



: Uf\UX'6UmfUa cj ž'BUfa ]b' =VfU\ ]a cj Už' =g[ UbXUf'6UVUnUXY\

## Policy Paper

# AZERBAIJAN'S ACCESSION TO THE WTO

Assessing the macroeconomic consequences  
for the economy of Azerbaijan

**Farhad Bayramov, Narmin Ibrahimova, Isgandar Babazadeh**

# AZERBAIJAN'S ACCESSION TO THE WTO

*Assessing the macroeconomic consequences for  
the economy of Azerbaijan*

**Edited by Dr. Vugar Bayramov**



Konrad  
Adenauer  
Stiftung

**Konrad-Adenauer-Stiftung (KAS)** is a political foundation of the Federal Republic of Germany. Democracy, peace and justice are the basic principles underlying the activities of KAS at home as well as abroad. The Foundation's Regional Program South Caucasus conducts projects aiming at: Strengthening democratization processes, Promoting political participation of the people, Supporting social justice and sustainable economic development, Promoting peaceful conflict resolution, Supporting the region's rapprochement with European structures.



**The Center for Economic and Social Development (CESD)**, has been set up to promote research and analysis into domestic economic and social issues for the purpose to positively influence the public policy decision-making processes. The Center is a leading Azerbaijani think tank specialized in economic and social policy issues working with and establishing bridge between the government and the various representatives of civil society.

All rights reserved. Printed in Azerbaijan.

Konrad-Adenauer-Stiftung  
Regional Program South Caucasus  
Akhvlediani Agmarti 9a  
0103 Tbilisi, Georgia  
[www.kas.de/kaukasus](http://www.kas.de/kaukasus)

Cover photo courtesy of:  
Daniel Ramirez

*Disclaimer:*

*Commercial use of all media published by the Konrad-Adenauer-Stiftung (KAS) is not permitted without the written consent of KAS.*

*The views expressed in this publication are not necessarily those of KAS or of the organization for which the author works.*

© Konrad-Adenauer-Stiftung e.V. 2014

## About the researchers:

**Farhad Bayramov** is an Azerbaijan based economist and researcher at the CESD School of European Studies. He earned his first Bachelor of Science in public finance from Azerbaijan State University of Economics and he is a final year student for his second Bachelor's degree at the Faculty of Economics and Public Finance at Istanbul University in Turkey. Mr. Bayramov was an Erasmus LLP exchange student at Queen's University of Belfast, UK, and he is also a student at the Department of Finance in a master program at Istanbul University. He has contributed to this paper with his econometric modelling skills and research expertise on Azerbaijan's economy in the development of policy recommendations. His economic knowledge and background were quite beneficial when specifying the econometric tools and developing policy recommendations. Mr. Bayramov authored and co-authored the following relevant research papers:

- *Competitiveness in Azerbaijan: Assessing Sector Economic Policies;*
- *Analyzing the State Budget of Azerbaijan for 2014;*
- *Mortgages in Azerbaijan: Policy recommendations for development, 2013;*

**Narmin Ibrahimova** is an economist-researcher at the Center for Economic and Social Development (CESD). She earned her Bachelor's degree in Mechanic-Mathematics at Baku State University and gained her Master of Business Administration in International Business from the Azerbaijan State Economic University. At the CESD she is doing research, delivers trainings, represents the Center at international conferences as a speaker, and gives interviews to TV channels and daily newspapers on economic and social issues of the domestic economy. Narmin Ibrahimova co-authored several research papers at the CESD:

- *Opinion to the Chamber of Account's Annual Reports,*
- *The Analysis of Draft Budget of 2013 in the Parliament,*
- *The Spendings in Education: Enhancing Transparency and Productivity,*
- *Civil Society Organizations Sustainability Index 2013 – Azerbaijan.*

**Isgandar Babazadeh** is a researcher at the CESD. He completed his Bachelor's degree at Azerbaijan State University (ASUE) and afterwards earned his Master of Science degree in public finance in 2012. Mr. Babazadeh is also a PhD candidate at ASU.

## **Abstract:**

This paper analyzes the macroeconomic consequences for Azerbaijan's economy in case the country joins the World Trade Organization (WTO). Existing studies primarily draw on qualitative methods, while for this study a Computable General Equilibrium (CGE) model of the economy is calculated to simulate the consequences of WTO accession. The authors are able to generate numeric forecasts for macroeconomic variables as a measure for welfare and elaborate how WTO accession, interpreted as an external shock to the economy, would affect these variables. This study is, therefore, a unique contribution to the public and academic debate as it is the first study to quantitatively gauge the effects of accession beyond qualitative arguments. To contextualize the quantitative findings, several independent experts were interviewed to compile their opinions on WTO accession. The results of this study suggest positive welfare effects of WTO accession through increases in income, consumption and savings. However, the forecasts generated through our model reveal that exports would plummet as a consequence of accession. This must be of particular concern for the Azerbaijani economy with its oil and energy sector currently being the main driver of gross domestic product, foreign direct investment and exports. As a consequence, the Azerbaijani economy needs to diversify rapidly and decrease its dependence on oil to realize positive effects on general welfare that could be triggered through WTO accession. Whether these positive effects will materialize in the long run is hard to predict, although the qualitative evidence cited in this study suggests that accession would bring along important incentives for diversification.

# Table of Contents

Introduction .....	7
Azerbaijan’s economic development since independence.....	9
Years of economic decline and chaos (1991 – 1994).....	9
Transition period (1995-2002).....	11
Rapid economic development and oil boom (2003 – present).....	13
Contentious topics regarding WTO Accession .....	15
Foreign trade .....	15
Agriculture.....	18
Foreign Capital.....	19
Intellectual property .....	20
CGE Model and Calibration .....	22
Methodology .....	22
Model assumptions for 1-2-3 economy .....	22
Data sources and model calibration .....	26
Results and Implications.....	30
Numerical forecasts.....	30
Implications .....	31
Qualitative assessment.....	33
Conclusions and recommendations.....	35
Appendix: Policy notes.....	36
Bibliography.....	41

## Tables

Table 1. Azerbaijan's involvement with the IMF.....	12
Table 2. Composition of GDP.....	14
Table 3. Key indicators .....	14
Table 4. Azerbaijan's main export partners 2011-13.....	15
Table 5. Azerbaijan's export statistic 2011-12.....	16
Table 6. Azerbaijan's import statistic 2011-12.....	17
Table 7. Azerbaijan's main import partners 2011-13 .....	17
Table 8. Endogenous variables.....	25
Table 9. Exogenous variables.....	25
Table 10. Base data to run the 1-2-3 Model.....	26
Table 11. Parameters.....	27
Table 12. Exogenous variables.....	27
Table 13. Endogenous variables.....	28
Table 14. CGE Equations.....	28
Table 15. Macro Indicators .....	30
Table 16. Macro indicators, continued.....	30

## Figures

Figure 1. Annual inflation rates (in %).....	9
Figure 2. Foreign Direct Investment (in Mio. AZN).....	11
Figure 3. Annual GDP (in Mio. AZN).....	13
Figure 4. Nominal share of agriculture in total GDP (Mio. AZN).....	18

## Introduction

An interesting statistic shows that member countries of the World Trade Organization (WTO) share 97 percent of global trade. Discussions about Azerbaijan's accession to the WTO are in progress since 1997, however to this date admission is still pending. While WTO representatives remain cautious about Azerbaijan's progress in areas such as tax exemptions, investment incentives, operation of foreign-owned enterprises, and technical barriers to trade, many Azerbaijanis fear WTO accession could harm local producers and consumers alike.

Since gaining independence in 1991, Azerbaijan has progressed on a new pathway towards a free market economy. The difficult economic situation the country has endured after the collapse of the Soviet Union might be one reason to explain the fear with which many Azerbaijanis perceive greater integration into the multilateral trade system. The spectres of the free market are still real for those who have experienced fantastic figures of inflation, rapidly declining levels of production, a lack of food, high unemployment and a general decrease in welfare during the early 1990s.

Existing studies of the political and economic consequences of WTO accession have been carried out for the CIS country group (see for instance Bayramov 2008; Tumbarello 2005; Roberts and Wehrheim 2001). In addition, there is a number of qualitative studies examining Azerbaijan's path towards WTO accession (Hasanov and Zeynalov 2013; Kavass 2008; Fariz 2007). However, we note that – to our best knowledge – there is no study simulating the macroeconomic consequences of WTO accession for the economy of Azerbaijan.

Furthermore, while other studies have been conducted to simulate the macroeconomic effects of WTO accession using computable general equilibrium (CGE) models - for instance in the case of China (Fan and Zheng 2001), Ukraine (Pavel et al. 2004) and the completion of the Doha Round (Hertel and Winters 2006) – no comparable study exists for the case of Azerbaijan.

With this study the authors aim to put forward a first attempt to simulate the macroeconomic effects of WTO accession on the Azerbaijani economy. The quantitative approach used in this study builds on a simple CGE model. Applying this model will allow us to simulate the effects of WTO accession on a set of macroeconomic variables such as income, consumption, aggregate savings, government savings, tax revenue, exports and imports. It should be noted that CGE models generate forecasts based on current economic conditions. The qualitative insights cited in this study aim to contextualize our quantitative findings and are



based on expert interviews the researchers conducted with policy makers and business representatives.

With our research we want to shed light on the macroeconomic consequences likely to be caused should Azerbaijan join the World Trade Organization. We, therefore, aim to guide decision-making on the actual case and inform the public discourse using robust modelling techniques. The results generated through our model show that WTO accession will have an overall positive impact on all macroeconomic indicators except exports. While consumption is expected to increase significantly after accession, the Azerbaijani economy needs to diversify rapidly and decrease its dependency on oil to realize positive effects on general welfare. In particular, a steep decline in exports would cause severe repercussions for the Azerbaijani oil industry that need to be addressed on a political as well as economic level.

The study is structured as follows. We first set out to provide background on Azerbaijan's economic development since gaining independence in 1991. Afterwards, we outline the topics that are particularly prevalent in discussions regarding Azerbaijan's potential accession to the WTO. The quantitative part of our study outlines the used methodology, details the model configuration and presents the results of our simulation. These insights are complemented and contextualized by a qualitative approach that cites non-numerical information to discuss the implications of our model. Policy notes of the Center for Economic and Social Research on the topic are included as an appendix to this study.

# Azerbaijan's economic development since independence

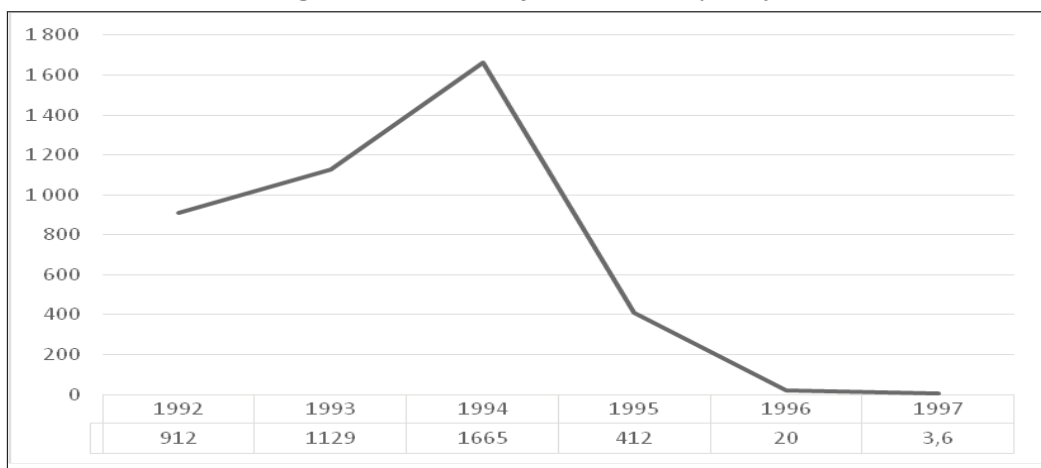
## Years of economic decline and chaos (1991 - 1994)

The years immediately following Azerbaijan's independence were not only marked by political turmoil but were also a period of severe economic turbulences. Preceding the politics of glasnost, the Soviet Union strived to keep its Soviet republics politically and economically dependent. Trade relations of all Soviet republics, including Azerbaijan, existed almost exclusively within the USSR.

With demand for Azerbaijani products from Russia breaking down after independence, the path in making the transition to a free market economy proved to be shaky. Although rich in agricultural resources and minerals, the Azerbaijani economy was not competitive. Domestic manufacturing enterprises that were kept alive during Soviet times through a centrally planned economic system had to suspend their activities. A nationwide halt of production led directly to the collapse of the country's economy. In 1994 gross domestic product (GDP) fell to half of its level compared to 1991.

The unemployment rate raced from one peak to the next. What followed was a vicious circle where ever-increasing levels of unemployment led to depressed consumption that triggered a further breakdown of the economy. According to the State Statistics Committee, the employment rate dropped to only 40 percent during this time. Employment patterns suggest a significant lack of economic development with 34 percent of the total population working in agriculture compared to only 16 percent in the industrial sector.

Figure 1. Annual inflation rates (in %)



Source: International Monetary Fund

The budget deficit in 1994 stood at 13 percent of GDP. At the same time, the amount of loans ranged between 55 and 60 percent of GDP. With its decisions being directly influenced by the Cabinet of Ministers, the Central Bank of Azerbaijan tried to counter the ever more deteriorating state of public finances by significantly increasing the amount of money in circulation. Just as text book economics suggests, this policy caused a dramatic decrease in the value of the local currency. A severe period of hyperinflation between 1991 and 1995 put further stress on the lives of ordinary Azerbaijani citizens.

Another reason for the breakdown of the Azerbaijani economy in the years following independence was that foreign direct investment (FDI) from Western countries did not reach the high levels many have hoped for. FDI remained marginal between 1991 and 1994. Foreign investors were particularly cautious to invest in Azerbaijan because of a lack of serious legal and institutional reforms and uncertainties regarding the future development of state finances.

At the same time it should be noted that Azerbaijan undertook several attempts to initiate reform. With the economy hitting rock bottom and with the federal budget in a dire state, the "Treasure State Fund" was established in 1992 as a mean to stabilize the economy. Within a short period of time the fund collected 1.5 tons of gold and other precious metals. Thus, by the end of the first half of 1993, foreign exchange reserves of the Central Bank of the Republic of Azerbaijan significantly increased to 156 million U.S. dollars.

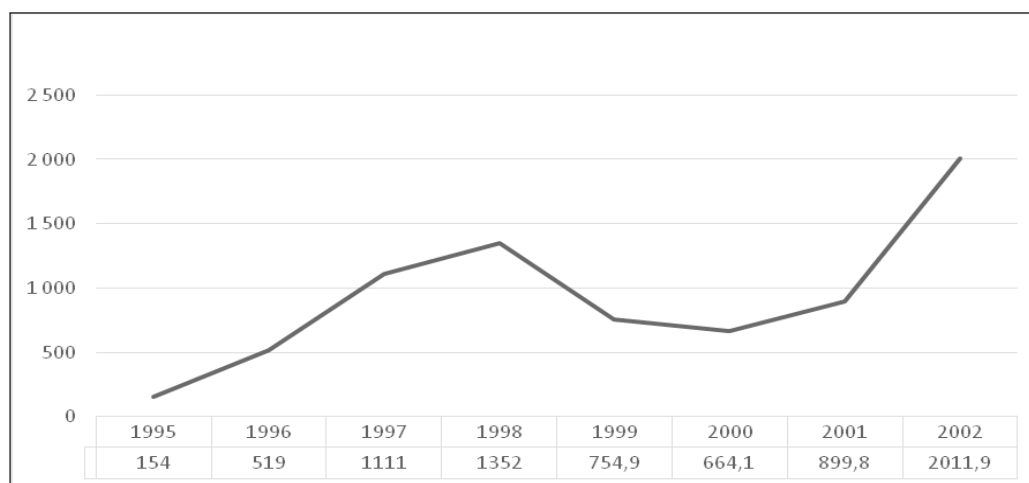
While some economists note that Azerbaijan undertook greater efforts to overcome economic turbulences and thus suffered a less severe economic breakdown than other Soviet Republics after their independence, the period between 1991 and 1994 is remembered as a period of profound hardship for many Azerbaijanis. Although institutional reform towards a free market economy were initiated, the almost complete halt of trade relations put too much stress on domestic enterprises.

## Transition period (1995-2002)

Starting in 1995, economic development began to change for the better. The economy finally began to recover and GDP levels started to rise. Azerbaijan's inflation rate decreased significantly between 1994 and 1996. Two important developments triggered the rapid economic recovery: reforms initiated through international institutions and new investments in Azerbaijan's oil industry.

Starting in 1993, international institutions began to exert pressure on Azerbaijan to push forward institutional and economic reforms to control hyperinflation. Financing the budget deficit by Central Bank loans was prohibited and independent decision making within then Central Bank ensured.

*Figure 2. Foreign Direct Investment (in Mio. AZN)*



Source: State Statistic Committee and CBAR data base

On 12 November 1995, Azerbaijan adopted a new constitution which further stabilized institutions of the state. Adopting the constitution in 1995 created the legal framework for economic development, protection and sanctity of private property and also for economic reforms. However, it was difficult to trigger investment through government spending because the budget deficit was still high. Cooperation with international financial institutions provided not only financial support, but also brought financial management and the execution of prudent macroeconomic policy to the country.

As Azerbaijan's collaboration with international financial institutions gained further traction, a more favorable environment for foreign investors was created. In 1995, the IMF issued its first loan of 46 million U.S. dollars to Azerbaijan. Other international organizations that became more involved in Azerbaijani affairs during this time include the International Bank for Reconstruction and

Development (IBRD), the International Finance Corporation (IFC), the European Bank for Reconstruction and Development (EBRD), the Black Sea Economic Cooperation, and the Economic Cooperation Organization (ECO).

*Table 1. Azerbaijan's involvement with the IMF*

19 April 1995	The IMF issues its first credit to Azerbaijan (46 Mio. US\$).
November 1995	132 million U.S. dollars are borrowed from the IMF for the implementation of economic policies including for the reconstruction of the financial sector and to control inflation.
December 1997	64 million U.S. dollars are borrowed from the IMF to ensure macroeconomic stability and reduce inflation.
January 1999	112 million U.S. dollars are borrowed from the IMF for the implementation of structural reforms in the public sector.
July 2001	Borrowing 100 million U.S. dollars from the IMF for the "Poverty reduction and growth merchantability" program to maintain new macroeconomic stability and to develop the non-oil sector.

Source: Own account

Structural reforms were also pushed by the World Bank. Cooperation between Azerbaijan and the World Bank was carried out on three levels. First, the preparation of proposals for developing economic policy; second, the preparation of proposals for financing the public budget in proper coordination with external stakeholders; and third, new investment to implement infrastructure projects. Infrastructure projects financed by the World Bank were planned to improve the gas, electricity and water systems, to provide technical support for the management of oil resources, health and education, and to materialize as poverty reduction strategies.

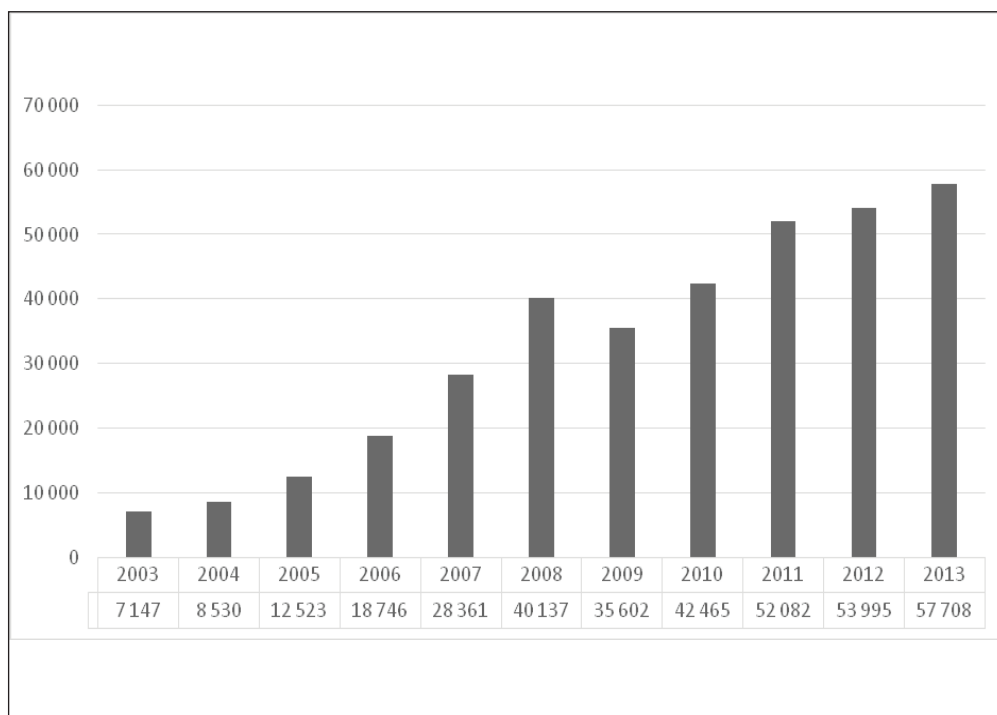
The involvement of international institutions created a more favorable environment for foreign investors. Starting in the mid-1990s, foreign companies became particularly interested to invest in the Azerbaijani oil industry. The first production sharing agreement with a foreign-led consortium was ratified by parliament on 2 December 1994 (commonly referred to in Azerbaijan as the "Contract of the Century"). Revenues from the oil industry and developments through international consortiums continues to this day to play a leading role for the national economy of Azerbaijan.

Over the next 3 years implementation of macroeconomic policies to help rekindle economic growth and to strengthen international economic relations increased the influx of foreign investment into the country. However, the creation of monopolistic structures in the economy and the economic crisis in Eastern Europe in 1998 temporarily disrupted economic growth.

## Rapid economic development and oil boom (2003 – present)

Beginning in 2003, the Azerbaijani economy recovered from its temporary disruption and further developments in the oil sector led to economic growth. The volume of foreign investment amounted to 375.1 million AZN in 1995, and increased by a factor of 27 times until 2013. The influx of FDI into the oil industry not only benefited the energy sector but also triggered growth in related sectors, most notably transportation and infrastructure. In 2013, GDP were eight times higher than it was ten years earlier.

Figure 3. Annual GDP (in Mio. AZN)



Source: State Statistic Committee and CBAR data base

With the energy sector being the backbone of the economy, political reforms were initiated to attract more foreign investment. During 2001 and 2005 the level of foreign investment in the economy stood at approximately 70 percent compared with 30 percent of domestic investment. Reduction of customs and tax rates as well as better protection of private property were intended to keep foreign investors committed. At the same time, FDI was heavily focused on the oil industry leading some experts to demand new strategies to create a more diverse economic backbone. Foreign investment in the Azerbaijani oil industry reached close to 90% in 1994 compared to non-oil investment.

*Table 2. Composition of GDP*

Sector	2011	2012
Energy	48.6	52.7
Construction	13.0	10.9
Social services	10.4	10.1
Retail and wholesale	7.1	6.7
Transport	5.8	5.4
Agriculture	5.5	5.4
Manufacturing	4.4	4.2
Tourism	1.9	1.8
Finance	1.5	1.5

Source: State Statistic Committee and CBAR data base

The volatility induced through the dependence on the oil sector became clear during the global financial crisis starting in 2007. In particular, the global financial crisis coincided with a drastic fall in oil prices on the world market. Foreign direct investment in the Azerbaijani oil industry fell significantly. Declining levels of FDI affected economic growth. GDP decreased by 11.3 percent in 2009 compared to pre-crisis levels.

As of 2013, GDP per capita (in PPP) is estimated at 10,800 US\$. Azerbaijan ranks 114<sup>th</sup> on this indicator according to the CIA Factbook with GDP per capita at levels comparable to South Africa (11,500 US\$) and Cuba (10,200 US\$). Unemployment is estimated at 6.0 percent. Public debt is still worrisomely high at 7.5 percent of GDP. Another key characteristic of the national economy is a trade surplus over 13 billion US\$ caused by international demand for Azerbaijan's oil resources.

*Table 3. Key indicators (2013)*

Indicator	Value	Rank (of total)
GDP per capita (PPP)	\$ 10,800	114/228
Unemployment (%)	6.0	60/203
Public debt (% of GDP)	7.5	153/161
Inflation rate (%)	2.4	91/223
Current account balance (bn US\$)	13.28	20/193

Source: CIA Factbook

## Contentious topics regarding WTO Accession

### Foreign trade

Foreign trade is the most obvious area likely to be affected in case Azerbaijan joins the World Trade Organization. At the moment, Azerbaijan has implemented more than 30 normative legal acts that regulate external trade transactions in addition to sector specific custom duties and tariffs. To understand the likely impacts of WTO accession on foreign trade, first insights can be generated through an analysis of Azerbaijan's current trade relations.

Azerbaijan had external trade transactions with 149 countries in 2013. According to the United Nation's Comtrade Database, imports amounted to 11 Mio. US\$ compared to exports of 24 Mio. US\$. Since the beginning of the oil boom in the mid-1990s, Azerbaijan has recorded a current account surplus in its trade statistic. The overarching importance of oil and fuel as a trade commodity also becomes apparent when taking a closer look at Azerbaijan's export statistic (compare Table 5).

The share of oil and fuel in total exports comes to 94.7 percent, 93.4 percent and 93.0 percent in 2011, 2012 and 2013 respectively. Export of non-oil products amounted to a mere 1.7 Mio. US\$ in 2013. Accordingly, Azerbaijan's main export partners are countries that retrieve oil and fuel from Azerbaijan such as Italy, Indonesia and Thailand (compare Table 4).

*Table 4. Azerbaijan's main export partners 2011-13 (in 100,000 US\$)*

	2013	2012	2011
<b>Total</b>	<b>239,041</b>	<b>238,272</b>	<b>264.802</b>
Italy	59,897	55,480	93,410
Indonesia	27,718	17,573	9,132
Thailand	16,655	3,437	1,354
Germany	13,568	9,648	5,234
Israel	12,607	16,666	8,176

Source: United Nations Commodity Trade Statistics Database (UN Comtrade)



Agricultural and food products are other important export commodities of the Azerbaijani economy although on a much smaller level compared to oil. Sugar, animal fats and oil, and edible fruits and nuts are ranked second, third and fourth respectively in the Azerbaijani export statistic. Rich in agricultural resources, Azerbaijan has the opportunity to diversify its structure of exports and diminish the dependency on oil through further investment in agriculture and food production.

*Table 5. Azerbaijan's export statistic 2011-12*

HS Code	Commodity	Trade Value (in 100,000 US\$)		
		2013	2012	2011
	<b>TOTAL</b>	<b>239,041</b>	<b>238,272</b>	<b>264,802</b>
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	222,298	222,592	250,893
17	Sugars and sugar confectionery	2,438	2,149	1,992
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	2,279	2,218	1,738
8	Edible fruit and nuts; peel of citrus fruit or melons	1,735	2,080	1,530
39	Plastics and articles thereof	1,221	1,088	1,239

Source: United Nations Commodity Trade Statistics Database (UN Comtrade)

Azerbaijan imports predominantly manufacturing equipment, vehicles and electronic machines (compare Table 6). There are two main drivers explaining Azerbaijan's composition of imports. First, Azerbaijan's structure of imports exemplifies the country's weak manufacturing basis. Machineries are predominantly manufactured abroad rather than being produced domestically. Second, foreign direct investment in the energy sector drives imports as foreign companies import machinery for development and exploitation purposes.

Table 6. Azerbaijan's import statistic 2011-12

HS Code	Commodity	Trade Value (in 100,000 US\$)		
		2013	2012	2011
	<b>TOTAL</b>	<b>107,634</b>	<b>96,417</b>	<b>97,329</b>
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	20,200	18,726	21,395
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	9,023	49	64
87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	8,889	10,011	6,952
73	Articles of iron or steel	7,715	8,703	7,559
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	7,481	7,567	8,960

Source: United Nations Commodity Trade Statistics Database (UN Comtrade)

Azerbaijan imports commodities from its immediate regional neighbors (compare Table 7). The preferred country to source machinery from is Russia, but Turkish businesses have also benefited from trade relations with Azerbaijan. Trade relations with Russia in the industrial sector build on regional proximity and path dependency of supply agreements stemming back from Soviet times. Germany ranks fourth and China only ranks sixth on the list of import partners.

Table 7. Azerbaijan's main import partners 2011-13 (in 100,000 US\$)

	2013	2012	2011
<b>Total</b>	<b>107,634</b>	<b>238,272</b>	<b>264,802</b>
Russian Federation	15,144	13,784	16,411
Turkey	14,809	15,204	13,024
United Kingdom	13,253	4,692	4,857
Germany	8,267	7,800	8,453
Ukraine	6,054	5,391	5,578

Source: United Nations Commodity Trade Statistics Database (UN Comtrade)

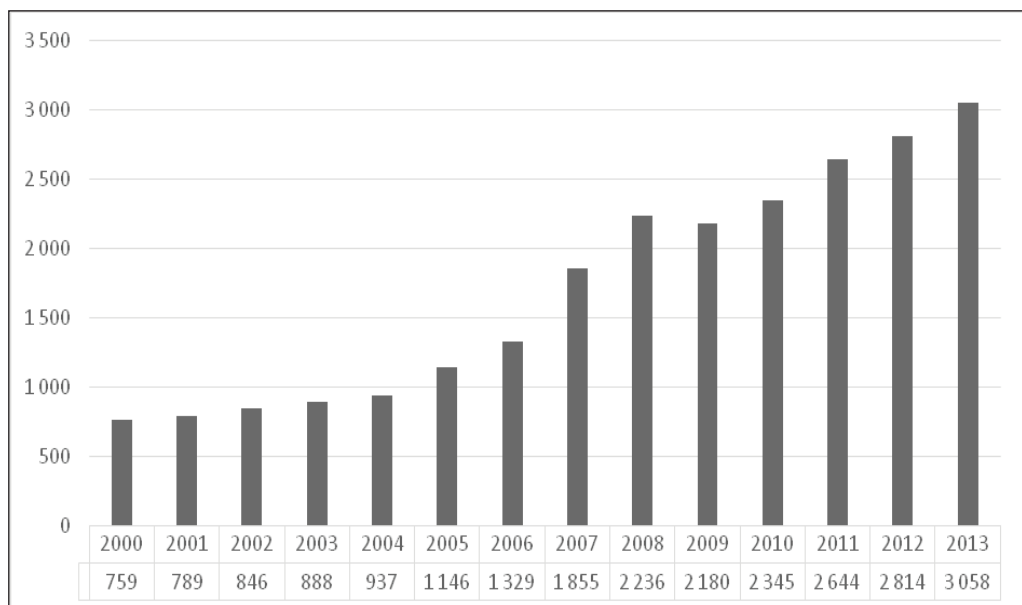
## Agriculture

Due to suitable climatic conditions, Azerbaijan’s agricultural sector served as the backbone of the economy after the Second World War. Approximately 55 percent of the land - in other words 4.7 million hectares - are suitable for agricultural production which provides the government with opportunities to further the sector’s development. There are nine climatic zones in Azerbaijan that allow the country to produce different kinds of agricultural products.

After gaining independence, around 40 percent of the Azerbaijani work force was employed in agriculture. Interestingly, GDP in the agricultural sector continued to rise over the last ten years (compare Figure 4). In a similar vein, exports of agricultural products also continue to rise (compare Table 5). The main market for Azerbaijan’s agricultural products are neighboring CIS countries.

In order to decrease the dependency on imported food products, the government has implemented several policies which aimed to improve the institutional efficiency and business climate of the sector. The development of the agricultural sector is, for instance, stressed in the “Azerbaijan 2020: look into the future” development plan approved by presidential decree in January 2013.

*Figure 4. Nominal share of agriculture in total GDP (Mio. AZN)*



Source: The State Statistics Committee (SSC) of Azerbaijan Republic (2013)

Further examples include the “State Program of Socio-Economic Development of the Regions of Azerbaijan (2009 – 2013)”, the “State Program of Poverty Reduction and Sustainable Development of the Republic of Azerbaijan”, and the “State

Program of Ensuring Reliable Population in the Republic of Azerbaijan in Food Provision (2008 – 2015)”. Furthermore, the AzRIP (Azerbaijan Rural Investment Project) was established by the government to strengthen investment in rural areas.

The government continues to provide stakeholders with subsidies as a mean to boost sector production. In 2007, the “State Program on the Reliable Supply of Food Products to the Population for 2008-2015” was drafted and signed into law detailing a wide range of subsidies for farmers. However, CESD calculations show that subsidies given to the sector actually exert a negative effect on sector GDP (1 manat subsidy decreases sector GDP by 0.06 manat according to these calculations).

The types of subsidies provided to the agricultural sector in Azerbaijan can be categorized as follows. First, subsidies for farmers dealing with wheat cultivation (40 AZN/or 50 USD per ha). Second, subsidies for farmers dealing with crop production activities for fuel expenses (40 AZN/or 50 USD per ha). Third, a 50 percent discount for fertilizers sold to farmers. Fourth, a 50% discount for wheat seeds sold to farmers.

Projects financed through international institutions also put a strong focus on agriculture. The World Bank and the Azerbaijani government, for instance, facilitated investment in the agricultural sector in August 2004 which had a significant effect on sector employment. In June 2006, the second Agriculture Development and Credit Project for Azerbaijan was approved. Its main aim was to achieve increases in rural productivity and income by enhancing the access of farmers and small and medium rural enterprises to rural business and agricultural support services including financial, advisory and veterinary services (2006-2012).

## **Foreign Capital**

Proponents of WTO accession hope that fostered linkages within international organizations will attract foreign capital to Azerbaijan. Over the last twenty years, foreign capital has played an important role to bring new technology and innovation not only to the oil sector but also to other industries. Most prominent examples include European Tobacco, Azersun Holding and Sumgait Pipe Factor.

Moreover, proponents predict that WTO accession will exert a positive influence on the Azerbaijani banking sector. Besides the Azerbaijani Central Bank, 43 commercial banks currently operate in the country. There is only one commercial bank that is state owned, while all others are owned by private shareholders.

Since 1997 foreign companies are allowed to hold shares in Azerbaijani banks. According to the rating agency Fitch, domestic banks have performed strongly since the ban on foreign shareholders was eliminated with Azerbaijan's retail loan segment growing much faster than nominal household income growth.

In the domestic insurance market, the government reduced the allowed share of foreign capital in insurance companies' charter capital from 49 to 30 percent in 2008. As a consequence, the number of local companies in the Azerbaijani insurance market is predicted to decrease as foreign competition is forced out. The move has been wildly criticized as it obstructs the creation of a competitive insurance market.

In contrast to most developed market economies, the Azerbaijani insurance market is dominated by non-life insurance. The share of non-life insurance stands at 85 percent of insurance charges. The dependence of capital formation from banks and difficulties with capital inflows impede the development of the insurance system.

## **Intellectual property**

One of the main issues regarding WTO accession of Azerbaijan concerns intellectual property. The basic principles of intellectual property rights are defined in Article 30 of the Constitution of the Republic of Azerbaijan ("Everyone has the right to intellectual property. Copyright, patent rights and other intellectual property rights are protected by law"). This provision is designed to ensure the independence of creativity, value and content as well as other forms of expression and creativity. The Republic of Azerbaijan is a member of the WIPO (since 1996), Berne Convention (since 1998), and the Geneva Phonograms Convention (since 2001).

State policies implemented in Azerbaijan can be regarded as improvement of intellectual property rights protection and stimulations of the rights of intellectual property owners. Maybe most importantly, the law on "Copyrights and Related Rights" was adopted on 5 June, 1996.

The Copyright Agency which was established on 30 August 2005 acts as the state regulator on intellectual property rights together with the Standardization, Metrology and Patents Committee which was established on 19 November 2008. Further to that, political oversight regarding the protection of intellectual property rights is carried out through the Ministry of Agriculture and the Ministry of Economy and Industry.

According to the Copyright Agency, the share of the creative industry in total GDP increased from 3.2 percent in 2007 to 4.6 percent in 2012. The expansion of the creative industry signals progress in the enforcement of intellectual property and has, thus, been identified as an important issue in the “Azerbaijan 2020: look into the future” development concept. More specifically, the concept details strategies to improve relations between the IT and ICT sectors to accelerate the transition to the information society. Furthermore, an online digital rights management and licensing regime is envisaged to create a “one-stop-shop” to protect intellectual property.

# CGE Model and Calibration

## Methodology

For the empirical part of this study, a Computable General Equilibrium (CGE) model is used to analyze the macroeconomic effects WTO accession would cause for the Azerbaijani economy. The idea of “general equilibrium” builds on the assumption that all markets, sectors and industries are linked with each other. CGE models can be applied to come up with numerical forecasts by obtaining results for endogenous variables based on certain assumptions about exogenous variables, their functional forms, and parameter values.

CGE models have become a standard tool for empirical analysis and are particularly suitable to assess the aggregate welfare implications of economic policies. They are also used to study the effects of external shocks such as accession to an international organization. Studies using CGE models focus on different policy areas including development economics (De Maio et al. 1999; Robinson 1989), fiscal policy (Shoven and Whalley 1984), currency devaluation (Thissen and Lensink 2001), and social and environmental policy (O’Ryan et al. 2005; Bouvenberg and Goulder 2002).

The modeling principle of CGE rests on neo-classical economic assumptions. In an economic system, consumers are assumed to maximize their utility against a budget constraint (demand side). Producers are assumed to maximize their profit given the prices of goods and production costs (supply side). As a result, the equilibrium condition for the market price is calculated for each good and production factor where demand equals supply.

Furthermore, neoclassical models assume that all commodities are tradable and that all commodities are perfect substitutes. Thus, the “law of one price” must hold, i.e. all commodities should have the same price in all markets. It is also assumed that a country is small enough not to influence world market prices, i.e. it faces fixed world prices for exports and imports.

## Model assumptions for 1-2-3 economy

The CGE model employed in this paper is commonly known as a 1-2-3 model. The model developed in this paper, thus, refers to one country with two producing sectors and three goods. The commodities produced by a country are an export good  $E$  which is not demanded domestically and sold to foreigners. The second one is a domestic good  $D$  which is sold in the country domestically. Finally,

the third good is an imported good  $M$  which is not produced domestically but imported from abroad.

There are three actors in the model which are: a producer, a household, and the rest of the world. The equation below is the most achievable combinations of  $E$  and  $D$  that can be realized:

$$\bar{X}\bar{X} = G(E, D^S; \Omega) G(E, D^S; \Omega)$$

with  $\Omega$  describing a constant elasticity of transformation (CET).

The composite commodity existing of  $D$  and  $M$  is consumed by the single consumer domestically. In multisector models we extend this treatment to many sectors, assuming that imported and domestic goods in the same sector are imperfect substitutes: an approach which has come to be called the Armington assumption. Following this treatment, we assume the composite commodity is given by a constant elasticity of substitution (CES) aggregation function of  $M$  and  $D$ :

$$Q^S = F(M, D^D; \mu)$$

with  $\mu$  describing the elasticity of substitution, i.e. consumers maximize utility which is equivalent to maximizing  $Q$  in this model.

Equations (1) to (22) below illustrate an extended version of the 1-2-3 model to include government revenue and expenditure as well as savings and investment. Most governments use taxes and subsidies as well as expenditure policy to adjust their economy. Therefore, four tax instruments are included: an import tariff, an export subsidy, an indirect tax on domestic sales, and a direct tax rate.

The single household saves a fixed fraction of its income. Public savings (budgetary deficit or surplus) is defined as the balance of tax revenue plus foreign grants and government expenditures (all assumed to be determined exogenously). The Current Account balance, taken to represent foreign savings, is the residual of imports less exports at world prices adjusted for grants and remittances from abroad. Output is fixed. Foreign savings are also presently fixed, i.e. the model is savings-driven. Aggregate investment adjusts to aggregate savings.

In total, there are twenty equations and nineteen endogenous variables. According to Walras's Law, one of the equations, say the savings-investment identity, can be dropped.



Real Flows:

$$(1) \quad \bar{X} = G(E, D^s; \Omega)$$

(2)

$$(3) \quad \bar{G}$$

$$(4) \quad E/D^s = g_2(P^e, P^d)$$

$$(5) \quad M/D^D = f_{12}(P^t m, P^t t)$$

Nominal Flows:

$$(6) \quad T = t^m * R * pw^m * M + t^s * P^q * Q^D + t^y * Y - t^e * R * pw^e * E$$

$$(7) \quad Y = P^x * \bar{X} + tr * P^q + re * R$$

$$(8) \quad S = \bar{s} * Y + R * \bar{B} + S^g$$

$$(9) \quad C * P^t = (1 - \bar{s} - t^y) * Y$$

$$(10) \quad P^m = (1 + t^m) * R * pw^m$$

$$(11) \quad P^e = (1 + t^e) * R * pw^e$$

$$(12) \quad P^t = (1 + t^s) * P^q$$

$$(13) \quad , P^d)$$

$$(14) \quad , P^t)$$

$$(15) \quad R \equiv 1$$

Equilibrium Conditions

$$(16) \quad D^D - D^S = 0$$

$$(17) \quad Q^D - Q^S = 0$$

$$(18) \quad pm^m * M - pm^e * E - ft - re = \bar{B}$$

$$(19) \quad P^t * Z * S = 0 \quad P^t * Z * S = 0$$

$$(20) \quad T - P^q * \bar{G} - tr * P^q - ft * R - S^g$$

Accounting Identities

$$(21) \quad P^x * \bar{X} \equiv P^e * E + P^d D^s$$

$$(22) \quad P^q * Q^s \equiv P^m * M + P^t D^d$$

*Table 8. Endogenous variables*

Symbol	Description
E	Export
M	Import
$D^S$	Supply of domestic good
$D^D$	Demand for domestic good
$Q^S$	Supply for composite good
$Q^D$	Demand for composite good
Y	Total income
$P^e$	Domestic price of exported good
$P^m$	Domestic price of imported good
$P^D$	Domestic price of domestic good
$P^t$	Sales price of composite good
$P^x$	Price of aggregate output
$P^q$	Price of composite good
R	Exchange rate
T	Tax
$S^g$	Government savings
C	Aggregate consumption
S	Aggregate savings
Z	Aggregate real investment

*Table 9. Exogenous variables*

Symbol	Description
$p^w^B$	World price of exported good
$w^m$	World price of imported good
$t^m$	Tariff rate
$t^s$	Sales tax
$t^y$	Direct tax rate
tr	Government transfers
ft	Foreign transfers to government
re	Foreign remittances to private sector
$\bar{s}$	Average savings rate
$\bar{X}$	Aggregate output
$\bar{G}$	Real government demand
$\bar{B}$	Balance of trade
$\mu$	Import substitution elasticity
$\Omega$	Export transformation elasticity

## Data sources and model calibration

The data used for the quantitative analysis were collected from the World Bank Database, the International Monetary Fund's annual report, State Statistics Committee's sources, the Ministry of Finance database, official documents of the World Trade Organization and CESD reports on macroeconomic issues

Tables 7 to 9 describe the base data used to calibrate the model as well as its parameters and exogenous variables. Table 10 describes the values for the endogenous variables and Table 11 shows the results for each of the equations.

*Table 10. Base data to run the 1-2-3 Model*

	Billion USD	Output=1		Billion USD	Output=1
<b>1. National Accounts</b>			<b>3. Fiscal Account</b>		
Output (Value Added)	64.8	1.00	Revenue	29.1	0.45
Wages (income of the population)	34.7	0.54	Non-Tax	0.7	0.01
GDP at market prices	70.2	1.08	Current Expenditure	12.1	0.19
Private Consumption	27.2	0.42	. Goods & Services		
Public Consumption	7.4	0.11	. Interest Payments		
Investment	25.7	0.40	. Transfers & Subsidies		
Exports	36.7	0.57	Capital Expenditure	10.3	0.16
Imports	16.9	0.26	Fiscal Balance	7.4	0.11
<b>2. Tax Revenues</b>			<b>4. Balance of Payments</b>		
Sales & Excise Tax	2.5	0.04	Exports - Imports	23.757	0.37
Import Tariffs	0.2830957	0.00	Interest Payments	-1.1	-0.02
Export Duties	0.0009868	0.00	Net Private Transfers	-0.083	0.00
Payroll Tax	1.8	0.03	Net official Transfers	0.71	0.01
Personal Income Tax	1.04	0.02	Current Account Balance	15.78443	0.24
Capital Income Tax	3.8	0.06	External Debt	7.608	0.12
Total	9.4	0.15	Debt Service Payments	1.9	0.03

*Table 11. Parameters*

Parameter	Value
Elasticity for CET (st)	0.600000
Elasticity for CES/Q (sq)	0.600000
Scale for CET (at)	2.029108
Share for CET (bt)	0.391679
Rho for CET (rt)	2.666667
Scale for CES/Q (aq)	1.905786
Share for CES/Q (bq)	0.304895
Rho for CES/Q (rq)	0.666667

*Table 12. Exogenous variables*

Exogenous variable	Base year	Current
World Price of Imports (wm)	0.9835083	0.98351
World Price of Exports (we)	1.0000269	1.00003
Import Tariffs (tm )	0.0167683	0.01677
Export Duties (te)	0.0000269	0.00003
Indirect Taxes (ts)	0.0548408	0.05484
Direct Taxes (ty)	0.0893227	0.08932
Savings rate (sy)	0.4790908	0.47909
Government Consumption (G)	0.1084236	0.10842
Govt. Transfers (tr)	-0.0108309	-0.01083
Foreign Grants (ft)	0.0109568	0.01096
Net Priv Remittances (re)	-0.0175272	-0.01753
Foreign Saving (B)	-0.2985652	-0.29857
Output (X)	1.0000000	1.00000

Table 13. Endogenous variables

Endogenous Variables	Base Year	Current	Cur/Base
Export Good (E)	0.56566	0.17953	0.31739
Import Good (M)	0.26491	0.27225	1.02772
Supply of Domestic Good (Ds)	0.43434	0.82047	1.88899
Demand of Domestic Good (Dd)	0.43434	0.82047	1.88899
Supply of Composite Good (Qs)	0.69925	1.09272	1.56270
Demand of Composite Good (Qd)	0.69925	1.09272	1.56270
Tax Revenue (TAX)	0.12952	0.15101	1.16593
Total Income (Y)	0.97164	1.07912	1.11062
Aggregate Savings (S)	0.20388	0.22564	1.10673
Consumption (Cn)	0.39755	0.76869	1.93359
Import Price (Pm)	1.00000	0.99900	0.99900
Export Price (Pe)	1.00000	0.99900	0.99900
Sales Price (Pt)	1.05484	1.02912	0.97562
Price of Supply (Pq)	1.00000	0.99900	0.99900
Price of Output (Px)	1.00000	0.99900	0.99900
Price of Dom. Good (Pd)	1.00000	0.99900	0.99900
Exchange Rate (Er)	1.00000	0.99900	0.99900
Investment (Z)	0.37599	0.21925	0.58315
Government Savings (Sg)	0.03694	0.03811	1.03174
Walras Law (Z-S)	0.19273	0.00000	

Table 14. CGE Equations

Eq.#	Equations	Value
	Real Flows	
1	CET Transformation (CETEQ)	1,38749
2	Supply of Goods (ARMG)	1,01801
3	Domestic Demand (DEM)	1,09637
4	E/D Ratio (EDRAT)	1,30233

5	M/D Ratio (MDRAT)	0,60990
	Nominal Flows	
6	Revenue Equation (TAXEQ)	0,16075
7	Total Income Equation (INC)	0,97067
8	Savings Equation (SAV)	0,25684
9	Consumption Function (CONS)	0,45256
	Prices	
10	Import Price Equation (PMEQ)	0,99900
11	Export Price Equation (PEEQ)	0,99900
12	Sales Price Equation (PTEQ)	1,05379
13	Output Price Equation (PXEQ)	0,99900
14	Supply Price Equation (PQEQ)	0,99900
15	Numeraire (REQ)	1,00000
	Equilibrium Conditions	
16	Domestic Good Market (DEQ)	0,00000
17	Composite Good Market (QEQ)	0,00000
18	Current Account Balance (CABAL)	0,09479
19	Government Budget (GBUD)	0,06120

## Results and Implications

### Numerical forecasts

Table 15 shows the generated macroeconomic consequences of WTO accession for the Azerbaijani economy based on the results of our model. According to the results, WTO accession will exert a positive impact on all three measures of general welfare, i.e. income, consumption and aggregate savings. Both income and aggregate savings are forecasted to increase by approximately 11 percent in case Azerbaijan joins the World Trade Organization. Most interestingly, consumption is predicted to increase by a stunning 93 percent compared to the benchmark value. Our analysis suggests that households would be the primary beneficiaries of WTO accession.

*Table 15. Macro Indicators*

Macro Indicator	Benchmark	Experiment	Difference (in %)
Income	0,97164	1,07912	11,06
Consumption	0,39755	0,76869	93,36
Aggregate Savings	0,20388	0,22564	10,67

Table 16 shows the likely results of WTO accession on other macroeconomic indicators, i.e. government savings, tax revenue, exports and imports. Exports are forecasted to decrease by 68 percent compared with a relatively modest increase in imports of 3 percent. Although revenues through customs and tariffs are likely to drop after WTO accession, tax revenue is projected to increase by 17 percent due to higher levels of consumption and increased household incomes. The results implicate that Azerbaijani exports will plummet in the case of WTO accession which is likely to trigger wide ranging consequences for the Azerbaijani oil industry.

*Table 16. Macro indicators, continued*

Macro Indicator	Benchmark	Experiment	Difference (in %)
Government Savings	0.03694	0.03811	3.17
Tax Revenue	0.12952	0.15101	16.59
Exports	0.56566	0.17953	-68.26
Imports	0.26491	0.27225	2.77

## Implications

Our results show that consumers in the domestic markets will enjoy lower prices, among other, due to reduced import tariffs. Higher disposable income, in turn, will stipulate consumption. An important insight from our study is that the average consumer will be better off in case Azerbaijan joins the WTO.

At the same time, it should be noted that the Azerbaijani oil industry would experience a severe setback given the forecasted drop in exports. Recall from early chapters that the energy industry contributes almost half to total Azerbaijani GDP and that oil accounted for 95 percent of Azerbaijani exports in 2013. These insights are important because they suggest harsh opposition from the Azerbaijani oil industry when it comes to WTO accession. Furthermore, it suggests the need of the Azerbaijani economy to diversify before joining the WTO.

The consequences of WTO accession for domestic manufacturing are ambiguous. On the one hand, better market access for foreign equipment could incentivize local entrepreneurs to import certain parts of machinery from abroad for their own domestic manufacturing. In addition, WTO accession is likely to stimulate technology transfer from abroad which could also benefit domestic production not only of machinery and equipment but also of agricultural products. With factors of production projected to be decreasing, the overall costs of production will also be lower and domestic manufacturing could become more competitive.

On the other hand, these positive impacts on WTO accession on domestic manufacturing must be weighed against potential negative consequences. After accession, foreign capital and qualified products will get access to the domestic market and their market power could potentially force further local enterprises out of business. In the long run, direct subsidies provided by the government to protect an infant manufacturing industry would be prohibited under WTO regulations. As a result of WTO membership, competition with foreign products could harm domestic production. Through decreased levels of production and higher unemployment the positive welfare effects outlined earlier could be thwarted.

However, it should be noted that WTO membership allows new countries to carry out certain measures to protect infant industries in a transition period. In fact WTO regulation will only commit the government to implement strategies for a prudential tariff policy in the future. This would allow the Azerbaijani government to not decrease the tariffs dramatically after accession. At the same time, it should be noted that WTO accession would dramatically increase the pressure for a more diversified economy to avert negative welfare implications once WTO regulations take full effect.



Besides the domestic manufacturing industry, a more diversified economy can also be achieved by increasing agricultural production. Some types of subsidies will be impermissible under WTO regulation. Azerbaijani farmers fear that after WTO accession, they will lack the financial means previously granted through government subsidies to compete with cheaper agricultural products from abroad. Again, whether the agricultural sector will benefit or lose from WTO accession will depend on how competitive the industry will become during the transition period when certain agricultural subsidies can still be carried out.

At the moment, there is a lack of specialized experts in the Azerbaijani service market. The securities market has not developed yet. By international standards, the Azerbaijani banking system is not competitive and is of minor importance in the international financial markets. Lack of competition hinders the development of new financial products and innovations. Again, with increasing competition from foreign companies the Azerbaijani finance industry has to rapidly adjust to a new market environment to compensate for a potential drop in oil revenues.

## Qualitative assessment

The results of our study have cast ambiguous recommendations regarding the overall welfare effects accession to the WTO would trigger for the Azerbaijani economy. While all macroeconomic indicators, except exports, suggest a positive impact, the Azerbaijani economy needs to rapidly diversify in order to realize these positive welfare effects and decrease its dependency on the oil and energy sector.

Based on the qualitative interviews conducted for this study, there is substantial evidence to suggest that WTO accession will directly lead to a more diversified economy which renders it more likely that the positive welfare effects outlined earlier can be realized. Four mechanisms through which WTO accession will lead to a more diversified economy can be extracted from the interviews: increased incentives for institutional reform, stimulation of foreign direct investment, decline of the shadow economy, and better financing instruments.

First, economic development and economic reforms in the domestic market are expected to accelerate in order to adjust internal standards to international requirements. WTO membership will bring along an improved legal framework for the business sector. Furthermore, the internal legal framework to conduct trade with other countries needs to be streamlined with multilateral dispute settling mechanism. Foreign as well as local entrepreneurs will benefit from an improved framework which could lead to greater diversification.

Second, as a consequence of WTO accession, investors will perceive lower credit risks and, thus, Azerbaijan will become a more attractive place to do business. WTO commitments will decrease the overall level of uncertainty associated with the Azerbaijani market. While stimulation of foreign direct investment will trigger technology and knowledge transfer into the Azerbaijani economy, local entrepreneurs will also benefit from better access to credits and other financing options.

Third, WTO accession is likely to cause a significant decline of the Azerbaijani shadow economy. Binding regulations on transparency and an adjusted legal framework could provide incentives to channel economic activities away from the black market. Tougher government regulations to curb the scope of the shadow economy can also be expected after WTO accession to compensate for a potential loss in revenues from customs and tariffs.

Fourth, WTO accession is likely to further the diversification of the Azerbaijani economy because an expansion of the Azerbaijani finance industry – whether

through foreign or local investment – will expand the scope of available financing options. Involving international banks in the sector would foster a more competitive environment. Liberalization of financial services will make it easier for local entrepreneurs to obtain credit which provides incentives to broaden the economic basis.

## **Conclusions and recommendations**

The purpose of this study was to understand how WTO accession would affect Azerbaijan's economy. Although the negotiations between Azerbaijan and the WTO are in progress for over 17 years, membership to the organization is still pending given disagreements on tariff rates and other issues regarding market access.

The results of our research reveal that WTO accession would increase welfare understood as increases in income, consumption and savings. However the forecasts generated through our model reveal that exports will plummet as a consequence of accession. The Azerbaijani economy needs to diversify rapidly and decrease its dependence on oil to realize positive effects on general welfare. Whether these positive effects will materialize is hard to predict, although the qualitative evidence cited in this study suggests that WTO accession would bring along important incentives for diversification.

Azerbaijan is still an oil based economy and the government is looking for new strategies to overcome this dependency. The "Azerbaijan 2020: Look into the future" development concept focuses primarily on increasing competitiveness in the domestic market, outlines steps towards a highly diversified economy, and emphasizes aims to develop the non-oil sector and encourage entrepreneurship in the country. The results of our study suggest that these policies should be followed more vehemently to realize welfare gains for the Azerbaijani economy that can be achieved through accession to the World Trade Organization.

## Appendix: Policy notes

### The most substantial notes regarding WTO accession:

- Lack of competition in most sectors hinders incentives for development and implementation of innovations.
- Azerbaijan should change its agriculture policy regarding directed subsidies which have a negative impact on sector GDP. The government should provide farmers with subsidies not in terms of their hectares, but in terms of production per hectare.
- Profitability in the agricultural sector is very low for farmers. Intermediary suppliers buy products from the farmers for lower price which diminishes returns for farmers.
- Scarce financial funds limit production potential.
- Specific areas of the agricultural sector should be identified in order to protect domestic production because of its lack of competitiveness compared with imported foreign goods.
- Azerbaijan should strive to obtain rights during the negotiation process for 'Special and Differential Treatment' provisions.
- The geographic location of Azerbaijan provides great opportunities to develop the transportation sector. Despite of its geographic advantage, the sector does not live up to its potential. Corruption and high tariffs thwart the transit potential of the country.
- Modern transportation systems are still lacking, and, in addition, the overall infrastructure is not satisfactory despite ongoing subsidies.
- The implementation of international standards in the services sector has to be accelerated.
- Azerbaijan has to establish competitive market conditions before accession to the WTO.
- International standards have to be implemented to protect the domestic industry before accession. One effective way to accomplish this is to attract foreign investment into the non-oil sectors. Foreign investment brings along better adherence to high international standards. Applying this policy would help Azerbaijan to enhance competitiveness of the domestic market and trigger technology transfer through interactions with foreign stakeholders and markets.

## **Industrial production development sphere:**

- Speeding up the sector approach to boost production realizing development potentials of the economy and accounting for the international division of labor. It is necessary to create suitable conditions for organizations to carry out business.
- Applying higher customs rates for oil and gas equipment to curb imports (the list of such equipment is to be issued by the Ministry of Industries and Energy);
- Reviewing the tariffs for raw-materials and machinery including, but not limited to, the mechanic engineering and light and food industries with the aim to reduce tariff rates.
- Speeding up the privatization process of medium- and big-sized- state-owned facilities focusing on measures to rehabilitate and restructure their activities.
- Preventing monopolistic activities and securing fair competitive conditions for all businesses and entrepreneurs.
- Establishing an anti-dumping Control State Committee and empowering it to carry out independent anti-dumping policies.
- Preparing an Action Plan on ecological standards in enterprises in order to support entrepreneurial activity in this sector.
- Align national legislation with requirements of the international dispute settlement mechanism (dispute resolution, monitoring the price fluctuation etc).
- Developing an industrial development concept beyond 2010 promoting application of technologies for the effective use of ecologically safe energy and other resources.
- Achieving to maintain higher tariffs for a transition period after WTO accession. Most problems can be solved through intelligent negotiations.

## ***In agricultural sector:***

- Listing agricultural sectors which are unable to react quickly to challenges in the world market and development of a special policy for them.
- Protection of certain agricultural production sectors which have no capacity to compete with imported goods.
- Seeking to exercise the right to repeated negotiations on these positions in the accession process. Notably, there are rights enabling countries to restart negotiations and sign protocols every three years.
- Formalization of a Food Control System in order to enhance accesses to food.

- Achieving maximum expansion of Amber Box measures.
- Seeking the right to carry out subsidies at the rate of 10 percent of total agricultural production.
- Advocating to implement policies similar to the 1989-1991 period when agricultural producers gained more support.
- Achieving the right to the Special and Differential (S&D) support measures.

### ***Investment sector:***

- Speeding up integrated measures to drastically improve the investment environment in the country (adoption of new laws on the protection of investments and investors, securing supremacy of law, eliminating obstacles facing investors etc.)
- Amending laws to comply with the rules according to the TRIMS agreements.
- Extending the transition period for the application of national control regimes.
- Preparing and approving documents to restrict manipulation opportunities for foreign investor's activities on "taxable income", "export price", etc.
- Introducing economic regulation methods to support local business activities not restricted by the investment list of TRIMS.

### ***Environment protection sphere:***

- Ratification of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Kartahen Protocol on Bio-security, the amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, and the Protocol to the Convention on Long-Range Transboundary Air Pollution. Seeking compliance with Article 10A of the Montreal Protocol on technology transfer. Joining these international treaties will create opportunities to cover risks regarding imported goods and technologies and will signal alignment with international standards of environmental protection in the local market.
- Adopting the law on biosecurity and food security.
- Preparing proposals to develop an approach how to assess the rent in natural resources and design a mechanism for natural rent prevention.
- Developing a package of proposals to eliminate intra-country natural rent and elaborate on a mechanism for returning unrecoverable natural resources to export nations.
- Extending and restructuring the existing state standards system on wildlife preservation.

- Shaping a system of state ecological standardization on the basis of international standards used by the International Standards Organization (ISO), the International Electrical Commission (IEC) and the International Telecommunication Union.
- Establishing an ecological audit institutional infrastructure aimed at monitoring the observance of ecological legislation by enterprises in order to mitigate the emergency risks caused by environmental pollution.
- Training high-level qualified experts in the fields of ecology law and ecological management.

### ***Social sphere:***

- Realizing regional programs in order to reduce poverty and combat unemployment.
- Enhancing access to material wealth and services which are of social importance.
- Improving the mechanism to reduce foreign labor migration to the country based on annual quotas approved by the government, and re-train local specialists to replace foreigners to protect the domestic labor market.
- Implementing improvements how to train the local labor force given domestic labor market demands.
- Conducting monitoring of the labor market ensuring quick response to developments in the domestic labor market.
- Increasing the effectiveness of targeted social assistance to address poverty.
- Shaping mechanisms to index the income of the population under the poverty level in case of price hike for commodities and services which are of social importance.
- Establishing a three-level social protection system including minimal state protection as well as obligatory and non-obligatory insurance systems.
- Ratifying WTO conventions for the protection of employment.
- Promoting activities to protect the rights of consumers of exported goods.

### ***Services Sector and Protection of Intellectual Property Rights (IPR):***

- Conducting comprehensive sector research regarding services aimed at the development of the service market and its international integration: assessing the current situation regarding its level of conformity with modern international standards, the impact of the liberalization of separate service fields on the domestic economy etc.



- Eliminating obstacles facing foreign investment. Full liberalization will not cause any damage to the country's national and economic security (for example health, education, transport services, whole and retail sale, hotel and restaurant services, legal services, audit etc.).
- Securing foreign capital flows into the bank and insurance sector. However, a fair competitive environment for local enterprises shall be created in these fields and steps shall be taken to prevent the creation of monopolies by separate enterprises. A strict timeline should be placed on these policies and these fields shall be liberalized upon expiry of this term.
- Speeding up and ensuring the transparency of the privatization of state owned banks holding the lion's share in the country's bank sector (International Bank of Azerbaijan and Kapital Bank).
- Speeding up efforts towards implementing international service standards: development of an appropriate legal framework, adoption and application of international standards, recruitment of expert personnel, education and training abroad etc.
- Bringing Azerbaijan's transshipment infrastructure in line with international standards in order to substantially benefit from the country's transit opportunities, removing obstacles to goods in transit at the customs checkpoints, guaranteeing safe transportation of goods, as well as introducing more effective mechanisms to detect banned goods, preventing any contraband channels etc.
- Introducing an automated system to exercise continuous control and inspection over cross-border operations and handling of transit cargoes.
- Improving legislation to protect brands, trademarks, industrial property and specimens, and patent rights.

## Bibliography

Bayramov, V. (2008). A Comparative Analysis of CIS Countries' WTO Accession; Ways to European Integration.

Bovenberg, A., & Goulder, L. H. (2002). Environmental taxation and regulation. *Handbook of public economics*, 3, 1471-1545.

De Maio, L., Stewart, F., & Van Der Hoeven, R. (1999). Computable general equilibrium models, adjustment and the poor in Africa. *World Development*, 27(3), 453-470.

Fan, M., & Zheng, Y. (2001). The Impact of China's Trade Liberalization for WTO Accession: A Computable General Equilibrium Analysis. Department of Economics and Finance, City University of Hong Kong.

Fariz, G. (2007). Azerbaijan on the way to the WTO: Later but safer? *The Caucasus & Globalization*, 1 (4).

Hasanov, E., & Zeynalov, A. (2013). Main Reasons for Azerbaijan to Pursue Its Accession to WTO and Grounds for Delaying the Accession. *Journal of Qafqaz University*, Nov, 30, 2010.

Hertel, T. W., & Winters, L. A. (Eds.). (2006). *Poverty and the WTO: Impacts of the Doha development agenda*. World Bank Publications.

Kavass, I. I. (2008). Azerbaijan's Path towards WTO Accession: Political Concerns, Technical Difficulties, National Attitudes (1997-2006). An Essay in the Form of a Country Report. *Rev. Cent. & E. Eur. L.*, 33, 343.

O'Ryan, R., De Miguel, C. J., Miller, S., & Munasinghe, M. (2005). Computable general equilibrium model analysis of economywide cross effects of social and environmental policies in Chile. *Ecological Economics*, 54(4), 447-472.

Pavel, F., Burakovsky, I., Selitska, N., & Movchan, V. (2004). Economic impact of Ukraine's WTO accession: first results from a computable general equilibrium model. Institute for Economic Research and Policy Consulting Working Paper, (30).

Roberts, M., & Wehrheim, P. (2001). Regional trade agreements and WTO accession of CIS countries. *Intereconomics*, 36(6), 315-323. Robinson, Sherman, 1989: "Multisector Models of Developing Countries: A Survey", in H.B. Chenery and T.N. Srinivasan, eds., *Handbook of Development Economics*.

Shoven, J.B., and J. Whalley. 1984, "Applied General Equilibrium Models of Taxation and International Trade: An Introduction and Survey", *Journal of Economic Literature* 22

Thissen, M., & Lensink, R. (2001). Macroeconomic effects of a currency devaluation in Egypt: An analysis with a computable general equilibrium model with financial markets and forward-looking expectations. *Journal of Policy Modeling*, 23(4), 411-419.

Tumbarello, P. (2005). Regional trade integration and WTO accession: which is the right sequencing? An application to the CIS.



**Farhad Bayramov, Narmin Ibrahimova, Isgandar Babazadeh**

# **AZERBAIJAN'S ACCESSION TO THE WTO**

*Assessing the macroeconomic consequences for  
the economy of Azerbaijan*

Bakı, Qanun Nəşriyyatı, 2014, 44 səhifə

Qanun Nəşriyyatı  
Bakı, AZ 1102, Tbilisi pros., 76  
Tel: (+994 12) 431-16-62; 431-38-18  
Mobil: (+994 55) 212 42 37  
e-mail: [info@qanun.az](mailto:info@qanun.az)  
[www.qanun.az](http://www.qanun.az)