RUSSIA'S WTO ACCESSION: CONSEQUENCES FOR THE HIGH TECHNOLOGY SECTOR

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I. INTRODUCTION

On 16 December 2011, at the eighth WTO Ministerial Conference, the package containing Russia's WTO terms of entry was approved. Once Russia ratifies the corresponding documents, the country may become a fully-fledged WTO member by July 2012. One issue arising from Russia's WTO membership is how it will affect the development of Russia's high-tech sector.

It is almost impossible in our modern world to overestimate the importance of developing high-tech industries. Currently, the global market for energy resources is about 700 billion dollars, while the hightech market is about 3 trillion dollars. This is a significant difference. It is forecast that by 2020, the energy resources market will grow to 1.2 trillion dollars and the market for high-tech products to 10 - 12 trillion dollars. This is a 10:1 ratio [1].

From this, one can conclude that it is extremely important that Russia develops high-tech industries, diversifies its national economy in this area and protects its internal market from foreign competition. It should also be understood, that after Russia finally joins the WTO, high-tech industries will find themselves in a completely different situation from now. This will require the government to take protective measures as well as measures for supporting national manufacturers.

II. RUSSIA'S HIGH-TECH SECTOR BEFORE WTO ACCESSION

The main problem for Russia's modern economy is that only a part of the Russian economy is active in the international division of labour, mostly fuel and raw materials industries, and the country's research and development potential is not fully open and is extremely poorly applied in world economic relations. Russia is barely maintaining its place in the second level of countries for high-tech export and some forecasts suggest that this situation will worsen by 2020. It is clear that Russian high-tech industries have a low level of competitiveness. In nearly all modern advanced technology areas (electronics, biotechnology, pharmaceuticals, computing and office technology, IT) Russian manufacturing is uncompetitive compared to Japanese, German, American and even Chinese.

One of the fastest growing high-tech industries in Russia is the IT sector. In 2011, four Russian companies (ER Telecom, Kaspersky Lab, Rosservice and the Centre of Financial Technologies) were listed in the top 500 fastest growing companies in Europe and the Middle East. However, the Russian IT industry occupies less than one percent of the global total. Among the high-tech areas in which Russia maintains a leading position, the top one is the aerospace industry (mostly space components). In 2008, 802.6 million dollars were spent on developing this industry, 544.2 million dollars in 2009 and just over 1 billion dollars for 2010-2011. This is more than for any other high-tech industry. In terms of the absolute volume of investment, Russia is in fourth place for annual space exploration expenditure [2].

At the moment, most Russian high technology is connected with the public sector and government orders which compensate for the low level of business investment activity. Development of the Russian high-tech sector, as well as its adaptation to global scientific and technological progress trends, is in its early stages. Therefore, it is strategically important to forecast and carefully monitor the consequences for these industries following Russian accession to WTO.

III. THE WTO AGREEMENTS

Before talking about the effect WTO has on high-tech, it should be mentioned that unlike agriculture and a number of other sectors, the WTO does not have a ministerial declaration, special agreements or other regulatory documents regulating the high-tech sector. The high-tech sector is covered by WTO basic agreements, General Agreement on Tariffs and Trade (GATT), General Agreement on Trade in Services (GATS) and Trade Related Intellectual Property Rights (TRIPS). Like for other industries, high technology is covered by principles such as most favoured nation treatment, national treatment on internal taxation and regulation, is able to use the Dispute Settlement Body, etc. More specific WTO agreements regarding the high-tech sector are the Trade Related Intellectual Property Rights agreement and the Information Technology Agreement (ITA).

To develop technology, significant investment is required in research and development, which should be protected. As part of its WTO commitments, Russia has taken a number of significant measures for bringing national legislation concerning intellectual property rights into line with WTO standards. One of the last measures is the creation of a dispute settlement arbitration court, related to protecting intellectual property rights. Corresponding legislative amendments to the law were signed by the Russian President on 8 December 2011. The court will begin working no later than 1 February 2013.

In December 1996 in Singapore, at the first WTO Ministerial Conference, an agreement was concluded on liberalising trade in the area of information technology (ITA), which laid the foundations for liberalising trade in the area of information technology. Participation in the ITA is not compulsory and currently only 70 out of 153 WTO members have signed this agreement. It covers 97% of world trade in the area of information technology. The USA, the European Union, Japan and Korea, the main manufacturers of high-tech goods, are the key ITA participants. The ITA's objective is to completely eliminate customs duties on a wide range of IT goods. Russia has agreed to sign and fulfil ITA obligations as part of its agreement with the WTO. One of the direct effects of this agreement is to reduce import duty on IT products to zero. Currently, the average rate on such products is 5.4%. By joining the ITA, Russia will create additional stimuli for developing the IT sector.

IV. CONSEQUENCES FOR THE RUSSIAN HIGH-TECH SECTOR

By determining the importance of developing the high-tech sector for Russia, its current state, as well as agreements which regulate these sectors as part of the WTO, it is possible to identify a number of key consequences of Russia's accession to the World Trade Organization.

Firstly, just like for industries other than hightech, WTO membership leads to a reduction in tariff barriers for access to the Russian market for foreign manufacturers of high-tech products and equipment. Most Russian industrial enterprises need to renew their fixed assets and technological bases which have long been outdated. In 2011, the Centre for Customs Tariff and Non-tariff Regulation Research carried out a survey of leading Russian industrial companies regarding the benefits of joining the WTO. 19% of respondents consider that the main benefit from Russia joining the WTO is a reduction or elimination of import customs duties on production equipment for companies. Another 16% consider the reduction or elimination of import customs duties on components for companies to be a benefit.

In addition, rates on a number of types of equipment will be reduced for Russia. For example, for electrical equipment the average import duty rate will decrease from 8.4 to 6.2% [4].

After Russia fully implements its commitments regarding WTO agreements, the average tariff protection level for high-tech tools in Russia will decrease from 20% to 4.3%. This will lead to increased exports of foreign equipment from countries which lead in this area. Once access to the Russian market for foreign equipment has been made significantly easier, Russian producers will be under threat. This ambiguity is typical for most tariff concessions adopted by Russia as part of the WTO: agriculture, the car industry, chemical industry, etc. On the one hand, the reduction in barriers for hightech tools to access the Russian market will create favourable conditions for providing state-of-the-art equipment to research centres and laboratories. While on the other, Russian manufacturers of similar hightech products and equipment will find themselves in a very difficult situation.

While Russia has not yet become a fullyfledged WTO member, it is difficult to identify specific consequences from fulfilling its obligations for Russian manufacturers. There is no doubt that the Russian government tried to protect critical sectors of the Russian economy from excessive pressure from imports when it was negotiating accession to the organisation. However, only after the terms for joining the WTO are published, will it be known which access conditions were agreed. Then the expert community will be able to assess the effect of the WTO agreement on Russian manufacturers of hightech goods and equipment.

It is worth noting, that whatever the situation the Russian high-tech products market is in, WTO agreements provide the ability to protect manufacturers from excessive import pressure and unfair competition from foreign trade partners. In particular, it is possible to introduce special protection, anti-dumping or compensation measures.

Secondly, WTO membership not only provides access for foreign companies to the Russian market, but also opens foreign markets to Russian producers of high-tech goods and equipment on nondiscriminatory terms. In this case, WTO membership puts Russia in the context of generally accepted standards and obligations, which will have a favourable effect on Russian high-tech producers. The only issue is whether there are many companies in Russia today that can compete at a world level.

Thirdly, additional favourable conditions and the ability to develop cooperation between Russian and foreign high-tech companies will be created. Many foreign producers of high-tech equipment are involved in so-called transnational production chains. A striking example of this is Apple, whose products are all assembled at a Foxconn factory in China. The cost of the final assembly in Apple's production cost is only 6-8% of the total cost of production. WTO membership will create favourable conditions for integrating Russia into this kind of transnational production chain.

Fourthly, WTO membership will lead to a growth in direct foreign investment into Russia. Currently, Russia's high-tech sector is experiencing a severe lack of private investment and most investment comes from state orders.

China's experience shows that in the 10 years of WTO membership, transnational companies have opened 333 science and technology parks. Despite significant differences in the development of the Chinese and Russian economies, this fact still demonstrates the potential for expanding investment, including in Russia's scientific area from foreign corporations.

Fifthly, intellectual property rights of Russian producers will be protected. WTO agreements (in particular TRIPS) and mechanisms for settling disputes make it possible to protect intellectual property used in international practice. This reduces unavoidable losses, which Russia suffers in this sphere. Despite the fact that a distinguishing feature of Russian technology trade is the predominance of unprotected types of intellectual property, which are significantly less commercially valuable, the guarantee provided by WTO membership to Russian producers in the Agreement on trade related intellectual property rights is of major importance.

By analysing all the above, it can be said that the main consequences of Russia's accession to the WTO for the high-tech sector are:

- a reduction in tariff barriers for access to the Russian market for foreign manufacturers of high-tech products and equipment;

 access for Russian high-tech producers of goods and equipment to foreign markets on nondiscriminatory terms;

- favourable conditions for developing cooperation between Russian and foreign high-tech companies;

- growth in direct foreign investment into Russia;

- guaranteed observation of intellectual property rights.

Without doubt, WTO membership will open up for the Russian high-tech sector significant benefits for development. In order to obtain as much benefit as possible from the consequences of joining the WTO, as listed in this article, and to neutralise the negative effects, it will be necessary for the public and private sectors to make significant efforts. It is first necessary to re-examine R&D investment policies, as the funds that are currently invested are clearly insufficient to take the Russian high-tech sector up to the world level, where it could painlessly compete with leading western powers. For example, in 2008 1.1 billion dollars were invested in R&D, in 2009 1.3 billion dollars and in 2010 1.6 billion dollars. What is more, the private sector financed 29% of expenditure on R&D and the government 65%, the rest came from abroad. In the USA such financing is only 3.5% of material support for analogous institutions [5].

It is clear that this volume of financing is not sufficient to take high-tech industries to a higher competitive level. However, the Russian government is already taking measures for enlivening the hightech sector. An example of this is Skolkovo, the "Silicon Valley" in Moscow Region, which is designed to develop and commercialise Russian hightech production.

On the eve of Russia's fully-fledged accession to the WTO, it should be mentioned that this membership will not transform Russia immediately into a high-tech power. The rules regulating high-tech in the WTO standards are only a small part. The WTO has 153 member countries, most of which are developing and have been members of GATT/WTO for many decades, but only some of them have been able to make a technological leap forward.

V. CONCLUSION

If Russia gives itself the task of developing its own high-tech sector, then this development should take place in the country itself. The first tasks necessary for reforming high-tech industries should be the creation of new research centres, development of the country's scientific potential by training highly qualified specialists and providing them with worthy jobs and salaries, the provision of large funds for R&D and attraction of investment from the corporate sector.

The WTO will just provide a fertile soil for producers of high-tech goods and services to access foreign markets, protect intellectual property rights, develop and expand cooperation between Russian and foreign high-tech companies and attract foreign high-tech goods and equipment to Russia. However, Russia's ability to take advantage of these benefits to develop its own high-tech sector will depend on the efforts of the government, the private sector and the scientific community to protect and support Russian high-tech producers.

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