

November 2005

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***Education:***

- University of Colorado, Boulder, USA, PhD, Economics.  
*Dissertation: General Equilibrium Assessment of Public Policy Issues in the Newly Independent States. Advisor – Professor Thomas F. Rutherford*
- University of Colorado, Boulder, USA, MA, Economics.
- The Economics Institute, Boulder, USA, Magna Cum Laude Advanced Diploma in Economics.
- Belarussian State University, Minsk, Belarus, Post-Graduate School, Application of Mathematical Methods, Mathematical Modeling and Computers in Scientific Research.
- Belarussian State University, Minsk, USSR, Diploma, Radiophysics and Electronics.

***Employment:***

- **Research Scientist in Economics, Joint Program on the Science and Policy of Global Change, Massachusetts Institute of Technology, Cambridge, MA, 2002-present.**  
Work on the economics and policy of climate change, with particular responsibility for sustenance, development, and policy application of the MIT Emission Prediction and Policy Analysis (EPPA) model.
- **Short-Term Consultant, The World Bank, Washington DC, 2001, 2002.**  
An assignment with the VP Development Economics and Chief Economist (DEC). Developing the services CGE model for the Russian Federation. Working on the Trade and Poverty in the Least Developed Countries Project.
- **Part-time Instructor, Research Assistant, Teaching Assistant, Department of Economics, The University of Colorado, Boulder, CO, 1994-1995, 1997-2002.**  
Teaching courses in microeconomics, international finance, economic forecasting, and macroeconomics. Research sponsored by the U.S. Department of Energy on creating a global economic-energy dataset, GTAP-EG, and quantitative assessment of carbon leakage based on the Kyoto Protocol goals.
- **Visiting Instructor, The Economics Institute, Boulder, CO, 1994-1995, 1999-2001.**  
Teaching courses in microeconomics and a seminar on a transition to a market economy to students preparing for graduate study in USA. Directing the symposium on transitional economies for senior government officials from the Central Asian Republics of the former USSR.
- **Actuarial Modeling Expert, International Management and Communications Corporation (IMCC), Arlington, VA, 1998-1999.**  
Working on USAID-funded worldwide study on Pension System Issues and Their Relation to Economic Growth. The objectives of this project are to develop for USAID and for national governments contemplating pension system reform a compact overview and assessment of alternative approaches to such reform and of their likely effects upon economic growth and the social security of the population. Analyzing the population dynamics and the projection of demand for pension benefits over periods ranging until 2075 for a selection of developing and transition economies on the assumption that existing PAYGO systems will be retained.

- **Consultant, The World Bank, Washington DC, 1999.**  
Creating a core computable general equilibrium model for Russia based on the Goskomstat input-output table. Assessing marginal excess burdens of indirect taxes. Developing an internet-based CGI environment for remote access to GAMS-MPSGE models.
- **Executive Director, Masters Program in Economics and Management of Technology in Belarus, The Economics Institute, Boulder, CO, 1995-1997.**  
Directing the Economics Institute's Masters Program in Economics and Management of Technology at Belarussian State University, Minsk, Belarus. The program was a joint U.S. – Belarus pilot project sponsored by the U.S. Agency for International Development through The Eurasia Foundation. Creation and registration of the entity with Belarussian authorities, teaching, and day-to-day management of the program. The program has now been transformed into the School of Business and Management of Technology at Belarussian State University.
- **Scientific Worker, Belarussian State University, Minsk, Belarus, 1990-1993.**  
Research sponsored by the Belarus Fund of Fundamental Investigations on correlation analysis of random flows of signals.
- **Engineer-Designer, Brest Computer Production Amalgamation, Brest, Belarus, 1989-1990.**  
Designing of specialized computer hardware. Supervision of production process.

#### **Consulting Experience:**

Second Generation Model Advisory Panel, Science Advisory Board, US Environmental Protection Agency, 2004-2005.

Trade and Poverty in the Least Developed Countries. The World Bank. 2001, 2002.

Assessment of the Marginal Excess Burden of Taxes in the Russian Economy. The World Bank. 1999.

Pension Reform in the Kyrgyz Republic. IMCC for Asian Development Bank. 1998-1999.

#### **Administrative Experience:**

Creating and managing the joint US-Belarus Masters level educational Program in Economics and Management of Technology (PEMT) at Belarussian State University, Minsk, Belarus. The project was sponsored by The United States Agency for International Development through The Eurasia Foundation. 1995-1997.

#### **Teaching Experience:**

##### *Instructor:*

Principles of Microeconomics (Undergraduate Level) - The University of Colorado, Fall 1998, Spring 2002 - The Economics Institute, Fall 1999.

Microeconomic Theory (Upper Undergraduate Level) - The University of Colorado, Summer 1998, Summer 2000, Summer 2001 – The Economics Institute, Fall 1999, Spring 2000, Summer 2000, Spring 2001, Summer 2001.

International Finance (Masters level) – The University of Colorado, Spring 2001, Spring 2002 (co-teaching with Professor C.M.Becker).

Economic Forecasting (Masters level) – The University of Colorado, Spring 2002.

Microeconomics and its Applications (USAID-sponsored course for senior government officials from the former Soviet Union) - The Economics Institute, Fall 1994, Summer 1995.

Microeconomic Theory (Masters Level) - Belarussian State University, Fall 1996 – University of Colorado, Fall 2001.

Seminar on a Transition to a Market Economy (USAID-sponsored course for senior government officials from the former Soviet Union) - The Economics Institute, Summer 1995.

##### *Teaching Assistant:*

Principles of Microeconomics - The University of Colorado, Spring 1995, Fall 1997, Spring 1998.

Principles of Macroeconomics - The University of Colorado. Fall 1994, Fall 1995.

Mathematical Modeling - Belarussian State University. Fall 1992.

**Awards:**

Best 2004 Research Award, Tokyo Electric Power Company, Japan (with Yasuyuki Endo, Kok Hou Tay, Henry Jacoby, and John Reilly).

**Publications:***I. In refereed journals and volumes:*

1. "The Role of Non-CO2 Greenhouse Gases in Climate Policy: Analysis Using the MIT IGSM," *Energy Journal* (with J.Reilly et al, revised).
2. "Technology and Technical Change in the MIT EPPA Model," *Energy Economics* (with H.Jacoby et al, revised).
3. "Economic Benefits of Air Pollution Regulation in USA: An Integrated Approach," *Climatic Change* (with K.Matus et al, revised).
4. "How (and Why) Do Climate Policy Costs Differ Among Countries?" in *Human-Induced Climate Change: An Interdisciplinary Assessment*, M. Schlesinger (ed.), 2005, Cambridge University Press (with J. Reilly et al, forthcoming).
5. "Modeling the Transport Sector: The Role of Existing Fuel Taxes in Climate Policy", in *Energy and Environment*, R. Loulou, J.-P. Waub, G. Zaccour (eds.), 2005, Springer, p. 211-238 (with H. Jacoby et al).
6. "Air Pollution Health Effects: Toward an Integrated Assessment," in *The Coupling of Climate and Economic Dynamics*, A.Haurie and L.Viguiet (eds.), 2005, Springer, p. 267-294 (with J. Reilly et al).
7. "Economic Consequences of Demographic Change in the Former USSR: Social Transfers in the Kyrgyz Republic," *World Development*, 32(11), 2004, 1849-1870 (with C.M.Becker).
8. "The Kyoto Protocol: Regional and Sectoral Contributions to the Carbon Leakage," *The Energy Journal*, 2001, 22(4), p.53-79.
9. "Macro-Experimental Economics in the Kyrgyz Republic: Social Security Sustainability and Pension Reform," *Comparative Economic Studies*, 2001, 43(3), p. 1-34 (with C.M.Becker).
10. "Distortion of photon correlation function in detection systems with paralyzable dead time effects," *Journal of the Optical Society of America B*, 1995, 12(9), p. 1550-1554 (with V. Apanasovich).
11. "The analyzer of temporal and correlation characteristics of random flows of signals," *Pribery i Tekhnika Eksperimenta*, 1994, 2, p.201-202 (with V. Apanasovich et al., in Russian. The journal is published in English as "Instruments and Experimental Techniques").
12. "Modeling and comparative analysis of correlators of random flows of signals," *Electronnoe Modelirovanie*, 1994, 16(1), p. 84-87 (with V. Apanasovich, in Russian. The journal is published in English as "Engineering Simulation").

*II. Other Publications:*

1. "An Analysis of the European Emission Trading Scheme," MIT Joint Program on the Science and Policy of Global Change, 2005, Report 127, Cambridge, MA (with J.Reilly).
2. "The MIT Emissions Prediction and Policy Analysis (EPPA) Model: Version 4," MIT Joint Program on the Science and Policy of Global Change, 2005, Report 125, Cambridge, MA (with J.Reilly et al).
3. "The MIT Integrated Global System Model (IGSM) Version 2: Model Description and Baseline Evaluation," MIT Joint Program on the Science and Policy of Global Change, 2005, Report 124, Cambridge, MA (with A.Sokolov et al).
4. "Climate Change Taxes and Energy Efficiency in Japan," MIT Joint Program on the Science and Policy of Global Change, 2005, Report 121, Cambridge, MA (with S.Kasahara et al).
5. "Modeling the Transport Sector: The Role of Existing Fuel Taxes in Climate Policy," MIT Joint Program on the Science and Policy of Global Change, 2004, Report 117, Cambridge, MA (with H.Jacoby et al).
6. "The Role of Non-CO2 Greenhouse Gases in Climate Policy: Analysis Using the MIT IGSM," MIT Joint Program on the Science and Policy of Global Change, 2004, Report 114, Cambridge, MA (with J.Reilly et al).
7. "Economic Benefits of Air Pollution Regulation in USA: An Integrated Approach," MIT Joint Program on the Science and Policy of Global Change, 2004, Report 113, Cambridge, MA (with T.Yang et al).
8. "The Cost of Kyoto Protocol Targets: The Case of Japan," MIT Joint Program on the Science and Policy of Global Change, 2004, Report 112, Cambridge, MA (with J. Reilly et al).

9. "Technology and Technical Change in the MIT EPPA Model," MIT Joint Program on the Science and Policy of Global Change, 2004, Report 111, Cambridge, MA (with H.Jacoby et al).
10. "Disaggregating Household Transport in the MIT-EPPA Model," MIT Joint Program on the Science and Policy of Global Change, 2004, Technical Note 5, Cambridge, MA (with L. Viguier et al).
11. "Moving from Static to Dynamic General Equilibrium Models (Notes for a Beginner in MPSGE)," MIT Joint Program on the Science and Policy of Global Change, 2004, Technical Note 4, Cambridge, MA.
12. "Russia's Role in the Kyoto Protocol," MIT Joint Program on the Science and Policy of Global Change, 2003, Report 98, Cambridge, MA (with A. Bernard et al).
13. "Emissions Trading to Reduce Greenhouse Gas Emissions in the United States: The McCain-Lieberman Proposal," MIT Joint Program on the Science and Policy of Global Change, 2003, Report 97, Cambridge, MA (with J. Reilly et al).
14. "The Kyoto Protocol: "Hot Air" for Russia?" Discussion Papers in Economics, University of Colorado, Working Paper 00-09.
15. "The Kyoto Agreement: Sectoral and Regional Contributions to the Carbon Leakage," Discussion Papers in Economics, University of Colorado, Working Paper 00-05.
16. "GTAP-Energy in GAMS: The Dataset and Static Model," Discussion Papers in Economics, University of Colorado, Working Paper 00-02. (with T.Rutherford).
17. "Project of the Masters Program in Economics and Management of Technology," in Higher Education: State and Perspectives. Minsk: 1996. pp. 201-202 (with V. Apanasovich et al, in Russian)
18. "Masters programs in the U.S. system of university education," *Visheishaya Schkola*, 1, 1996, pp. 61-64 (with V. Apanasovich et al, in Russian).
19. "Government Behavior, Trade Policy and Bureaucracy in Belarus," *EISED*, 1, 1995, pp. 1-31.
20. "Microeconomics and its applications," The Economics Institute. Boulder:1994. (textbook with C.M.Becker, in English and Russian).
21. "Algorithms and programs for correlation analysis of random flows of signals," in *Actual Problems of Informatics*, Minsk, University Press: 1992 (in Russian).
22. "Analysis of methods for determination of correlation function of random processes," in *Microsystems: Tomsk*, 1992, p.9 (in Russian).
23. "Software package for statistical analysis of signals," in *Informatika-89: Minsk*, V.2, 1989, pp. 820-822 (with V. Apanasovich et al, in Russian).

#### **Conferences:**

1. Climate Policy Network Meeting (September 2005, Chia Laguna, Sardinia, Italy). Presentation: "Incorporating Climate Change Feedbacks into the EPPA model".
2. European Geosciences Union General Assembly (April 2005, Vienna, Austria). Paper: "Uncertainty in Emissions Projections in the MIT Integrated Global System Model," (with C. Forest, T. Frank, H. Jacoby, J. Reilly, A. Sokolov, and M. Webster).
3. American Geophysical Union Meetings (December 2004, San Francisco, USA). Paper: "The Economic Impact of CO2 and Tropospheric Ozone on Crop Yields in China, USA, and Europe," (with J. Reilly, B. Felzer, J. Melillo, R. Prinn, C. Wang, A.Sokolov, and X. Wang).
4. Climate Policy Network Fall Meeting (October 2004, Resources for the Future; Washington, DC, USA), Participant.
5. Conference of the International Society for Environmental Epidemiology: Addressing Urban Environmental Problems (August 2004, New York University, New York, USA), Paper: "Air Pollution Health Effects: Toward an Integrated Assessment" (with J. Reilly and T. Yang).
6. International Conference on Policy Modeling (July 2004, Universite Paris I - Pantheon Sorbonne; Paris, France). Paper: "Air Pollution Health Effects: Toward an Integrated Assessment" (with J. Reilly and T. Yang).
7. GTAP Conference on Global Economic Analysis: Trade, Poverty, and the Environment (June 2004, The World Bank; Washington DC, USA). Paper: "Disaggregating Household Transport in the MIT-EPPA Model" (with L. Viguier, M. Babiker, J. Reilly, and K.H. Tay).
8. Purchasing-Power-Parity vs Market-Exchange-Rate Workshop (February 2004, Stanford University, Australian Greenhouse Gas Office, and U.S. Environmental Protection Agency; Palo Alto, USA), Participant.

9. American Geophysical Union Meetings (December 2003, San Francisco, USA). Paper: "Climate Change, Air Pollution, and the Economics of Health Impacts" (with J. Reilly, T. Yang, C. Wang, R. Prinn, and M. Sarofim).
10. Western Economic Association International Meetings (July 2001, San Francisco, USA). Paper: "Demographic Change and Long Run Transition Costs in the Former Soviet Union" (with C.M. Becker)
11. The Economic Consequences of Alternative Pension Policies (February 1999, Asian Development Bank, International Management and Communication Corporation, Social Fund of Kyrgyz Republic; Bishkek, Kyrgyzstan). Paper: "Structure and uses of PROST".
12. Economic Transformation in Russia: Views of a New Generation (May 1997, International Research and Exchanges Board (IREX), New Economic School, United States Information Agency; Moscow, Russia). Participant.
13. Business Training for Multinational Corporations (January-February 1997, ACTR/ACCELS, U.S.-Russia Business Forum, United States Information Agency; St.Petersburg, Russia). Participant.
14. Higher Education: State and Perspectives (December 1995, The Ministry of Education and Science of the Republic of Belarus and The Republican Institute of Higher School and Humanities; Minsk, Belarus). Paper: "Project of the Masters Program in Economics and Management of Technology".
15. Central Asia's Economies in Transition (July 1995, The Economics Institute, The United States Agency for International Development and Academy for Educational Development; Boulder, USA). Symposium Director.
16. Contemporary Russia: Myth and Reality (April 1995, The University of Colorado at Denver and The National Endowment for the Humanities; Denver, USA). Paper: "Pace of the Economic Reform in Belorussia".
17. The Transition to a Market Economy in the Central Asian Republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (December 1994, The Economics Institute; Boulder, USA). Chairman of the Session.