

Russia

by

David G. Tarr

I. Introduction

Russia is the largest economy in the world that is not a member of the World Trade Organisation (WTO), and, as of early 2008, it was among 30 countries in the long process of negotiating its accession to the WTO. Russia applied for membership in the General Agreement on Tariffs and Trade (GATT) in June 1993 and the GATT Working Party was transformed into the World Trade Organisation Working Party in 1995. During his first Administration, President Putin made WTO accession a priority for Russia, and after languishing for several years, the Russian accession negotiations began to see real progress under his administration. By early 2008, Russia had achieved bilateral agreements with almost all nations on its WTO Working Party, however, significant differences with Georgia and some other contentious issues remained.

In this paper I refer to and summarise numerous other papers that my co-authors and I have written to analyse Russian WTO accession and its trade policy. First, in sections II and III, I discuss the computable general equilibrium models we developed to assess the impact of Russian WTO accession on the regions of Russia, on Russian poverty, on the distribution of gains from WTO accession, and on the impact of the Doha Development agenda. I show that commitments to foreign investors in services is the key source of the gains to Russia from WTO accession, and this is much more important than any impacts from the Doha Development agenda or the improved market access Russia may obtain from WTO accession. In section IV, I show that specific tariffs in Russia have been the cause of an increase in the country's average Most-Favored Nation (MFN) tariff since 2001, and have significantly increased the variance of the tariffs. In section V, I explain why discriminatory pricing of natural gas between its export and domestic markets is in Russia's interest. In section VI, I summarise Russia's commitments in goods, agriculture and services and conclude in section VII that these commitments are no more burdensome than the typical commitments taken on by non-LDC acceding countries. I explain in section IX why the United States will remove the Jackson-Vanik restrictions against Russia once Russia becomes a member of the WTO. I discuss the principal remaining issues and prospects for accession in the final two sections.

II. Past Analysis of the Impact of Russia WTO Accession

In response to numerous calls from the Russian media for a quantitative assessment of the impact of WTO accession in Russia, the Government of Russia requested that the World Bank assess the impact of WTO accession on Russia and its regions and to evaluate the impacts on poverty. When we undertook this analysis, we observed that the Russian tariff structure contained some high tariff sectors, but overall, the Russian economy was not highly protected by tariffs (see below for details). We did not expect, therefore, that market access negotiations on tariffs would be a major obstacle to Russian accession, nor that tariff reduction in Russia, negotiated as part of accession, would be the source of the principal gains. Moreover, while the Russian Government maintained that market access for its exporters was an important source of its gains from WTO accession, Russia already had MFN status or better with virtually all its trading partners. So we did not assess market access as the principal source of the gains Russia would obtain from WTO accession. On the other hand, as I discuss below, we found that there were considerable barriers to foreign direct investors in services, and Russian line Ministries responsible for the services sectors were reluctant to make market access offers. The problem was highlighted by the inability of the Russian negotiating team to table its initial services offer until 1999, six years after Russia

applied for accession. Thus, we concluded that Russia would have some of its greatest difficulties in the negotiations in services, where it would stand to gain the greatest from its own commitments.

Consequently, in Markusen, Rutherford and Tarr (2005), we developed a stylised version of a new and innovative class of computable general equilibrium models, with foreign direct investment in business services and endogenous productivity effects from additional varieties of services. In Jensen, Rutherford and Tarr (2007), we applied this approach to data for a real economy when we estimated the economy-wide and sector impacts of Russian WTO accession. In this model, as in all my subsequent modelling efforts on Russian WTO accession, we also allowed for endogenous productivity effects from additional varieties of goods produced under imperfect competition. In Jensen, Rutherford and Tarr (2007), we show that, for Russian WTO accession, a model which allows for foreign direct investment in business services and endogenous productivity effects from liberalisation of goods and services produces estimated welfare gains many times larger than a constant returns to scale (CRTS) model. A CRTS model will capture only the resource allocation efficiency gains from trade in goods, as well as any terms of trade gains.

There is considerable concern about the disparity in incomes in Russia. The richest Russian regions are 67 times richer than the poorest Russian regions in nominal terms and 33 times richer when price differences between the regions are taken into account (World Bank, 2005). The richest regions include the European North, Moscow and the resource rich regions of Siberia and the Far East. The poorest regions include the North Caucasus, Southern Siberia and Central Russia. Persons with the same characteristics in terms of education, employment status and urbanisation are three times more likely to be poor in Dagestan or Tuva Republic, compared with the rich Tumen Oblast or Moscow city. However, despite the large differences in incomes between the regions of Russia, 90% of this income inequality is due to within-region inequality and only 10% is due to between-region differences in incomes (World Bank, 2005, p. xix).

Given the considerable variation in incomes across households of Russia, Rutherford and Tarr (2008) assessed the impacts of Russian WTO accession on all 55 000 household types in the Russian Household Budget Survey by incorporating all the households into the model. This was a challenge as Russia is geographically very large and diverse. There are parts of European Russia close to markets of Western Europe and parts of Far Eastern Russia that are close to the markets of China and Japan, while large portions of Siberia are relatively isolated. We can expect the impacts across the regions to be very diverse, even for the same industry. Consequently, Rutherford and Tarr (2006) developed a ten-region, comparative-static, computable general equilibrium model of Russia for the purpose of assessing the impacts across these ten regions. Finally, Rutherford and Tarr (2008b) developed a ten-region model of Russia, with ten households in each region.

In this section we summarise the results of Rutherford and Tarr (2008) and Rutherford and Tarr (2006). The sectors in our model are listed in Table 7.1. The regions of the ten-region model are listed in Table 7.2.

Estimates of the *ad valorem* equivalence of these and other barriers to FDI in services are a key determinant of the estimates. Consequently, we commissioned 20-page surveys from Russian research institutes that specialise in these sectors. Based on these surveys, Kimura, Ando and Fujii (2004a,b,c) estimated the *ad valorem* equivalence of barriers to foreign direct investment in telecommunications; banking, insurance and securities; and maritime and air transportation services.¹ They applied C. Findlay

¹ The three papers by Kimura, Ando and Fujii as well as the underlying responses to the surveys are available at www.worldbank.org/trade/russia-wto.

and T. Warren's (2000) methodology. In the case of maritime and air transportation services, we assume that the barrier will only be cut by 15 percentage points, since pressure from the Working Party in these sectors is not strong. The results of the estimates are listed in Table 7.1, along with the other parameters that change in the simulations²

The exogenous changes that we model as part of Russian WTO accession are (i) liberalisation of barriers against multinational providers of business services; (ii) a 50% reduction in tariffs on goods; and (iii) an improvement in market access for Russian exports to WTO member country markets. The overall results for the ten regions are listed in Table 7.3. More detailed impacts on labour markets and sectors are shown in the original papers.

The key messages from these papers are that the liberalisation of barriers against multinational providers of business services will provide the greatest gains to Russia from WTO accession, and we must employ a model with endogenous productivity effects from FDI in services to capture these impacts. Traditional models focus on the Harberger triangle (efficiency) gains from resource reallocation effects due to tariff reduction or from the terms of trade gains due to improved market access; these models will miss the crucial aspects of what is at stake in WTO accession for Russia (and we believe in trade and FDI liberalisation more generally). Liberalisation of barriers against multinational providers of business services results in additional varieties of business services. Through the Dixit-Stiglitz-Ethier endogenous productivity mechanism, this leads to welfare gains that dominate the results. A traditional perfect competition, constant returns to scale model is not able to capture the productivity effects of trade or FDI liberalisation in services. To demonstrate this, we simulate Russian WTO accession in a perfect competition, constant returns to scale model and find that the estimated gains in our central model with imperfect competition and FDI liberalisation in services are at least six times greater than in the constant returns to scale model.³

Partly our results derive from the fact that estimated barriers against multinational service providers are higher than tariffs on goods, but the significant cost share of business services in the production of manufacturing and agriculture is also important. At the regional level, regions vary significantly in their gains based on their capacity to attract additional multinational providers of business services. Thus, while improving its offer to foreign services providers within the context of the GATS has been one of the most difficult aspects of Russia's negotiation for WTO accession, our estimates suggest that the most important component of WTO accession for Russia and its regions in terms of the welfare gains is liberalisation of its barriers against FDI in services sectors.

More specifically, our central estimates in our regional model show that the overall gains to Russia from WTO accession are 7.8% of Russian consumption (or 4.3% of GDP). We estimate that three regions will gain considerably more than the national average gain in welfare as a percent of GDP: Northwest (6.2%), St. Petersburg (5.7%) and Far East (5.2%). The four regions with the largest welfare gains are the

² For each of these service sectors, authors in the Findlay and Warren volume evaluated the regulatory environment across many countries. The price of services was then regressed against the regulatory barriers to determine the impact of any of the regulatory barriers on the price of services. Kimura et al. then assumed that the international regression applied to Russia. Applying that regression and their assessments of the regulatory environment in Russia from the questionnaires and other information sources, they estimated the *ad valorem* impact of a reduction in barriers to foreign direct investment in these services sectors. See Jensen, Rutherford and Tarr (2007) for an explanation of the estimate in telecommunications.

³ The model with FDI in services and endogenous productivity effects yields gains that are six times greater than the CRTS model in the household model (Rutherford and Tarr, forthcoming) but 20 times greater in the regional model (Rutherford and Tarr, 2006).

regions with the largest initial shares of multinational investment. On the other hand, we estimate that the Urals will gain only 3.3% of GDP, considerably less than the national average. But the Urals have relatively little FDI in the services sectors. See Figure 7.1 for a depiction of the gains by region as a percent of regional GDP.

We observe that the reduction in barriers to FDI alone results in an improvement in Russian welfare on average across regions of 6.7% of consumption (or 3.7% of GDP). The other exogenous changes that we assume to be part of the WTO accession scenario are improved market access for Russian exporters and Russian tariff reduction. These contribute to an improvement in Russian welfare by 0.3% and 0.7% of consumption, respectively, or a combined 1%. Thus, by accounting for about 85% of the gains from WTO accession, by far the most important effect derives from the reduction in barriers to FDI in services.

In the sensitivity analysis, we also incorporate data on the investment potential of regions based on the investment potential rankings of Expert RA. The principal result is that the estimated gains for the Moscow, St. Petersburg and Tumen regions increase and the estimated gains for Siberia, Northwest, North, Central and the Far East decline. Despite smaller estimated gains in this scenario, Far East and Northwest are still estimated to receive above average gains. The results suggest that the gains for a region could vary considerably depending on whether it succeeds in creating an atmosphere conducive to investment.

In business services, due to offsetting impacts that are explained in Markusen, Rutherford and Tarr (2005), employment effects vary across sectors in each region. The demand for labour in business services should increase to the extent that newly entering multinationals will demand Russian labour when they locate in Russia, and the demand for business services increases overall due to the decline in the quality adjusted price. But the demand for labour in business services declines to the extent that multinationals use Russian labour less intensively than Russian companies. But users of business services will become more internationally competitive as they improve the quality and increase the diversity of available competitively priced business services.

In goods sectors, we estimate that the ferrous metals, non-ferrous metals and chemicals sectors will expand in the regions where these are important. These are the sectors that export the most intensively. They also experience a terms of trade gain from improved treatment in antidumping cases. We estimate that food, machinery and equipment and construction materials will decline in several regions as these sectors export relatively less and are relatively highly protected.

Regarding the distributional impacts, Rutherford and Tarr (2008) estimate that 99.9% of the households will gain from 2% to 25% of their household income. We find that poor households gain slightly more than rich households on average, since the return on capital does not increase as much as the wages of skilled and unskilled labour (see Figure 7.2).

The CRTS version of our 55 000 agent model precludes the possibility of FDI in services and endogenous productivity gains from services liberalisation. With this CRTS model, the distribution of gains has a mean of 1.2% of consumption (with a standard deviation of 0.7% of consumption) and we estimate that 7% of the households would experience losses. Thus, for about 7% of the households, the sign of the impact of the policy change is altered. Thus, modelling foreign direct investment with endogenous productivity effects in business services and imperfectly competitive goods is crucial, not only for the magnitude of the average results, but also for the sign of the results for about 7% of the households. Figure 7.3 encapsulates these key results well.

We conduct systematic sensitivity analysis to determine the robustness of the results to random selection of parameter values by executing the model 30 000 times. We find that our results are robust with respect to parameter specification. There is virtually no chance that the weighted average welfare gains as a percent of consumption for the poorest decile of the population is less than 5% or more than 11%; a 99% confidence interval is 5.6% to 9.5%. For the richest decile, the gains are slightly smaller; a 99% confidence interval for the richest decile of the population is 4.6% to 8.8% (see Figure 7.4).

Despite the significant gains we estimate from WTO accession, during a transition period it is likely that many households with displaced workers will lose as they are forced to seek new employment. Displaced workers will suffer losses from transitional unemployment and will likely incur expenses related to retraining or relocation. Some of the poorest members of the population are ill equipped to handle these transition costs. Thus, despite a likely substantial improvement in the standard of living for almost all Russians after adjustment to the WTO, government safety nets are very important to help with the transition, especially for the poorest members of society.

III. The Impact of WTO Accession and the Doha Development Agenda

In Hertel and Winters (2006) these authors report the results of the project they led to assess the impact of the Doha Development Agenda (DDA) on poverty. In their project they first employed the global trade model known as GTAP to assess the impact of an ambitious outcome of the DDA on world prices, and more precisely, on the change in the vectors of import and export prices faced by the countries in their study. A similar set of simulations was done to assess the impact of global free trade. Along with about 15 other country teams, Rutherford, Tarr and Shepotylo (2006) undertook the analysis for Russia.

At the conclusion of the Doha Development Agenda, Russia will face a new set of prices for its exports and imports on world markets. What will be the impact of these new world prices on Russia and on Russian poverty? We used the model we developed to assess the impact of WTO accession on Russian poverty to analyse this question.

We took the GTAP model simulations of the vectors of percentage changes in the price of exports and imports for Russia as a result of the completion of the Doha agenda or global free trade as the starting point for our analysis. We took these new price vectors from the GTAP model as exogenous shifts in the terms of trade facing Russia, and thereby evaluated the impact of the likely changes in world prices as a result of a conclusion of the Doha Development Agenda (and of global free trade) on Russia and on poverty in Russia. We also compared these effects with the impact on Russia of Russian WTO accession.

The model and dataset we used to analyse the impact on poverty in Russia of the Doha Development Agenda as well as a result of global free trade is the model explained in Rutherford and Tarr (2008). Our results for the Doha Development agenda are reported in Rutherford, Tarr and Shepotylo (2005) Moreover, we compare these impacts with the impact on Russia of its own liberalisation through the commitments it will make as part of its WTO accession. Russian WTO accession is primarily a set of commitments by Russia to liberalise its own trade and, crucially, to open up its foreign direct investment regime in business services. The comparison of Russian WTO accession with the impact of the Doha Agenda on Russia then devolves fundamentally to a question of whether Russia can gain more from trade and subsidy reform in the rest of the world or from its own liberalisation. We examine impacts on Russia overall, at the decile level, as well as impacts on the entire distribution of Russian households through our “real household” model of Russia.

Cuts in the tariffs and subsidies of other countries will impact Russia in certain ways. Global free trade (which encompasses free trade in goods outside of Russia and the elimination of export subsidies, with domestic support for agriculture retained) would result in a weighted average gain to households in

Russia of 0.2% of consumption, with a standard deviation of 0.2% of consumption. We estimate that a successful completion of the Doha Development Agenda (which we model as the elimination of export subsidies, substantial cuts in tariffs outside of Russia and reduction in domestic support for agriculture) would result in a weighted average gain to households of -0.3% of consumption. Russia, as a net food importer, loses from subsidy elimination, and the gains to Russia from tariff cuts in other countries are too small to offset these losses. The impacts on Russia from these terms of trade changes tend to favour neither the rich nor the poor. The distribution of these impacts across all 55 000 households in Russia are depicted in Figures 7.5 and 7.6.

In Figure 7.7, we compare the distribution of gains from the DDA, global free trade and Russian WTO accession, where the distribution of gains from Russian WTO accession is taken from Rutherford and Tarr (2008). It is striking that the gains from WTO accession are so much larger that the entire distribution is so far to the right that it barely overlaps in the tails with the global free trade distribution. That is, Russian WTO accession is dramatically more important to Russia than the DDA or even global free trade in the rest of the world. Thus, we find that, in the medium term, what other countries in the WTO do with tariff changes or changes in export subsidies or domestic support will have a very small effect on Russian households and poverty. On the other hand, we estimate that virtually all households will gain from Russian WTO accession, these gains are substantial and they are slightly progressive. The distribution of gains across the 55 000 households is decisively affected by including the liberalisation of barriers against foreign direct investment in business services sectors and endogenous productivity effects in business services and goods. These results strongly support the view that Russia has by far the most to gain from its own liberalisation, especially in business services, rather than from improvements in market access as a result of reforms in tariffs or subsidies in the rest of the world. Foremost among the source of gains from Russia's own liberalisation are the gains from liberalising barriers against foreign direct investment in business services.

IV. Examination of Russia's Tariffs from 2001-2005

What is the *structure* of the MFN tariff of Russia? How has it been changing over time? What are the sectors in which tariffs are high or low? How diverse is the tariff structure of Russia? Surprisingly, we only recently acquired the ability to answer these questions due to a lack of data that would allow calculation of the *ad valorem* equivalents of the specific Russian tariffs. This reflects a wider problem in the international trade literature: although we are making progress, to date, we do not have a set internationally comparable tariff rates for countries that use specific tariffs.⁴

Although the previous studies of the Russian tariff have provided a reasonable assessment of the Russian *ad valorem* tariffs,⁵ previous efforts have been hampered by two problems: (1) about 10-15% of the tariff lines of Russia use a "combined" tariff rate system. For these tariff lines, both an *ad valorem* and specific tariff are indicated, and the actual tariff applied by Russian customs is the maximum of the two. To know the actual tariff, where specific tariffs are specified, we must calculate their *ad valorem* equivalents. This is a non-trivial task, and some previous unpublished efforts have simply ignored the specific tariffs, resulting in an underestimate of the actual tariff rates; and, more importantly, (2) until recently, tariff line data on the value and quantity of imports have not been available, and the data were not available electronically.⁶ Consequently, earlier calculations were necessarily based on aggregates of

⁴ The International Trade Centre in Geneva is close to solving this problem, at least for very recent years.

⁵ This includes Tarr (1999) and Afontsev (2002, 2004).

⁶ The previous data available were the annual hard copy reports of the Russian Customs Committee. These reports reported aggregate information from the tariff line level, so that information is reported on about

tariff lines. Thus, these studies were simply not capable of assessing the tariff rates except at somewhat aggregate levels, and since the calculations were based on averages, the results were imprecise.

We have obtained a new data set that we describe below. As a result of these new data, we are able to calculate the *ad valorem* equivalents of the specific tariffs. This allows us to provide the first detailed and accurate assessment of the tariff structure of Russia. For the years 2001-2005, we are able to assess the actual number of tariff lines in which specific tariffs apply, which tariff lines have the highest tariffs, and investigate many other properties of the Russian tariff structure for the first time. We calculate and focus on the MFN tariffs. In an appendix to Shepotylo and Tarr (forthcoming), we also provide an estimate of the collected tariff rates where we adjust for the fact that most imports from CIS countries enter with zero tariffs.

Briefly, our key results, which are displayed in Table 7.4, are the following: the average tariff in Russia increased between 2001 and 2003 from about 11.5% to between 13% and 14.5%, but it held steady in 2004 and 2005. This places Russia's tariffs at a level slightly higher than other middle-income countries and considerably higher than the OECD countries. The tariff structure became much more diverse between 2001 and 2003, but the dispersion of the tariff moderated in 2004 and 2005. Notably the trade weighted standard deviation of the tariff approximately doubled from 9.5% in 2001 to 18% in 2003, but then fell to 15.2% by 2005. "Tariff peaks," that is, tariff lines with very high tariffs, are more of a problem in 2005 than in 2001, but less so than in 2003. The reason for the increase in the tariffs is the specific tariffs, as the *ad valorem* rates have not increased. More tariff lines are subject to specific tariffs in 2003-2005 than in 2001, and the appreciation of the euro, relative to 2001, has increased the *ad valorem* equivalents of the specific tariffs. The food sector and light industry are the aggregate sectors with the highest tariff rates – their tariff rates in 2005 were 23.1% and 19.5% on a trade-weighted basis.

Considerable variance in the tariff rates exists even at the two digit level of aggregation. The following sectors that have an average unweighted tariff of 20% or more (the average is over all tariff lines within the two-digit category): meats, edible offal (29%); meat and fish preparations (35%); sugar (24%); beverages and vinegar (21%); glues (20%); articles of leather (28%); carpets (20%); apparel (21%); footwear (27%); hats (20%); umbrellas (20%); clocks and watches (29%); furniture (21%); feathers (23%). On the other hand, most mineral products had low tariff barriers throughout the period.

Tariff peaks at the tariff line level (ten digit level) are very high. In 2005, there were 27 tariff lines with tariff rates of 100% or more. Still another 86 tariff lines had tariff rates above 50 but less than 100%. But about 94% of the tariff rates are less than 25%, 83% are less than 20%, and 41% of the tariff lines have tariff rates less than 1%. Clearly there is a lot of variance in the tariff structure.

V. The Merits of Dual Pricing of Russian Natural Gas

During the accession negotiations to enter the World Trade Organisation, the question arose whether Russia should charge the same price for the exports of its natural gas as it charges in its home market. This issue was highly controversial in Russia and was a major issue in the bilateral market access negotiations between the European Union and Russia. In Tarr and Thomson (2004) we analyse this question. We find that from Russia's perspective, there is a strong rationale for discriminatory pricing between gas sold domestically and exported gas. Although there have been significant increases in the price of natural gas charged by Gazprom since we did this analysis, the basic principle that it is not in

1 700 aggregated product codes out of about 11 000 tariff lines. Previously, we manually entered these data in order to perform the calculations that were possible with those data.

Russia's interest to unify natural gas prices has not changed. On the other hand, efficient pricing from the perspective of the world would call for unified pricing of gas. I explain that optimal two part tariff pricing by Gazprom would achieve efficient unified pricing, but our estimates show that it would approximately double the profits of Gazprom on its European sales.

In the Russia-European Union bilateral agreement on Russia's WTO accession, Russia reportedly was not required to unify its domestic and export price of natural gas. Russia, however, was expected to raise its domestic price to the long run marginal costs of Gazprom.

Russia's Reserves and Exports

Russia is endowed with very significant natural gas resources. Its proved reserves of 47.6 trillion cubic metres represent over 30% of the world's proved reserves.⁷ Its 2001 production of 542 billion cubic metres (BCM) constituted 22% of world production and its reserves to production ratio is in excess of 80 years, higher than any other major producer. Russia is also by far the world's largest exporter of natural gas. In 2001, it exported about 127 BCM to Europe and Turkey and about 40 BCM to CIS countries and the Baltics.⁸

Optimal Export Prices

It is in Russia's interest to try to maximise the overall revenues associated with export volumes. Given the need to ship natural gas from Russia to Europe through a pipeline, Gazprom is able to "segment" the European market from the Russian market. Russia has a market share of approximately 27% of natural gas sales in Europe, which implies Gazprom has some market power in Europe.⁹ In this situation, it is optimal for Gazprom to price above long run marginal cost to exploit this market power.¹⁰

The significant role Gazprom plays in supplying the European market, gives it market power.¹¹ The extent of the market power, however, is tempered by the existence of competing sources of gas. In addition, Gazprom wants to be perceived as a reliable supplier that can be trusted to continue to deliver gas (potentially in increasing quantities) at a fair price to European markets. In the long run, Gazprom faces risks that new competitors will erode its market share and those risks are greater the higher its markup over marginal costs.¹² Volumes for the next several years are constrained by transportation

⁷ The source for the data in this paragraph is British Petroleum (2001).

⁸ Exports to Europe and Turkey include about 75 BCM to Western Europe, 40 BCM to Eastern Europe and 11 BCM to Turkey.

⁹ In the year 2000, Russia was responsible for 66% of the imports of Europe (including Turkey). The other principal suppliers of gas to the European market are Algeria (through a pipeline across the Mediterranean), Norway, the Netherlands and the UK. See British Petroleum (2000).

¹⁰ If in the future, competition is introduced in the Russian market, competition among Russian firms would erode monopoly profits in Europe. In effect, unified pricing would be achieved through structural reform of the Russian market, rather than by regulation. In the absence of the Gazprom monopoly, if Russia is to extract the available monopoly profits on its exports of gas to Europe, it will be in Russia's interest to impose export taxes on Russian gas exporters.

¹¹ Based on data in the Europe market, in Appendix 1 of Tarr and Thomson, we present our calculations of the Lerner index of market power. We find that it is significant in comparison with estimates of the Lerner index for other industries.

¹² Since higher prices will accelerate the entry of new competitors, optimal dynamic pricing by Gazprom would result in a lower price to deter entry. If in the future, supplies from new competitors increase faster than demand from Europe, the markup by Gazprom would fall. Moreover, elasticities of demand are greater

facilities and long-term contracts. This limitation, of course, can be overcome and new entrants are likely to emerge. However, the longer-term constraint is the absorptive capacity of export markets. Russia's proven reserves are sufficient to support a doubling, or even tripling, of its production capacity. In order to absorb this volume of gas, markets in Europe would have to increase dramatically.

The key point here is that Gazprom cannot sell significantly more natural gas in Europe without impacting the price of gas in Russia. To sell significantly more gas, Gazprom would have to accept a lower price, *i.e.* it faces a downward sloping demand curve. This means that there is no “world price” of gas that Russia faces. If Gazprom has to lower its export price to make significantly greater sales in Europe, Gazprom must calculate an optimal price for its gas sales in Europe that reflects the tradeoff it faces between the additional revenue from additional sales of gas and the lost revenue from the reduction of price. Gazprom's optimal price of gas in Europe will have to change over time as the demand for gas in Europe changes, but it is in Gazprom's interest to maximise its profits on exports.

Figure 7.8 presents the Tarr and Thomson model. We assume that Gazprom is optimising the price and quantity that it sells in Europe – this was between USD 79 and USD 99 per thousand cubic metres (TCM) plus USD 27 transport costs in 2000 and 2001. (Prices were about USD 380 per TCM in 2008.)¹³ The analysis reveals that if Russia was to sell its natural gas to Europe at only full long run marginal cost plus transportation costs, it would lose between USD 5 billion and USD 7.5 billion per year at 2001 values. On the other hand, consumers in Europe would gain even more (between USD 7.5 billion and USD 10 billion per year), as they would consume more gas at lower prices. If, instead, Russia were to raise its domestic prices to the prices it charges in Europe, Russian industry would incur very large adjustment costs as the gas cost increases would adversely impact on investment and unemployment in the short run. Absorbing the cost increases would induce Russian industry to switch to alternative fuels and produce less gas-intensive products that, as we explain below, cannot be justified on the basis of Russia's comparative advantage.

Domestic Market Pricing in Russia

The Russian market would be better served if Russia were to introduce competition in production of natural gas along with the provision of pipeline access for new gas suppliers. Gazprom, however, is presently close to a monopoly in Russia's domestic market. Efficient pricing of monopolies requires that they price in the domestic market at levels that reflect the true alternative economic value of the commodity in question.¹⁴ If there was a world price, the opportunity costs of selling gas domestically would be the world price and it would be optimal for Russia to charge a unique price on its domestic and

in the long run than in the short run, since, for example, inter-fuel substitution is possible in the long run. Greater elasticities imply less market power and lower the optimal markup over marginal costs. We presume, however, that Gazprom has optimised its markup based on long run calculations.

¹³ Gazprom president Alexei Miller reported on 14 March 2008 that “the price [of Russian gas] in Europe now exceeds USD 370. We believe the average price in 2008 could be USD 378 and could even reach USD 400 per 1 000 cubic meters.” Regarding demand in Russia, he noted that the rise of national industries, such as producers of cement, building materials, and fertilisers and gas refineries, is also pushing up Russian gas demands. Miller said that Gazprom plans to introduce market gas prices for Russian industrial consumers in 2011. See Johnson's Russia List, <http://www.cdi.org/russia/johnson/2008-56-39.cfm>.

¹⁴ This discussion is based on the monopoly structure of the natural gas market in Russia. Of course, production of natural gas is not a natural monopoly and it would therefore be desirable to have additional producers. We discuss below that if alternative producers of natural gas were given access to the gas pipelines, there would be economic gains as well as environmental benefits. Nothing in the argument developed in this paper implies that the current structure of Russia's gas market is efficient.

export sales.¹⁵ We have explained above that there is not a world price of natural gas for Russia and it must determine its export price independently of its domestic price. In Russia's domestic market, the opportunity costs then correspond to the long run marginal costs of natural gas. In 2001, this implied that it was necessary for Russia to raise the domestic price of natural gas to achieve this economically efficient price; otherwise the capital stock will deteriorate and supplies will not be forthcoming over time. Many market economies, in fact, regulate the maximum price of monopolies such as gas and electricity distribution to achieve this pricing objective.¹⁶ The analysis summarised in Figure 7.8 suggests that, in 2001, Russia should have allowed Gazprom to raise its domestic prices of natural gas from about USD 15 to USD 20 per TCM to the full long run marginal costs (about USD 35 to USD 40 per TCM). This would have resulted in benefits to Russia of about USD 1.24 billion per year.

By 2007, natural gas prices in Russia had increased to between USD 64 and USD 72 per TCM.¹⁷ Although there is no updated estimate of LRMC, it has surely increased considerably due to inflation and the substantial rise in steel costs above the rate of inflation, coupled with the weaker dollar. It would appear, however, that with the substantial increase in the price of natural gas to producers in Russia, prices are much closer to LRMC in 2007. Moreover, the Government of Russia has announced plans to increase the price of natural gas for industrial users to international levels, less transportation costs and export taxes. In early 2008, prices on exports to Europe were about USD 378 per TCM. With transportation costs of about USD 35 per TCM and export taxes at 30%, to implement this plan today, prices in Russia would have to rise to about USD 225 per TCM. Russian Government forecasts of domestic natural gas prices in 2011, however, are that prices would rise to about USD 120 per TCM. Thus, to implement this plan, Russian domestic market prices would have to rise dramatically higher than what is planned. Moreover, such high domestic prices would be very inefficient. High prices would induce very significant reductions in Russian demand, to the point where the value to Russian consumers would be considerably greater than the long run marginal costs of production. This would imply substantial monopoly profits for Gazprom on domestic sales. Russia fought a bitter battle at the WTO and won the right to have dual pricing of natural gas. However, except for the 30% export tax difference, Russian current plans call for a unification of natural gas prices for its industrial users.

Efficient Prices from the Perspective of the World

Given that Europeans lose more dollars than Russia gains from dual pricing, a natural question is whether there is a co-operative solution that makes both Europe and Russia better off. A co-operative solution would involve Russia selling gas to Europe at LRMC plus transportation costs and Russia receiving compensation in return. European compensation need not be tied directly to gas prices. But for such an arrangement to be in Russia's interest, the compensation would have to be substantial, valued by Russia at not less than USD 5 to USD 7.5 billion per year. Alternatively, one can pose the question non-co-operatively: can Gazprom develop a pricing strategy that would allow it to increase its profits? Monopolists often employ "two-part tariffs" as a method to extract the maximum profits. If European buyers were offered gas at a lower per unit usage price, but had to pay a fee to access the gas each year, this would be, in effect, a two part tariff. For Gazprom, the optimal two part tariff requires pricing gas at LRMC plus transportation costs, and charging an access fee equal to the entire value of the gas to European consumers above LRMC plus transportation costs (the entire consumers' surplus). In principle, Gazprom's profits could increase by not only the USD 2.5 billion in inefficiency losses from prices exceeding marginal costs in Europe, but by an additional USD 4.8 billion due the additional value it can

¹⁵ Given a domestic monopoly, unified pricing would call for a tax to prevent monopoly profits.

¹⁶ See, Scherer (1980, chapter 18) and Carlton and Perloff (2000, chapter 20).

¹⁷ Estimates based on Rosstat and Ministry of Economy data.

extract from consumers with high demand (the triangle DD'J in the figure). Gazprom's failure to maximise short run profits through optimum two-part tariffs likely reflects its perceived risk of losing profits to substitutes. By identifying the stakes – who gains and who loses – we hope that we will inform the debate on this important policy issue.

VI. Principal WTO Accession Commitments of Russia

Non-Agricultural Market Access (NAMA)

Overall Tariffs. Russia agreed to reduce its bound MFN tariffs to about 8% on average. As discussed above, Russia's MFN tariffs were about 12.1% on a simple average basis or 14% on a trade weighted basis in 2005, where we have taken into account the *ad valorem* equivalents of Russia's specific tariffs. We find that ignoring the specific tariffs results in a reduction in the calculated average tariff to about 11%. Independent of whether the Working Party calculated the *ad valorem* equivalents of the Russian specific tariffs, an average Russian tariff of the 8% implies a decline.

Civil Aircraft and Capital Goods and Equipment. One of the more contentious areas of tariff negotiation was civil aircraft. Tariffs on wide body aircraft will be reduced from 20% to 7.5% in the four years following accession. Russia has agreed to substantial tariff reductions in construction, agricultural and scientific equipment, as well as medical devices. Tariffs in these sectors will average 5%.

Services Commitments

Some of the most important and internally controversial commitments by Russia are in the area of services.

Insurance. Russia will significantly increase its commitments to multinational insurance providers. It will allow 100% foreign ownership of non-life insurance companies upon accession to the WTO. Russian prohibition of foreign participation in mandatory insurance lines as well as Russian restraints on the number of licenses granted to foreign life insurance firms will be phased out five years after the date of accession. Russia had restrained the amount of foreign investment in the sector to about 15% of total investment; but as part of its accession commitments, Russia agreed to increase this limit to 50%.

The Russian banking and insurance sectors see themselves as very vulnerable to much more powerful and efficient multinational providers of financial services. As such they were strong opponents of commitments in these sectors. The insurance sector was very concerned by the level of commitments made by their government in the rush to get an agreement prior to the G-8 conference in Saint Petersburg in late spring 2006. The experience of China, where similar fears were expressed by insurance interests, is instructive and suggests that these fears are exaggerated. Prior to 2001, China had a very closed insurance market. As part of its WTO accession commitments, China agreed to gradually remove restrictions on foreign investors in insurance and to fully open its insurance markets by January 2005 (except foreign companies could hold a maximum of 50% in the life insurance market). As expected, the results have been extremely positive for consumers of insurance services in China. In addition, wages of skilled workers in the insurance sector have risen, and even domestic insurance companies have grown, and, due to better access to foreign capital as foreign investors, nearly all have sought and obtained local partners (for details and references see Tarr, 2007).

Banking and Securities. Russia has agreed to bind most existing market access arrangements and to offer some additional liberalisation. These commitments include: allowing 100% foreign ownership of banks and other non-insurance financial institutions; allowing cross border provision of numerous services including asset management services, credit cards and other types of payments; allowing foreign

investment companies to own and trade the full range of securities available in Russia, including state securities and bullion, and to participate in financing the privatisation of state owned enterprises. In addition, Russian restraints on the share of the sector captured by foreign banks will increase from about 15% of total investment to 50%.

In banking, opposition galvanised around the branch banking issue. Russia was willing to allow subsidiaries of international banks. Subsidiaries must be registered as Russian entities, have their own capital and are subject to supervision by the Russian central bank. Branches, however, do not have a separate legal status or capital apart from their foreign parent bank. In general, entry into banking services in a country is easier when branches are permitted and the US Treasury has been attempting to assure branch banking is permitted in all countries admitted to the WTO. The Russian central bank maintained that it could not regulate or supervise branches adequately and that depositors would therefore be at risk.

The counterargument to the view of the Russian central bank is that theory suggests and experience has shown that multinational banks have more of their reputation on the line with a branch, and this will provide greater incentive to avoid default. Moreover, to the extent that the costs of entry through branches are smaller, the number of multinationals present will be larger with branches. Then the host country has the advantage of a larger amount of FDI if it allows branches. This is the greatest advantage of allowing branch banking, but it was also the greatest concern of the central bank of Russia – since it implies greater potential adjustment costs for Russian banks.

Of the 150 countries in the World Bank database on “Banking Regulation and Supervision” for 2003,¹⁸ branch banking was prohibited in only 18. The 18 countries prohibiting branch banking were: Russia, Kazakhstan, Azerbaijan, Belarus and the Ukraine from the CIS, plus Bolivia, Botswana, Columbia, Costa Rica, Macedonia, Malaysia, Mexico, Nigeria, Papa New Guinea, Philippines, Serbia and Montenegro, Trinidad and Tobago and Zimbabwe. The remaining 132 countries, including all OECD and EU (25) countries, allow branch banking.

It seemed that the Chinese approach offered a reasonable compromise. China allows branches, but it imposes a large minimum asset requirement on the parent bank.¹⁹ The *de facto* consequence of this is that China only allows rather large multinational banks to enter. This both protects incumbent Chinese banks against many new entrants, and also means that the foreign entrants are likely to be relatively safe and in need of little supervision or regulation.

President Putin has said that branch banking was a deal breaker for Russian WTO accession. Based on its bilateral agreement with the US, Russia succeeded in avoiding a commitment on branch banking, becoming the only non-LDC acceding country to avoid such a commitment.²⁰ Like many items in accession negotiations, succeeding in avoiding a commitment is a pyrrhic victory as Russia will lose the benefits from greater foreign direct investment. Nonetheless, multinational banks, operating as subsidiaries have greater market access and national treatment rights under the bilateral US-Russia agreement and Russia should benefit from greater involvement of multinational banks in Russia over time.

¹⁸ See http://www.worldbank.org/research/projects/bank_regulation.htm. Rows 31, 32 and 42 provide data on branch banking.

¹⁹ This minimum asset requirement would have to be scheduled in the GATS commitments in order to avoid disputes with members.

²⁰ Russia agrees to reopen discussions on this issue upon consideration of membership in the OECD.

Telecommunications. As part of its bilateral agreement with the European Union, Russia agreed to terminate the monopoly of Rostelekom on fixed line long distance telephone services. In the agreement with the US, Russia committed to allow 100% foreign owned telecommunications companies to operate in any telecommunications sector. Russia also agreed to implement the WTO Basic Telecommunications Reference Paper, which among other reforms will require Russia to establish an independent regulator and provide for transparency and interconnection obligations. Presently the Ministry of Communications is responsible for managing any state assets as well as performing regulatory functions such as interconnection and licensing. Conflicts of interest are more likely when the same government entity that manages the state assets is also responsible for the regulatory functions, and it is likely that a commitment to an independent regulator and other key reforms in the sector would not have been achieved without international pressure.

Business Services. Russia will ensure market access and national treatment for a wide variety of professions, including lawyers, architects, accountants, engineers, health care professionals, advertising, marketing and management specialists. Foreign companies will be permitted to operate as 100% foreign owned entities.

Distribution Services. Russia will allow 100% foreign owned companies to engage in wholesale, retail and franchise sectors, as well as express delivery services upon accession to the WTO. This includes distribution of pharmaceuticals, with minimal limitations.

Agriculture Issues

Agricultural issues have been among the most contentious in Russia's WTO accession negotiations. The most difficult unresolved issue is agricultural subsidies. Russia, however, has made considerable commitments in market access as well as sanitary and phyto-sanitary (SPS) negotiations. For beef, pork and poultry exports, the disputes with the US were among the most significant. (In early 2008, Russia was still discussing further commitments on SPS with the informal multilateral Working Party that are discussed below.) The bilateral agreement with the US details the following commitments.

Market Access. Russia agreed to bind its tariffs on all agricultural products. In many cases this entailed tariff cuts from present levels. See the United States Trade Representative (2006) (USTR) fact sheet for details.

Non-Tariff Barriers. Imports of poultry, beef and pork products from the US have been especially controversial. Instead of joint inspection of facilities, Russia agreed to allow the US Department of Agriculture-Food Safety and Inspection Service to inspect and certify new facilities or facilities that need to remedy a deficiency. Regarding beef, Russia and the US agreed to timely joint inspections of all facilities that will export to Russia. Once a joint inspection has been completed, the inspection process applying to poultry and pork exporters will apply.

Russia will allow the freezing of pork to limit the risk of trichinae which will mitigate the impact on sales. Previously, Russia only allowed this for intermediate pork sales. The Russian regulatory regime in modern biotechnology products has been unpredictable. For example, product registrations and approvals in the area of feeds were halted in 2004 when work began on a new permanent regulatory system. Russia also agreed to maintain an interim approval and registration system for modern biotechnology products (until a permanent one could be established) that is science based, transparent and consistent with the WTO Agreement.

VII. Are there Excessive Demands on Russia due to Political Considerations?

Claims that demands on Russia are either political or excessive by the standards of other countries that have acceded to the WTO are widespread, however, they are largely unfounded. The evidence reveals that, aside from a couple of well-publicised cases (such as unified gas pricing) where unusual demands were placed on Russia,²¹ such demands are typical of the WTO accession process in the past ten years. Since 1998, the process of acceding to the WTO has been a difficult one in which all acceding countries have been asked to take on very significant commitments to foreign exporters and investors. In comparison with the commitments of these countries, the commitments demanded of Russia do not appear excessive.

Goods

In goods, Russia has agreed to bind its tariffs at an average tariff level of 8%, after an adjustment period (USTR, 2006). This is a slightly higher average bound tariff on goods than most countries that have acceded to the WTO since 1998 (see WTO, 2005), especially compared with other Transition countries. The average tariffs for other acceding countries are: Saudi Arabia, 10.5%; Former Yugoslavian Republic of Macedonia, 6.2%; Armenia, 7.5%; Chinese Taipei, 4.8%; China, 9.1%; Moldova, 6.0%; Croatia, 5.5%; Oman, 11.6%; Albania, 6.6%; Georgia, 6.5%; Jordan, 15.2%; Estonia, 7.3%; Latvia, 9.4%; Kyrgyz Republic, 6.7%.²² Thus, by the standards of countries that have acceded to the WTO in the last eight years that are not “Least Developing Countries,” Russia appears to have acceded with bound tariffs slightly higher than average, *i.e.* no excessive demands from the Working Party here.

Services

In the area of services, no simple measure like an average tariff is available. But an examination of the table of commitments of the countries that have acceded to the WTO since 1998 (WTO, 2005, Table 7.5) shows that all of them have assumed a rather high and comprehensive level of commitments in terms of sectors included. On a qualitative basis, the more detailed discussion above on banking and insurance does not suggest an above average level of commitments in these important sectors. On the contrary, Russia has been able to avoid a commitment to branches of banks, unlike almost all of these countries.

Agriculture

Although trade-distorting subsidies (subsidies that are dependent on exports or production) are constrained by the WTO, the WTO allows without any constraints publicly funded subsidies to agriculture that are not trade-distorting. These types of subsidies are known as “Green Box” subsidies. Green Box subsidies include a wide range of publicly funded measures including research and development, pest control, general and specialist training, extension and advisory services, inspection services for health and sanitary reasons, marketing and promotion services, infrastructure services, including electricity, roads and environmental expenditures, targeted support to low income population through food stamps or subsidised prices, direct payments to producers to support income provided it has minimal trade-distorting features, crop insurance subsidies for natural disasters, adjustment assistance

²¹ One unusual demand on Russia was the pressure to unify its domestic and export price of natural gas. This demand, which occupied negotiators for considerable time and was eventually dropped by the European Union, would have imposed a very high cost on Russia (see Tarr and Thompson, 2005).

²² Two of the “Least Developed Nations” acceded with relatively high bound tariffs: Cambodia, 17.7%; and Nepal, 23.7%. But the WTO accords a preferential status to developing countries.

through producer retirement programs and indirect income support not related to prices. The world-wide trend is to move agricultural support away from trade-distorting subsidies toward Green Box measures. In part, this is because it is generally recognised that trade-distorting subsidies are a highly inefficient way of helping agricultural producers compared with Green Box measures. And Green Box measures are more effective at creating a competitive agricultural sector in the long run.

Nonetheless, incumbent members of the WTO, like the European Union, Canada, the United States and Norway, have a base period for trade-distorting agricultural subsidies that allows considerable trade-distorting subsidies. The precedent among acceding countries, however, is that the three year period prior to accession forms the base period for permitted trade-distorting subsidies, and trade-distorting subsidies are negotiated down from that base. Although it is good for the Russian economy, the problem for Russian WTO accession negotiators is that in recent years Russia has had a rather low level of trade-distorting agricultural subsidies; but Russia would like to retain the right to use these subsidies in agriculture in the future. This issue was not resolved during the bilateral phase of the negotiations and will be one of the most contentious in the multilateral phase. Other countries, like Kazakhstan, who have a similar negotiating position, are waiting to see if Russia is successful in its negotiations. If Russia is able to obtain the right to provide trade-distorting subsidies in agriculture on a new basis among acceding countries, these other countries will demand parallel treatment. In any event, it is difficult to argue that Russia is being treated more harshly than other countries that have acceded, since it is asking for a departure from precedent.

VIII. Russian WTO Accession and the Jackson-Vanik Amendment

The Jackson-Vanik amendment of the US requires an annual review of Russian emigration policies in order for the US to grant MFN status to Russia (and other former communist countries). This is a significant irritant to Russia. At present there is no commercial pressure in the US to remove Jackson-Vanik. Once Russia becomes a WTO member, however, this will change, and there will be pressure on the US from its own exporters and investors to remove Jackson-Vanik. Consequently, the US will almost certainly remove Jackson-Vanik after Russian WTO accession.

The WTO requires that permanent MFN status be granted to all members. Thus, the provisions of Jackson-Vanik are inconsistent with MFN treatment required by the WTO. The US has two options once Russia becomes a member of the WTO: (1) eliminate Jackson-Vanik; or (2) invoke the “non-application principle” of the WTO. For newly acceding countries, a member of the WTO can opt out of WTO commitments with respect to the newly acceding country if it invokes the “non-application” principle. If the US were to invoke the non-application principle against Russia, this means that the US would refuse to honour its WTO obligations to Russia. But non-application is reciprocal. So the US would not have any assurance that its exporters or investors would be treated in Russia according to Russia’s WTO commitments.

In practice, the US has dropped Jackson-Vanik on all countries that have acceded to the WTO with one exception. In the cases of Albania, Bulgaria, Cambodia, Estonia, Latvia and Lithuania, Jackson-Vanik was repealed prior to accession. In the cases of Mongolia, Armenia, Georgia, Kyrgyzstan, it was repealed after accession, so the non-application principle was invoked, but eventually removed within a year or two. (In the case of Georgia, non-application was never invoked since Jackson-Vanik was removed soon after accession.) Only in the case of Moldova does Jackson-Vanik still apply to a country that acceded to the WTO. In the case of the Ukraine, Jackson-Vanik was removed in 2006.

Former US Trade Representative Rob Portman testified before Congress in 2006 that the US will have to lift Jackson-Vanik against Russia, the Ukraine and Kazakhstan in order for the US exporters and investors to gain the advantages of the commitments these countries are making at the WTO.

IX. Remaining Issues

Often the most difficult issues remain at the end of the accession negotiations. Although Russia has resolved some of the most contentious (such as gas pricing and branch banking where Russia achieved its objectives in the negotiations), several difficult issues remain.

Georgia – The Customs Posts issue with Russia

The negotiations and political situation between Russia and Georgia were highly volatile at the time of writing. Abkhazia and South Ossetia are two breakaway regions from Georgia with *de facto* governments independent of the central government of Georgia. These regions border Russia. Georgia has repeatedly called for the removal of a Russian-led peacekeeping mission in Abkhazia. In the context of the WTO, Georgia considers the customs posts between these regions and Russia illegal and has asked Russia to close them. Russia had, until early 2008, steadfastly refused to discuss the customs post issue as part of its WTO negotiations. Russia has banned the import of wines, mineral water and plant based products from Georgia, which appears to many Georgian officials as retaliation for the pressure Georgia had placed on Russia in the WTO accession negotiations. Georgia, which had signed its bilateral agreement on Russian WTO Accession in 2004, then withdrew its support for Russia's WTO accession. Moreover, Georgia has objected to the agenda of the multilateral meetings and thereby blocked any official meetings of the Working Party on Russian WTO accession. In 2008, in order to work around this problem, the Working Party on Russian WTO accession met "informally." But in order for Russia to become a member of the WTO, the final report of the Working Party will have to be submitted to the General Council of the WTO and Georgia can block this submission. Thus, consensus is required and Georgia has a blocking vote on Russian WTO accession.

A major breakthrough occurred, however, when in February 2008, Russia agreed for the first time to discuss the border posts issue in the context of its WTO accession. At the same time, Georgian President Mikhail Saakashvili expressed hope for a "fresh start" in relations with Russia and suggested that Georgia may withdraw its objections to Russia joining the World Trade Organisation. In early April, Russia announced the resumption of sea and air travel and postal communications between the countries. It looked like the Georgia customs posts issue in the Russia WTO accession negotiations might be tractable after all.

The situation between Russia and Georgia, however, took a negative turn in April 2008. While not officially recognising the *de facto* governments of the breakaway republics of Abkhazia and South Ossetia, on 16 April President Putin indicated that the Russian Federation will officially interact with them. Some experts see the action as an effort by Russia to frustrate Georgia's efforts to accede to NATO in advance of NATO's expected reconsideration of a "Membership Action Plan" for Georgia at its December 2008 meeting. President Saakashvili, describing himself as "astonished and anxious about the provocative nature of Russia's move," asked Russia to "revise all those decisions that breach Georgia's sovereignty and territorial integrity."

Agriculture

Russia failed in the bilateral discussions to achieve its objective of defining 1992-1994 as the base period for trade-distorting agricultural subsidies. Russia now hopes that it will be able to negotiate a dollar amount that it would be allowed to subsidise. This is likely to be a very difficult negotiation as

there are other countries, like Kazakhstan, which would like similar departures from precedent. If the Working Party allows Russia a larger trade-distorting subsidy amount, it will have a more difficult time negotiating previous limits with subsequent applicants for WTO membership. Australia and New Zealand are likely to resist a change in precedent that would allow an increase in the trade-distorting subsidies. Partly in anticipation of this negotiation problem, Russia has been increasing its agricultural subsidies.

In the spring of 2008, Russia promised to submit an agricultural text for consideration to the informal multilateral Working Party. Russia submitted texts on sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT) for consideration. With respect to the SPS text, trading partners were pressing Russia for commitments on transparency, resident inspectors and use of international standards specifically with regard to pesticide use. On TBT, the final gaps related to the timetable by which Russia will change its rules to conform with international rules, and what rules will apply to the transition.

Intellectual Property

One of the more problematic areas in the negotiations for Russia has been Russia's obligations under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Although the Working Party has sought improvement in the laws, enforcement has been a real issue. US private industry sources complained that Russia was not cracking down on pirated copies of goods, including software, music, films and pharmaceuticals. As part of its bilateral agreement with the US, Russia signed a "side letter" in which it agreed to take several steps to strengthen enforcement of its intellectual property regime.

In early 2008, significant progress was made. An informal meeting of the Working Party approved a working party report chapter laying out Russia's obligations under the TRIPS Agreement. Russia passed a new Civil Code that came into force on 1 January 2008. The EU and the US had made demands that Russia address deficiencies in this code. Russia agreed to take on obligations to address the deficiencies and in particular makes very specific commitments to implement the TRIPS agreement fully, address member's concerns about the Civil Code and strengthen enforcement.

*Timber Export Taxes*²³

In an effort to develop its wood products industry, Russia is implementing a progressive increase in export taxes on raw timber. On 24 March 2006, Russian export taxes were increased by EUR 1.5 to EUR 4 per cubic metre or 6.5%, whichever is greater. On 1 July 2007, they were increased to the greater of EUR 10 per cubic metre or 20%. On 1 April 2008, timber export taxes were increased to the maximum of EUR 15 per cubic metre or 25%.²⁴ Plans call for export taxes to be increased on 1 January 2009 to the greater of EUR 50 per cubic metre or 80%.

Finnish and Swedish wood sector and government representatives have strongly objected to the export tax increases, which some suggest will result in a prohibitive increase in export prices. On their behalf, the EU has addressed this issue in the context of the accession negotiations. On 1 April 2008, a spokesman for the EU stated that the EU regrets the decision by the Russian Federation to raise export duties for timber. He said that this issue figures prominently in the ongoing negotiations on Russia's WTO accession and that the decision to go ahead with the increase in export duties will not make the

²³ Russia's commitments regarding state trading enterprises is another important outstanding issue.

²⁴ *International Herald Tribune*, 1 April 2008.

situation easier.²⁵ President Putin has expressed support for the timber taxes as a means of developing the wood sector of Russia, without a desire to harm the Finnish or the Swedish wood processing industries.

X. When Will Russia Achieve Membership?

Although consensus on Russia's obligations under the TRIPS Agreement is one of the major issues on the table, many of the most difficult issues arise at the end of the process, and thus some of the most difficult compromises are necessary. Some observers (Aslund, 2007) are suggesting that isolationist interests in Russia have gained more influence and thus Russia is having second thoughts about an open economy model of economic development. If correct, this would make it very difficult then to come to a final agreement. On 14 February 2007, US Trade Representative Susan Schwab told the Senate Finance Committee that "Russia is not moving ahead with the kind of WTO commitments that it would need, at this point, to become a full-fledged member of the WTO." Regarding the multilateral talks, she added they "are not proceeding as well or as quickly as I think Russia had hoped."

Russian leaders have set a goal of accession to the WTO by the end of 2008. The issues discussed above, and the stiffening political will on many sides, suggest, however, that 2008 is overly optimistic for Russian accession. At the same time, it is difficult to believe that a country as important as Russia will not become a member of the WTO. I am optimistic, therefore, that the West and Russia will eventually come to an agreement. And once Russia has an agreement with the West, Russia and Georgia will also resolve their dispute.

²⁵ http://ec.europa.eu/trade/issues/bilateral/countries/russia/pr010408_en.htm

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Annex – Tables and Figures

Table 7.1. Sectors, Tariff Rates, Export Tax Rates, Barriers to FDI in Services Sectors and Estimated Improved Market Access (*ad valorem* in % by sector)

Sector and Type of Sector	Tariff rates	Export tax rates	Change in world market price	Equivalent % barriers to FDI	
				Base Year	Post-WTO Accession
Perfectly Competitive Goods					
Electric industry	2.6	0	0		
Oil extraction	0	7.9	0		
Oil processing	4.5	4.6	0		
Gas	5	18.8	0		
Coalmining	2.2	0	0		
Other fuel industries	5	2.6	0		
Textiles and Apparel	16.8	4.1	0.5		
Agriculture and forestry	8.4	0.6	0		
Other goods-producing sectors	14.6	0	0.5		
Imperfectly Competitive Goods					
Ferrous metallurgy	5.9	0.4	1.5		
Non-ferrous metallurgy	8.5	5.3	1.5		
Chemical and oil-chemical industry	7.5	1.6	1.5		
Mechanical engineering and metal-working	10.7	0	0		
Timber, woodworking, pulp and paper	13.5	6.9	0		
Construction materials industry	12	1.6	0		
Food industry	14.1	3.1	0.5		
Other industries	12.4	0	0.5		
Business Services with FDI					
Telecommunications				33	0
Science and science servicing (market)				33	0
Financial services				36	0
Railway transportation				33	0
Truck transportation				33	0
Pipelines transportation				33	0
Maritime transportation				95	0.8
Air transportation				90	0.75
Other transportation				33	0
Perfectly Competitive Services with no distortions: Post; Trade; Public Services, culture and arts.					

Source: Shepotylo and Tarr (forthcoming) for tariff rates; Kimura et al. (2004a,b,c) for barriers to FDI; Rosstat for export tax rates; authors' estimates for change in world market prices.

Table 7.2. List of Russian Regional Markets and Oblasts

Russian regional “markets” (markets are aggregates of oblasts defined below)		
msc	Moscow	(msk,mos)
stp	Saint-Petersburg	(len,spb)
tmn	Tumenskaya	(tum,kha,yam)
vgd	Northwest	(vol,klg,nov,psk)
nor	North	(kpa,nen,krl,kom,arh,mur)
cen	Central	(bel,bry,vla,vor,iva,kal,kos,krs,lip,orl,rya,smo,tam,tve,tul,yar)
sou	South	(sar,ady,dag,ing,kab,klr,kar,sev,kdk,sta,ast,vlg,ros)
url	Urals	(mar,mor,tat,udm,chv,kir,niz,pen,ulo,ore,sam,bas,per,krk,sve,chl)
sib	Siberia	(alr,bur,tyv,hak,alt,irk,kem,nvs,tom,oms,eve,tai,ust,kra,sah,kam,mag,kor,chu)
far	Far East	(agi,chi,hab,amu,sao,pri,eao)
Oblasts (plus Republics, Territories, Federal Cities, Autonomous Regions, Autonomous Districts)		
1 ady	Adygeya, The Republic of	46 mar Mari El, The Republic of
2 agi	Aginsky Buryatsky Autonomous District	47 mor Mordovia, The Republic of
3 alt	Altaysky krai	48 msk Moscow city
4 alr	Altay Republic	49 mos Moskovskaya
5 amu	Amurskaya	50 mur Murmanskaya
6 arh	Arkhangel'skaya	51 nen Nenetsky Autonomous District
7 ast	Astrakhanskaya	52 niz Nizhegorodskaya
8 bas	Bashkortostan, The Republic of	53 sev North Osetia, The Republic of
9 bel	Belgorodskaya	54 nov Novgorodskaya
10 bry	Bryanskaya	55 nvs Novosibirskaya
11 bur	Buryatia, The Republic of	56 oms Omskaya
12 chr	Chechnya (sou), The Republic of ^{*/}	57 ore Orenburgskaya
13 chl	Chelyabinskaya	58 orl Orlovskaya
14 chi	Chitinskaya	59 pen Penzenskaya
15 chu	Chukotsky Autonomous District	60 per Permskaya
16 chv	Chuvashia, The Republic of	61 pri Primorsky krai
17 dag	Dagestan, The Republic of	62 psk Pskovskaya
18 eve	Evenkiysky Autonomous District	63 ros Rostovskaya
19 ing	Ingushetia, The Republic of	64 rya Ryazanskaya
20 irk	Irkutskaya	65 spb Saint Petersburg City
21 iva	Ivanovskaya	66 sah Sakha, The Republic of
22 eao	Jewish Autonomous Region	67 sao Sakhalinskaya
23 kab	Kabardino Balkaria, The Republic of	68 sam Samarskaya
24 klg	Kaliningradskaya	69 sar Saratovskaya
25 kal	Kaluzhskaya	70 smo Smolenskaya
26 klr	Kalmykia, The Republic of	71 sta Stavropolsky krai
27 kam	Kamchatskaya	72 sve Sverdlovskaya
28 kar	Karachaevo Cherkessia, The Republic of	73 tai Taimyrsky (Dolgano-Nenetsky) Autonomous District
29 krl	Karelia, The Republic of	74 tam Tambovskaya
30 kem	Kemerovskaya	75 tat Tatarstan, The Republic of
31 hab	Khabarovskiy krai	76 tom Tomskaya
32 hak	Khakasia, The Republic of	77 tul Tulskeya
33 kha	Khanty-Mansiysky Autonomous District	78 tum Tumenskaya
34 kir	Kirovskaya	79 tve Tverskaya
35 kom	Komi, The Republic of	80 tyv Tyva, The Republic of
36 kpa	Komi-Permyatsky Autonomous District	81 udm Udmurtia, The Republic of
37 kor	Koryaksky Autonomous District	82 ulo Ulyanovskaya
38 kos	Kostromskaya	83 ust Ust-ordynsky Buryatsky Autonomous District
39 kdk	Krasnodarsky krai	84 vla Vladimirskeya
40 kra	Krasnoyarsky krai	85 vlg Volgogradskaya
41 krg	Kurganskaya	86 vol Vologodskaya
42 krs	Kurskaya	87 vor Voronezhskaya
43 len	Leningradskaya	88 yam Yamalo-Nenetsky Autonomous District
44 lip	Lipetskaya	89 yar Yaroslavskeya
45 mag	Maganskaya	

Table 7.3. Impact of WTO Accession on Regional Markets (% change from base year)

	Overall average	Moscow	St. Peters.	Tumen	North-west	North	Central	South	Urals	Siberia	Far East
Aggregate welfare											
Welfare (EV as % of consumption)	7.8	7.0	10.6	13.8	11.2	9.8	7.6	8.3	6.2	7.6	9.7
Welfare (EV as % of GDP)	4.3	4.7	5.7	3.1	6.2	4.7	4.2	4.7	3.3	4.2	5.2
Aggregate trade											
Regional exports (% change)	1.9	2.6	2.1	1.8	2.1	2.2	2.2	1.7	1.6	1.6	2.4
Real exchange rate (% change)	2.5	2.6	3.4	2.7	2.9	2.7	2.8	2.8	1.9	1.9	3.0
International exports (% change)	9.4	13.3	19.1	2.8	17.3	7.7	23.0	10.9	10.8	8.0	11.1
Return to primary factors (% change)											
Unskilled labour	4.1	4.7	6.6	4.2	6.1	5.5	3.8	4.9	2.5	4.1	6.2
Skilled labour	4.2	3.5	7.4	3.8	7.2	5.7	5.3	5.1	2.9	4.4	6.9
National capital	4.0	4.2	4.9	4.2	4.4	4.2	4.4	4.3	3.4	3.4	4.6
Regional mobile capital	6.5	6.6	10.2	5.4	10.2	7.6	6.9	6.5	5.5	6.1	8.0
Crude oil resources	4.9			5.6	4.1	5.3		5.4	2.9	2.8	5.9
Natural gas resources	1.8			2.9	-17.2	-9.1		-5.0	-9.9	-12.3	-9.1
Coal resources	10.8					14.1	13.7	13.6	10.6	9.8	14.2
Specific capital in domestic firms	-24.7	-32.3	-26.4	-47.5	-23.7	-27.4	-19.7	-26.3	-18.6	-21.0	-30.4
Specific capital in multinational firms	101.4	60.4	45.6	228.1	79.2	148.3	116.6	130.6	144.1	165.2	118.0
Factor adjustments											
Unskilled labour (% changing sectors)	2.3	2.1	3.2	1.5	4.2	2.1	2.6	1.7	2.3	2.1	2.8
Skilled labour (% changing sector)	2.5	2.6	3.9	1.9	4.1	2.5	2.9	2.0	2.4	2.4	3.2

Source: Authors' calculations.

Table 7.4. Russian MFN Applied Tariff rates ^(a)

	Tariff	Obs.	Mean		Standard Deviation		Minimum rate	Maximum rate
			Simple	Trade weighted	Simple	Trade weighted		
2001	Actual MFN tariff rate	11 076	11.7	11.4	10.8	9.5	0	518
	Ad valorem rate only (b)		10.9	10.5	6	6.5	0	100
2002	Actual MFN tariff rate	11 148	12.2	13.3	13.7	14.9	0	483
	Ad valorem rate only		10.8	11.2	6	8	0	100
2003	Actual MFN tariff rate	11 161	12.8	14.3	18.7	18	0	1270
	Ad valorem rate only		10.9	10.3	6.9	6.8	0	100
2004	Actual MFN tariff rate	11 218	12.4	14.1	13.3	17	0	293
	Ad valorem rate only		10.9	11.1	6.9	7.3	0	100
2005	Actual MFN tariff rate	11 365	12.1	14	12.7	15.2	0	470
	Ad valorem rate only		10.8	11.2	7	7.8	0	100

a) Table 7.1 presents summary statistics at the ten digit level

b) The *ad valorem* rate only calculations ignore specific tariffs, *i.e.*, assume that specific tariffs are zero.

Source: Authors' calculations.

Figure 7.1. Welfare effects of WTO accession by Region of Russia as a percentage of Regional GDP

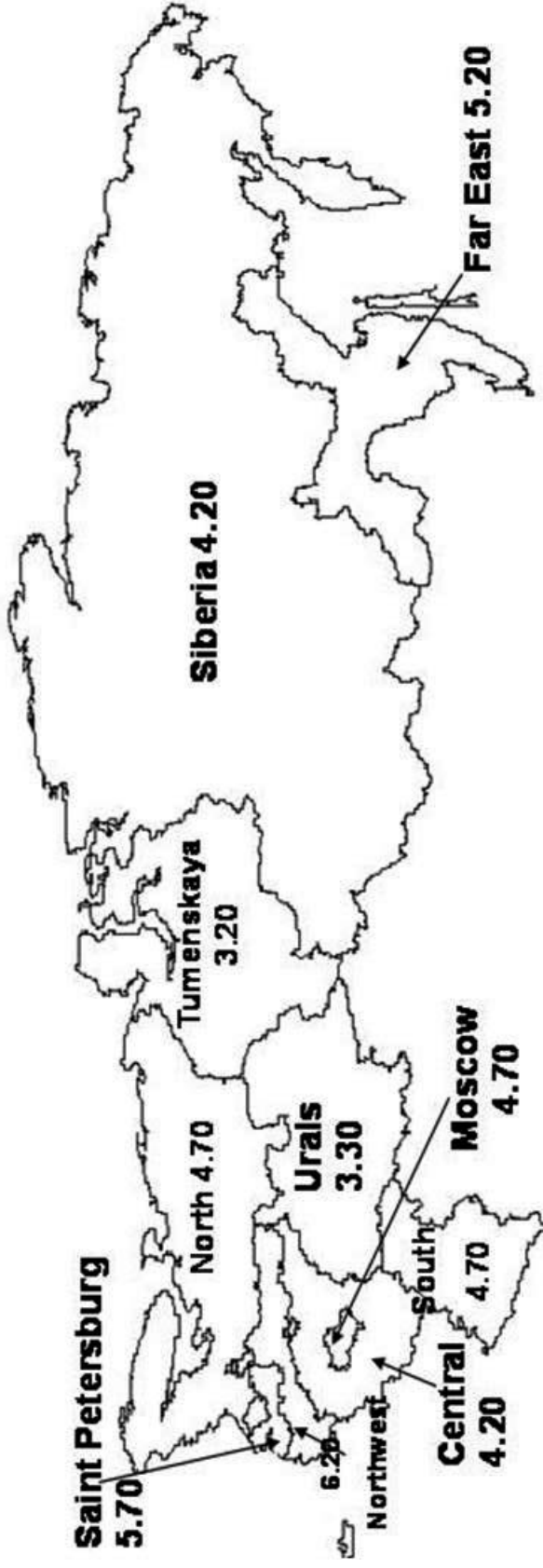
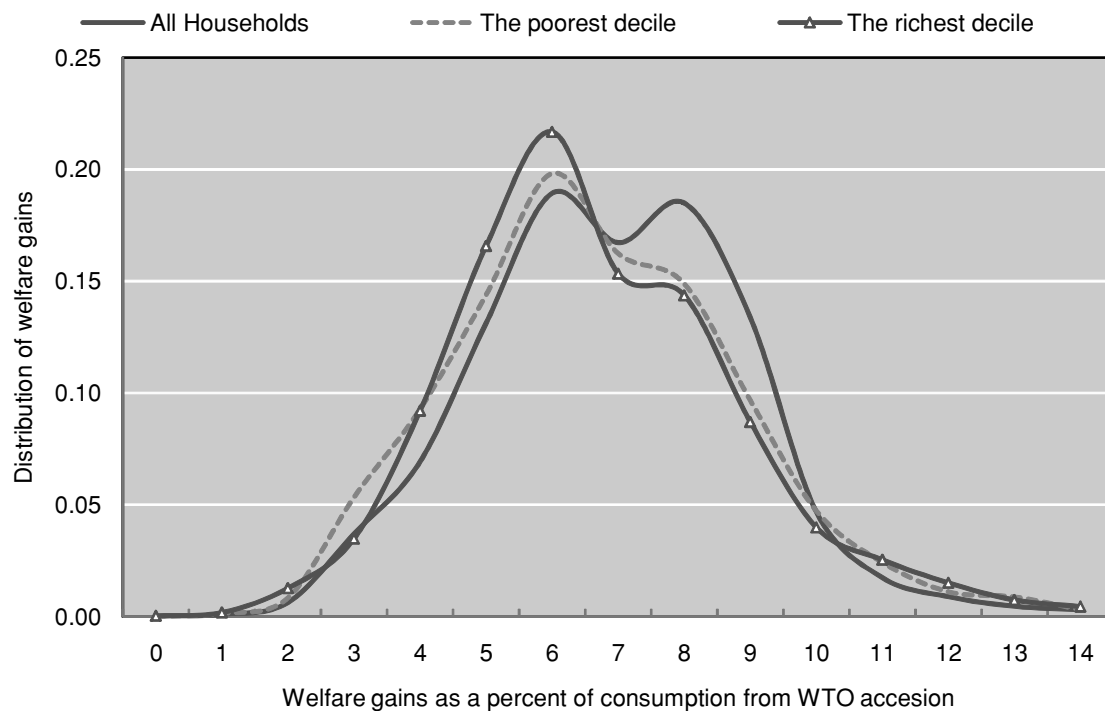


Figure 7.2. Distributions of estimated welfare gains from Russian WTO accession for the entire sample, the poorest decile, and the richest decile



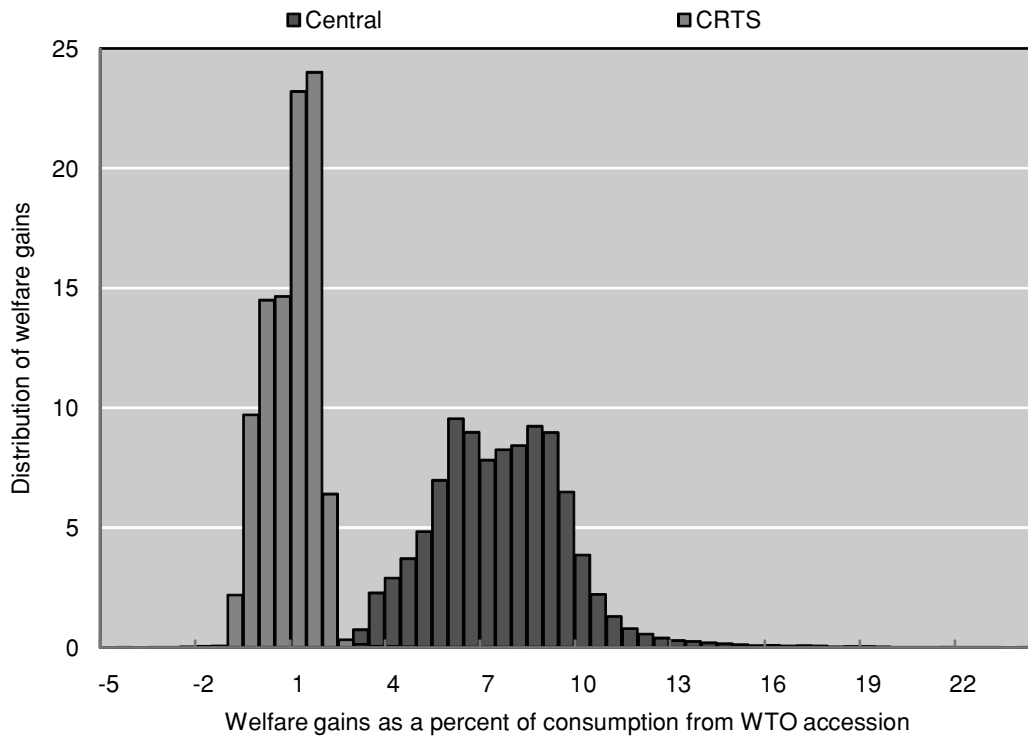
Note: Observations in a range from 0% to 15% are shown.

Deciles are constructed to be representative of 10% of Russian population based on the weights of the Household Budget Survey.

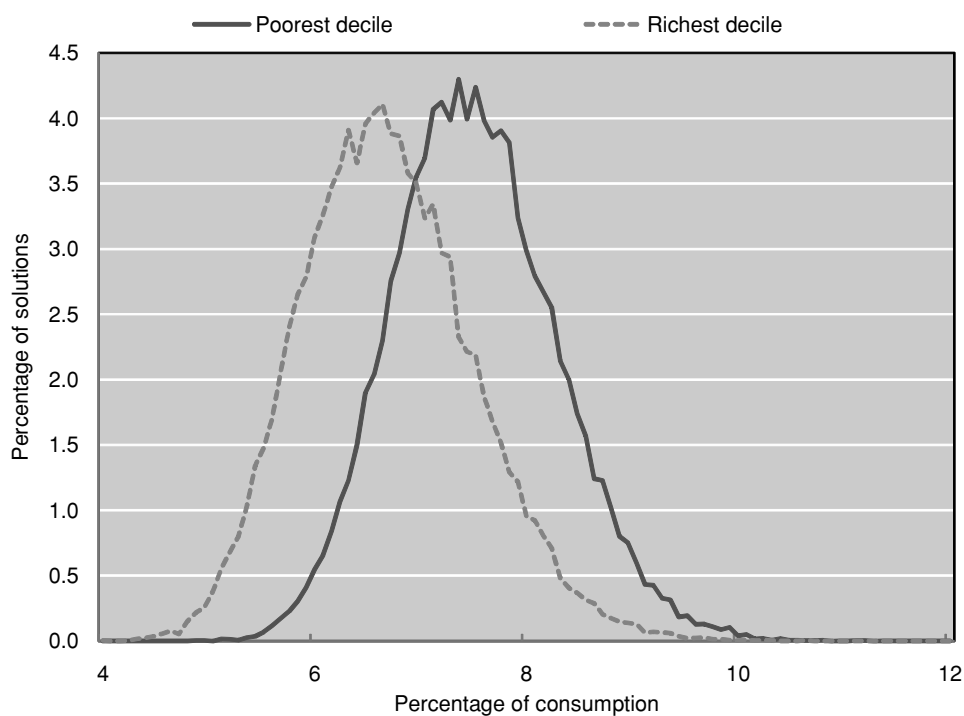
Source: Authors' calculations.

Figure 7.3. Distributions of estimated welfare gains from Russian WTO accession

Central and CRTS models comparison. 55 098 households sampled

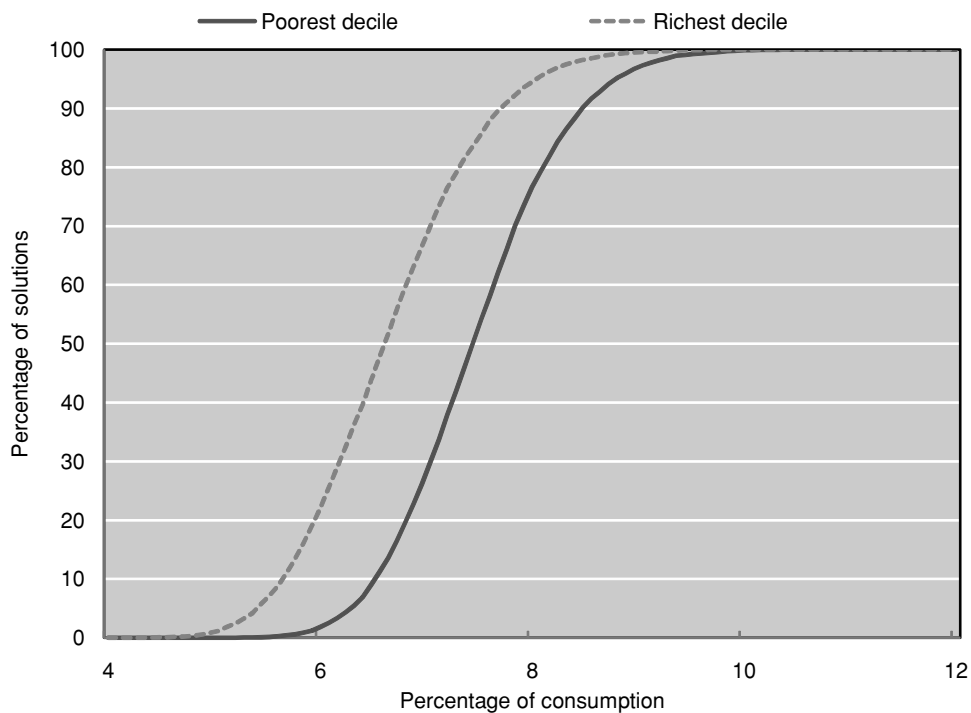


Source: Authors' calculations.

Figure 7.4. Distribution of welfare results

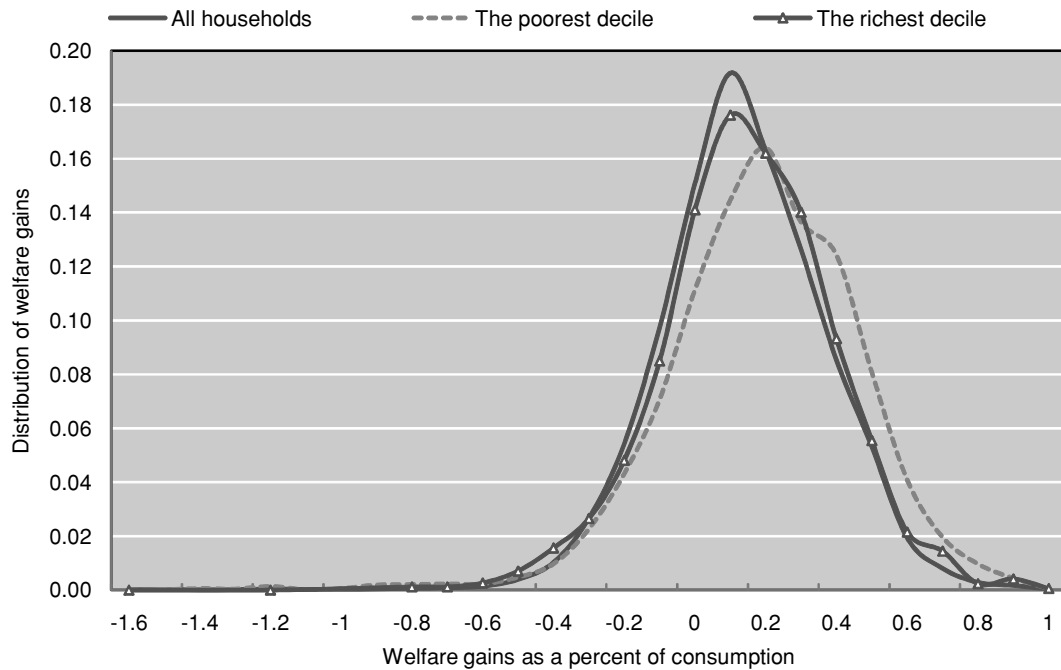
95% confidence intervals (assuming a normal distribution): poor (6.0,9.1), rich (5.1,8.3).

99% confidence intervals (assuming a normal distribution): poor (5.6,9.5), rich (4.6,8.8).

Cumulative distribution of welfare results (all households)

Source: Authors' calculations.

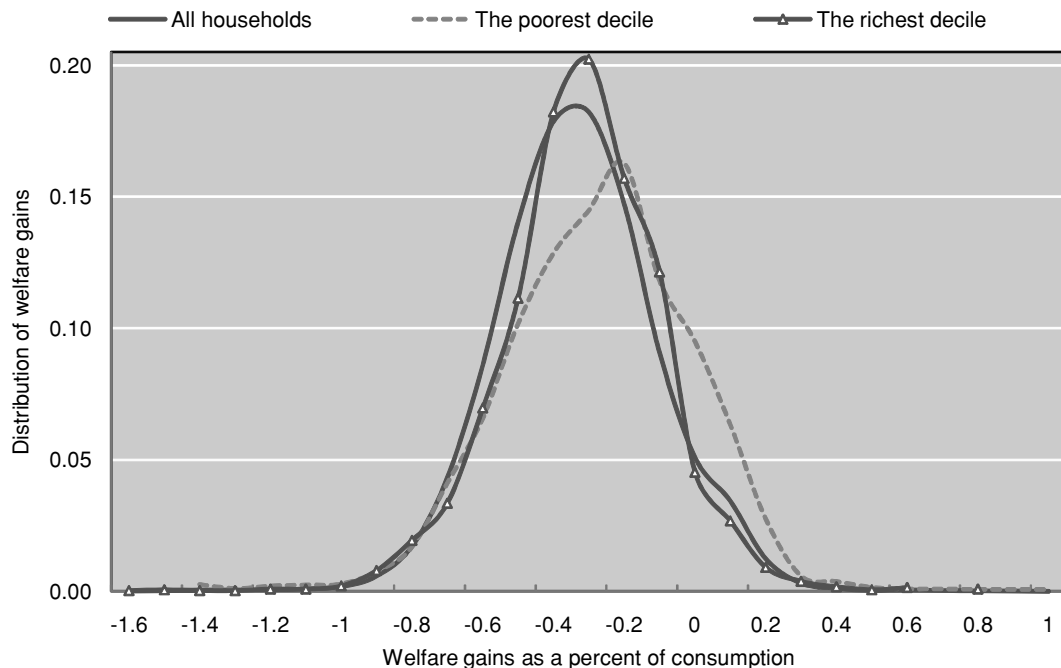
Figure 7.5. Distributions of estimated welfare gains for Russian households from rest of world free trade for the entire sample, the poorest decile and the richest decile



Note: Graph truncated in a range from -1.6 to 1

Source: Authors' calculations.

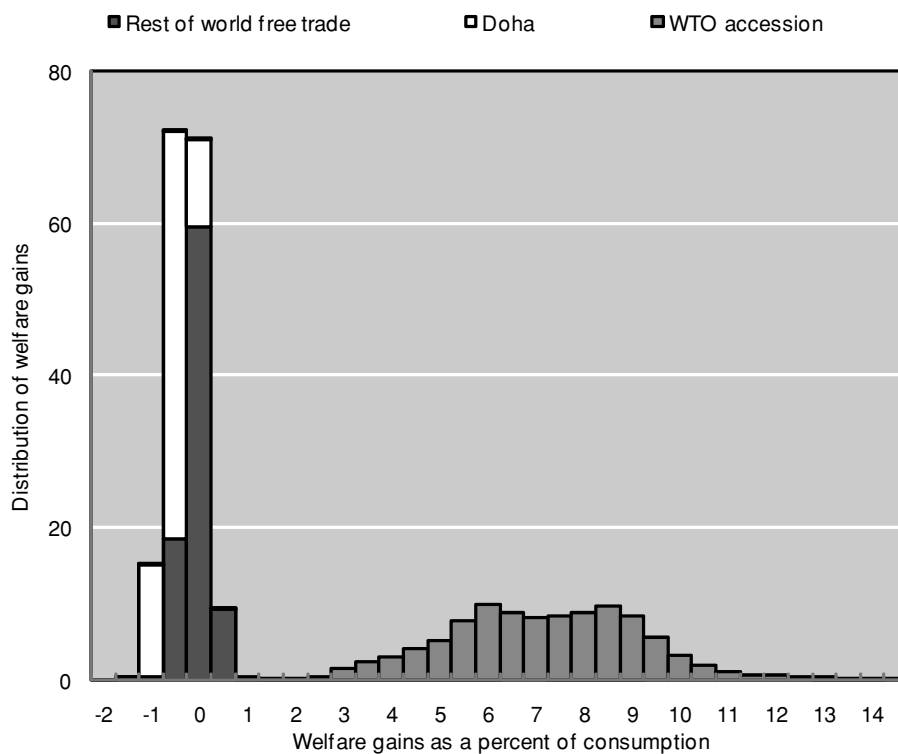
Figure 7.6. Distributions of estimated welfare gains for Russian households from Doha for the entire sample, the poorest decile, and the richest decile



Note: Graph truncated in a range from -1.6 to 1

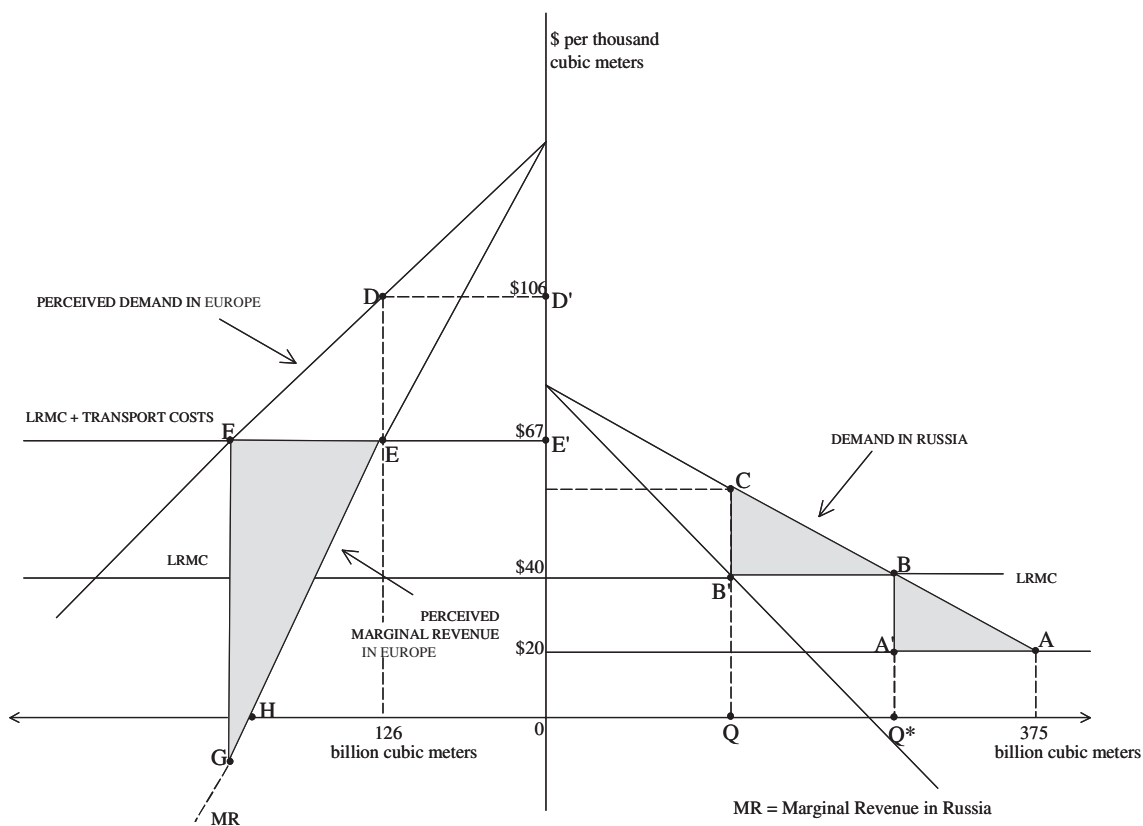
Source: Authors' calculations.

Figure 7.7. Distributions of estimated welfare gains: WTO accession, Doha and rest of the world free trade model results compared. 55 098 households sampled



Source: Authors' calculations.

Figure 7.8. Optimal Pricing of Russian Natural Gas in Europe and in Russia





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