

The main GTAP related activities at OECD during the last year have been in the Trade Directorate and the Environment Directorate. The Agriculture Directorate is also gearing up to analyze the impact of agricultural policy reform on developing countries.

#### **Environment Directorate**

Environment has been mainly working at adding some emission/pollutant coefficients to the JOBS model (OECD's in-house dynamic version of GTAP). They expect to complete this analysis later this year. They have also done some exploratory simulations for in-house work but nothing for published documents.

On the horizon they have a workshop coming up in Ottawa (mid-October 2003) that is intended to explore the frontiers of environmental modeling (from all modeling paradigms, i.e., top down, bottom up, integrated assessment, partial modeling). That workshop is intended to be a launching point for some model development work we will be undertaking to prepare for the next Environmental Outlook to be on store shelves in 2006.

#### **Trade Directorate**

The Trade Directorate has produced a number of documents that utilize GTAP generated analysis.

Dihel, N. and P. Walkenhorst. "European Union Trade and Non-tariff Measures." Paper presented at the Fifth Conference on Global Economic Analysis (5-7 June). Taipei/Taiwan, 2002; 12 pp.

Quantification of the trade effects of non-tariff measures (NTMs) has proven to be a major challenge. This paper uses a combination of gravity model estimates of sectoral trade potential, general equilibrium model results on non-tariff protection, and inventory-derived information on the pervasiveness of different types of NTMs to attempt a ranking of NTMs according to their trade impacts. The analysis is centered on the European Union, as trade within the EU is virtually barrier-free since the completion of the Single Market in 1992, while exports from the Union continue to face tariff and non-tariff barriers. This dichotomy between internal and external EU trade is exploited for the derivation of extra-EU export potentials, which form the basis for the subsequent determination of tariff equivalents of NTMs. The results from the analysis show that the approach is, in principle, feasible and has the potential to contribute to a better understanding of the trade effects of NTMs. However, conceptual problems of obtaining consistent estimates of export potentials and data limitations concerning representative information on NTMs across countries and sectors are the cause for a high degree of variability in the findings that do not make it possible to draw firm conclusions on the ranking of different types of NTMs according to their trade restrictiveness.

Walkenhorst, P. and N. Dihel. "Bound Tariffs, Unused Protection, and Agricultural Trade Liberalisation." Paper presented at the Fifth Conference on Global Economic Analysis (5-7 June). Taipeh/Taiwan, 2002; revised version forthcoming in OECD Economic Studies 36(2003).

Prior quantitative assessments of the effects of agricultural trade liberalization have assumed that negotiated reductions in bound tariffs translate into corresponding cuts in applied tariff rates.

This approach, however, overestimates the actual reduction in applied tariffs and, hence, the benefits of trade liberalization, since applied rates are often much lower than the tariffs bound in Uruguay Round schedules. This paper uses data on applied and bound tariffs and the GTAP-CGE model to quantify the magnitude of the resulting bias. The findings suggest that the distortion of estimates is particularly pronounced for modest tariff cuts, as well as for countries where the differences between bound and applied rates are substantial. Hence, quantitative policy analysts that aim to inform decision makers on the likely impacts of negotiated tariff cuts should consider the relationship between bound and applied tariff rates in their assessments in order to avoid mistaken advice.

Walkenhorst, P. and N. Dihel. "Trade Impacts of the Terrorist Attacks of 11 September 2001: A Quantitative Assessment." Paper presented at the Workshop of Deutsches Institut für Wirtschaftsforschung on 'The Economic Consequences of Global Terrorism' (12-13 June). Berlin, 2002; 18 pp.

This paper uses estimates of changes in frictional trading costs and the GTAP computable general equilibrium model to assess the effects of the terrorist attacks of 11 September on international trade. As a result of increased security concerns, trading companies have been confronted with additional costs relating to transport, handling, insurance, and customs. These costs tend to make international trade more expensive and reduce trade flows. The results from scenario analyses show that regions with high trade to GDP ratios and sectors with elastic import demand suffer the largest trade and welfare losses in relative terms.

OECD. "Doha Development Agenda: Welfare Gains from Further Multilateral Trade Liberalisation with Respect to Tariffs." Document TD/TC/WP(2003)10, Working Party of the Trade Committee (1-2 April), 2003; [authors: Lippoldt, D. and P. Kowalski].

A series of Doha trade liberalization scenarios were analysed (eg Swiss formula, full/partial liberalization in developing countries). In particular, tariff issues were explored using a conditional applied tariff methodology (see Walkenhorst/Dihel papers above).

OECD. "Quantitative Assessment of the Benefits from Trade Facilitation." Ongoing project in the Working Party of the Trade Committee; [authors: Walkenhorst, P., and T. Yasui].

Based on numerical estimates of the costs of specific border procedures and measures and the impact of facilitation efforts on these found in the literature, model-based analysis on the world-wide economic and trade effects of trade facilitation is undertaken. Particular emphasis is thereby devoted to the differing potential for further trade facilitation across countries and sectors (e.g. agricultural versus non-agricultural goods). Results concern prospective changes in trade and income under different scenarios of trade facilitation.

#### **Agriculture Directorate**

The Agriculture Directorate is embarking on a two year project to analyze the impact of OECD policy reform on developed and developing countries. This project will utilize a variety of quantitative techniques, ranging from general equilibrium to household level analysis. Collaboration is currently being sought with a number of other agencies that have expertise in

the various areas. The long term goal is to construct a practical "template" or set of guidelines for how such analysis can be carried out for a number of countries. In the short term (over the next two years), 4 focus countries have been identified (USA, Mexico, Brazil, Malawi). GTAP is currently the tool being considered for the general equilibrium impact - likely through a joint project with the LEI.

The Agriculture Directorate would like to further engage members of the GTAP consortium on the representation of PSE in the GTAP framework. They feel as a first step, clear documentation of the current methodology is very important (perhaps this already exists and we are not aware of it?).