Marginal Cost Price Rule for Homogeneous Cost Functions," *International Journal of Game Theory*, 31(1), pp. 19-28, 2002.

HAIMANKO, O., Le Breton, M. and Weber, S. "Voluntary Formation of Communities for Provision of Public Projects." (forthcoming in *Journal of Economic Theory*)

Dubey, P. and HAIMANKO, O. "Learning with Perfect Information." (forthcoming in *Games and Economic Behavior*)

HAIMANKO, O., Le Breton, M., and Weber, S. "Transfers in Polarized Society: Bridging the Gap Between Efficiency and Stability." (forthcoming in *Journal of Public Economics*).

HOLLANDER, S. (2002) "Malthus and Classical Economic Thought: The Relation between Malthus and Ricardo" (Hebrew), *The Economic Quarterly*, 49(1), pp. 189-207.

HOLLANDER, S. (2003) "Engels-Marx versus Malthus on Distribution and the Population Issue." In *Faith, Reason and Economics: Essays in Honour of Anthony Waterman*. Ed. Derek Hum. Winnipeg: St. John's College Press, pp. 135-152. Hebrew translation in *The Economic Quarterly*, 50(2), pp. 363-378.

HOLLANDER, S. "Ricardo's Analysis of the Profit Rate, 1813-15," *Economica*, 40, August 1973; reprinted in *Intellectual Legacies in Modern Economics: The Legacy of Piero Sraffa*. Ed. H.D. Kurz and N. Salvadori. Cheltenham: Edward Elgar, 1, pp. 577-599, 2003. (forthcoming)

HOLLANDER S. *Jean-Baptiste Say and the Classical Canon in Economics: The British Connection in French Classicism*. London: Routledge. (forthcoming)

HOLLANDER, S. "Economic Organization, Distribution and the Equality Issue: The Marx-Engels Perspective," *Review of Austrian Economics*. (forthcoming)

HOLLANDER, S. "Engels-Marx Versus Malthus on Distribution and the Population Issue," in *Faith, Reason and Economics: Essays in Honour of Anthony Waterman*, ed. D. Hum, Winnipeg: St. John's College Press (to appear). Also in *Rivon LeCalcala*.

GRADSTEIN, M. and JUSTMAN, M. (2002) "Education, Social Cohesion and Growth," *American Economic Review*, 92 (September), pp. 1192-1204.

JUSTMAN, M., Thisse, J.F. and Van Ypersele, T. (2002) "Taking the Bite out of Fiscal Competition," *Journal of Urban Economics*, 52 (September), pp. 294-315.

JUSTMAN, M. and ZUSCOVITCH, E. (2002) "The Economic Impact of Subsidized Industrial R&D in Israel," *R&D Management*, 32, pp. 191-199.

Cohen-Zada, D. and JUSTMAN, M. (2003) "The Political Economy of School Choice: Linking Theory and Evidence," *Journal of Urban Economics*, 54(2), pp. 277-308.

JUSTMAN, M. "Transitional Dynamics of Output, Wages and Profits in Innovation-Led Growth. Structural Change and Economic Dynamics." (forthcoming)

GRADSTEIN, M., JUSTMAN, M. and Meier, V. *Education: A Political Economy Perspective*. MIT Press. (forthcoming)

Kaplan, T., LUSKI, I., SELA, A. and WETTSTEIN, D., (2002) "All-Pay Auctions with Variable Rewards," *Journal of Industrial Economics*, Vol. L, pp. 417-430.

Kaplan, T., LUSKI, I. and WETTSTEIN, D. (2003) "Innovative Activity and Sunk Cost," *International Journal of Industrial Organization*, 21, pp. 1111-1133.

Kaplan, T., LUSKI, I. and WETTSTEIN, D. (2003) "Government Policy Towards Multi-national Corporations," *Economics Bulletin*, 6, pp. 1-8.

Tykocinski, O.E. and RUFFLE, B.J. (2003) "Reasonable Reasons for Waiting," *Journal of Behavioral Decision Making*, 16, pp. 1-11.

RUFFLE, B. J. (2003) "Competitive Equilibrium and Classroom Pit Markets," *Journal of Economic Education*, 34:2, pp. 123-137.

Sosis, R. and RUFFLE, B.J. (2003) "Religious Ritual and Cooperation: Testing for a Relationship on Israeli Religious and Secular Kibbutzim," *Current Anthropology*, 44:5, pp. 713-722.

Kaplan, T.R. and RUFFLE, B.J. "The Self-Serving Bias and Beliefs about Rationality." (forthcoming in *Economic Inquiry*)

Fibich, G., Gavious, A. and SELA, A. (2002) "Low and High Types in Asymmetric First-Price Auctions," *Economics Letters*, 75(2), pp. 283-287.

EINY, E., HAIMANKO, O., Orzach, R. and SELA, A. (2002) "Dominance Solvability of Second Price Auctions with Differential Information," *Journal of Mathematical Economics*, 37, pp. 247-258.

Moldovanu, B. and SELA, A. (2003) "Patent Licensing to Bertrand Competitors," *International Journal of Industrial Organization*, 21(3), pp. 1-13, 2003.

Gavious, A., Moldovanu, B. and SELA, A. (2003) "Bid Costs and Endogenous Bid Caps." *RAND Journal of Economics*, 33(4), pp. 709-722, 2003.

Fibich, G., Gavious, A. and SELA, A. "Revenue Equivalence in Asymmetric Auctions." (forthcoming in the *Journal of Economic Theory*)

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**VI. WORKING PAPER SERIES 01/02/03 AND
ABSTRACTS OF RECENT WORKING PAPERS
(issued from the Monaster Center for Economic Research)**

Discussion Paper Series 2001

- 01.01 A. Gaviious, B. Moldovanu and A. Sela, “Bid Costs and Endogenous Bid Caps.”
- 01.02 B. Ruffle and T. Kaplan, “Here’s Something You Never Asked For, Didn’t Know Existed, and Can’t Easily Obtain: A Search Model of Gift Giving.”
- 01.03 A. Gaviious and A. Sela, “Auctions with Reservation Prices.”
- 01.04 M. Justman, J-F Thisse and T. van Ypersele, “Fiscal Competition and Regional Differentiation.”
- 01.05 E. Tykocinski and B.J. Ruffle, “Instrumental Waiting.”
- 01.06 M. Justman and E. Zuscovitch, “The Economic Impact of Subsidized Industrial R&D in Israel.”
- 01.07 M. Gradstein, “Rules, Stability, and Growth.”
- 01.08 E. Einy, O. Haimanko, R. Orzach and A. Sela, “Dominant Strategies, Superior Information, and Winner’s Curse in Second-Price Auctions.”
- 01.09 O. Palmon and A. Spivak, “Adverse Selection and the Market for Annuities.”
- 01.10 B. J. Ruffle, “Competitive Equilibrium and Classroom Pit Markets for the Early 21st Century.”
- 01.11 S. Abubader, “Institutional Changes and Breakpoints in Israeli Trade.”
- 01.12 A.S. Abu-Qarn and S. Abubader, “Export-led Growth: Empirical Evidence from the MENA Region.”
- 01.13 T. Homma, Y. Tsutsui and U. Benzion, “Exchange Rate and Stock Prices in Japan.”
- 01.14 G. Fibich, A. Gaviious and A. Sela, “Revenue Equivalence in Asymmetric Auctions.”
- 01.15 R. Sosis and B. Ruffle, “Religious Ritual and Cooperation: Testing for a Relationship on Israeli Religious Kibbutzim.”

- 01.16 O. Haimanko, M. Le Breton and S. Weber, "Transfers in a Polarized Country: Bridging the Gap Between Efficiency and Stability."
- 01.17 U. Benzion, P. Klein, Y. Shachmurove and J. Yagil, "Efficiency Differences Between the S&P 500 and the Tel-Aviv 25 Indices: A Moving Average Comparison."
- 01.18 B.J. Ruffle, "Tax and Subsidy Incidence Equivalence Theories: Experimental Evidence from Competitive Markets."
- 01.19 E. Einy, D. Moreno and B. Shitovitz, "On the Value of Public Information in a Cournot Duopoly."
- 01.20 D. Pérez-Castrillo and D. Wettstein, "Choosing Wisely: A Multi-Bidding Approach."
- 01.21 M. Justman, J-F Thisse and T. van Ypersele, "Taking the Bite out of Fiscal Competition."
- 01.22 M. Justman and E. Zuscovitch*, "Economic Impact of Subsidized Industrial R&D in Israel."
- 01.23 D. Cohen-Zada and M. Justman, "Religious Education and School Vouchers."

Discussion Paper Series 2002

- 02-01 M. Gradstein and M. Justman, "Public Education and the Melting Pot."
- 02-02 J. Engle-Warnick and B.J. Ruffle, "The Strategies Behind their Actions: A New Method to Infer Repeated-Game Strategies and an Application to Buyer Behavior."
- 02-03 Y. Gilboa and M. Justman, "University Admissions Criteria: Implications for Output, Distribution and Mobility."
- 02-04 D. Cohen-Zada, "Preserving Religious Values Through Education: Economic Analysis and Evidence from the US."
- 02-05 B. Moldovanu and A. Sela, "Contest Architecture."
- 02-06 O. Haimanko, M. Le Breton and S. Weber, "On Efficiency and Sustainability in a Collective Decision Problem with Heterogeneous Agents."
- 02-07 P. Dubey, O. Haimanko and A. Zapechelnyuk, "Strategic Substitutes and Potential Games."

- 02-08 A. Glazer and M. Gradstein, "Elections with Contribution-Maximizing Candidates."
- 02-09 J. Engle-Warnick and B.J. Ruffle, "Buyer Countervailing Power versus Monopoly Power: Evidence from Experimental Posted-Offer Markets."
- 02-10 O. Hochman, "Agglomeration of Spatial Clubs."
- 02-11 B.J. Ruffle and R.H. Sosis, "Just How Cooperative are Kibbutz Members? Field Experiments on Israeli Kibbutzim and in Israeli Cities."
- 02-12 P. Dubey, O. Haimanko and A. Zapechelnyuk, "Strategic Substitutes and Potential Games." (revised version of DP 02-07)
- 02-13 M. Gradstein, "Bargaining with Secession: Buchanan Meets Coase."
- 02-14 M. Gradstein, "Governance and Growth."
- 02-15 G. Fibich, A. Gaviious and A. Sela, "All-Pay Auctions with Risk-Averse Buyers."
- 02-16 B.J. Ruffle and Z. Shtudiner, "A Rational Explanation for Price Endings in 99: Experimental Evidence."
- 02-17 H. Shalit and S. Yitzhaki, "Derivation of the Mean-Gini Efficient Portfolio Frontier."

Discussion Paper Series 2003

- 03-01 S. Abubader and A.S. Abu-Qarn, "Government Expenditures, Military Spending and Economic Growth: Evidence from Egypt, Israel and Syria."
- 03-02 E. Einy, O. Haimanko, D. Moreno and B. Shitovitz, "On the Continuity of Equilibrium and Core Correspondences in Economies with Differential Information."
- 03-03 U. Benzion, Y. Shachmurove and J. Yagil, "Subjective Discount Functions – An Experimental Approach."
- 03-04 U. Benzion and J. Yagil, "Decisions in Financial Economics: An Experimental Study of Discount Rates."
- 03-05 U. Benzion and J. Yagil, "Portfolio Composition Choice: A Behavioral Approach."
- 03-06 Y. Saadon, U. Benzion and Z. Shiffer, "Central Bank Interest Rate Policy and Asymmetric Preference." (in Hebrew)

- 03-07 H.-T. Normann, B.J. Ruffle and C.M. Snyder, “Do Buyer-Size Discounts Depend on the Curvature of the Surplus Function? Experimental Tests of Bargaining Models.”
- 03-08 A. Preminger, U. Benzion and D. Wettstein, “Extended Switching Regression Models: Allowing for Multiple Latent State Variables.”
- 03-09 G. Fibich, A. Gaviious and A. Sela, “Auctions with Weakly Asymmetric Interdependent Values.”
- 03-10 P. Dubey, E. Einy and O. Haimanko, “Compound Voting and the Banzhaf Power Index.”
- 03-11 B.J. Ruffle and R.H. Sosis, “Does It Pay To Pray? Field Experiments Evaluating the Economic Return to Religious Ritual.”
- 03-12 C. Groh, B. Moldovanu, A. Sela and U. Sunde, “Optimal Seedings in Elimination Tournaments.”
- 03-13 A. Preminger, U. Ben-Zion and D. Wettstein, “Extended Switching Regression Models with Time Varying Probabilities for Combining Forecasts.”
- 03-14 A. Preminger and D. Wettstein, “Using the Penalized Likelihood Method for Model Selection with Nuisance Parameters Present only under the Alternative: An Application to Switching Regression Models.”

ABSTRACTS OF WORKING PAPERS (issued since the previous report)

GOVERNMENT EXPENDITURES, MILITARY SPENDING AND ECONOMIC GROWTH: CAUSALITY EVIDENCE FROM EGYPT, ISRAEL AND SYRIA

S. Abubader and A.S. Abu-Qarn

Discussion Paper No. 03-01

This study uses multivariate cointegration and variance decomposition techniques to investigate the causal relationship between government expenditures and economic growth for Egypt, Israel and Syria, for the past three decades. When testing for causality within a bivariate system of total government spending and economic growth, we find bi-directional causality from government spending to economic growth with a negative long-term relationship between the two variables. However, when testing for causality within a trivariate system – the share of government civilian expenditures in GDP, military burden and economic growth – we find that the military burden negatively affects economic growth for all the countries, and that civilian government expenditures cause positive economic growth in Israel and Egypt.

**ON THE CONTINUITY OF EQUILIBRIUM AND CORE
CORRESPONDENCES IN ECONOMIES
WITH DIFFERENTIAL INFORMATION**

E. Einy, O. Haimanko, D. Moreno and B. Shitovitz

Discussion Paper No. 03-02

We study upper semi-continuity of the private and coarse core and the Radner equilibrium correspondences for economies with differential information, with Boylan (1971) topology on agents' information fields.

SUBJECTIVE DISCOUNT FUNCTIONS – AN EXPERIMENTAL APPROACH

U. Benzion, Y. Shachmurove and J. Yagil

Discussion Paper No. 03-03

This study estimates the degree of the exponential-function (EF) misvaluation and its variation with three parameters: time, the product price level and its growth rate, as well as with personal characteristics. The results suggest an undervaluation of the compound discounting formula given by the exponential function and an overvaluation of the simple-interest discounting function. Our findings appear to be in line with the hyperbolic function and perhaps are indirectly related to the overconfidence and overreaction phenomena. A possible implication of the study's findings is that at least part of the intertemporal-choice anomalous behavior documented in the experimental literature of economic psychology can be attributed to misevaluation of the exponential function.

**DECISIONS IN FINANCIAL ECONOMICS: AN EXPERIMENTAL STUDY OF
DISCOUNT RATES**

U. Benzion and J. Yagil

Discussion Paper No. 03-04

Using three subsamples of subjects who differ in their level of formal education and knowledge in economics, this experimental study of intertemporal discount rates finds that subjective discount rates decrease with the time delay and monetary sum, and are higher for postpone-a-receipt than for a postpone-a-payment scenario. The findings indicate the existence of market segmentation, implicit risk and a weak added compensation. They also imply that subjective discount rates are lower and closer to real market rates of interest for subjects having higher levels of formal education and economics knowledge.

PORTFOLIO COMPOSITION CHOICE: A BEHAVIORAL APPROACH

U. Benzion and J. Yagil

Discussion Paper No. 03-05

This experimental study investigates portfolio composition choice for different types of financial assets and for different levels of wealth. For a distinctive group of financially sophisticated executive MBA students with work experience in capital markets, the findings of this study indicate that the proportion of wealth invested in risky assets increases with wealth for all portfolio compositions examined and increases with the degree of asset risk. This proportion is found to be as much as three times higher for common stocks than for options: for stock portfolios it increases from 33% to 44% over the five wealth levels examined, while for options it increases from 11% to 17%. These results may imply a decreasing relative risk aversion. Regression results also indicate that those who invest relatively low proportions of their wealth in risky assets possess the following characteristics: they do not invest in options in real life; they sometimes buy lottery tickets; they attach a higher risk level to options relative to common stocks; they are female and are employed.

CENTRAL BANK INTEREST RATE POLICY AND ASYMMETRIC PREFERENCE

Y. Saadon, U. Benzion and Z. Shiffer,

Discussion Paper No. 03-06

(in Hebrew)

DO BUYER-SIZE DISCOUNTS DEPEND ON THE CURVATURE OF THE SURPLUS FUNCTION? EXPERIMENTAL TESTS OF BARGAINING MODELS

H.-T. Norman, B.J. Ruffle and C.M. Snyder

Discussion Paper No. 03-07

A number of recent theoretical papers have shown that for buyer-size discounts to emerge in a bargaining model, the total surplus function over which parties bargain must have certain nonlinearities. We test the theory in an experimental setting in which a seller bargains with a number of buyers of different sizes. We generate nonlinearities in the surplus function by varying the shape of the seller's cost function. Our results strongly support the theory. As predicted, large-buyer discounts emerge only in the case of increasing marginal cost, corresponding to a concave surplus function.

EXTENDING SWITCHING REGRESSION MODELS: ALLOWING FOR MULTIPLE LATENT STATE VARIABLES

A. Preminger, U. Benzion and D. Wettstein

Discussion Paper No. 03-08

In this paper we extend the widely followed approach of switching regression models, i.e., models in which the parameters are determined by a latent discrete state variable. We construct a model with several latent state variables, where the model parameters are partitioned into disjoint groups, each one of which is independently determined by a corresponding state variable. Such a model is called an extended switching regression (ESR) model. We develop an EM algorithm to estimate the model parameters, and provide conditions for the consistency and asymptotic normality of the derived estimates. Extensive simulation studies are carried out to assess the performance of the EM estimation method. Finally, we use the ESR model to combine forecasts of foreign exchange rates volatility. The resulting forecasts dominate those generated by traditional combining procedures.

AUCTIONS WITH WEAKLY ASYMMETRIC INTERDEPENDENT VALUES

G. Fibich, A. Gaviious and A. Sela

Discussion Paper No. 03-09

We study second price auctions with weakly asymmetric interdependent values where bidders' signals for the value are independently and identically distributed. We also provide an asymptotic revenue equivalence among all standard auctions with weakly asymmetric interdependent values.

COMPOUND VOTING AND THE BANZHAF POWER INDEX

P. Dubey, E. Einy and O. Haimanko

Discussion Paper No. 03-10

We present three axioms for a power index defined on the domain of simple (voting) games. *Positivity* requires that no voter has negative power, and at least one has positive power. *Transfer* requires that, when winning coalitions are enhanced in a game, the change in voting power depends only on the change in the game, i.e., on the set of new winning coalitions. The most crucial axiom is *composition*: the value of a player in a compound voting game is the product of his power in the relevant first-tier game and the power of his delegate in the second-tier game. We prove that these three axioms categorically determine the Banzhaf index.

DOES IT PAY TO PRAY? FIELD EXPERIMENTS EVALUATING THE ECONOMIC RETURN TO RELIGIOUS RITUAL

B. Ruffle and R.H. Sosis

Discussion Paper No. 03-11

Time-consuming and costly religious rituals pose a puzzle for economists committed to rational choice theories of human behavior. We propose that religious rituals promote in-group trust and cooperation that help to overcome collective-action problems. We test this hypothesis on communal societies for whom mutual cooperation is a matter of survival. We design field experiments to measure the in-group cooperative behavior of members of religious and secular Israeli kibbutzim. Our results show that religious males (the primary practitioners of collective religious ritual in Orthodox Judaism) are more cooperative than religious females, secular males and secular females. Moreover, the frequency with which religious males engage in collective religious rituals predicts well their degree of cooperative behavior. We use our results to understand differences in the return to religious observance in capitalist and developing economies.

OPTIMAL SEEDINGS IN ELIMINATION TOURNAMENTS

C. Groh, B. Moldovanu, A. Sela and U. Sunde

Discussion Paper No. 03-12

We study an elimination tournament with heterogeneous contestants who are ranked according to ability. We establish that seedings involving a delayed encounter among the top players are optimal for a variety of criteria. In our model, each pair-wise match is modeled as an all-pay auction where the contestant exerting the most effort gets the right to compete at the next round. The win probabilities in each match are endogenous and depend on the outcome of other matches through the identity of the next expected opponent. For tournaments with four players we find optimal seedings with respect to three criteria: 1) maximization of total effort in the tournament; 2) maximization of the probability of a final among the two top ranked teams; 3) maximization of the win probability for the top player. In addition, we find the seedings ensuring that higher ranked players have a higher probability to win the tournament. Finally, we compare the theoretical predictions with data from NCAA basketball tournaments.

EXTENDED SWITCHING REGRESSION MODELS WITH TIME VARYING PROBABILITIES FOR COMBINING FORECASTS

A. Preminger, U. Ben-Zion and D. Wettstein

Discussion Paper No. 03-13

In this paper we introduce a new methodology which extends the well known switching regression model. The extension is via the introduction of several latent state variables, each one of which influences a disjoint set of the model parameters. Furthermore, the

probability distribution of the state variables is allowed to vary over time. We also develop an EM algorithm for estimation and provide mild conditions for consistency and asymptotic normality of the model parameters. This model is called the time varying extended switching regression (TV-ESR) model. We use it to combine volatility forecasts of several currencies (JPY/USD, GBP/USD, and CHF/USD). We perform a detailed comparison of the forecasts generated by the TV-ESR approach to those of traditional linear combining procedures and other methods for combining forecasts derived from the switching regression model. On the basis of out-of-sample forecast encompassing tests as well as other measures for forecasting accuracy, our results indicate that the use of this new method yields overall better forecasts than those generated by competing models.

**USING THE PENALIZED LIKELIHOOD METHOD FOR MODEL
SELECTION WITH NUISANCE PARAMETERS PRESENT ONLY UNDER
THE ALTERNATIVE: AN APPLICATION TO SWITCHING REGRESSION
MODELS**

A. Preminger and D. Wettstein

Discussion Paper No. 03-14

We study the problem of model selection with nuisance parameters present only under the alternative. The common approach for testing in this case is to determine the true model through the use of some functionals over the nuisance parameters space. Since in such cases the distribution of these statistics is not known, critical values had to be approximated through computationally intensive simulations. Furthermore, the computed critical values are data- and model-dependent and hence cannot be tabulated. We address this problem by using the penalized likelihood method to choose the correct model. We start by viewing the likelihood ratio as a function of the unidentified parameters. By using the empirical process theory and the Law of the Iterated Logarithm (LIL) together with sufficient conditions on the penalty term, we derive the consistency parameters of this method. Our approach generates a simple and consistent procedure for model selection. This methodology is presented in the context of switching regression models. We also provide some Monte Carlo simulations to analyze the finite sample performance of our procedure.

VII. RESEARCH SUMMARIES

The following presents brief summaries of the research interests and activities of Center members:

Suleiman Abubader

Dr. Abubader's research interests deal with the application of times series econometric techniques, such as cointegration, error correction models, Granger Causality and tests for structural changes, to study macroeconomic relations. His current research is focused on studying the determinations of economic growth in the Middle East countries.

Arie Arnon

Prof. Arnon's research interests primarily deal with the history of economic thought, macroeconomics, monetary economics and banking, the Israeli economy, privatization, and the Arab economies. Prof. Arnon continues to be actively involved in research on economic policies in the Middle East, particularly on Israeli–Palestinian relations. He is also working on a research project entitled "Between Monetary Theories of Credit and Credit Theories of Money."

Uri Benzion

Prof. Benzion's current research projects deal with evaluation of mutual funds; interrelationship between international markets and country funds; marketing policy by use of cent-off-coupons; and use of activity-based costing in medical decision-making.

Tuvia Blumenthal

Prof. Blumenthal specializes in the Japanese economy and economic development. His current research projects are directed toward the Japanese education system, economic effects of the introduction of industrial robots, and Japanese management practices.

Ezra Einy

Prof. Einy's research concentrates on values of games, large games, voting games, utility theory, inequality measures, and refinement of correlated equilibria. His present focus is on solution concepts of economies with differential information.

Mark Gradstein

Prof. Gradstein's research interests are concerned with private versus public provision of public goods and public growth promoting policies. His current project (jointly with M. Justman) focuses on growth promoting policies as implied by actual political mechanisms.

Ori Haimanko

Ori Haimanko's current projects include the study of efficiency and stability of coalition structures arising in the presence of horizontally differentiated public goods, comparison of different types of labor contracts, and learning in extensive form games. Among the issues which are somewhat on the back burner is the study of auctions with differential information (jointly with Ezra Einy and Aner Sela). This work has thus far yielded two working papers.

Oded Hochman

Prof. Hochman's research interests center on urban and environmental economics, public economics, industrial organization and economic growth. His current research projects include urban location and pollution, marketing of quality differentiated products, efficient water pricing, uncertainty in water supply and its economic implications, and impact of income tax on sizes of cities.

Samuel Hollander

Prof. Hollander is working currently on *The Economics of Karl Marx* for Cambridge University Press and concurrently on *J.B. Say and the Classical Canon*.

Moshe Justman

Prof. Justman's activities focus on the political economy of education. He also does work on technology policy and on regional development.

Yaakov Khazanov

Dr. Khazanov does research on the impact of economic growth on nationalist movements.

Israel Luski

Prof. Luski's research interests deal with the following areas of industrial organization:

1. R&D and patent policy: Optimal strategies for R&D investment.
2. The economics of multinational corporations: The economic impact of multinational corporations on the host country; optimal incentives policy.
3. Nonprofit organizations: Economic efficiency of nonprofit organizations, and government policy toward nonprofit organizations.

Uri Regev

Prof. Regev's research focuses on environmental economic issues. These include the impact of coal burning in power stations of the Israeli electric company, policies for enhancing municipal waste recycling and measurement of environmental pollution impacts on health. He is also interested in the problem of bacterial resistance to antibiotics, which has become a number one health problem. The economic incentives

that lead to market failure in antibiotic prescriptions is the subject of a new joint research project with Kupat Holim Macabbi.

Bradley Ruffle

Bradley Ruffle is primarily an experimental economist. He uses experimental methods in the laboratory and in the field to test theories and examine phenomena in product and labor markets, industrial organization, negotiations, and the role of cooperation, trust, signaling, emotions, and cognitive biases in interactive and individual decision making. He also uses rational choice theories to understand religiosity and religious institutions.

Aner Sela

Dr. Sela's research concerns game theory, learning, auction theory, and industrial organization.

Haim Shalit

Prof. Shalit's research is directed toward the use of the mean-Gini model and Conditional Stochastic Dominance in financial markets. His work on Marginal Conditional Stochastic Dominance (MCSD) constructs a portfolio of stocks that improves upon the market portfolio. Prof. Shalit succeeded in developing a statistical procedure for MCSD that demonstrates the dominance of the new portfolio. In addition, his work on the mean-Gini model shows how the standard procedure of Ordinary Least Squares used to estimate systematic risk is not robust with respect to wide market fluctuations.

Avia Spivak

Prof. Spivak continues his research activities in two main fields of interest: the economics of peace in the Middle East and the economics of pensions and social insurance. He continues to serve as Deputy Governor of the Bank of Israel.

Jimmy Weinblatt

Prof. Weinblatt's research efforts are devoted to pursuing various issues within the large scale project on the Economic Aspects of Peace in the Middle East: macroeconomic modeling, Israeli-Jordanian-Palestinian trade and the development of special industrial zones. Much of his time at present is taken up with his responsibilities as Rector of the University.

David Wettstein

Dr. Wettstein's research interests focus on cost allocation, innovation and the patent system, implementation of cooperation solution concepts (the Shapley value, bargaining sets), and auctions.