bined with the figures on flows of US FDI, disaggregated by host country and sector, suggests that investment promotion efforts are associated with higher FDI inflows to developing countries.

Priority sectors receive more than twice as much FDI as sectors not targeted by IPAs. While the magnitude of the effect may seem large, it is not implausible. If we consider only positive flows of US FDI to developing countries, the median sector-level flow to a host country was equal to US$11 million during the 1990-2004 period. Thus, the estimated effect of investment promotion translates into an additional annual inflow of US$17 million for the median sector-country combination. A quick look at the amounts multinational corporations actually invest in developing countries reveals that FDI inflows of that magnitude are not uncommon. For example, in 2005 Wal-Mart planned to open 70 new units in Mexico with an expected investment of US$736 million and in 1995 Pepsi announced a US$55 million investment in a snack-food company in South Africa, while Boeing McDonnell Douglas invested US$31 million in the Czech Republic in 1998.

One may be concerned that IPAs choose sectors that already receive a lot of FDI as their priority industries in order to show good results. This is, however, unlikely. In 67 of 97 IPAs surveyed in the Census, the agency board was not at all involved in choosing priority sectors. Moreover, our conclusions hold even if we exclude countries that reported in the Census that the targeting decision was based on the past success or failure in attracting FDI to the sector. In addition, we find no evidence suggesting that targeting took place in sectors with relatively high or low inflows in the years preceding targeting.

If investment promotion works, we should also see that agencies following the best practice model are more effective. For instance, it is generally believed that a quasi-government status is the most appropriate IPA setup. Quasi-governmental bodies benefit from their links to the government when assisting investors in getting regulatory approvals and lobbying authorities on behalf of foreign companies. At the same time, they have more flexibility in planning their activities and are not bound by government pay scales and hiring and firing practices, which makes them better positioned to engage the private sector and respond quickly to changing market conditions. As expected, our analysis confirms that quasi-governmental bodies are more effective at attracting FDI than subunits of ministries.

Our final observation pertains to the concern of government officials that policies in competing countries might divert FDI inflows. Anecdotal evidence suggests that many large foreign investors narrow their attention to a few potential sites in neighboring countries and then let the host country authorities bid on tax, financial or other incentives they want to offer. Our data presents evidence in support of this view. We find that investment incentives offered by other countries in the same region are associated with lower FDI inflows. This competition is limited to a geographic region as there is no evidence of such competition taking place among countries with the same level of income, but located in different regions.

What the Research Means for Policy

Our observations have two policy implications.

- Investment promotion is a viable policy option for developing countries that have a sound business climate and wish to attract FDI inflows. In the presence of knowledge externalities associated with FDI subsidizing provision of information is an appropriate policy action.
- Regional competition in tax incentives point to potential benefits of regional coordination in this area.

Torfinn Harding is Economist in the Research Department of Statistics, Norway, and Beata Smarzynska Javorcik is Reader in Economics, University of Oxford, and CEPR Research Affiliate. The article is based on "Roll out the red carpet and they will come: effect of investment promotion on FDI inflows" published at www.VoxEU.org. Full text of the paper is available as the World Bank Policy Research Working Paper No. 4339 or CEPR Discussion Paper No. 6418, "Developing economies and international investors: Do investment promotion agencies bring them together?". **BT**

Impact of Ukraine's WTO Accession

Ukraine's WTO membership may bring 5.7% increase in real GDP in the long term

Veronika Movchan

On February 5, 2008 the General Council of the WTO approved the accession package of Ukraine, thereby successfully completing almost 14 years of negotiations. Ukraine applied for the membership in 1993, when most of the country's commodity trade was conducted with non-GATT/WTO members. The situation has changed dramatically since then. According to the State Committee of Statistics of Ukraine, in 2007 the country's commodity trade with WTO members accounted for over 62% of exports and 58% of imports. Ukraine's major non-WTO trade partners remain the CIS countries, primarily Russia, Belarus, and Kazakhstan, currently also negotiating the WTO membership.

The long negotiations ensured that a lot of changes embedded in Ukraine's accession agreements have already been introduced. This includes passing strict intellectual property rights protection legislation, harmonizing the Ukrainian system of standardization and conformity assessment, adopting the new Customs Code, and bringing import tariffs for almost all manufacturing products in line with Ukraine's tariff proposal.

Post-Accession Changes

What will change after Ukraine becomes a WTO member? Most importantly, import tariffs will be bound at quite a low level. For agricultural products, this means a reduction of the average tariff rate by a quarter to 10.66%. The maximum binding tariffs are envisaged for sugar (50%) and sunflower seed oil (30%). The average binding rate for industrial goods will be 4.95%, which is one-fifth above the current average tariff for these products. Also, specific and mixed tariffs pervasive for most agro-food products will be replaced by more transparent ad-valorem tariffs.

In addition, Ukrainian export tariffs will be gradually reduced and quantitative export restrictions will be eliminated. This is expected to boost exports, and increase domestic prices on some products, e.g. oilseeds, and grain.

Membership in the WTO will improve access to external markets for Ukrainian exporters. As to the immediate benefits, the quotas on exports of steel products to the EU will be eliminated. Import tariffs faced by Ukrainian producers in WTO member countries will be reduced to the most favored nation level regime if previously full tariff rates were applied. It is estimated that the reduction will affect approximately one-fifth of the Ukrainian export value.

Additional 2.6% Growth

We estimated the economic impact of Ukraine's WTO accession using the computable general equilibrium model for Ukraine. The model was a 'small open economy' model covering 38 sectors. Its distinctive feature was the special treatment of service providers, allowing the impact of the reduction of FDI barriers in services to be modelled.

Several scenarios were considered, including:

- the reduction of barriers to foreign service providers of telecommunication and financial services;
- tariff reform simulating the reduction of tariffs on imports according to the commitments made by Ukraine;
- improved market access for Ukrainian metal and chemical products, and agriculture.

According to our estimates, Ukraine's WTO membership will be beneficial for the country, bringing additional 2.6% growth in real GDP and 7.2% increase in welfare over the medium term. In the long term, when capital will adjust to a new steady state, the gains will be even larger: 5.7% increase in real GDP and 15% rise in welfare. The liberalization of tariff protection will stimulate imports, accounting for almost half of a 5.1% import increase over the medium term. Higher imports will dampen consumer prices and increase the variety of products on the market, positively affecting the welfare of households. Exports will increase by 4.1% in the medium run, driving up the real wages in the economy.

The decomposition of the gains shows that:

- Liberalization of the FDI barriers in services accounts for most of the gains in real GDP and in welfare through increases in the available service variety and total factor productivity. In the medium term, service liberalization leads to a 1.5% real GDP growth and 4.8% increase in welfare, especially affecting non-poor households.
- The contribution of import tariff reform, primarily a reduction of tariff protection in agro-food sectors, is the second largest. It accounts for a 0.8% gain in real GDP and 1.1% rise in welfare over the medium term.
- Improved market access for metal and chemical production, and agriculture causes 0.3% increase in real GDP and 1.3% gain in welfare in medium term, though this scenario has the largest labor adjustment effects on the economy.

Export-Oriented Manufacturing Benefits the Most

As for the sector effects, the estimates show that export-oriented manufacturing sectors like metal and chemical production will benefit the most, as well as industries supplying inputs for these sectors, e.g. extraction of non-energy materials and coke production. At the same time, considerable contractions will occur in the food processing and automotive industry where tariffs are reduced the most. Also, agriculture production will be adversely affected, though the negative shock of the reduction in tariffs will be to a large extent compensated by better access to external markets. In business services, especially in financial intermediation, the number of foreign firms will significantly increase, and output will grow. Also, hotel and restaurant businesses will significantly expand their output thanks to cheaper inputs and higher demand.

Although the WTO accession will benefit the economy as a whole, making it more competitive and allowing cheaper prices and higher variety of products for consumers, some production factor adjustments will be necessary. In particular, it is estimated that 1.1% of skilled employees and 1.8% of unskilled will have to find new jobs. Thus, the strengthening of active labor market policies will be required to ensure the smooth adjustment of the economy.

Medium-term Impact of the WTO Accession on Selected Sectors, %

	Aggregate output	Exports	Imports	Skilled employment
Agriculture, hunting	-0.8	15.3	5.9	-2.1
Coal and peat	8.5	3.6	12.5	7.5
Food-processing	-13.0	-9.0	95.4	-14.3
Textile and leather	-9.5	-8.8	1.2	-10.4
Coke products	13.0	11.0	15.8	7.9
Chemicals, rubber and plastic products	5.0	5.6	-0.2	3.5
Metallurgy and metal processing	14.2	14.9	-1.4	12.3
Machinery and equipment	-5.3	-6.2	0.8	-7.6
Trade	1.3	2.6	0.5	-1.8
Hotels and restaurants	4.7	6.6	0.9	3.0
Telecommunication	3.2	0.7	20.6	1.9
Financial intermediation	2.4	0.9	15.4	1.5

Veronika Movchan is Academic Director of the Institute for Economic Research and Policy Consulting (Kyiv, Ukraine). *The CGE model was developed by the consortium of three institutions: Copenhagen Economics, Denmark; Institute for East European Studies. Munich, Germany; and Institute for Economic Research and Policy Consulting, Ukraine, within the framework of the project "Analysis of the economic impact of Ukraine's WTO accession" (2005), Dutch Grant No. TF 050270. Some changes to the model were made in 2006, within the project "The assessment of the economic impact of the establishment of the FTA between Ukraine and the EU" conducted on request of the Ministry of Economy of Ukraine.* **BT**