

**The MIT Joint Program on the Science and Policy of Global Change**  
**Massachusetts Institute of Technology**  
**Cambridge, MA, USA**

## **GTAP-related activities, 2010**

The MIT Joint Program on the Science and Policy of Global Change made extensive use of the Global Trade analysis Project (GTAP) data set for research and analysis conducted in the program over the past year (see the following publication list). GTAP data serves as the principal economic data for the Program's Emissions Prediction and Policy Analysis (EPPA) Model, a global CGE model of the world economy with details on the energy sector and on emissions of greenhouse gases and other air pollutants. The EPPA model is a component of the Program's Integrated Global Systems Model, a model that represents the earth's oceans, atmosphere, and terrestrial systems as they are affected by emissions of greenhouse gases and other pollutants.

### **2010 AND 2011 PUBLICATIONS USING GTAP (AS OF MAY 2011)**

#### Journal articles and other publications:

(Abstracts are available at: <http://globalchange.mit.edu/pubs/reprints.php>)

Gurgel, A., S. Paltsev, J. Reilly, and G. Metcalf, 2011, "An Analysis of U.S. Greenhouse Gas Cap-and-Trade Proposals using a Forward-Looking Economic Model," *Environment and Development Economics*, 16(2), 155-176.

Winchester, N., S. Paltsev, and J. Reilly, 2011, "Will Border Carbon Adjustments Work?" *The B.E. Journal of Economic Analysis and Policy*, 11(1), Article 7, 1-27.

Prinn, R., S. Paltsev, A. Sokolov, M. Sarofim, J. Reilly, and H. Jacoby, 2011, "Scenarios with MIT Integrated Global Systems Model: Significant Global Warming Regardless of Different Approaches," *Climatic Change*, 104(3-4), 515-537.

Winchester, N., S. Paltsev, J. Morris, and J. Reilly, 2010, "Cost of Mitigating Climate Change in the United States," *Annual Review of Resource Economics*, 2, 257-273.

Karplus, V., S. Paltsev, and J. Reilly, 2010, "Prospects for Plug-in Hybrid Electric Vehicles in the United States and Japan: A General Equilibrium Analysis," *Transportation Research Part A: Policy and Practice*, 44(8), 620-641.

Nam, K.-M., N. Selin, J. Reilly, and S. Paltsev, 2010, "Measuring Welfare Loss Caused by Air Pollution in Europe: A CGE Analysis," *Energy Policy*, 38(9), 5059-5071.

Webster, M., S. Paltsev, and J. Reilly, 2010, "The Hedge Value of International Emissions Trading under Uncertainty," *Energy Policy*, 38(4), 1787-1796.

Selin, N., S. Wu, K.-M. Nam, J. Reilly, S. Paltsev, R. Prinn, and M. Webster, 2009, "Global Health and Economic Impacts of Future Ozone Pollution," *Environmental Research Letters*, 4(044014), 1-9.

MIT Joint Program Reports:

Winchester, N., C. Wollersheim, R. Clellow, N.C. Jost, S. Paltsev, J. Reilly and I.A. Waitz, 2011, “The Impact of Climate Policy on U.S. Aviation,” MIT Joint Program on the Science and Policy of Global Change, Report 198, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt198.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt198.pdf))

Chen, Y.-H. Henry, J.M. Reilly and S. Paltsev, 2011, “The Prospects for Coal-To-Liquid Conversion: A General Equilibrium Analysis,” MIT Joint Program on the Science and Policy of Global Change, Report 197, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt197.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt197.pdf))

Matus, K., K.-M. Nam, N.E. Selin, L.N. Lamsal, J.M. Reilly and S. Paltsev, 2011, “Health Damages from Air Pollution in China,” MIT Joint Program on the Science and Policy of Global Change, Report 196, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt196.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt196.pdf))

Gavard, C., N. Winchester, H. Jacoby and S. Paltsev, 2011, “What to Expect from Sectoral Trading: a U.S.-China Example,” MIT Joint Program on the Science and Policy of Global Change, Report 193, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt193.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt193.pdf))

Morris J., J. Reilly, and S. Paltsev, 2010, “Combining a Renewable Portfolio Standard with a Cap-and-Trade Policy: A General Equilibrium Analysis,” MIT Joint Program on the Science and Policy of Global Change, Report 187, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt187.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt187.pdf))

Moniz E., et al., “The Future of Natural Gas, An Interdisciplinary MIT Study,” Massachusetts Institute of Technology, 2010.  
(available at: <http://web.mit.edu/mitei/research/studies/report-natural-gas.pdf>)

Paltsev, S., H.D. Jacoby, J.M. Reilly, Q.J. Ejaz, F. O’Sullivan, J. Morris, S. Rausch, N. Winchester, and O. Kragha, 2010, “The Future of U.S. Natural Gas Production, Use, and Trade,” MIT Joint Program on the Science and Policy of Global Change, Report 186, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt186.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt186.pdf))

Winchester, N., S. Paltsev, and J. Reilly, 2010, “Will Border Carbon Adjustments Work?” MIT Joint Program on the Science and Policy of Global Change, Report 184, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt184.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt184.pdf))

Chan, G., J. Reilly, S. Paltsev, and Y.-H. Chen, 2010, “Canada’s Bitumen Industry Under CO<sub>2</sub> Constraints,” MIT Joint Program on the Science and Policy of Global Change, Report 183, Cambridge, MA.  
(available at: [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt183.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt183.pdf))