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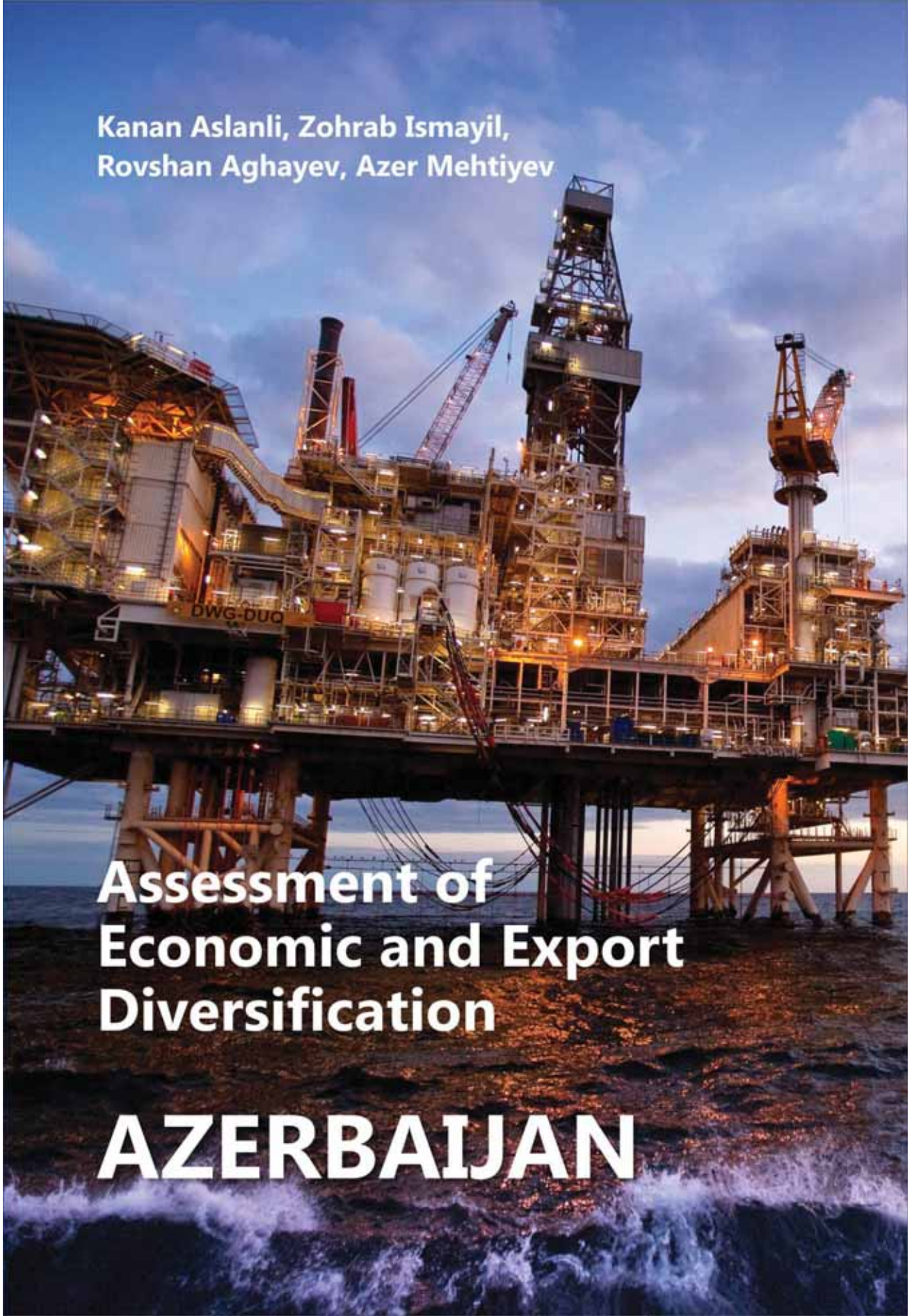

Assessment of Economic and Export Diversification

AZERBAIJAN


ASSESSMENT OF ECONOMIC AND EXPORT DIVERSIFICATION

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This report has been prepared in the frame of the projects by Public Association for Assistance to Free Economy "Assessment of Economic and Export Diversification in Azerbaijan and Kazakhstan" (RWI) and Support for Economic Initiative Public Union "Assessment of Economic and Export Diversification Opportunity in Azerbaijan" (OSIAF)

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CONTENTS

ABBREVIATIONS

ACG	Azeri-Chirag-Guneshli
ANAS	Azerbaijan National Academy of Science
CBAR	Central Bank of the Azerbaijan Republic
CPI	Consumer price index
GDP	Gross domestic product
ICT	Information and communication technologies
FSD	Fond for Science Development
MoED	Ministry of Economic Development
NEER	Nominal effective exchange rate
NFES	National Fund for Entrepreneurship Support
NEI	Neft Export Index
OJSC	Open Joint-Stock Company
REER	Real effective exchange rate
PSA	Production sharing agreement
SEZ	Special economic zone
SOFAR	State Oil Fund of the Azerbaijan Republic
SOCAR	State Oil Company of the Azerbaijan Rpublic
SIC	Science Innovations Centre
SSC	State Statistics Committee
WEF	World Economic Forum
WHO	World Health Organization
USSR	Union of Soviet Socialist Republics

SUMMARY

It is broadly recognized that economic diversification is generally taken as a process in which a growing range of economic outputs is produced. It can also refer to diversification of exports markets or diversification of income sources away from domestic economic activities. Export diversification refers to a set of policies aimed at changing the shares of particular goods in the existing export basket, introducing new goods to the export basket and gaining access to new geographic markets. Major elements of economic diversification are the following: capital (*human capital*, *physical capital and natural resources*), competitive markets allowing more efficient use of resources, infrastructure, sustainable institutional and structural reforms, and flexibility in foreign investments flows, as well as trade and macroeconomic stability. The challenges that countries rich in natural resources face while diversifying the structure of their economy and export basis stem from drawbacks associated with formation and implementation of relevant policies, institutional barriers of both political and economic nature, dysfunctional development motives driven by market mechanisms. Taking into account leading position of oil and gas sector in the national economy, achieving economic and export diversification is a crucial challenge for Azerbaijan economy.

As a result of increased oil and gas production and exports in the country together with higher oil prices in the world market, huge oil revenues started to flow into the country since 2005. Annual GDP growth went up as a result of increased oil and gas production and exports as well as because of the oil revenues flowing into the country. After 2010, given the halt of growth in oil sector, the successive GDP growth wasn't possible through the non-oil sector. It was supposed that such lower growth rates would also bring about slower growth in terms of investments,

public spending and people's incomes. That expectation forced the government to adopt suitable policies and strategies towards economic and export diversification. A review of state programmes and strategies adopted over the period of 2000-2011 reveals that economic diversification was clearly a priority issue in all the papers of the government's economic policy. By generalizing these papers, it is possible to conclude that the government focused on the following fields as a priority outside the oil sector for the purpose of achieving economic diversification:

a) Agriculture (plant-growing and cattle-breeding)
b) Fishery and fishing industry
c) Food (agrarian), tobacco-growing and wine industry
d) Consumer goods industry, including textile and silk-growing
e) Manufacture of construction materials
f) Chemical industry
g) Instrumentation manufacturing industry
h) Tourism
i) Electricity production
j) Communication and IT
k) Education related to "Human Capital" development

The review also shows that the government intended to achieve economic diversification through the following measures: expanding import substitution production in non-oil sector; enhancing non-oil product exports and diversifying exports in non-oil sector; ensuring regional development and balanced development across regions in the country; manufacturing competitive and high-tech products through utilization of information and communication technologies and advanced production technologies. Also, government has already established various institutions to implement dissimilar aspects of diversification policies. Yet, the government has not taken adequate measures towards establishing an investment environment necessary for economic diversification, nor has it established legislative base required for competition or eradicated official and non-official obstacles. According to the existing measurement of government effectiveness, the executive branch of Azerbaijan government did not improve in terms of effectiveness over the period 2003-2010. It is necessary to improve local and foreign investment climate in the country and eliminate bureaucratic and artificial obstacles in for-

eign trade. A program of new structural reforms should be designed and implemented to improve economic effectiveness of the government.

It has become a challenging issue to link overall economic priorities with the budget priorities in the country like Azerbaijan that are predominantly dependant on natural resources and with the state funding playing a significant role in the economy. Along with rapidly increasing oil funds entering the country in recent years and public investments financed from the budget, the amount of funds in investment projects financed from foreign loans and treated as the government debt is also increasing. For such a linkage, unlike Azerbaijan, many countries adopt Medium Term Expenditure Framework (*MTEF*). In case where there is inconsistency between budget policy, planning and budgeting, MTEF appears to be the only way out and this framework document is prepared prior to the traditional budget process and acts as the key element of sound implementation of public finance allocation towards social-economic and infrastructure priorities. It is crucial to draw attention to transparency, and increase accountability and effectiveness in the use of budgets in both directions. Otherwise a country can face serious challenges including not achieving long-term economic aims and not fulfilling the diversification plans and programmes.

The analysis of factors hampering economic diversification in Azerbaijan shows that national currency appreciation against foreign currencies, poor governance, poor strategic approach, poor involvement of social players in the process, low efficiency of budgets, labour-intensity of many areas chosen as priorities, poor and inadequate export and import substitution all appear to be major obstacles adversely affecting the non-oil sector development. Being one of the main factors that hamper economic diversification in resource countries, "Dutch disease" was observed in Azerbaijan in the form of steady appreciation of national currency against leading currencies of dollar, Euro and pound sterling from early 2006 to early 2012.

Public policy framework towards economic and export diversification also paid special attention to innovations. But insufficient financial opportunities of enterprises, lack of qualitative human capital due to chronic problems in education and health, misuse of public funds, as well as inadequate government support are

key economic factors hampering innovation in enterprises of Azerbaijan. Limited financial resources are directed to product innovations due to import of ready-made technologies rather than process innovations. The trend of high technology in overall and industrial exports, and trend of end industrial goods in overall export proved to be downward during the past 15 years.

Beside official diversification priorities like information-communication technologies, Azerbaijan enjoys a comparative advantage due to large export potential of agriculture and a large variety of agricultural products. Despite extended agricultural development funds from the state budget and financial resources providing credits for agriculture through different channels, the fact that agriculture did not seriously contribute to economic diversification is explained by the following reasons: (1) procurement system involving purchase of agricultural products directly from farmers on the basis of a contract has not been established; (2) supply of agricultural lands with mineral fertilizers has decreased; (3) the government does not have a well developed strategy, and short-, mid- and long-term action plan to mitigate loss of land quality; (4) efficiency of subsidies from the state budget has not been ensured. Also, lack of necessary coordination among public agencies in the implementation of tourism policy, still inadequate tourism infrastructure, increased prices of goods and services in the country and such factors as steady appreciation of national currency negatively affected development and sustainable competitiveness of tourism sector as a priority field of non-oil sector. Complex measures should be taken in strategic planning, visa and boundary regime, licensing and certification, regional development and strengthening promotion policy in order to accelerate development of tourism sector.

Presently, due to dominant role of oil sector in Azerbaijan economy, approximately half of GDP, 75% of state budget and 94% of exports is due to the oil sector. Whereas sectoral concentration index (*Herfindahl index*) of Azerbaijan in GDP in 2000 was 0.1381, and it has been increasing since 2005. This figure reached 0.309 in 2007, which indicates poor concentration of GDP across sectors during that period. Besides, after 2007, Herfindahl index by sectoral concentration of GDP decreased again and reached 0.237 in 2010. This index fell to 0.2081 in 2009, which was due to decreased price of oil in the world market, resulting in decreased share of oil sector in GDP. The state of export diversification of Azerbaijan is even worse. Although Herfindahl index indicating concentration level of export across main

products was 0.366 in 2000, it reached its highest of 0.858 in 2008 and was 0.747 in 2011. Of all exports in 2008 and 2011, 92.5% and 86.2%, respectively, were oil products. Crude oil, natural gas and oil products comprised 94.3% of all export in Azerbaijan in 2011. Azerbaijan enjoys comparative advantage (*revealed comparative advantage - RCA*) in crude oil exports making up a substantial part of overall exports and taking into account the quality of crude oil products, competitiveness is high. Profitability of export basket is also problematic. There are low, mid and high profitable products in "export basket" which is measured by "EXPY" coefficient (*13993 for Azerbaijan which reflects medium income association of export basket*). But the main problem is that the leading products in the "export basket" of Azerbaijan are mainly raw materials and semi-finished products without science and innovation intensity. Promotions could be carried out about export enterprises that contribute to the profit gains of the country's export basket and introduce innovative products into the market. While determining development priorities of non-oil sector, factors of labour intensity and linkage to other sectors are to be considered along with export and import substitution potential of the sectors.

1. INTRODUCTION

(Key Concepts and Methodology)

The United Nations Framework Convention on Climate Change defines economic diversification in its papers as follows: Economic diversification is generally taken as the process in which a growing range of economic outputs is produced. It can also refer to diversification of markets for exports or diversification of income sources away from domestic economic activities".[1] *Export diversification refers to the set of policies aimed at changing the shares of separate goods in the existing export basket*, *introducing new goods to the export basket and gaining access to new geographic markets*[2]. Major elements of economic diversification are the following: capital (*human capital*, *physical capital and natural resources*), competitive markets allowing more efficient use of resources, infrastructure, sustainable institutional and structural reforms, and flexibility in foreign investments flows and trade, as well as macroeconomic stability.

According to the final figures of 2011, oil sector accounted for 51.7% of GDP, 92% of overall exports, 70% of budget revenues, one-fourth of overall investments. With increased opportunities of natural gas exports, the whole country economy has become dependent on the exploitation of hydrocarbon resources. This dependence has already become a major economic determinant shaping the economic growth rate. As a result of reductions in oil production by 10.5% and gas production by 2.2% in 2011, the Azerbaijani economy saw the lowest economic growth rate ever seen in the last 15 years (0.1%).

[1] http://unfccc.int/adaptation/nairobi_work_programme/programme_activities_and_work_areas/items/3994.php

[2] Akram Esanov. Economic diversification. Senior Economist, RWI, July 20-22, 2011, Istanbul

Taking into account dependence of Azerbaijan economy on oil and gas sector in terms of major economic parameters such as economic growth, gross domestic product, exports and budget revenues and the necessity of achieving economic and export diversification, a research study "assessment of economic and export diversification" has been carried out on the basis of the uniform methodology and structure of Revenue Watch Institute, USA. The study primarily used data collection and analysis of necessary statistics.

The main hypothesis of the research is that the challenges that countries rich in natural resources face while diversifying the structure of their economy and export basis stem from drawbacks associated with formation and implementation of relevant policies, institutional barriers of both political and economic nature, weak motivation for developing free market mechanisms. So the research study seeks to review state policies on economic and export diversification in Azerbaijan as well as monitor and analyze the economic situation emerging as a result of them. The research first looks at the macroeconomic environment in greater details. Later, it reviews the legislation, economic diversification strategies and programmes along with official statements made and institutional framework created for economic diversification as the major columns of diversification policy (*policy inputs*). In addition, the paper also examines boundaries and priorities of mid-term and long-term spending strategy, as well as papers on economic diversification in Azerbaijan written by both international organizations and research centres. In the end, the paper sheds light on factors that hamper effective diversification of economy.

As part of the analysis on economic implications of diversification policy (*policy outputs*), the paper also explores the state investment into infrastructure, human capital and innovations and reviews the current status-quo of development in non-oil sector fields, including food industry, metallurgy, consumer goods industry, chemical industry, agriculture and tourism, presenting obstacles that hinder their effective development.

The research also looks at major indicators of economic and export diversification, thus assessing the statistical results and dynamics of diversification policy (*policy outcomes*). Below are the major indicators of economic and export diversification analyzed in this paper:

1. Natural resource dependence indicators

1.1. Share of resource sector in GDP

1.2. Share of resources in overall budget revenues

2. Economic diversification indicators

2.1. Composition of GDP across value-added sectors at the 1st classification level

2.2. Sectoral distribution of employment at the 1st classification level

2.3. Herfindahl index of sectoral concentration of GDP value-added structure

2.4. Herfindahl index of sectoral concentration of employment

3. Export diversification indicators

3.1. Share of 10 major export products in overall exports

3.2. Herfindahl index of export concentration

3.3. Share of exports of raw resources (resource) in overall exports

4. Product improvement indicators

4.1. Share of high-technology exports in overall exports

4.2. Measure of export completion

4.3. Share of end-product industrial goods in overall exports

Throughout the study, especially upon calculating economic and export diversification indicators references have been made to national statistics (*State Statistics Committee*), UNO trade statistics and metadata of World Bank. Along with findings and recommendations at the end of the paper, policy recommendations (targeted at decision-makers) for more effective future protection strategies and activities are also reflected.

2. MACROECONOMIC ENVIRONMENT

Restoring its independence in 1991, Azerbaijan had an economy that was planned as part of the single central planning of the USSR. During the Soviet time, Azerbaijan had a growing industry, dynamic agriculture and service sector. Just like other USSR republics, Azerbaijan's economy was completely linked to the united economy complex. Thus, when the united economic system of the USSR collapsed, a great majority of enterprises in the country discontinued their operations and the country faced sharp economic and social problems. Yet, in 1992 prices were liberated in the country with national currency introduced to the circulation and economic reforms were launched. However, political instability and Karabakh war led to graver economic crisis and recession. The 1992-1996 years are characterized by economic recession, rapidly declining GDP, higher inflation and unemployment rates: World Bank statistics suggest that the average annual GDP growth rate during these years in the country was 5.2%, and average annual inflation was at 827.7%[3].

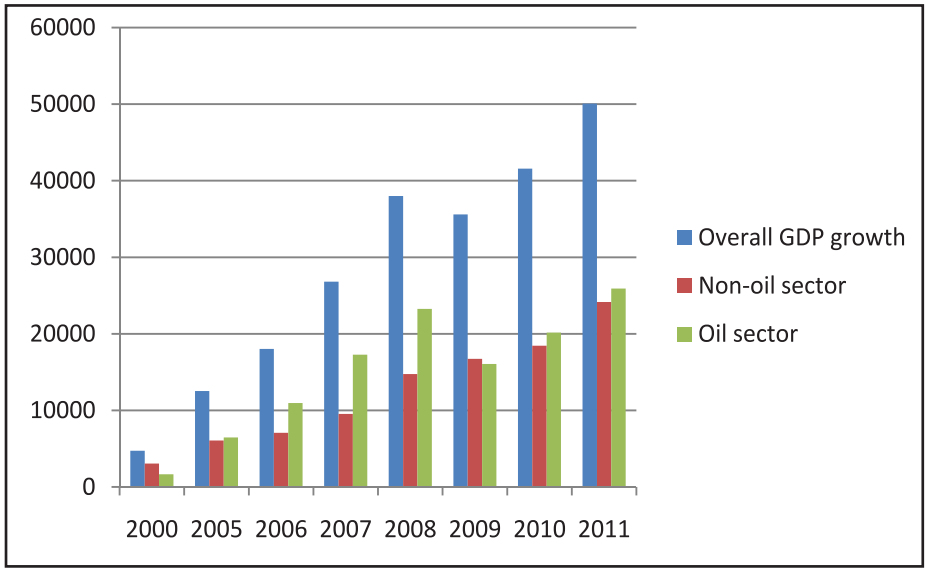
In September 1994 the independent Azerbaijan signed its first international oil contract – Azeri-Chirag-Guneshli Production Sharing Agreement – and the number of international oil contracts reached 20 in the subsequent years, which provided for development of oil and gas fields in the Caspian Sea. These contracts led to higher interest of foreign investors in the country's economy, especially in oil sector, resulting in the influx of foreign investments into the country. Also, launched in 1995, privatization of state properties became widespread actually in 1997 with private sector starting to expand. As a result, soon it was possible to halt economic recession and achieve GDP growth, as well as to stop prices increases:

[3] Azerbaijan Country Economic Memorandum - New Silk Road: Export-Led Diversification. World Bank paper. Page 55. December 23, 2009

in 1997-2000 years, an average annual 8.6% growth in GDP was recorded, while increasing inflation was replaced by an annual 1% deflation process[4].

While GDP was 4.7 billion manats in 2000, it went up to 12.5 billion manats, or 2.7 times.

Chart 1. GDP growth pattern during 2000-2011 years[5] (in million manats)



As a result of increased oil and gas production and exports in the country and higher oil prices in the world market, huge oil revenues started to flow into the country since 2005. While oil production was 15.6 million tons in 2004, it went up to 22.2 million in 2005, 33.3 million in 2006 and 42.6 million tons in 2007. The size of GDP in 2008 was 38.0 billion manats. Due to the world financial crisis and drastic fall in oil prices in the world markets, the nominal GDP decreased by 2.4 billion manats in 2009 compared to the previous year. However, it started to grow again in 2010 with GDP growth reaching 41.6 billion manats.

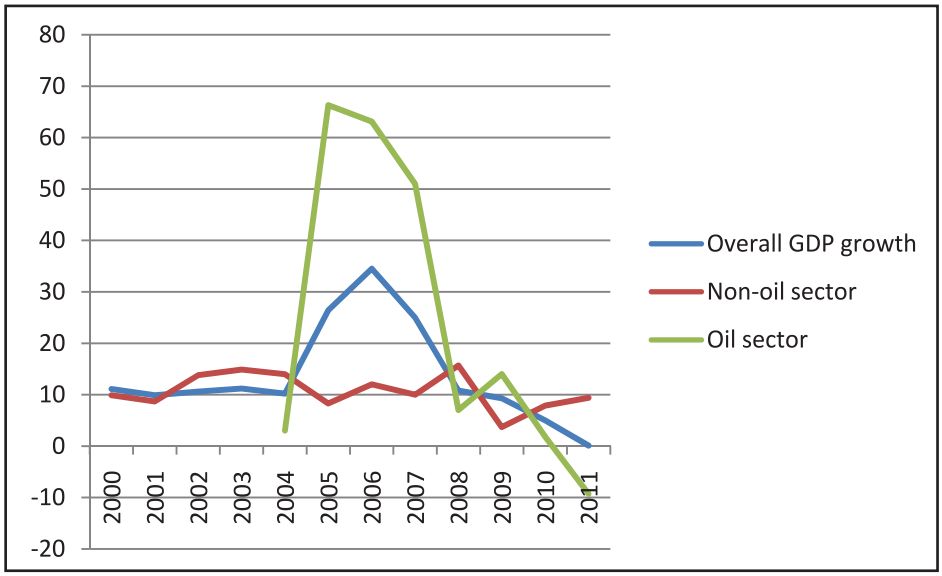
Annual GDP growth went up as a result of increased oil and gas production and exports as well as because of the oil revenues flowing into the country: While annual GDP growth rate was roughly 9-10% in 2000-2004 years, it reached 26.4% in

[4] Azerbaijan Country Economic Memorandum - New Silk Road: Export-Led Diversification. World Bank paper. Page 55. December 23, 2009

[5] www.azstat.org

2005, 34.5% in 2006, and 25.0% in 2007. Chart 2 clearly shows that during the times of peak oil production, GDP grew at a higher rate.

Chart 2. GDP growth changes in 2000-2011 years[6] (in percentage)



Beginning from 2008 oil production declined drastically, which was reflected in similar patterns in GDP growth: growth rate of country's GDP was at 10.8% annually in 2008, 9.3% in 2009, and 5.0% in 2010. It should be noted that the government has set an objective of 7-8% economic growth annually in order to reach its objective of doubling the country's economy in the next 10 years[7]. Taking into account the halt of growth in oil sector, further GDP growth is only possible through non-oil sector.

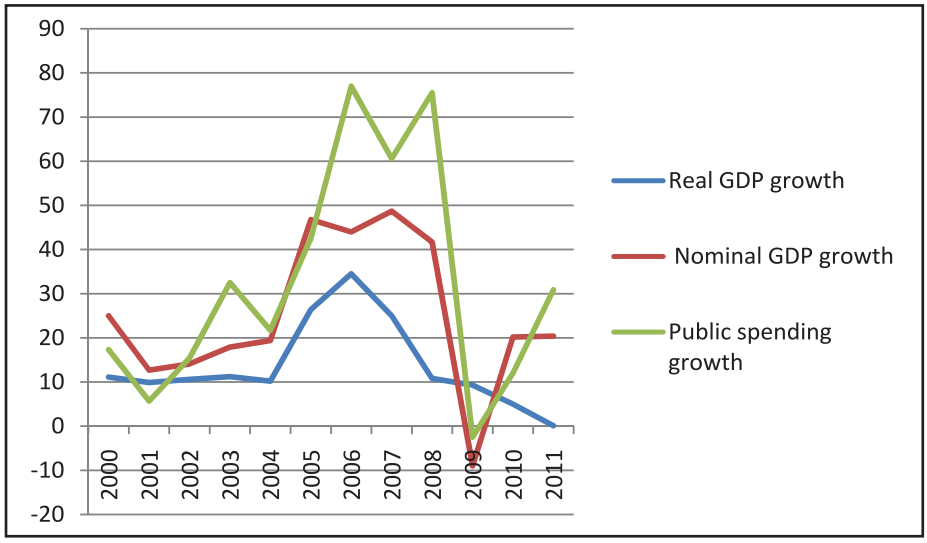
Over the last 10 years, higher oil revenues have resulted in rapid increase in public spending: while the state budget expenditures accounted for 1.3 billion in 2003, 2.1 billion in 2005, they went up to 11.8 billion manats by the year 2010, or 15.4 times more than in 2000, and 5.5 times more than in 2005.

Starting from 2002, growth rate of state budget spending exceeded both real and nominal GDP growth rate and this disparity was more evident in the years 2005-2008.

[6] Ministry of Economic Development of the www.economy.gov.az

[7] http://www.president.az

Chart 3. Growth in public spending and GDP during 2000-2011 years (compared with the preceding years, in percentage)



Of course, such a rapid increase in public spending made higher inflation inevitable. While consumer price index (CPI) in the country was 2.2 % in 2003, it went up to 6.7 % in 2004, 16.7 % in 2007, and 20.8 % in 2008. Dropping to 1.5 % in 2009, CPI started to go up again from 2010.

Similar trend was recorded in the prices of industrial products wholesale prices: from 2002 to 2008 prices increased, and despite the dramatic fall in 2009 due to the oil prices, the prices resumed to go up markedly again from 2010.

Inflation is closely correlated with non-oil sector GDP growth, i.e., according to CBAR estimations, during 2005-2010, while such a correlation was around 89%, the correlation between inflation and GDP growth was just 16 % for the same period. Moreover, inflation made up 79 % of public spending growth, 96 % of nominal income growth, 76 % of nominal salary growth, and 22 % of M2 money supply[8].

[8] Inflation review of the Central Bank of Azerbaijan – 2010 www.cbar.az

Chart 4. Consumer Price index in the country's economy over the period of 2001-2011 and changes in production (wholesale) prices of industrial products[9] (compared with the previous year, in percentage)

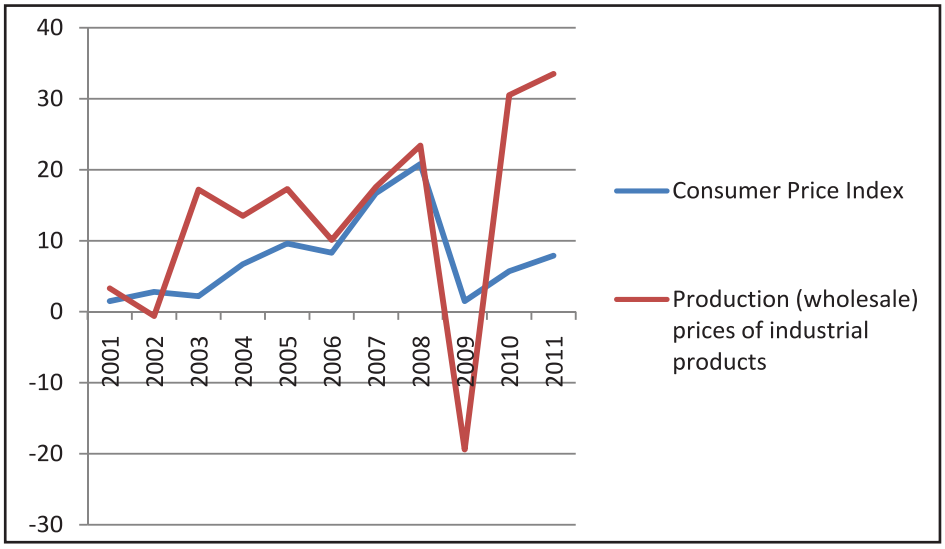
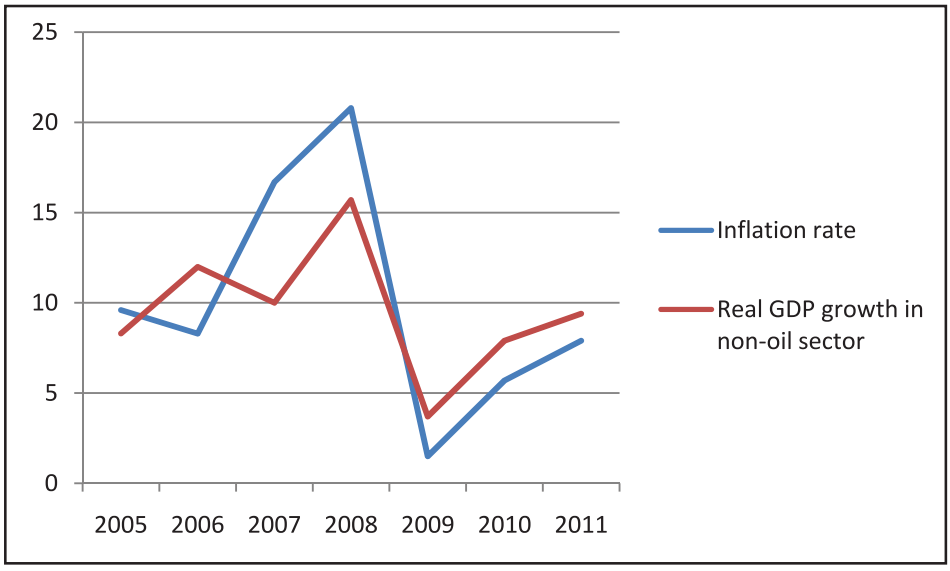


Chart 5. Inflation rate and real GDP growth in non-oil sector, in 2005-2011 years (in percentage)

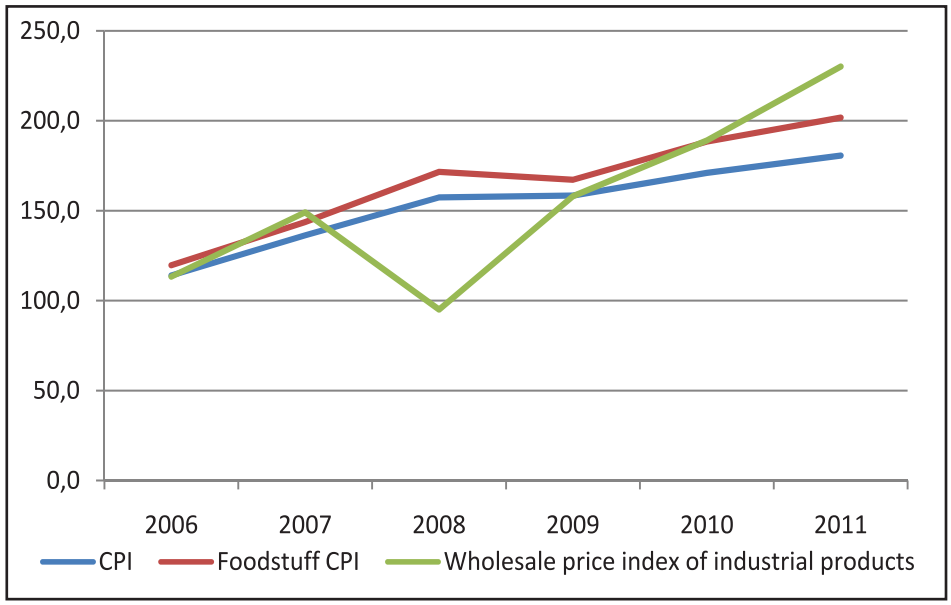


[9] www.azstat.org

Econometric computations of CBAR reveal suggestion that while monetary factor (changes in money supply) accounted for 50.6 % of the inflation in 2008, it accounted for 12.5% in 2009 and 46.8% in 2010. The rest of inflation was attributable to non-monetary factors. Non-monetary factors include mainly import inflation and administrative price increases.

According to the State Statistics Committee figures, compared to 2005, country's CPI went up by 71.1% in 2010, including 88.4% of CPI for foodstuff and 89.0% of CPI for industrial products.

Chart 6. Changes in inflation rate in comparison to 2005 (100% in 2005)



Such a picture shows that oil revenues are accompanied by significant price increases, which is risky for businesses, especially for small and medium enterprises.

In the time of more influx of oil revenues, one of the main priorities of CBAR was to maintain the nominal rate of manat vis-à-vis major currencies (USD and EUR), as a result of which manat appreciated only slightly by the end of 2010 compared with the year 2000.

Studies of National Budget Group[10] reveal that the overall appreciation of nominal effective exchange rate (NEER) comprised 6 per cent 2010 compared to 2009.

[10] Appraisal of Macroeconomic Environment in Azerbaijan in 2010. Analytical Review. Baku, NBG, 2011

The major appreciated occurred against EUR and Pound and the appreciation was just 4.2 % compared with 2000.

Chart 7. NEER and REER (100% in 2000)

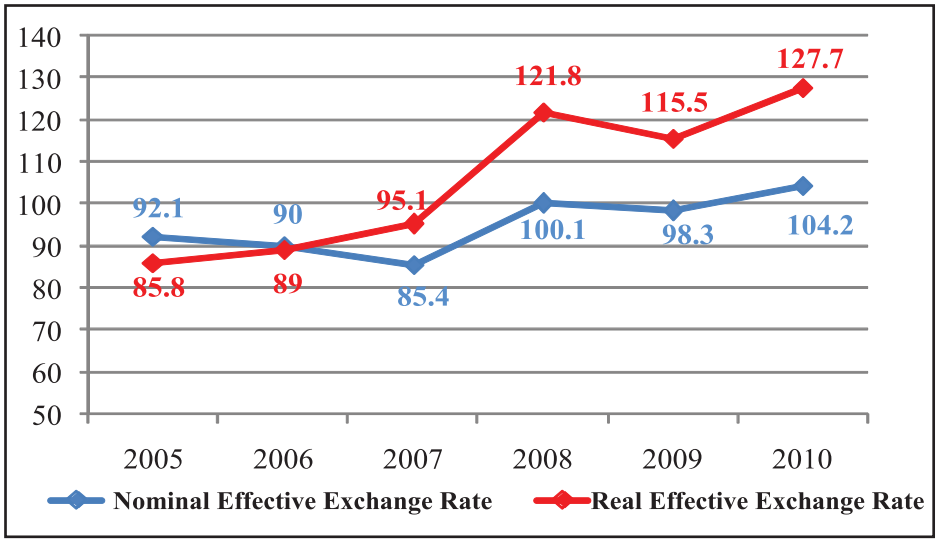
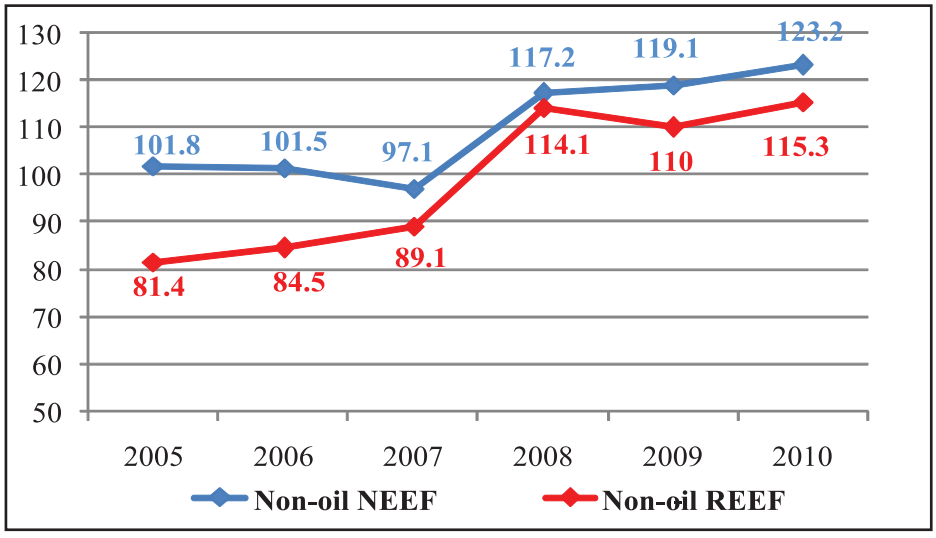


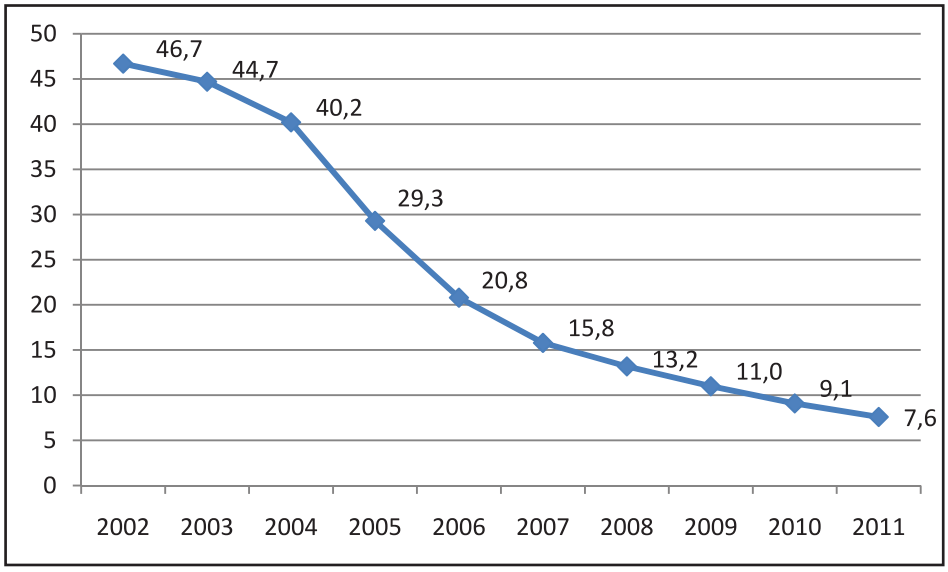
Chart 8. Non-oil NEER and REER (100% in 2000)



Real Effective Exchange Rate (REER) also continued to increase in 2010 and became stronger by 10.6% compared with 2009. The appreciation of manat was 48.8% compared with 2005, and 27.7% compared with 2000, which indicates that predictions about oil dollars appreciating manat were actually the case. Even though non-oil NEER and REER showed similar patterns (calculated through consideration of non-oil trade), appreciation of REER was 4.8% and 15.3% compared with 2009 and 2000 respectively[11].

State programmes on poverty reduction in Azerbaijan are underway and in parallel with an increase in nominal incomes of people, poverty rate in Azerbaijan also dropped from 49.0% in 2000 to 9.1% in 2010.

Chart 9. Official poverty rate in Azerbaijan (in percentage)



The nominal incomes of people in Azerbaijan reached 25.6 billion manats in 2010 and comprised 61.5 % in relation to GDP[12]. Thus, per capita nominal income in the country was 2866 manats and the average per employee monthly salary comprised 325 manats. The wage factor contributed to per capita incomes by 11.3% and per capita increase in incomes was largely due to incomes from business ac-

[11] Appraisal of Macroeconomic Environment in Azerbaijan in 2010. Analytical Review. Baku, NBG, 2011 www.nbg.az

[12] Central Bank. Monetary Policy Review 2010. Baku - 2010

tivities, properties and current transfers of people. One-third of people (33.7%) in Azerbaijan received a monthly salary of less than 100 manats in early 2010.

Real economic growth of Azerbaijan has been seen to decline in recent years. One of the features typical of resource-rich countries is that economic growth starts to slow down after a certain period. Such a tendency is also stressed as one of the negative signs in *"resource-curse"* concept. The decline in growth rate is explained by three reasons:

- *Slowdown in oil sector growth associated with slower growth of oil production and prices.*
- *Negative impact of world financial crisis on aggregate demand and credits markets.*
- *Base effect (since GDP increases on the basis of a bigger base from year to year, the same growth results in lower percentage increase).*

According to forecasts, the country will see a slower economic growth in 2011-2015 years. For example, according to IMF Report of May, 2010[13], average economic growth will comprise roughly 3% in the mentioned period with non-oil sector growth comprising 4.9%. It is supposed that such lower growth rates will also bring about slower growth in terms of investments, public spending and people's incomes.

[13] www.imf.org/external/pubs/ft/weo/2010/02/index.htm

3. ECONOMIC AND EXPORT DIVERSIFICATION POLICY

3.1. Legislation related to economic and export diversification

From late 1990s to 2010, more than 20 laws were enacted which can affect economic and export diversification of Azerbaijan. They include laws on *state assistance for small businesses; financial and industrial groups; etsbalishment of special economic zones and temporary tax concessions for agricultural producers*. These laws are crucial in terms of laying foundation for economic diversification at the economic level. In addition, some extra laws of sectoral importance were adopted in the same period, which include laws on *energetic; communication; tourism; seedage; wheat; cotton; wine-growing and wine-making; tea-growing; pedigree stock-breeding and bee-keeping*.

However, despite numerous recommendations of both international and local experts, no law has been adopted on SOFAR and its management. Decisions regarding SOFAR and its budget are made by the presidents and parliament has no role in it.

Also, although discussed since 2004, Code of Competition has not been adopted in the country yet.

3.2. Economic diversification strategies and programmes

Over 2000-2010 years, Azerbaijani government adopted the following programmes on development of non-oil sector and regions and poverty reduction:

1) Food Security Programme[14] has a major objective of producing more local agricultural products and food abundance in the country. This programme, at large,

[14] *Approved by Presidential Decree 640 of March 2, 2001*

aims to develop agriculture and pursues activities to support specialized private subjects in agriculture, establish farmer unions, allot subsidies for irrigation works in order to develop private farmers, and develop production, processing and marketing of locally-grown products.

2) 2002 -2006 Programme on Agricultural Development[15] has a major objective of developing agriculture, improving the soil fertility, ensure production of competitive products and stimulate export activities of producers, make sure that the needs of processing and food industry for raw materials and of people for foodstuff are provided from domestic sources. This programme also aims at overall development of agriculture. In doing so, it aims to protect domestic markets, design mechanisms to stimulate modern infrastructure and exports, provide equal opportunities for economic actors and promote the use of new technologies. Major goals of the programme also involve uniting financial interests of entrepreneurs, establishing credit unions and better concessions and insurance system in the fields of export agriculture with a view to providing loans for agriculture and ensuring their efficient use.

3) 2003-2012 National Strategy on Information and Communication Technologies[16] pursues to expand use of information and communication technologies and ensure democratic development and transition of the country into information society. In addition, the strategy aims to strengthen economic, social and intellectual potential of the country, build an information and knowledge-based competitive economy, and improve telecommunication infrastructure and e-economy. The activities of this strategy that can contribute to economic diversification involve IT application in economy, including in private sector and development of IT industry and promotion of production and export of products and services in this field.

4) 2003-2005 State Programme on Poverty Reduction and Economic Development in Azerbaijan[17] has regional development and 3 areas of non-oil sector as key priorities: *a) stimulation of entrepreneurship in agriculture through tax breaks or concessions for agriculture, a broader range of financial services provided by banks, credit unions and microcredit institutions in the regions, and better soil protection and quality; b) with regard to tourism,* the key priority is to coordinate state policy on tourism

[15] *Approved by the Cabinet of Minister's Decree 219s of 17 October 2002*

[16] *Approved by Presidential Decree 1146 of February 17, 2003*

[17] *Approved by the Presidential Decree of February 20, 2003*

more effectively through involvement of both state resources and private sector; *c) with regard to energy sector,* the priority is to expand energy production and develop an alternative energy system.

5) 2002-2005 State Programme on Developing Small and Medium Enterprises[18] entails 3 obvious priorities that relate to economic diversification: a) Support for chemical industry through design and implementation of pilot investment projects in new technologies; b) export promotion through expanding production of small and medium enterprises; c) expanding the network of agro-services and financial-credit institutions, and supporting regional development through handicraft industry.

6) 2002-2005 State Programme on Tourism Development[19] seeks to develop tourism as one of the major fields of non-oil sector and ensure more efficient use of tourism resources of the country. The programme was aimed at developing small and medium enterprises in tourism; (b) creating competitive tourism market; developing infrastructure for tourism and attracting foreign investors to tourism; (c) (d) improving visa, customs and other regulations for incoming and outgoing tourists.

7) State Programme on Socio-Economic Development of Regions (2004-2008 years) sought to ensure balanced development across regions on the basis of developing various fields of economy, including renovation of social and utility infrastructure. The following were regarded as cornerstones of economy in regional development: agricultural production (wheat-growing, cotton-growing, cattle-breeding, chicken breeding, sheep-breeding, vegetable-growing, horticulture, wine-growing and wine-making, fruit-growing, floriculture, olive-planting, beekeeping), food industry (meat-processing, milk-processing and establishment of enterprises for other types of food, processing of plant-growing products, aid to child food production), fishery, support for production of mixed forage, consumer goods industry (textile, carpet-making and silk-making), oil chemistry and chemistry, plastic production, iron, steel and non-ferrous metal industry, aluminium and pipe production, iron ore, alunite production, energy industry, production of construction materials (chipped stone, limestone, cement and cement raw materials, bentonite, quartz and construction sands), procurement of medicinal herbs, tobacco-growing and tourism.

[18] *Approved by the Presidential Decree of August 17, 2002*

[19] *Approved by Presidential Decree 1029 of August 27, 2002*

8) Long-term Strategy on Oil and Gas Revenue Management in 2005-2025 years[20] sets out major principles of oil and gas revenues use over the next 20 years and of mid-term expenditures policy. The strategy stipulates spending priorities for the oil and gas revenues that include development of non-oil sector of the economy, regions, small and medium enterprises, infrastructure, promotion of intellect and technology-based economy, human capital development (training and re-training high-calibre professionals).

9) State Programme on Development of Fuel-Energy Complex (2005-2015 years)[21] sets a greater number of heating power stations as the major energy sector outside oil and gas sphere (construction of modern electricity stations with the capacity of 400-500 MW in Sumgait, a modern heating power station in Sangachal, construction of a power station with the capacity of 800-900 MWatt in Shirvan) and development of electric power industry through developing alternative energy sources (wind, sun, etc.).

10) State Programme on Employment Strategy in 2007-2010 years[22] sets out the following as its objectives:

- *Establishment and development of regional credit institutions.*
- *Establishment of regional centres to provide organizational support, information and consultancy services and conduct proper analysis on export opportunities for local products and promote export of competitive products.*
- *Enforcement of customs and tax privileges to encourage import of modern technologies to the country.*
- *Measures to develop cooperation in the field of production and sales of agricultural products in the regions.*
- *Measures to develop tourism infrastructure in the Republic, especially in rural regions.*
- *Build a system of incentives and prerogatives to promote investments in order to create jobs in regions that are not attractive for domestic and foreign investors.*
- *Measures to develop agro-service in agriculture, seedage farming for increased productivity in the country, improve the state provision of household farms with seeds.*

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[20] *Approved by Presidential Decree 128 of September 27, 2004*

[21] *Approved by Presidential Decree 635 of February 14, 2005*

[22] *Approved by Presidential Decree 2167 of May 15, 2007*

11) 2008—2015 State Programme on Food Security of People[23] sought to ensure full provision of citizens with food in line with adopted standards for a healthy and productive lifestyle of citizens. In doing so, the government identified 4 key objectives to reach this goal: increasing food production in the country; supplying people with safe and quality food products; risk-management in food supply; carrying out institutional development of food supply and improving business environment.

12) 2008-2015 State Programme on Poverty Reduction and Sustainable Development[24] sets, as one of its strategic objectives, to ensure sustainable development of the country through non-oil sector development. In doing so, the following spheres of economy – alternative energy sources in power industry, agriculture and tourism – were chosen as priority to improve.

13) 2009-2013 State Programme on Socio-Economic Development of Regions primarily seeks to develop non-oil sector, diversify the economy, and ensure sustainable socio-economic development in the country. The paper identifies development of export-oriented non-oil sector as the key issue. Although all the priorities stipulated in the previous programme were considered in this programme too, there are some additional sectors, which include instrumentation manufacturing industry, chemical industry, production of agricultural products, food industry, fishing, manufacturing construction materials, tobacco-growing, tourism, and procurement of medicinal plants.

14) 2010 – 2014 State Programme for Developing Tourism[25] defines development of high-level tourism industry meeting economic, social and environmental standards in Azerbaijan and turning it into one of the cornerstones of the country's economy as its major goal. During the period the paper is enforced, *the major activities will include creating appropriate infrastructure for history-architecture and culture preserves in touristic and recreational locations, developing ecological, village and sports tourism, attracting investments to areas with high touristic potential and promoting small and medium enterprises in this field.*

So, the review of state programmes and strategies adopted over the period of 2000-2011 years reveals that in all the papers economic diversification was clearly

[23] *Approved by Presidential Decree 3004 of August 25, 2008*

[24] *Approved by Presidential Decree 3043 of September 15, 2008*

[25] *Approved by Presidential Decree 838 of April 6, 2010*

a priority issue of the government's economic policy. By generalizing these papers, it is possible to conclude that the government focused on the following fields as a priority outside oil for achieving economic diversification:

- *Agriculture (plant-growing and cattle-breeding)*
- *Fishery and fishing industry*
- *Food (agrarian), tobacco-growing and wine industry*
- *Consumer goods industry, including textile and silk-growing*
- *Manufacture of construction materials*
- *Chemical industry*
- *Instrumentation manufacturing industry*
- *Tourism*
- *Electric power industry*
- *Communication and IT*
- *Education related to "human capital" development*

The review also shows that the government intended to achieve economic diversification through the following:

- *Expanding import substitution production in non-oil sector.*
- *Enhancing non-oil product exports and diversifying exports in non-oil sector.*
- *Ensuring regional development and balanced development across regions in the country.*
- *Manufacturing competitive and high-tech products through utilization of information and communication technologies and advanced production technologies.*

3.3. Overview of official statements about economic and export diversification

In his official statements during 2003-2010 years, President Ilham Aliyev mentioned importance of economic diversification and development of non-oil sector. A look into President's statements shows that economic diversification is largely linked with the investment of oil revenues into non-oil sector through state investment programmes:

- *As a result of wise and effective utilization of oil revenues in the non-oil sector development, agriculture, construction and processing industries in Azerbaijan are rapidly growing. We have already managed to address a big part of food security*[26].

- *If it had not been for our focus on regional development, our economy would now resemble an economy with development in one domain only*[27].

On the other hand, economic diversification calls for more private investments along with state investment programmes and the government claims to be ready to support private sector:

- *We will continue to implement state programmes through state intervention. A huge amount of money is allocated from the state budget every year. Yet, I would like to see private sector making large-scale investments too.*[28]

- *I am personally not in favour of direct intervention of government in building new industries. We should support private sector to take charge of this. If the government is to take up any financial commitments, we will do it. The country's non-oil sectors are supposed to be developed by private sector though, and we are trying to accomplish it*[29].

Another interesting point is that the President underlines the importance of designing large-scale industrial development plan as part of achieving economic diversification:

- *In 2006 a large-scale industrial development programme must be worked out, which have to entail non-oil sector development. We must identify our future industrial development path: which fields need developing, in which fields we are expected to attract investors from abroad, which fields we are expected to operate ourselves and into which areas we have to invest*[30].

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[26] Ceremony on the 60th anniversary of Legendary Oil Stones, 5 November 2009

[27] Conference on the second-year results of implementation of the "2009-2013 State Programme for Regional Socio-Economic Development of the Azerbaijan Republic"

[28] Conference on the second-year results of implementation of the "2009-2013 State Programme for Regional Socio-Economic Development of the Azerbaijan Republic"

[29] President Ilham Aliyev's interviews to US New York Times, Los Angeles Times newspapers, Bloomberg Information Agency and Dow Jones/CNBC TV channel, 2005.

[30] Prezidential speech at the conference of the Cabinet of Ministers on 2005 year's socio-economic results, January 31, 2006

In his announcements, the President also regards increase of budget revenues through non-oil sector as necessary and emphasizes that oil revenues must mainly be kept as deposit:

- *I have entrusted the government, including the Ministry of Finance, with a task to identify key parameters of the next year. Next year budget must be significantly bigger. There is opportunity for this and such a budget growth must occur due to non-oil sector. We must spend Oil Fund money with care. It is not difficult to spend it. But we must keep it as deposit. We must spend it only on important matters, on most significant issues*[31].

However, some President's statements talk about economic diversification as an objective, while others show it as an achieved goal. Also, despite his mentioning creation of favourable conditions for more significant private sector investments in his statements, the government, *since 2006*, has turned its focus on investing oil revenues into infrastructure projects and construction-renovation activities, whereas President I. Aliyev stressed importance of industrial development programme in 2005. Nevertheless, this programme has not been adopted yet. The President also stressed in his statements that budget revenues must be increased through non-oil sector; money accumulating in SOFAR must be spent carefully and kept as deposit. Nevertheless, the amount of transfers from SOFAR to the state budget is increasing year by year and in 2011, oil revenues accounted for 75% of budget revenues.

3.4. Institutes in charge of economic diversification

According to Article 119 of the Constitution of Azerbaijan, *Cabinet of Ministers* is directly responsible for implementation of state economic programmes and supervision over the activities of executive committees in the economic field. Also, entities in charge of economic diversification in the country can be classified into 2 groups*: a) bodies implementing the policy and promotion of economic diversity via economic policy tools (investments, credits, taxes, etc.), which include the Ministry of*

[31] Prezidential speech at the conference on the second year of the Regional socio-economic development programme results of 2005, February 17, 2006

Economic Development, the Central Bank, the Ministry of Taxes and the State Customs Committee; b) line ministries responsible for non-oil sector development of the economy, which are the Ministry of Industry and Energy, the Ministry of Agriculture, the Ministry of Communication and Information Technologies, the Ministry of Culture and Tourism.

The Ministry of Economic Development is a senior executive government body having responsibility for design and implementation of economic policy in the country. According to Regulations of the Ministry, the following are major functions of this entity:

- *design structural and innovation policies of the country's economy;*
- *develop entrepreneurship and design state policy of support for entrepreneurship;*
- *design and carry out state policy on development and promotion of competition in the country.*

The institutions directly involved in non-oil sector development in Azerbaijan are the following:

1) The National Fund for Entrepreneurship Support (NFES) was established in 1992 to support small and medium enterprises and provide them with access to long-term concessional credit resources. Yet, it could not operate normally due to inadequate funding. In 2002 the fund's operations were resumed with the Regulations of the Fund approved by the Presidential Decree of 27th August, 2002.

According to the Regulations, the primary goals of the Fund are to develop businesses, especially small and medium enterprises, facilitate higher employment of people and provide them with financial support. The major functions of the Fund include financing investment projects of businesses that match the socio-economic development priorities of the government, supporting foreign expansion of economic activities of the businesses and building and nurturing market infrastructure for the entrepreneurship in the country. The current financing priorities for the NFES are the following:

- *Intensive agricultural production (in particular, slaughter and milk areas, establishment of contemporary facilities for cattle-breeding, purebred farming, establishment or restructuring of modern chicken-breeding facilities for slaughter and purebred purposes with the use of new technologies, intensive gardening, seeding, vegetable-growing and seedage farming).*

- *Creation of freezing storage facilities for vegetables and fruits with the use of modern technologies.*
- *Production of competitive and export foodstuff (especially, creation of modern processing facilities for vegetables and fruit or their restructuring with the use of new technologies, establishment of modern enterprises or their restructuring with the use of new technologies for packaging medical, mineral and other soft drinks at their source).*
- *Creation of modern bakeries.*
- *Production of other industrial goods using modern technologies (packaging, consumer goods industry and other spheres).*
- *Encouraging small enterprises.*

2) The Azerbaijan Investment Company (AIC) was established through the Presidential Decree of 30th March 2006 on "Additional Measures to Promote Investment Activities".

The primary purpose of the AIC is to develop non-oil sector of Azerbaijan's economy by attracting foreign investors to current and new commercial enterprises as well as making investments with its own funds. The operational principles of the AIC are the following:

- provide investments to enterprises with efficient and effective operations in Azerbaijan or establish new enterprises with other investors and joint investment funds;
- make investments into non-oil sector of Azerbaijan's economy;
- obtain a minority share of participation in projects;
- apply corporate governance principles and protect investors' rights.

The following are priority fields for AIC investments:

- Heavy industry
- Alternative energy
- IT and telecommunication
- Agriculture
- Food industry and packaging
- Logistics and transportation
- Tourism

The AIC also operates as "fund of funds". As the state investment fund, the AIC can become a favourable partner for those entering Azerbaijan's market. In order to benefit from the potential of increasingly growing non-oil sector of Azerbaijan, the AIC invites potential investment partners, both individual and institutional, to create joint investment funds.

3) AZPROMO was established by the Ministry of Economic Development in 2003 with a mission of linking domestic producers with the government and with purposes of achieving balanced development both across sectors and regions and attracting investments to create new jobs as part of poverty reduction strategy in the country, especially in the regions and carrying out activities to promote exports from Azerbaijan. The following are major activities of AZPROMO:

- *Improving investment image of the country.*
- *Marketing.*
- *Providing various services both for domestic and foreign investors.*
- *Attracting investors and negotiate with them.*
- *Creating an information bank on investments and export opportunities.*
- *Exploring possibilities of regional (export) trade for businesses in Azerbaijan.*
- *Providing consultancy to export-oriented companies.*
- *Market research.*
- *Promoting the trademark "Made in Azerbaijan" internationally.*

Two of AZPROMO departments - Export Promotion and Investment Promotion - directly provide support in these respects:

The Export Promotion Department was established with a view of assisting current and potential exporters in Azerbaijan and promoting export of non-oil sector products at large. This entity is expected to provide the following services:

- *provide information about trade;*
- *provide information about on certification and standards;*
- *provide legal consultancy;*
- *provide marketing support.*

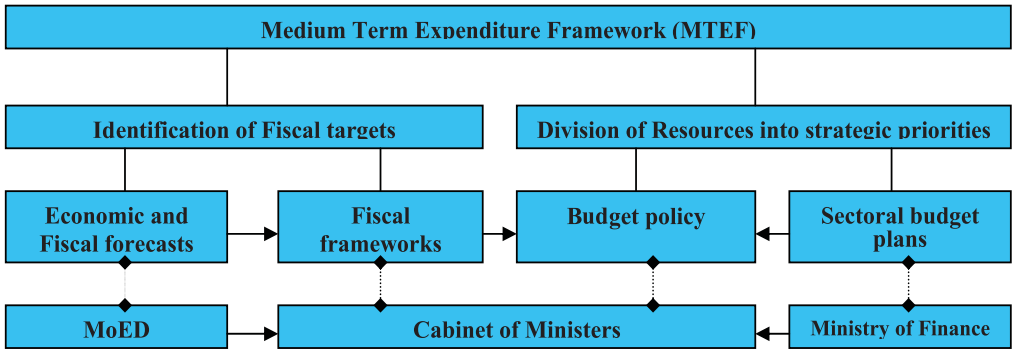
The Export Promotion Department was established with the core purpose of helping foreign investors operating in Azerbaijan as well as domestic investors looking for foreign investment partners for their projects and promoting non-oil sector development of Azerbaijani economy. The following are major activities of the department:

- *Institutional support;*
- *Event Management;*
- *Consultancy services;*

3.5. Framework and priorities of mid- and long-term expenditure strategy

It has become a challenging issue to link overall economic priorities with the budget priorities in the country like Azerbaijan that are predominantly dependant on natural resources and with the state funding playing a significant role in the economy (state budget expenditures of *2011 comprised 30.9% of GDP).* For such a linkage, many countries adopt *Medium Term Expenditure Framework (MTEF).* According to the precise definition of World Bank, MTEF is a framework paper meant to, on the one hand, link general economic priorities with budget expenditures and on the other hand, achieve a financial discipline during real utilization of budget expenditures.

Scheme 1. An overview of MTEF (adapted for Azerbaijan)

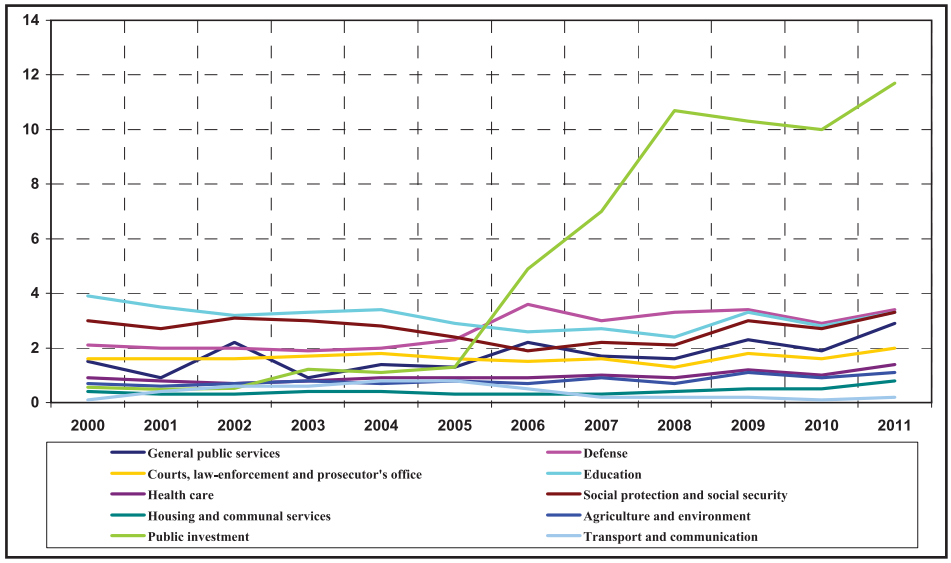


Source: PEM Handbook (World Bank, 1998a: 47-51)

If there is an inconsistency between budget policy formation, planning and budgeting, the only way out of this situation is to adopt MTEF. This framework paper is prepared before the traditional budgeting process and acts as an important element of state financial reforms. MTEF is not applied in Azerbaijan where budget expenditure prioritization is problematic.

In early 2000, priorities of budget expenditures (*as defined in terms of separate budget items comprising more than 10% of the total budget expenditures*) were "Education", "Social Protection and Social Security" and "Defence". In 2002-2005 years, this list included "Courts, Law-Enforcement and Prosecution" and "General State Affairs" too. After 2006 state investments apparently became number 1 priority of budget expenditures. In 2011, this budget item accounted for 38.1% of total budget expenditures, and 11.7% of GDP.

Chart 10. Budget expenditures relative to GDP (in percentage)



It should be noted that below are the budget items that are major development priorities announced as government priorities in individual state programmes and statements of the President over the last 9 years (2003-2011) and for the next 3 years (2012-2014): non-oil sector development and balanced regional development; better social welfare; human capital and infrastructure development; economic security of the country; better defence capacity of the state; transparency of

the state policy. So with an 11-times increased share and becoming a major priority in the state budget during 2000-2011, state investment expenditures could have been an important effective role in reaching the above-stated targets, if they had been properly utilized. It is noteworthy that during 2005-2011, more than 20 billion manats have been spent in this regard. Nevertheless, reports of international financial institutes as well as local civil society organizations' assessments show that state investments is a problematic area from the perspectives of relevance, efficiency, and corruption risks.

The following appraisals were raised by President Ilham Aliyev at the session of the Cabinet of Ministers devoted to the outcomes of socio-economic development of 2011: "*in some cases,...appropriate bodies could not utilize the funds we allocated for certain projects in a timely manner. Of course, we should consider this fact in our investment programmes this year and we should eliminate these flaws. There was a time when we did not have enough funds to do any job. Now, we have funds, but unfortunately, at times, there are some problems in the proper utilization of these funds... I think we have all the necessary conditions to fulfil investment part of the budget successfully. We should make sure that the budget is utilized at maximum as well as financial discipline is at a high level. Responsibility should increase as the budget increases. Complete transparency should be ensured and complete transparency of state investments should be ensured*"[32].

Yet, the World Bank 2009 Country Memorandum highlighted budget expenditure prioritization in Azerbaijan as problematic and with drawbacks in the design of medium term investment budget[33]:

- *A dramatic increase in the budget expenditures has "incited" the government to high-expenditure scenarios since early stages of oil boom in Azerbaijan.*
- *The time of spending budget resources provokes questions about the government's priorities.*
- *Large-scale investment programmes carried out by the government exceed its capacity.*
- *Azerbaijani economy is already fully using its absorption potential, which creates pressures for the private sector.*

[32] http://president.az/articles/4098

[33] Azerbaijan Country Economic Memorandum - New Silk Road: Export-Led Diversification. World Bank. 23 December 2009

- *Budget pressure can be mitigated through better prioritization upon utilizing investment funds.*
- *There is a need to establish financial control and auditing systems within the government.*
- *There is a need for transparency in the role of the Parliament and the Chamber of Accounts in the budgeting process.*
- *As part of efficient utilization of public expenditures, it is necessary to abide by contemporary, transparent and fair guidelines of procurement from the stage of regulation to that of implementation.*
- *Azerbaijani government should add more strategic content to the budget and a five or ten-year comprehensive strategic framework would be useful in this regard.*
- *If expenditure prioritization is required, stronger coordination will be essentially valuable during the global crisis.*
- *It is more relevant to set the ceiling for the medium term budget expenditures and apply strategic prioritization.*
- *Evaluation of programme implementation could be done by internal and external audits after the budget objectives are clarified and quantified.*
- *It is essential to conduct discussion between the government and public about effective utilization of budget resources.*
- *A better monitoring of current budget expenditures and programmes could contribute to better budget management.*

Budget priorities are indicators of compromise among social groups and the organizer of this comprise is the parliament, which is an effective representative of these social groups. Therefore, unless the parliament has a real political power, the budget is not an indicator of the compromise and consequently, there are gaps not only in the supervision stage, but also in discussion, implementation and adoption of the budget. As a result, budget priorities gradually become flexible. It is necessary to adopt MTEF to prevent it from happening. This is both the requirement of international budget practices and also implies informing the public about what the optimal budget priorities are[34]. Adopting MTEF in Azerbaijan will result in (a) macroeconomic balance through financial discipline, (b) optimal allocation of resources across sectors, (c) predictability of administrative expenditure directions, (d) more efficient use of public funds, (e) more political accountability

[34] Ingilab Ahmadov, Kanan Aslanli. Public Funds Management Reforms: Ensuring Efficiency, Accountability and Forecasting. AAİMK. Baku - 2007

for the results of public spending through a legitimate decision-making process, (f) more credible system of budgetary decision-making. A comprehensive MTEF goes through 6 stages: design of macroeconomic and fiscal framework; design of sectoral programmes; design of sectoral expenditure frameworks; estimation of exact amounts of sectoral expenditures over years; design of sectoral budgets; final political decision-making process[35].

3.6. Studies of international organizations and research centres on economic diversification in Azerbaijan

Over the past 10 years, leading international organizations and many research centres have carried out a number of studies and written reports on connection between sustainable development and economic diversification and efficient use of oil and gas revenues in Azerbaijan. These reports contain valuable recommendations for the government to consider in its economic diversification plans and new approaches rich in interesting facts for independent researchers. Below is a short summary of the most important reports that stand out from others for the depth of their insight and justification of recommendations.

Table 1. International reports on economic diversification in Azerbaijan

№	Title of Report	Prepared by	Date
1.	*Accelerating Non-Oil Diversification for Azerbaijan – A Policy Dilemma*	*University of Washington & IREX*	August 2011
2.	*Republic of Azerbaijan: 2010 Article IV Consultation - Staff Report*	*International Monetary Fund*	May 2010
3.	*Azerbaijan Country Economic Memorandum - New Silk Road: Export-Led Diversification*	*World Bank*	December 2009
4.	*Macroeconomic Study of Azerbaijan – the Way to National Economic Diversification*	Euroconsultants (European Union project)	October 2009

[35] Medium Term Expenditure Frameworks: From Concept to Practice. Preliminary Lessons from Africa. World Bank, February 2002, Africa Region Working Paper Series No. 28

5.	*Resource Depletion, Dependence and Development: Azerbaijan*	Chatham House	November 2008
6.	*The Economics and Politics of Oil in the Caspian Basin: the Redistribution of Oil Revenues in Azerbaijan and Central Asia*	(*SOAS, University of London*)	2008
7.	*How Effective are Oil Funds? Managing Resource Windfalls in Azerbaijan and Kazakhstan*	*Asian Development Bank*	December 2007
8.	*Converting Black Gold into Human Gold: Using Oil Revenues to Achieve Sustainable Development*	*UNDP*	2006
9.	*Prudential Management of Hydrocarbon Revenues in Resource-Rich Economies*	*UN Economic Commission for Europe*	December 2005
10.	*Caspian Oil Windfalls: Who Will Benefit?*	Caspian Revenue Watch	2003
11.	*Export Diversification in Low-Income Countries: an International Challenge after Doha*	*OECD Development Centre*	June 2003
12.	Azerbaijan Human Development Report 2000	*UNDP*	March 2001

1) Accelerating Non-Oil Diversification for Azerbaijan – A Policy Dilemma; 2011. This study highlights the importance of creating a favourable business environment for local and foreign investments through governance reforms, institutional development and modern infrastructure building in order to achieve economic diversification. However, according to the principles of "*new industrial policy*", the government's intervention into the economy must be gradually made optimal (reasonable), state investments be coordinated effectively and market entrance risks be reduced, "public-private partnership" be encouraged and businesses wishing to apply innovations be promoted. Also, taking into account that

such a complex economic diversification will be carried out not in accordance with the "bottom up" (*collaborative approach*) principle, but from *top-down* principle, which is typical of post-soviet countries, it is critical to accurately select alternative sectors that economic policy will focus on. Regarding development of non-oil sectors which are alternative to oil and gas sector, this report mentions 4 major criteria:

a) *Inter-industry linkages or locomotive effect*. The priority area of economic diversification must play a locomotive role for the development of other sectors, create new demand for their products too and consume ready products of other sectors. Sectors with "locomotive effect" in the world are those which consume products of other sectors in their production process in the equivalent of 50% of the value of each ready product.

b) *Labour-intensity of selected areas*. It is about the number of jobs that the selected sector will generate, and the number of jobs that will be created by themselves due to the positive impact on other sectors and lastly, local services that will appear through "income effect" from higher salaries.

c) *Export potential of selected areas*. The country is supposed to have high potential of export thanks to its sectors with revealed comparative advantage. Here, the share of a particular product in total exports of the country relative to the share in global exports must be taken as an indicator ("*Balassa Index*").

d) *Import substitution of selected areas*. The import substitution approaches in economic development strategies may also produce negative results in that they may adversely affect competitive environment through protectionism and subsidies. Nevertheless, import substitution approaches may be applied (primarily via modernizing old enterprises) in some areas where there is high internal demand and local companies have been traditionally competitive (chemical-oil complex, production of air-conditioners, fruit-vegetable sector in Azerbaijan).

While sectors are selected for economic diversification, along with the above-mentioned, such factors as technological transfers, regional misbalance and food security should be considered too. The analyses of the report specifically concerned with Azerbaijan show that the above-mentioned criteria are met in iron, steel and non-ferrous metal industry, food processing, electrical equipment (exclud-

ing electronics), spare parts for vehicles (excluding automobiles), furniture and tobacco-growing industries. Although fields of agriculture like wheat-growing, cattle-breeding, organic fruit and vegetable-growing, vegetable oil, dairy products and egg production have potential to meet domestic demands and export, they have a problem with labour intensity and productivity. Even though many service sectors of Azerbaijan have high potential for new hobs and linkages with other sectors, the country does not enjoy a high potential to "export services".

2) Republic of Azerbaijan: 2010 Article IV Consultation - Staff Report; IMF, 2010. According to Article 4 of Regulations of IMF, it conducts regular consultations with Azerbaijani government and issues resulting recommendations as a report. These reports call for development of non-oil sector as priority for Azerbaijan in order to protect against trouble for fiscal incomes followed by sharp fluctuations in oil prices as well as against cyclical changes. The following IMF working report issued in 2010 examines the economy of Azerbaijan from the viewpoint of the 2008-2009 global financial crises. In the second half of 2008 and the first half of 2009, significant decreases in exports and fiscal revenues, slowdown in non-oil GDP growth relative to 2009 due to a sharp fall in oil prices point to the fact that unless diversified, Azerbaijani economy will stay vulnerable to economic crises and unsustainable (resulting also in higher borrowing in the long-term). The report specifically emphasizes reforms in taxes, customs and financial services for the development of non-oil sector, which accounted for just 5% of total exports in 2010. Within this framework, it is necessary to accelerate WTO membership of the country and provide entrepreneurs with access to low-interest credit resources.

3) Azerbaijan Country Economic Memorandum - New Silk Road: Export-Led Diversification; 2009. The report firstly states that fiscal revenues of Azerbaijan from oil and gas sector in 2024 will comprise 198 billion dollars and they will create opportunities for better life standards of people in the country. Yet, these revenues threaten macroeconomic balance and fiscal sustainability. The paper also points out that the pace of economic diversification (as defined in terms of non-oil exports relative to non-oil GDP) was much more actively pursued back in 2001-2005 years than during 2006-2008 years. If the global financial crisis reoccurs, the country's economic growth rate is expected to slow down unless a separate plan or programme on economic diversification is adopted. The pro-cyclical expendi-

ture policy pursued by the government, that is, spending more in times of high oil prices and subsequently high oil revenues, fuels inflation as well as increases the real effective exchange rate, which hampers economic diversification in agriculture and other industries. The intergenerational distribution of oil and gas revenues and meeting of declining foreign demand by alternative sectors also remain sources of concern. The following recommendations are put forward in the report for Azerbaijan to achieve diversification for the sake of sustainable economic development and use oil and gas revenues efficiently: a) make the fixed real expenditure principle embedded in "Strategy of Oil and Gas Revenue Management" (2004) more practical through a separate normative paper and discussion of this amount along with the budget in the parliament; b) establishment of advisory economic council under the President to coordinate expenditure and diversification policies at the highest level possible.; c) stronger expenditure-management bodies (treasury, budget draft, state investment assessment, public procurement, internal and external financial control); d) financial control over prices offered by state enterprises; e) more involvement of private sector in utilities; f) reduced number of and simplified granting procedures for special permits and licences; g) simplified customs and border trade procedures; h) reduced rates of direct taxes, better tax administration, elimination of hidden employment through less tax burden over private sector; i) transparent dialogue with private sector, attracting foreign investments into more non-oil exports, better competition environment; j) active control over the banking sector and tougher mechanisms of regulation; k) easier access of small and medium enterprises as well as large corporations to credits and involvement of large foreign banks in the financial sector; l) more investments in education system to meet needs of labour market; m) more active coordination of employers with job-seekers in the labour market; o) involvement of more professional and qualified employees in the public sector.

4) Macroeconomic Study of Azerbaijan – the Way to National Economic Diversification; 2009. The report examines the consequences of dependence on natural resources such as making sources of economic growth less effective, leading to less efficient economic institutions and more valuable national currency. It compares practices in Azerbaijan with those of Norway and states that the secret of more efficient use of resources in Norway lies in public control and transparency, along with highlighting the inevitability of economic diversification in Azerbaijan

in the view of the emerging symptoms of Dutch disease. There is no single policy solution to economic diversification and it is a long-term process, thus requiring long-term objectives. Yet, a common consensus regarding economic diversification is that the way to economic diversification goes through better investment environment and implementation of the following activities:

a) stable legal framework;
b) effective macroeconomic and fiscal administration;
c) stronger banking sector;
d) suitable access to credits for small and medium enterprises;
e) protection of property rights of foreign subjects;
f) human capital investments;
g) industrial investments;
h) research and development (R&D) investments.

Foreign direct investments are a crucial factor in economic diversification. Therefore, Azerbaijan is advised to establish special economic zones in its territories (e.g. in Nakhichevan Autonomous Republic) without losing any further time.

5) Resource Depletion, Dependence and Development: Azerbaijan; 2008. These studies evaluate the potential of non-oil economy (*non-hydrocarbon economy*) to be low in Azerbaijan and also underline that more than 1 million refugees and IDPs from Nagorniy Karabagh after its occupation by Armenia and from surrounding regions has a limiting effect on transportation and trade connections. It is important to have social targets and consider impact on poverty reduction while dependence on oil and gas sector is reduced. A decline in exports in the aftermath of oil production peak will not be only attributable to less production, but also due to a large portion of production being diverted to meet the domestic demand. Then, the government will not be able to continue fiscal expansion and at the same time will become importer of hydrocarbon resources. Thus, the deficit of non-oil budget share relative to non-oil GDP and current accounts deficit will soar. The scenarios of the report also show that even in case of the most optimist scenario, this process will occur in 2020-2025 years. In order to prevent the negative scenario from happening, Azerbaijan is supposed to achieve poverty reduction, curb double-digit inflation, and develop non-oil sectors with high productivity. Azerbaijani economy has to move first from (a) the phase of dependence on natural resources to (b) transition phase and later on, to (c) sustainable development phase.

6) The Economics and Politics of Oil in the Caspian Basin: the Redistribution of Oil Revenues in Azerbaijan and Central Asia; 2008. A fairer redistribution and use of oil revenues in any oil and gas country require answering the question: "how much of funds should be spent today and how much should be spent tomorrow?" Azerbaijani government is using oil revenues to prevent social, political and ethnical tensions in the country. State programmes targeted at vulnerable social groups are being implemented. Nevertheless, hampering the socio-economic development of the country, the misbalance among regions is not resolved but gets even deeper due to huge oil revenues. So, economic resources are concentrated more in Baku and Absheron peninsular. Rent-seeking tendencies, weak social capital and outdated production base prevent oil revenues from converting into social and economic welfare of people. The long-term efficient use of oil revenues will not only be conductive to sustainable economic development, but also act as a warranty for political stability.

7) How Effective are Oil Funds? Managing Resource Windfalls in Azerbaijan and Kazakhstan; 2007. In order to keep some portion of huge oil revenues away from the budget, many oil and gas countries, including Azerbaijan, establish Oil Funds. Comparing to other state bodies, Oil Fund is more transparent and accountable in Azerbaijan. Membership of the Fund in the *Extractive Industry Transparency Initiative* (*EITI*) positively affects greater accountability of the Fund. Azerbaijani government has to strike an accurate balance between social development and infrastructure spending (*spending oil revenues*), maintenance of macroeconomic stability (*sterilizing oil revenues*) and saving some part of oil revenues for future generations (*saving oil revenues*). For now, this balance is much more accurate in Kazakhstan than in Azerbaijan. So, non-oil budget deficit to non-oil GDP was 4.3% in Kazakhstan in 2006, while this figure was over 30% in Azerbaijan primarily because despite its official status of savings fund, SOFAR transfers a big amount of money without any limitation to the state budget or its own investment projects. However, although National Fund of Kazakhstan fulfils a stabilizing function, saving mechanism automatically switches on once oil prices go over certain level and state budget transfers become limited and authorised only by the president. The report also states that Azerbaijani government should also consider the impact of high spending on macroeconomic stability and exchange rate, and competition in non-oil sector since unless properly managed, they will severely hamper economic diversification.

8) Converting Black Gold into Human Gold: Using Oil Revenues to Achieve Sustainable Development; 2006. The UN report was prepared at the request of the Ministry of Economic Development of Azerbaijan and contains not only general recommendations on achieving sustainable development through oil revenues but also a concrete action plan. The main point of the report is that "Azerbaijan's being a huge oil exporter does not yet mean its full integration to the global economy". Azerbaijan can supplement its integration to the global economy through developed and competitive non-oil sector. A great majority of the country's citizens work in the very non-oil sector and specialized in this field. Paradoxically, even through the country managed to avoid some syndromes of "Dutch disease", it has not yet integrated its non-oil sector to the global economy. Among the government's long-term priorities are increased revenues and poverty reduction, neutralizing "Dutch disease", growth and institutional reforms in non-oil sector. Nevertheless, the report highlights the following points as the major issues in terms of "converting black gold into human gold" concept:

a) *Human resource development strategy:* investments in education, development of technical education in the public sector, education scholarships, education parks, community colleges, education funds.
b) *Macroeconomic issues:* new economic monitoring service, macroeconomic risk map, control over spending oil revenues.
c) *"Converting black gold into human gold" tools:* creating information banks, surveys, econometric modelling.
d) *Cooperation with and lessons from countries:* systematic studies of lessons learned and experience in other countries.

The report compares oil rich countries such as Norway, Chile, Trinidad and Tobacco, Nigeria and Kazakhstan with Azerbaijan and draws lessons for our country. If generalized, these lessons will primarily be concerned with long-term approaches, continued institutional reforms, strict mechanisms of law enforcement, prevention of corruption, and establishment of legal and institutional frameworks in the early years of oil boom. The main underlined point of the report is that it is necessary to make investments into human resources and social capital in order to achieve sustainable development and nurture non-oil sector by oil revenues.

9) Prudential Management of Hydrocarbon Revenues in Resource-Rich Economies; 2005. This study paper reviews similarities and differences in long-term management and institutional structure of hydrocarbon revenues in resource-rich economies in Azerbaijan, Kazakhstan, Russia and Turkmenistan, i.e. in post-soviet countries that are rich in resources. It states that these revenues accelerate formation of investment-led capital in these countries and that sustainable capital investments require diversification of capital resources along with the exploitation of natural mineral resources. In addition, it states that "governments, while making public investments, tend to choose projects with lower returns than other alternatives and private sector". Hence, it becomes difficult for countries with weak institutional capacity to achieve sustainable development through oil and gas revenues. Unlike Azerbaijan and Kazakhstan, which established oil funds with separate status to manage mineral revenues in the state financial system, there is no need for oil funds in Great Britain where utilization of public funds (revenues from hydrocarbon deposits in the North Sea) according to priorities does not generate suspicions in public.

10) Caspian Oil Windfalls: Who Will Benefit? 2003. Any successful plan of revenues management depends on "political will" that makes its implementation possible. Stabilizing funds where revenues are kept are important for the long-term economic diversification targets of oil and gas countries and they protect countries against borrowing, which is a riskier financial tool. Yet, without strong public control over the funds and true division of power, there is no guarantee that funds accumulated there will be spent properly. Therefore, the report recommends that the Azerbaijani government specify the mission of SOFAR, enhance civil society participation in its governance, prepare long-term asset management strategy, improve legislation, and regulate the relations with the budget. Better business environment and use of oil revenues for social purposes will be effective in developing non-oil sector (as mentioned in other reports).

11) Export Diversification in Low-Income countries: an International Challenge after Doha; 2003. OECD statistics on foreign trade from 98 countries (1966-2000 years) reveal that diversification is more difficult to achieve in low-income countries. Also, economic diversification does not yet suggest sustainable development (depending on market share) and high economic growth. Since human capital

is not a major element of competitive advantage in low-income countries, they chiefly diversify low labour-intensity and low-skill areas, such as packaging of agricultural products. As export and economic diversification also stimulates imports, it is beneficial for all countries at large.

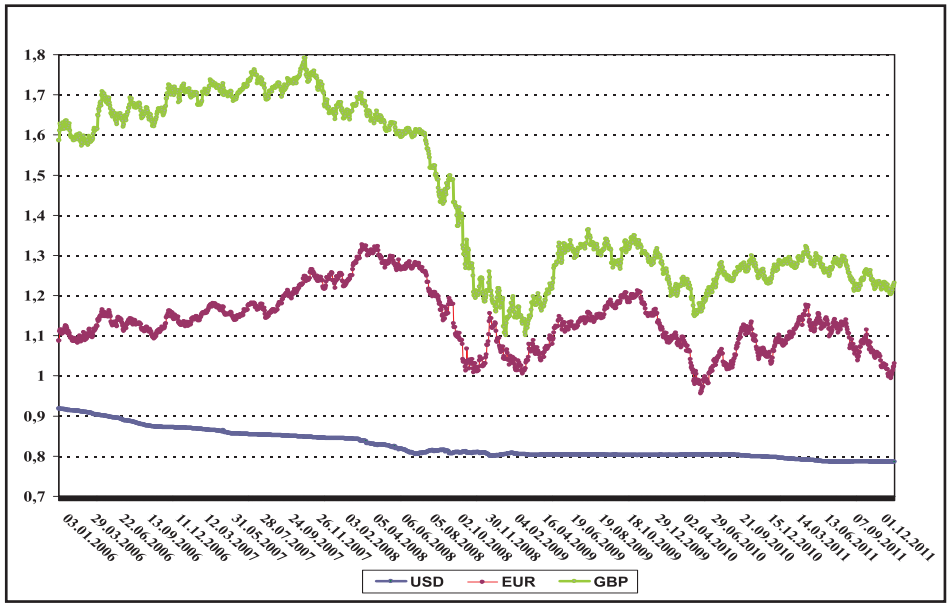
12) Azerbaijan Human Development Report 2000. This report is a valuable reference for the analysis of the period of Oil Fund establishment and its goal to protect non-oil sector against "Dutch disease", which was one of its major functions then. The report points out that the use of oil revenues should ensure fair conversion of natural resources into monetary wealth for all without causing any burden, as well as link economic growth with human capital.

Apart from the mentioned reports, *Management of Resource Revenues: Economic Principles and Caspian Experiences, Ox. Un. 2011*, *Impact of Government Expenditure on Growth: the Case of Azerbaijan, IMF, 2008*, and *European Neighbourhood and Partnership Instrument. Azerbaijan: Country Strategy Paper for 2007-2013*) underlined economic and export diversification as inevitable necessity. The first study suggests that fast utilization of oil revenues in Azerbaijan discourages private investments and that it is necessary to embrace *permanent income hypothesis* as this tendency will continue to regulate "investment-consumption" relationship over the long term. The permanent income calculations of the World Bank for various scenarios suggest that it would be more appropriate for oil revenues in Azerbaijan to vary within the range of 4.3-7.7 billion dollars every year.

3.7. Obstacles for economic diversification

Dutch disease. The most significant obstacle for economic diversification in resource-rich countries is "Dutch disease". The nature of this syndrome is that the local currency of a country increasingly appreciates vis-à-vis the huge influx of foreign currencies from the sales of raw materials and thus leads some fields of economy to be weak in competition. The national currency of Azerbaijan, manat, has appreciated against the major world currencies of US Dollar, Euro, and Pound over the past 6 years (*from early 2006 to early 2012*).

Chart 11. Exchange rate of Azerbaijani manat to US dollar, Euro and Pound



Source: CBAR of Azerbaijan, author calculations

Consequences of oil-dependant exports hampering the diversification. Azerbaijan's exports are very much dependent on oil and gas products, which accounted for 97% of overall exports in 2011 and it is one of the highest indicators among oil and gas countries of the world[36]. It is noteworthy that even in Nigeria the share of oil in exports is a lot less than in Azerbaijan– 90%[37]. There are several risks that such dependence poses hindering diversification: (a) as oil prices are extremely volatile in the world market, the country can lose in a short time huge amounts of money from export of national and irreplaceable wealth due to low prices in the world market. Azerbaijan faced this problem in late 2008 and early 2009 and lost billions of dollars that could have earned with normal prices. These losses can also be regarded as the loss of necessary funding sources for economic diversification. (b) as oil production is not a science- and innovation-intense field, dominant role of this sector over the economy delays economic diversification and sustainable economic development by transformation to contemporary innovative economy

[36] http://www.turan.az

[37] http://www.eiu.com (2011)

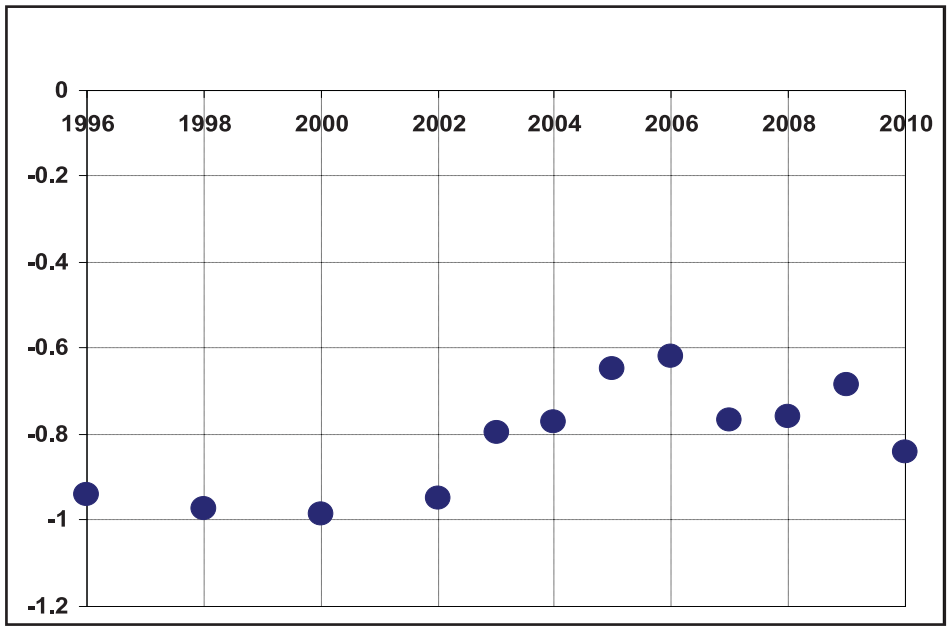
(Azerbaijan spends 0.17% of GDP on research and development (R&D), whereas this figure is 0.18% and 0.21% in Georgia and Armenia respectively[38]) since all resources and investments are either directed to this field or service sector. Furthermore, oil production cannot seriously contribute to settlement of unemployment problem in the country. Oil production or related fields employ just a total of 2-3% of all economically active people in Azerbaijan, while 38.2% of population (2010) are in the agricultural sector. (c) The dependence of export on a few oil and similar products has led to serious concentration of exports on countries. So, exports depend on just a few countries, hindering export diversification and access to new markets. The main buyers of crude oil, which is the major export, are Italy and France (*in 2010*), which account for one-third of the country's foreign trade turnover.

Poor governance, absence of strategic approach and poor involvement of social actors in the process. Detachment of social actors (*academics, independent experts, civil society organizations*) from overall public management and selection of development priorities results in government priorities not reflecting the socio-economic realities and alienation in decision-making process. Thus, like in many resource-rich countries, in Azerbaijan too, where socio-economic life is completely based on oil and gas revenues, the symptoms of a serious problem are emerging. The problem is that policy-making process of the government and state bodies at large becomes less efficient and gradually alienated from the people who are supposed to be the only source of power according to the constitution. Such alienation also allows for appropriation of public funds.

The general parameters and effectiveness of government and policy-making of Azerbaijan have not been evaluated relative to other countries based on relevant international indexes and concepts, which are often referred to in the recent years. The governance effectiveness parameter refers to the government's capacity to reach objectives and carry out important functions in a resource-efficient manner. However, one of the above-mentioned *World Bank Governance Indicators,* government effectiveness indicates slow progress of effectiveness in the executive wing of power in Azerbaijan.

[38] http://www.worldbank.org (2009-2010)

Chart 12. Governance effectiveness index in Azerbaijan during 1996-2010 years (index improving from -2.5 to 2.5)



Source: World Bank Governance Indicators

Pursuing to define new targets of mid-term socio-economic development, the development concept of "Azerbaijan 2020: vision to the future" does not reflect reforms in favour of participatory governance among its targets. Participatory governance model should be applied and public should be consulted at different stages of policy-making and decision-making in order to reduce civic passivity in public governance. Unless strong public pressure groups are established in Azerbaijan, the inefficient use and misappropriation of public funds will remain an issue on the way to accomplishment of economic priorities.

Below is the assessment matrix, according to various criteria, for selection of non-oil sectors as alternative to oil and gas sector, which the government showed in separate state programmes and strategic papers. Selection criteria include linkage of the selected field with other economic sectors ("*locomotive effect*"), labour-intensity of the sector, and export and import-substitution potential of the sector. Half of the sectors selected by the government as priority have export and

import-substitution potential, which can be considered high for Azerbaijan. The labour-intensity and linkage with other sectors of the selected fields are at a moderate level.

Table 2. Assessment of government's priority non-oil sectors according to international selection criteria

Sector\Criteria	Linkage with other sectors	Labour-intensity of sector	Export potential of sector	Import-substitution potential of sector
1. Agriculture	High	High	High	High
2. Fishing	Moderate	Low	High	High
3. Food industry	High	Moderate	High	High
4. Consumer goods industry	Moderate	Moderate	Moderate	Moderate
5. Construction industry	Moderate	Moderate	Moderate	Moderate
6. Chemical industry	High	High	High	High
7. Instrumentation industry	Moderate	Moderate	Moderate	Low
8. Tourism	Moderate	Moderate	Low	Low
9. Electric power industry	Moderate	Low	High	High
10. Education	Moderate	High	Low	Moderate

4. REVIEW OF DIVERSIFICATION POLICY OUTCOMES

4.1. Financial sector

Changes in the country economy leads to changes in financial system of the country, and financial system changes also result in changes in the economy of the country. Therefore, it is necessary to review the way financial policy of the government developed in 2000-2010 and changes that took place in the country's financial system.

Budget expenditure policy. Until 2003, state budget expenditures of Azerbaijan were below 1 billion manats. They made up one billion manats in 2003, two billion manats in 2005. Rapidly increasing oil revenues and soaring transfers from SOFAR caused a dramatic increase in state budget expenditures during 2005-2010. The 2010 state budget expenditures were 15.4 times more than in 2000 and 5.5 times more than in 2005.

Over the period between 2005 and 2008, budget expenditures increased at a higher pace relative to the previous years (42.5% in 2005, 77.0% in 2006, 60.6% in 2007 and 75.5% in 2008) exceeding both nominal and real GDP growth per annum.

Due to the world financial crisis, the real growth rate of GDP in 2009 was 9.3% relative to the previous year, while nominal GDP went down by 9%. During the same period, state budget expenditures were 2.5% less than in the previous year. From 2010 budget expenditures went up significantly and in 2010, they were 12% more than the previous year and 30.9% in 2011.

Chart 13. State budget expenditure pattern during 2000-2011 (in million manats)

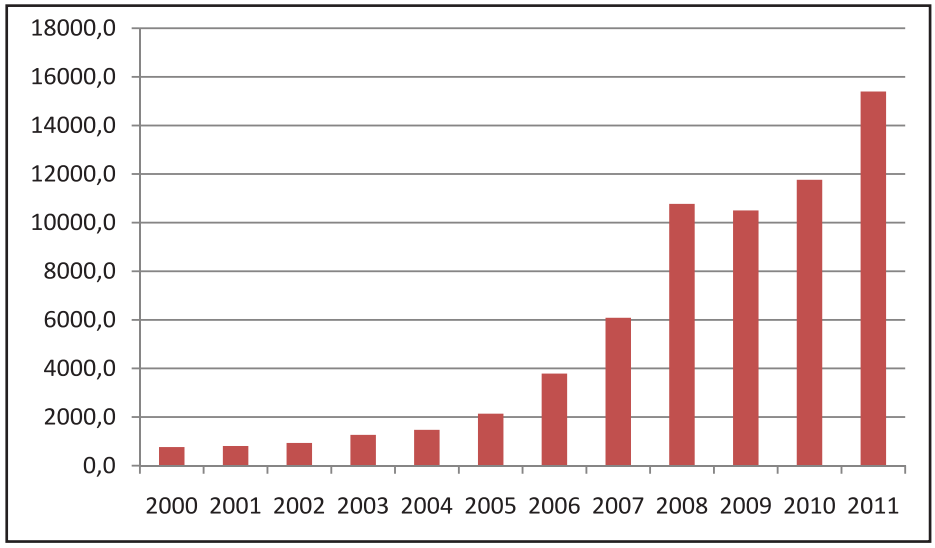
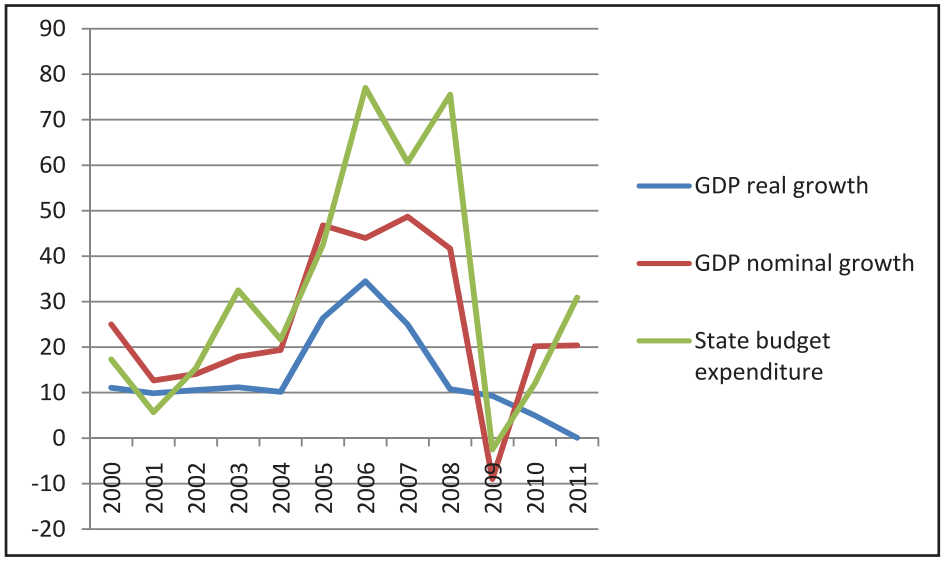
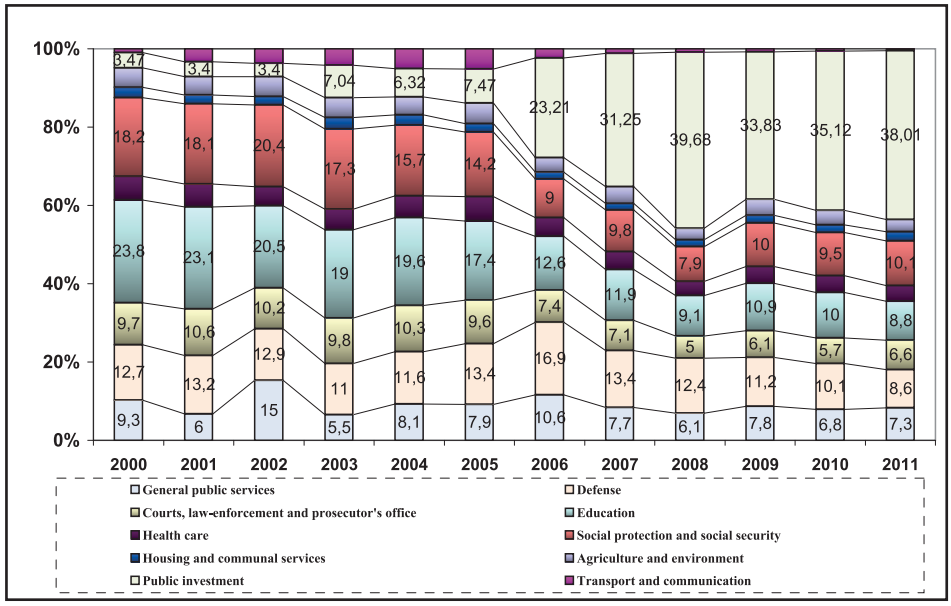


Chart 14. Growth patterns of GDP and budget expenditures during 2000-2011 (compared with the previous years, in %)



Increased budget expenditures also brought about changes in government's expenditure policy and budget priorities. While the 2000-2005 years' budget expenditure priorities of the government were education, social protection and social security, and defence, in 2005 the priorities became "Industry, construction and minerals" and defence. While 3.8% and 7.6% of the state budget expenditures were allotted for "Industry, construction and minerals" in 2000 and 2005 respectively, this figure went up to 40.8% in 2008. In 2010 this budget item accounted for 35.2% of overall budget expenditures, and 17.0% of expenditures was allocated for defence[39].

Chart 15. Structure of State budget expenditures of Azerbaijan in 2000-2011 (in %)



Source: www.maliyye.gov.az; www.budget.az

It should be noted that majority of funds (97-98%) under the budget item of "industry, construction and minerals" are directed to construction as capital investments of the state[40]. In other words, as the country is getting more oil revenues, more and more funds are directed into public investments from year to year.

[39] Although defence expenditures in the chart were 10.1% in 2010, it should be noted that a significant portion of the funds from the state budget item of the "miscellaneous expenditures" in 2009-2010 years were spent on defence. Considering this, defence expenditures comprise 17%.

[40] While until 2005 "public investments" was given as a separate item in the state budget expenditures, according to the Single Budget Classfication applied since 2005, this was included into the item of "Industry, constrcution and minerals".

Foreign credits with state guarantee. Over the period between 2000 and 2010, foreign borrowing of the country considerably increased: it was 1270.0 million manats in late 2001, 1650.5 million manats in 2005, and 3557.3 million USD dollars in 2010. On January 1, 2012, the amount of credits (both used and those considered the state's debts) within foreign borrowing of the state was 4816.7 million US dollars, which is 521.6 US dollars per capita[41].

Nevertheless, such a significant increase in foreign debts of the state was not accompanied by any serious increase in GDP. On the contrary, while foreign debts comprised 18.6% in 2004 and 12.7% in 2005, they were 7.95% in 2009, 7.4% in 2010, and 7.6% in 2011[42].

However, the recent years' growth trends in the amount of foreign debts cannot but cause concerns. The calculations reveal that while foreign debts went up by 3.9% relative to the previous year in 2005, this figure was 14.1% in 2009, 12.7% in 2010, and 24.9 % in 2011. That is, the recent years' growth rate of foreign debts is extremely high, which can be risky for the current situation of the country in which GDP is dependent on the world's oil market.

Considering foreign debts to be channelled to investment projects with a state guarantee in 2012, foreign debts will reach close to 7 billion USD dollars by early 2013[43].

A conditional budget fund titled "Guarantee Fund of Debts with State Guarantee" was established in 2007 in order to manage credits with state guarantee and fulfil obligations in a timely manner. Starting from 2008, funds are allocated for this Fund from the state budget, which comprised 46.7 million manats in 2008, 47.1 million manats in 2009, and 97.1 million manats in 2010.

"Automobile roads" Conditional Budget Fund. In 2006 "Automobile roads" Conditional Budget Fund was established with the overall purpose of accelerating construction of road and transportation infrastructure, effectively using the network of automobile roads and maintaining them at a desirable level. The Fund is financed by revenues of the state budget from road and transportation taxes. The assets of the Fund comprised 170 million manats in 2010.

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41 The Law on the 2011 State Budget Implementation and the Review of the Accounts Chamber. Baku, 2012. Page. 268.

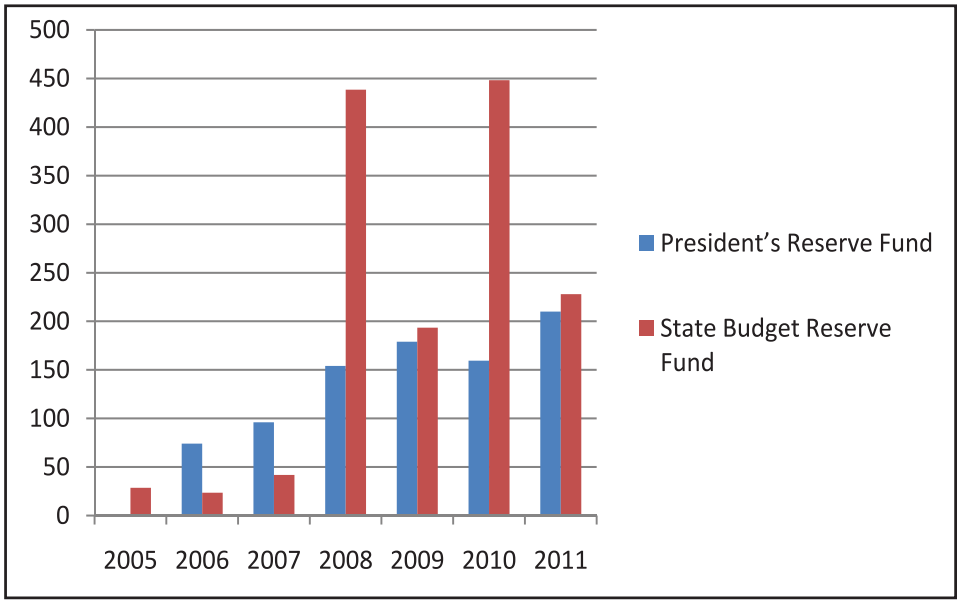
42 www.maliyye.gov.az

43 National Budget Group Review of the 2012 State Budget Project of the Azerbaijan Republic. www.nbg.az

Reserve funds of state budget. Increasing state budget revenues were also accompanied by increasing amount of transfers from state budget to reserve funds from year to year. Apart from the Reserve Fund of the state budget, starting from 2006 funds were continually transferred to the President's Reserve Fund from the state budget. Compared to 28.6 million manats of Reserve Fund's expenditures of state budget in 2005, they comprised 438.5 million manats in 2008 and 448.3 million manats in 2010.

While the expenditures of the President's Reserve Fund were 74.0 million manats in 2006, they went up twice in 2010 reaching 159.5 million manats. The president decides on the use of this fund's resources independently. According to National Budget Group studies, funds of the President's Reserve Fund are mainly spent on events of political nature (building a political image)[44]. In 2010, 607.8 million manats or 5.2% of the overall state budget were spent through reserve funds. The tendency of allocating funds from the state budget to reserve funds is underway.

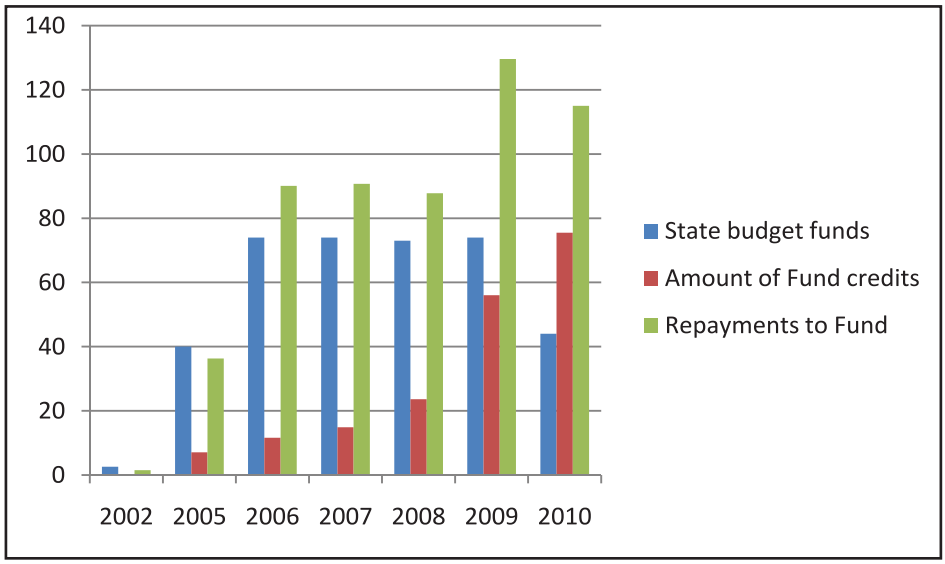
Chart 16. Pattern of expenditures of reserve funds of the state budget (million manats)



[44] NBG Review on the Changes to the Budgetary System Law. 2009

Support for Entrepreneurs. While in 2002, NFES received 2.6 million manats from the state budget and 40.0 million manats in 2005, during 2006-2009 years the yearly amount of funds allocated to the fund comprised 74 million manats, which decreased slightly down to 44 million manats in 2010. However, starting from 2005, the amounts repaid to the Fund from the credits to entrepreneurs increased rapidly year by year: while it was 7.1 million manats in 2005, in 2010 it reached 75.5 million manats (more than 10 times). As a result of it, the amount of Fund's credits to entrepreneurs has increased year by year too.

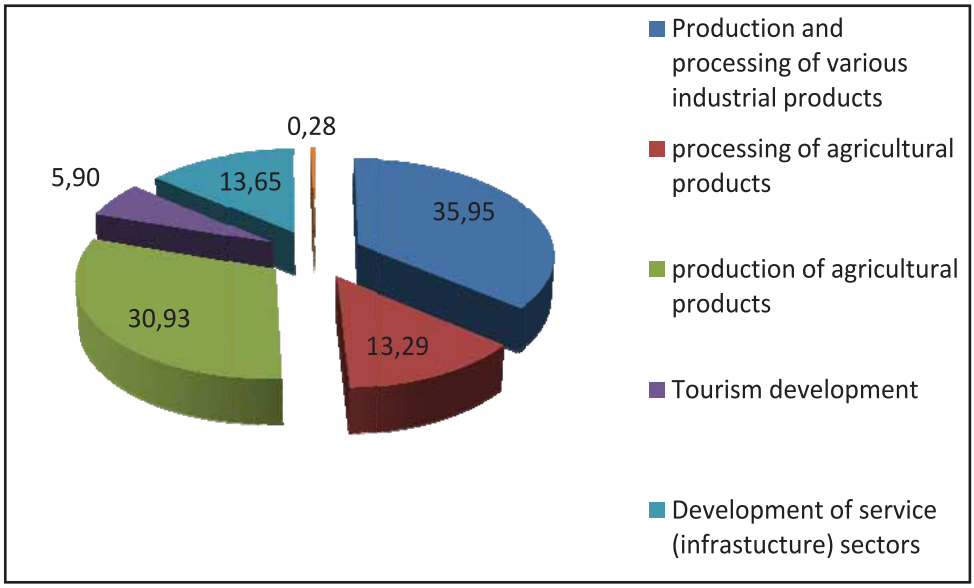
Chart 17. Growth dynamic of NFES funds (million manats)



The amount of concessional credits of the Fund to entrepreneurs was in total of 1.5 million manats 2002, 36.3 million manats in 2005, 129.6 million manats in 2009 and 115.0 million manats in 2010.

By and large, over the period of 2002-2010, a total of 580.1 million manats of concessional credits were given to entrepreneurs engaged in various fields of the economy: of the total amount, 208.6 million manats (35.6%) was given to the production of various industrial products, 179.4 million manats to (30.9%) to agricultural production, 77.1 million manats (13.3%) to the processing of agricultural products, 79.2 million manats (13.6%) to service (infrastructure), 34.3 million manats (5.9%) tourism and 1.6 million manats (0.3%) to mass media.

Chart 18. During 2002-2010 sectorial division of NFES credits (%)



After the State Support Fund for Mass Media was established in 2009, assets are allocated to this Fund, which are related with projects of mass-media development. Therefore, NFES does not allocate funding to mass-media development since 2009.

NFES provides funding for projects across all the country's regions. Yet, until 2010 projects from Baku, Aran and Ganja-Gazakh economic zones had a special share among the projects financed by the Fund.

NFES has led a policy to increase the amount of credits in that while the Fund used to grant 1000-manat credits until 2009, following the 2009 changes to the Fund's Regulations, the Fund does not grant credits less than 10 thousand manats. Meanwhile, after these changes the highest amount of the Fund's credits was also set to be 5 million manats. According to NFES's information, after 2009 a great majority of all credits (85-90%) of the Fund were big (from 250 thousand manats to 1.0 million manats) and huge (up to 5.0 million manats)[45].

Azerbaijan Investment Company (AIC). Established on 30th of March, 2006, AIC's initial charter capital was created from funds of SOCAR, which amounted to 90 million manats in 2006. In 2009, 70 million manats was allocated from the 2009

[45] http://aNFES.gov.az/az/

state budget (as state investments) for AIC's charter capital to increase. Below are the projects AIC has taken part in or will take part in the future:[46]

- *Reconstruction of "Milk Pro" OSC, producer of milk products, and construction of a new milk plant;*
- *Construction of a new cement plant with "Lafarge" company of France;*
- *Construction of "Azerduz" plant (jointly with "Azersun" Holding);*
- *"AzAqroExport" LLC;*
- *Establishment of "Azertokhum" LLC;*
- *Construction of Ship-building plant – 25% (SOCAR (65%) with "Kappel Offshore&Marine" company (10%) of Singapore);*
- *Caspian International Investment Company (jointly with Islamic Development Fund, Islamic Corporation for Private Sector Development and others);*
- *Purchase of 10 per cent shares of "Garadagh cement" that belongs to Swedish "Holcim" company;*
- *Investments into a waste-management plant;*
- *Construction of an oil terminal and oil-chemical complexes;*
- *Agriculture projects.*

From its establishment until the end of 2010, through AIC's projects, investments in the amount of 488.3 million manats were channelled into the economy via local and foreign investors[47].

Tax stimulation. In early 2001, a tax code was adopted in Azerbaijan, through which tax issues started to be regulated via single legislation.

To increase long-term stimulating impact of taxes on economic activity, attract long-term investments, and increase the amount of funds used by enterprises, profit tax rate was lowered from 27% to 25% in 2003, to 24% in 2004, to 22% in 2006, and to 20% in 2010.

For the purposes of faster financial sector development, better quality banking and insurance services, as well as stronger ability of banks and insurance companies to repay and increase their capitalizing capacity, according to the law of

[46] http://aic.az/pages/b40d1e8a-0d00-11e1-a541-081967bb730e/page.html#haqqimizda

[47] Cabinet of Ministers Report. 2010. page. 313

28 October 2008,[48] a part of banks profits, insurance and re-insurance companies directed to increasing charter capital was freed from profit tax for 3 years from 1st January, 2009.

Since 2001 a simplified tax type has been applied in the country to support small and medium enterprises in the country and simplify their taxation mechanism. Applied to introduction of goods and capacity of overall production and non-sale revenues, this tax has 4% rate in Baku and 2% in the rest of the country.

To stimulate agricultural production through the tax system, farmers are exempted from all taxes except land taxes and it has been extended to be so until the end of 2013.

Banking sector and credits in the economy. According to information available for 1st of January, 2011, there are 150 credit organizations providing banking services with a licence of the CBAR of Azerbaijan, 44 of them are banks, 106 are non-bank credit organizations. One of the banks is state-owned and 43 are private, including 22 private banks with foreign investment[49]. During 2000-2010, the number of banks reduced from 52 to 44. Overall, the number of credit organizations was 146 in 2010 comparing to 158 in 2000.

The size of banks system assets of Azerbaijan increased from 865 million manats in 2000 to 13,3 billion manats in 2010[50] - 15.4 times. During this period, nominal GDP went up 8.8 times. The ratio of the bank sector assets to GDP in 2000 was 18,.3%, whereas it reached 32% in 2010. In 2012, the ratio of the bank system assets to non-oil GDP was 72.1%. During 2000-2010, the growth rate of the bank system assets exceeded that of GDP.

2001-2010 saw a steady growth in the credits market of the country, i.e. the size of credits both in national and foreign currencies steadily increased from year to year and this increase has been even faster since 2006. While the total bank credits to the country's economy comprised 486.2 million manats in 2001, they went up to 1441.0 million manats in 2005 and 9163.4 million manats in 2010.

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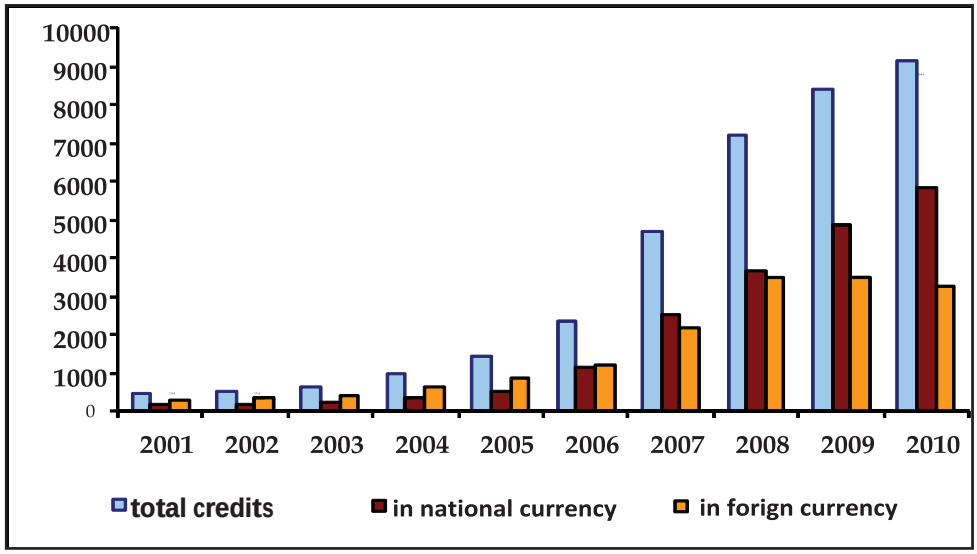
[48] The Law on Stimulation of Capitalization of Banks, Insurance and Reinsurance Companies, October 28, 2008, № 710-IIIQ
http://www.e-qanun.az/print.php?internal=view&target=1&docid=15646&doctype=0

[49] NBA, www.cbar.az

[50] NBA, Statistics Bulletin. N:3 (133), 3/2011. www.cbar.az

Chart 19. Total credits of credit organizations of Azerbaijan[51] (million manats)



Relative to 2001, the amount of credits increased roughly thrice in 2005, and 18.8 times in 2010. The total amount of credits that banks presented to the country's economy in 2010 was 6.4 times more than in 2005.

Until 2006, short-term credits outweighed in the country's bank system's credit portfolio and starting from 2007, long-term credits started to have a big share in the credits portfolio. While only 27.2% (132.3 million manats) of all credits in 2001 were long-term, they were 51.7% (or 1220.7 million manats) in 2006, and 72.0% (6596.3 million manats) in 2010[52].

Of all the credits in 2010, 24.1% (2206.8 million manats) were directed to trade and services, 10.7% (984.0 million manats) to energy industry, chemical and natural resources, 4.8% (441.3 million manats) to agriculture and processing, 7.2% (660.6 million manats) to construction and real estate, 7.4% (682.4 million manats) to industry and manufacturing, 5.0% (454.4 million manats) and 29.5% (2700.8 million manats) to households[53].

Of all the credits, approximately 4-5% are invested in agricultural production and processing, 6-7% in industry and manufacturing. Studies show that most of these

[51] NBA, Statistics Bulletin (No:12(130) 12/2010) www.cbar.az

[52] NBA, www.cbar.az

[53] NBA, Statistics Bulletin (No:12(130)12/2010)

credits in these areas are concessional credits to entrepreneurs and farmers, which come from NFES[54] and State Agency for Agricultural Credits from state budget through agent banks.

The share of energy industry in bank credits drastically increased from 5-6% to 17-18% in 2009, which is explained by the credit in the amount of 750 million manats[55] given to SOCAR with conditional terms (3%) for 7 years from CBAR Resources via International Bank (3%). Yet, the share of credits in energy sector decreased by 11% by the end of 2010.

Despite the increasing number of subsidiaries of banks in the regions in recent years, more than 85% of all credits went to Baku. Considering Absheron, 88.7% of all credits were used up in Baku-Absheron area. Only 10% of the credits were distributed among other regions. In view of credits in Ganja, Shirvan, Shamakhi, Lenkaran and Mingachevir, it turns out that such a centralization of credits cannot seriously contribute to regional development, which indicates disinterest of banks in providing credits to regions.

According to statistics of the Central Bank of Azerbaijan, during 2002-2010 an average yearly interest rate of credits in Azerbaijan varied between 13% and 19%. In recent years, annual average interest rates range roughly between 15-17%. Nevertheless, studies of Media and Public Initiative Centre[56] show that the range of interest rates across various credits was quite large in 2010, between 4% (concessional credits of state budget) and 35%[57]. The average annual interest rate of credits at 15-17% was largely due to low-interest and concessional credits from CBAR (3-8%), which comprised about 25-28% of all credits of the banking system[58], while interest rates of credits that banks themselves granted to small and medium entrepreneurs and households ranged mainly between 22-30%. Such high interest rates seriously hinder accessibility of businesses to credit resources.

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54 http://aNFES.gov.az/files/Hes_2010.pdf

55 http://www.lent.az/news.php?id=29442

56 http://www.sei.az/news-1063.html

57 Evaluation of the Factors Which Affect Credit Interest Rate in Azerbaijan. Research Document. Media and Public Initiatives Center – Open Society Institute Assistant Foundation. 2011

58 According to the Ministry of Finance, during 2006-2011 the following lendings were made from the budget: 453.1 million manats to the National Foundation of Support to Entrepreneurship, 317.6 million manats to "Agroleasing", 40.0 million manats to the State Agency for Agricultural Credits, 116.0 manats for social hypothec. In 2009 year a long-term soft loan in the amount of 1.2 billion manats was lent to 2 big public companies with 3% interest via the Azerbaijan International Bank out of the ANB funds.

Stock-market development. The development of state and corporate bonds (or debt obligations) market is both considered as alternative to direct bank crediting and an indicator of development level of financial intermediation in the country's economy. The diversification of financial sphere plays a significant role in economic diversification of the country.

State bonds of Azerbaijan are mainly short-term securities of the Ministry of Finance issued roughly in the amount of 300 million manats. Short-term bonds of CBAR are also in circulation (in the value of 100-150 million manats). As insurance market has not yet developed, it has no serious impact on development of the credit market.

In spite of establishment of stock companies in the process of privatization of state property, it is still too early to speak about any corporate stock market in the country. Despite operations of purchases and sales of shares in the stock market, they are still not strong enough to attract real resources to companies.

Also because such worldwide-known financial intermediaries as private pension funds, investment funds, construction-deposit organizations, clearing institutions and the like do not exist in Azerbaijan, creation of alternative borrowing market becomes impossible, thus reinforcing monopoly of commercial banks in the credit market of the country.

4.2. Infrastructure investments

The practice of public investments in Azerbaijan started in 1995 when the amount of public investments was limited (15.8 million manats) and comprised just 5% of the budget expenditures. Since 2005 the increased oil production under the Azeri-Chirag Guneshli contract and higher prices of crude oil in the world market led to dramatic rise in the state's revenues, which allowed the government to expand this practice.

During the time of public investment expansion, the government identified major directions of public investment policy as follows[59]:

[59] The Main Priorities of Social-Economic Development of Azerbaijan in 2006-2009. Budget package of 2006, volume II, page 36

- *promote investments into non-oil sector and regional development;*
- *ensure optimal investments to ensure balanced regional development;*
- *focus more on social aspect of investments and priority of human capital and infrastructure;*
- *improve defence capacity of the state;*
- *ensure a more transparent public investment policy.*

Public investment policy was said to be focused on infrastructure and social sphere in the 2007-2010 years' priorities of socio-economic development[60]: *"while the state privatization is carried out and production of ready products is delegated to the private sector, investments into infrastructure, which is necessary for the balanced non-oil sector, will be steadily pursued and active public investment policy will be pursued. At the same time, social infrastructure will be considerably developed."*

Even though public investment practice in Azerbaijan took a start in 2003, the government only adopted Public Investment Policy in 2008 and identified the following as priorities[61]:

- *Infrastructure development and their sustainable operations.*
- *Balanced regional development.*
- *Sustainable human capital development and better social protection.*

While public investments made up 26.5 million manats in 2000, they reached 159.9 million manats in 2005, and 5851.6 million manats in 2011. Thus, compared to 2000, public investments increased 221 times by 2011, comprising 38% of state budget expenditures. In this period, the ratio of public investments to GDP increased from 0.56% to 11.69%. Also, during 2000-2011, 21 billion manats were spent on infrastructure, social sphere and other construction projects.

[60] The Main Priorities of Social-Economic Development of Azerbaijan in 2007-2010. Budget package of 2007, volume I, page 27

[61] State Investment Policy of 2008-2011. www.economy.gov.az

Table 3. Size, share in the state budget, and ratio of public investments to GDP during 2000-2011

Indicators	2000	2005	2006	2007	2008	2009	2010	2011
Public investments, in million manats	26.53	159.89	879.64	1902.23	4275.17	3553.38	4132.37	5851.6
Share in the state budget, in %	3.47	7.47	23.21	31.25	39.68	33.83	35.12	38.01
Ratio to GDB, in %	0.56	1.28	4.88	7.09	10.65	10.28	9.73	11.69

Chart 20. Size and share of public investments in the state budget in 2000-2011

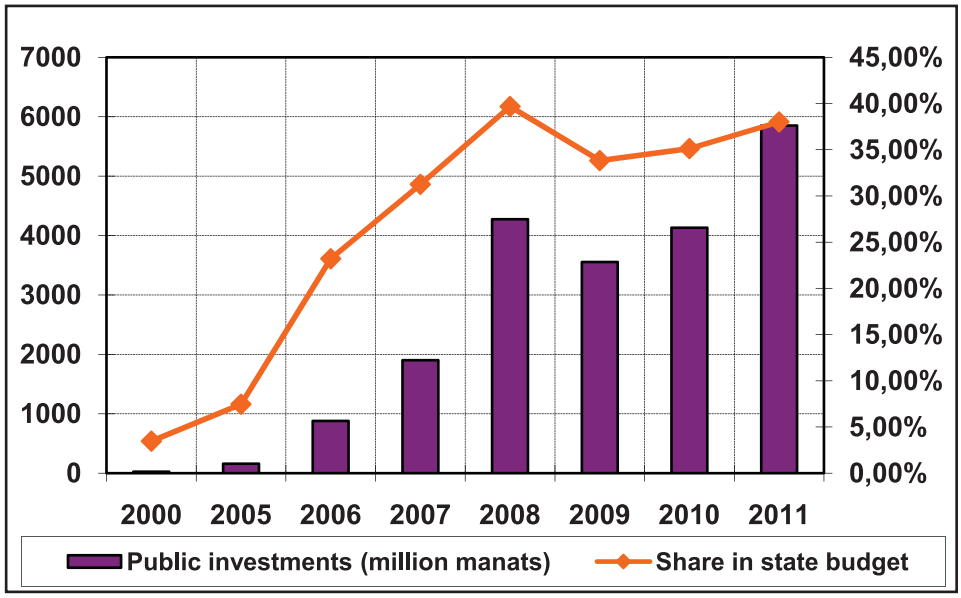
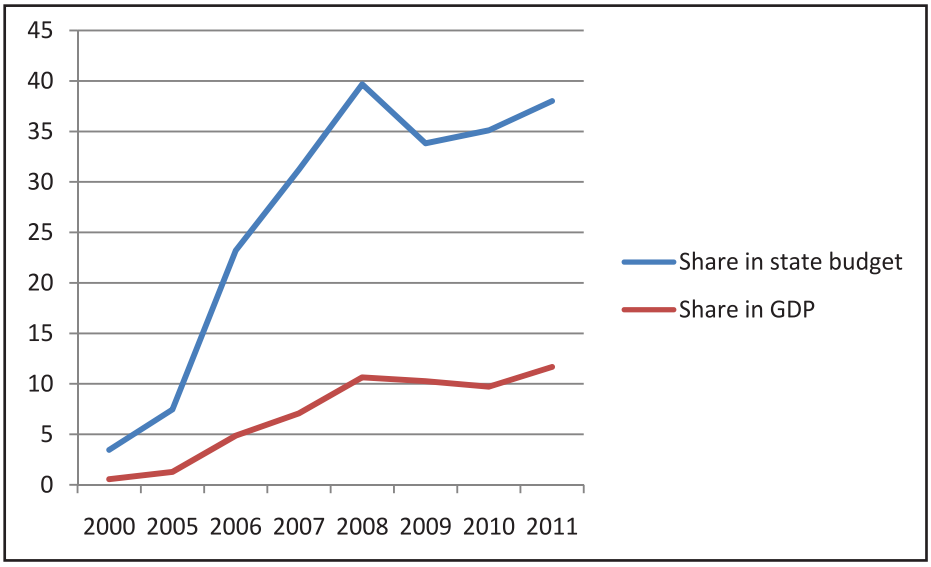


Chart 21. Change of public investments in budget expenditures and vis-à-vis GDP



Obviously, since 2006, the amount of public investments of the state budget and their share in the state budget expenditures has been rapidly increasing. Nevertheless, when annual state budget draft is discussed and approved in the Parliament, general information is given about this expenditure item, that is, comprehensive information about the assignments and specific projects of this budget item, which accounts for 35-40% of total state budget expenditures, is not disclosed to MPs and public. The assignments, responsible agencies and projects of the state budget investment expenditures are carried out with a decree of the Cabinet of Ministers after the budget implementation starts – during January-February of the corresponding.

State budget expenditures are mainly spent on restructuring, renovation and reconstruction of production and social infrastructure in the country.

Table 4. Breakdown of state budget expenditures across directions during 2006-2010 years (Million manats)

Main directions	2006	2007	2008	2009	2010
1	2	3	4	5	6
I. Infrastructure projects	**578.4**	**935.4**	**2630.3**	**2098.5**	**2350.7**
Road-transportation infrastructure	*215.4*	*422.3*	*1581.6*	*1182.6*	*1681.2*
Utility infrastructure	*56.8*	*82.1*	*344.2*	*242.9*	*229.6*
Water resources and irrigation measures	*25.5*	*70.2*	*123.4*	*88.6*	*222.8*
Industry and energy complex	*277.8*	*213.8*	*532.1*	*490.5*	*169.0*
Ecology	*1.3*	*18.9*	*20.9*	*5.2*	*25.6*
Agriculture	*1.7*	*54.4*	*28.1*	*18.7*	*22.5*
Entrepreneurship	-	*73.7*	-	*70.0****	-
II. Social projects	**122**	**405**	**769.7**	**683.1**	**552.1**
Education facilities	*43.4*	*92.7*	*214.7*	*59.4*	*128.5*
Health care facilities	*24.2*	*72.0*	*204.2*	*81.9*	*82.8*
Facilities for the disabled and martyrs' families	*11.3*	*18.7*	*42.8*	*41.2*	*67.4*
Cultural facilities	*12.0*	*77.9*	*174.2*	*98.6*	*170.5*
Sports facilities	*14.4*	*57.5*	*105.0*	*54.1*	*71.7*

Better social living standards for refugees and IDPs	*1.3*	*3.98*	*4.0*	*5.2*	*3.1*
Other social projects	*15.4*	*82.1*	*25.0*	*342.7*	*28.1*
III. Defence, Court, law enforcement bodies and activities to eliminate emergency situations	**130.1**	**301.7**	**454.7**	**558.4**	**847.9**
IV. Other projects	**47.7**	**260.1**	**420.5**	**213.4**	**381.7**
Total:	**879.6**	**1902.2**	**4275.2**	**3553.4**	**4132.4**

Source: Reviews of the Chamber of Accounts on budget implementation across corresponding years

As seen from Table 4, a majority of public investments is spent on road-transportation projects. Starting from 2004, major highways in Azerbaijan have been renovated. Renovation works are underway on East-West highway from Baku to Georgian border, and also on Baku-Guba-Russian-border highway and Alat-Astara (border with Iran) highways. Under these projects, highways will be made of 4 lanes and category A. Apart from these projects, projects of a circular road Baku-Shamakhi and a circular road round Baku have been carried out and completed too. Also, various roads and road intersections were built or being built currently.

However, two points are noticeable in the implementation of these road-transportation projects, one of which is the prolongation of projects and the other the high cost. For example, it took over 2 years to renovate the 14-km highway from Azizbayov circular road up to the airport and it cost 24 million US dollars per km. according to studies of RİA News Agency, while China built 45.5 km of road, USA 17 km, and European countries 14.5 km for 100 million dollars, Azerbaijan built just 5.5 km of road for this money.[62]

[62] http://www.azadliq.org/content/article/24691577.html

The problem of inefficiency is true about most of the sectors where public investments are utilized. For example, in 2005-2011, public investment in the amount of 1206.1 million manats was assigned to "Azernergy" SC. Yet, these investments did not yield any result in the production of electricity. With these investments, starting from 2006, production of electricity fell from 24.5 billion kWatt to 20.1 kWatt, and heat energy from 5238 thousand gigacalories to 1013.4 thousand gigacalories.

Table 5. Public investments and production parameters of Azerenergy SC during 2005-2011 years

Indicators	2005	2006	2007	2008	2009	2010	2011
Public investments to Azernergy JSC, in million manats	6.7	272.5	116.8	318.1	240.5	72.0	179.5
Production of electricity, in billion kWatt	22.9	24.5	21.8	21.6	18.9	18.7	20.1
Heat Energy production, in thousand GCal.	4 723	5 238	4 244	4 399	3 196	2 968	1013.4

The impact of public investments on the amount of payments state companies make to the state budget is negligible too. The studies across six major non-oil state-owned tax-payers reveal that during 2007-2011, except for enterprises under the Ministry of Communication and State Railway SC, the rest of state-owned companies paid significantly small taxes to the state budget relative to the amount of investments they received from the state budget (Table 6). In other words, these six major state tax-payers received 2.3 times more investments from the state budget than the amount of taxes they paid to the budget in the past 5 years, which causes doubts about the added-value of these investments for these companies.

In addition, the fact that the funds from the 2012 public investments that were assigned to Baku Executive Committee (327 million manats) was eight times more than the total amount of funds that was assigned to eight Executive City Committees (Ganja, Sumgait, Shirvan, Mingachevir, Shaki, Lenkaran, Naftalan and Yevlakh) and that 24% of public investment funds was assigned to profitable state

companies indicate that "private sector" and balanced regional development, emphasized in policies, remain in the background.[63]

Table 6. Balance of budget investments and taxes of six state-owned non-oil sector tax-payers (in thousand manats)

State companies	2007 – 2011		
	Public investments	Taxes paid	Difference
Ministry of Communication	24504.4	124850.7	100346.3
Azerenergy JSC	926925.0	555170.8	-371754.2
State Railways JSC	9900.0	105374.2	95474.2
Caspian Sea Navigation	126583.5	6419.6	-120163.9
AZAL State Concern	484642.3	94898.4	-389743.9
Azersu SC	601272.5	53834.0	-547438.5
Total	**2173827.7**	**940547.7**	**-1233280.0**

Source: the Chamber of Accounts and decrees of the Cabinet of Ministers, and other calculations

Table 4 shows that, even though not stipulated in strategic and policy documents on public investment, investments are made for "Defence and law enforcement bodies" (construction), which comprise 20.5% of all public investment expenditures.

Another issue is that a significant portion of public investments is spent on construction and renovation of public administration buildings, for which 336.1 million manats in 2007, 600.2 million manats in 2008, and 582 million manats in 2009 were spent.[64]

The efficiency of public investments in Azerbaijan was first evaluated by the IMF, the experts of which designed Public Investment Index, PIMI – 2011 for 71 mid-income and low-income countries.[65]

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[63] Distribution of the 2012 public investment among contractor organizations.

[64] Final Report on Monitoring of Corruption Risks on Repair and Construction of Administrative Buildings. EBRD, 2009. http://freeeconomy.az/attachments/099_Inzibati_binalar_ve_korrupsiya_riskleri.pdf

[65] http://www.imf.org/external/pubs/ft/wp/2011/wp1137.pdf

The institutional environment and overall efficiency of public investments are analyzed by 17 indicators that relate to 4 key dimensions. Directing 35% (about 5.1 billion dollars) of the 2010 state budget to public investments, *Azerbaijan gained 1.53 points (out of maximum 4 points) becoming 43rd among 71 countries*. For the sake of comparison, it should be noted that among neighbouring states, Armenia took 8th, Kazakhstan 9th and Turkey 24th place. Our country received low points - 0.5 points out of 4 - especially in the category of strategic appraisals and choice of public investments (this category includes the following indicators: nature of strategic management and presence of sectoral strategies, transparency of appraisal standards, conduct of expected evaluation, independent verification of evaluation). In the categories of choice and budgeting of public investment projects, Azerbaijan's index is 1.6, in the category of public investment implementation it is 2, in the category of the evaluation and audit of the implementation of public investments it is 2. The main conclusion drawn from this report is that public investments in Azerbaijan are not based upon a consistent strategic plan, appraisals are not done in a transparent way, and the control system over projects and their post-implementation evaluation are not at a desirable level.

4.3. Human Capital

Effective operation of economy and economic diversification are directly related to human capital development. Knowledge development of labour force is possible through education system just like better healthcare through health care infrastructure. Highly diversified economies based on high-tech and innovations in resource-poor countries like Japan and Taiwan were possible thanks to human capital development. It is just because of the focus on development of education that 50% of 17-23-year old youths in Japan, the USA and Korea go to high schools. In early 90s more than 20% of GDP was spent on education and health care development in South Korea. Also, 3% of GDP in Japan, 3.7 in Sweden, and 2.8% in the USA is spent on science. According to the recommendation of International Commission on Education, education expenditures of a country should not be less than 6% of GDP[66]. According to 2011 report of OECD on education, the share of education expenditures in GDP varied between 5-8% in member states in 2008[67].

[66] Egel E.A. Role of Human Capital in Modern Economy. http://vestnik.osu.ru/2007_3/12.pdf

[67] Education at a Glance 2011. OECD indicators. http://www.oecd.org/dataoecd/61/2/48631582.pdf

Health care system plays as much role in human capital development as education. The 2010 report of the World Health Organization on the situation of health care in the world states that in many developed countries, health care expenditures of the state budget account for, on average, 5-6% of GDP, which also include duties from mandatory medical insurance[68].

Currently, regular evaluations are carried out and reports prepared by various international organizations on the development level of human capital in the world[69], yearly Global Competitiveness publications of the World Economic Forum[70] are a reliable source of information to judge the level of human capital development in the world countries.

During 2000-2010, a number of measures were taken in Azerbaijan in the field of people's education and health care. Above all, laws on "Health Care Protection of People", "Medical Insurance" and "Education" were adopted. On the other hand, several state programmes were designed and implemented in each of these spheres. Since 2006 the government has carried out programmes on anti-tuberculosis, chronicle kidney deficiency, haemophilia, immune-prevention of infectious diseases, cue and prevention of thalassemia, cure of diabetes, cure of HIV/AIDS, and funds are annually allocated from the state budget for these purposes. For instance, in 2010 alone, 47 million manats were spent on the said programmes. A total of 150 million manats were spent on these programmes during 2006-2010.

Programmes on secondary level education reforms in the education system, electronic education system, free provision of secondary school students with school books, upgrading pre-school education, high school reforms, construction and renovation of schools, better capacity of school libraries were adopted and concept on development of vocational school education approved. Also, starting from 2007, education of Azerbaijani students abroad is financed through SOFAR funds. During 2007-2011, around 2000 students were sent abroad for education by this programme. In order to evaluate outcomes of human capital development policy, it is necessary to look at the sectors and reports of international organizations.

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68 The World Health Report 2010. http://www.who.int/whr/2010/whr10_ru.pdf

69 Human Development Reports. http://hdr.undp.org/en/reports/global/hdr2011/

70 Reports http://www.weforum.org/reports-results?fq=report^report_type%3A%22Competitiveness%22

Education. The 2009-2013 years' state programme on education reforms state that there are 156 people with high education per 10 thousand people in Azerbaijan whereas, it varies between 250-450 people in western developed countries. By this criteria, Azerbaijan is behind Kazakhstan and Russia three times, and Georgia, Armenia and Moldova twice[71]. There are currently 140 thousand students studying at state and public universities in Azerbaijan, who account for 14-15% of all youths in the age group of 18-35. *On the other hand*, over the last 10 years, the fact that the number of paid seats in state universities has gone up, has decreased accessibility of education for people, especially low-income groups. For instance, while in 2004, 38% of seats (28475 seats) in state universities were free of charge, in 2011, it went down by 5%, meaning that 7 out of 10 students will have to study for a fee.

There are problems in lower tiers of education as well. According to the State Statistics Committee, at best, overall, 16-17% of children that go to the 1st grade, could get necessary knowledge and habits at pre-school kindergartens. This figure is 9-10% in rural areas[72]. It is in contrast with the figure in developed countries where no less than 90% go to kindergartens. The annual statistical review of the State Student Admission Commission (SSAC) shows that over the recent years, around 20% of school leavers cannot pass the final exam and therefore fail to get their certificates. In 2009-2011, of all 297000 students that were to finish the 11th grade, 61000 students (20.5%) failed to pass certificate exams. Also, the commission information reveals that more than half of the students applying to universities cannot score entrance points at admission exams. For instance, the SSAC report states that 54% in 2009, 50% in 2010 and 51% in 2011 of school leavers wishing to study at universities scored less than 200 points, which is equal to "2" in the traditional "5- point" scoring system[73].

In the last 10 years, there has been an increase in the number of students going to trade and vocational schools. In 2000-2010 years, the number of vocational school students increased by 25%, reaching 16.5 thousand students and the numbers of students studying at trade schools went up by 2 thousand people (13%) reaching 16.8 thousand people in total. Like in universities, a significant number of places at state trade schools are paid. For instance, according to the SSAC data, during

[71] http://www.edu.gov.az/view.php?lang=az&menu=83&id=74

[72] http://www.azstat.org/statinfo/education/az/index.shtml#

[73] Statistical Analysis. http://tqdk.gov.az/az/statistics/

2010-2011, 70% (7.1 thousand people) of 10.2 thousand admission plan to vocational schools were paid.

Although state expenditures on education increased seven times over the last 10 years, the share of education expenditures as part of GDP is still a lot behind the similar indicator in developed countries.

Table 7. State expenditures of education

Indicators/Years	2000	2005	2006	2007	2008	2009	2010
Education expenditures, *in million manats*	181.8	372.5	479.1	723	980	1148	1181
Public investments for construction of education premises, *in million manats*	0	3453	34517	186632	197350	44931	84513
Education expenditures as part of total budget expenditures, in *%*	23.8	17.4	12.6	11.8	9.1	10.9	10.0
Education expenditures as part of GDP, in *%*	3.8	2.9	2.6	2.5	2.4	3.2	2.8

It is obvious from Table 7 that during 2000-2010 despite the fact that education expenditures increased seven times, its share in consolidated budget expenditures fell from 23.8% to 10%, and relative to GDP, from 3.8% to 2.8%, which is primarily because no balanced linkage between education expenditures and budget expenditures and GDP growth was established. So in the same period, nominal GDP and budget expenditures increased more than 10 and 15 times, respectively. During the same period, roughly 600 million manats of budget investments was spent on upgrading education infrastructure.

The fact that the government has created conditions for the admission to a variety of new specializations at vocational schools of all kinds indicates that the demand of selected areas as part of economic diversification targets is, to some

extent, taken into account. For instance, during 2001-2011 two vocational schools (Gabala Tourism and Hospitality Training Centre and Baku Tourism Vocational School), one secondary school (Mingachevir Tourism College) and one higher education institution (Azerbaijan Tourism University) were created through a government's decision. Besides, there are colleges – Baku Food Industry College, Baku Industry-Pedagogy College, Azerbaijan Marine Fish Industry College, Baku State Communication College, Baku Technology College - directly specialized in training people for non-oil sector with more than 1000 people getting into these colleges annually.

Students are trained for 106 vocations at trade and vocational schools. Of these vocations, 30 (for instance, device-engineer, fruit and vegetable specialists, operator of cattle-breeding farming complexes, tractor-drivers, experts on dairy products, bee-keepers, veterinaries, sewers, carpet makers, hotel receptionists, etc.) are related with selected areas (agriculture, non-oil processing industry, tourism and ICT) that the government has identified as targets of economic diversification. Of all 15.2 thousand students getting into vocational schools in 2011, 3.5 thousand people chose these specializations[74].

A look into the admission plan across secondary schools shows that for now, the number of personnel trained in selected areas of government's economic diversification targets is not high. For instance, the 3rd review of the SSAC on choice of majors during 2010-2011 shows that there were 70 seats for the vocation of agronomist, 42 for zoo-technician, 56 for veterinarian, and 25 for fisher. For various specializations related with tourism, there were 129 seats and for food industry majors, there were 181 seats. The problem is that in many cases 30-40% of these seats remain unoccupied since the said vocations are mainly paid. For instance, 96 seats or 75% of all tourism-related seats in 2010 and 73% of seats in the categories of agronomist, zoo-technician and veterinarians were paid, while common sense requires education to be free for these specializations that the government sees as conducive to economic diversification.

Health care. The law on medical insurance has been adopted in Azerbaijan already for more than 10 years and with the Cabinet of Ministers' Decree 179 of

[74] Information based upon the "Report on Applicants for Training at Vocational Education Institutions in 2011-2012 by the Ministry of Education of Azerbaijan"

August 2008, a concept on the application of the mandatory medical insurance was approved. Nevertheless, there is no mechanism of medical insurance with guarantee for people. Besides, the state's guarantee to provide people with free health care services is formal. Citizens continue to make informal payments at state hospitals for simple check-ups, let alone for complicated medical operations and treatments. On the other hand, the number of private health care clinics is rapidly increasing with many people having to pay for mandatory medical insurance, which is in fact supposed to be covered by their employers and state.

Table 8. State health care expenditures

Indicators/Years	2000	2005	2006	2007	2008	2009	2010
Health care expenditures, *in million manats*	40.9	115.3	162	257.2	346.2	402.4	429.4
Public investments for construction of health care premises, *in million manats*	0	4060	20478	63390	119678	28494	40584
Health care expenditures as part of overall budget expenditures, in *%*	5.3	5.3	4.3	4.2	3.2	3.8	3.6
Health care expenditures as part of GDP, in *%*	0.9	0.9	0.9	0.9	0.9	1.1	1.0

Table 8 shows that during 2000-2010 health care expenditures have increased 10 times. Yet, the special share of these expenditures in the overall budget expenditures decreased from 5.3% to 3.6%, and relative to GDP, it was 1%, which is 5-6 times lower than the similar indicator in development countries.

In official reports, health care development and government's policy in this regard are emphasized. However, indicators related with operation of this field prove that there is not a reliable health care system to protect people's health in Azerbaijan. For instance, compared to 1990, the death rate per 1000 people in the

age groups of 65-69 and 70-74 has increased roughly by 7.5% and 25% respectively. Also, according to the State Statistics Committee in the last 5 years, cases of people's illnesses with various diseases have considerably increased. For instance, during 2005-2010, the number of illnesses caused by pregnancy and complicated deliveries doubled, thus increasing from 76.2 per 10 thousand people to 159. The number of illnesses among children became more worrying. In 2005-2010, blood diseases of 18-year olds measured by 10 thousand people increased by 22% (from 76 to 98 per 10 thousand people), eye illnesses by 50% (from 54 to 81 per 10 thousand people), nervous system illnesses by 27% (from 87 to 111 per 10 thousand people). It is no doubt that people's problems with health care became even more worse given the absence of medical insurance system, regular check-up mechanisms, presence of informal payments in public health-care, and expensive services at private hospitals.

Reports of international organizations. World Economic Forum's (WEF) annual Global Competiveness Report contains the rating of competitiveness of the world countries measured on the basis of corresponding 12 parameters, two of which deal with elements – education and health care – of human capital development. World Economic Forum first covered Azerbaijan in its report in 2005. Yet, since it was impossible to get the reports for the first three years, only figures of 2008-2011 years were reviewed.

Table 9. Azerbaijan's position in WEF's Global Competitiveness Index

Indicators	2008	2009	2010	2011
Number of rated countries	134	133	139	142
Life expectancy rate	101	92	93	93
Primary education	94	76	109	122
Secondary education enrolment rate	80	63	12	29
Tertiary education enrolment rate	95	96	98	90
Quality of the educational system	78	64	104	113
Quality of math and science education	92	85	101	99
Quality of education management	119	117	124	125

As it is seen from Table 9 in the Global Competitiveness Index, although there has been improvement in some indicators (secondary and tertiary education) over the last 4 years in the rating of Azerbaijan, worsening tendencies are recorded in all indicators of human capital development (quality of the educational system, quality of education management, quality of math and science education, etc).

The results of Azerbaijan in OECD's PISA - Programme for International Student Assessment also concur with the education results of Azerbaijan in Global Competitiveness Index. The Program for International Student Assessment (PISA) is a system of international assessments that focus on 15-year-olds' capabilities in reading literacy (analyse, reason and communicate effectively as they pose, solve and interpret problems in a variety of situations), mathematics literacy, and science literacy. Azerbaijan took the 55th place among 57 countries in 2006 and 64th among 65 countries in 2009 in PISA assessments[75].

UNO has prepared human development reports annually since 1990 where different development indexes are measured for world countries. Human development index is based upon the following 3 important parameters:

- *Life expectancy at birth. This indicator is about favourable conditions in the country for longevity;*
- *Level of education, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary and tertiary gross enrolment ratio (with one-third weight);*
- *A decent standard of living, as measured by Gross Domestic Product per capita (Purchasing Parity Power in $US).*

Table 10. UN Human Development Index and Azerbaijan

Indicators	2000	2009	2010	2011
Number of rated countries	174	182	169	169
Azerbaijan's rating	90	86	67	91
Human Development Index	0.722	0.787	0.713	0.700
Life expectancy at birth	70.1	70.0	70.8	70.7

[75] PISA 2009 at a Glance. http://www.oecd.org/dataoecd/31/28/46660259.pdf
PISA 2009 Results: Executive Summary. http://www.oecd.org/dataoecd/34/60/46619703.pdf
PISA 2006 results http://www.oecd.org/dataoecd/15/13/39725224.pdf

Human Development reports show that during 2000-2011 years, Azerbaijan's rating worsened. As Table 10 suggests, the country's rating got better in 2010 compared to previous years. However, the rating in two indicators declined in 2011 and thus became the worst indicator recorded during 2000-2011. In the last 10 years, despite tenfold increase in government's education and health care expenditures, no improvement in human capital development can be explained by 2 reasons: education and health care reforms have not yielded effective results.

4.4. Innovations

Innovation as a priority in official papers. Economic and export diversification calls for selecting manufactured and exported products, for which enterprises are supposed to apply new innovations (*generation and scientific testing of new ideas, application via technical application, trial production*) to create a new product (apply and have strong innovation capacity). It is crucial for the state to carry out measures to promote innovation and build infrastructure (*scientific-research centres, laboratories, business incubators, innovation zones*). Many legal papers and state programmes adopted in recent years in Azerbaijan underline importance of innovation for the economy and the government's new term economic policy. The presidential decree on development concept of "Azerbaijan 2020: vision to future" that covers the period until 2020 states that the main target of the economy is about *multi-dimensional, efficient and innovation-led economy* in Azerbaijan. One of the main objectives of the state 2011-2015 employment strategy programme is to apply advanced science-intensive technologies and innovations. Under the 2011-2015 credits of the Ministry of Economic Development and NFES to entrepreneurs, the preference will be given to those projects that will create new jobs with application of innovations[76]. However, despite no separate normative legal act or state programme on innovations has been adopted so far, one of the core objectives of the "2009-2015 Science Development National Strategy" is increased *efficiency of scientific researches and innovation policy*[77]. However, several provisions of the state programme, such as better salaries, social security and housing for scientists, that were supposed to be finalized by the end of 2010 as part of implementation of the National Strategy have not unfortunately been fulfilled yet. The law on "scientific

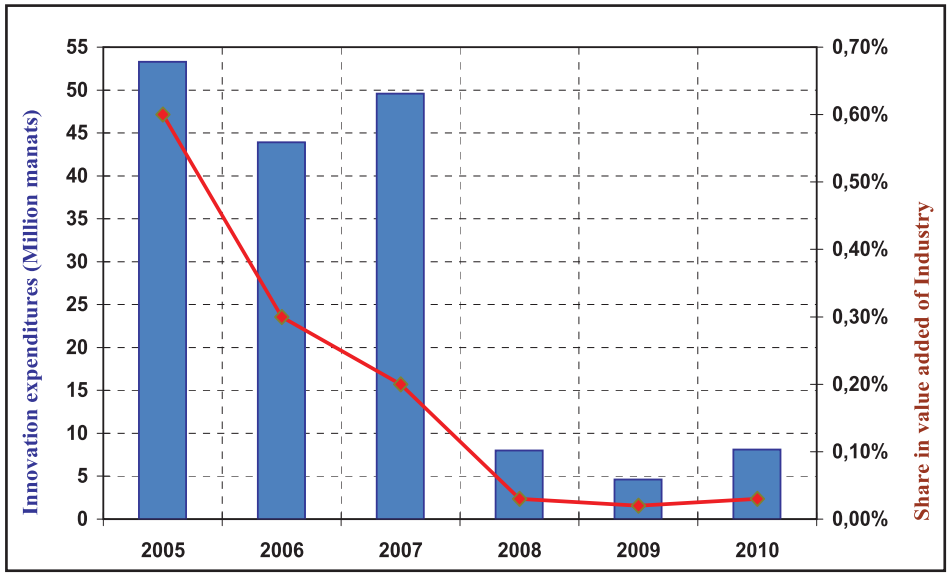
[76] http://www.huquqiaktlar.gov.az/StatementDetails.aspx?statementId=4837

[77] http://e-qanun.az/print.php?internal=view&target=1&docid=17199&doctype=0

activity" adopted in the parliament in 2010 does not encompass innovation activities and the need for the law on "innovations" is growing bigger.

Innovation expenditures and indicators. In the introduction of the "2009-2015 National Strategy on Science Development", the government officially admits that the current situation of financing science in Azerbaijan is not satisfactory. While science expenditures of the state budget comprised 0.3-0.5% of GDP in 1980-1990, it was less at 0.2% during 1998-2008. The amount of funds allotted to higher education institutions and the number of employees in science are not adequate either. Overall, the scientific capacity of the country is outdated with the equipment of scientific organizations already over 20 years old. These organizations do not perform satisfactorily either in terms of patents. On the whole, the current condition of Azerbaijan's science does not meet the requirements of the state innovation policy. The structure, topics and scope of scientific researches in Azerbaijan are still based on soviet-time frameworks"[78].

Chart 22. Innovation expenditures of industrial enterprises.



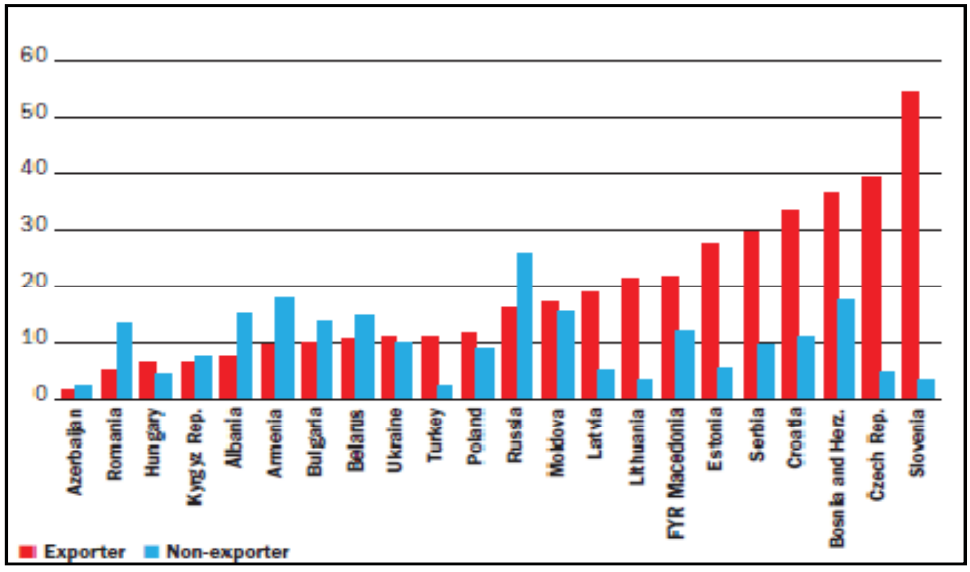
According to UNESCO's 2010 report on science, Azerbaijan lags behind both Georgia and Armenia for the share of Research and Development (R&D) expenditures in GDP[79]. The World Bank's *Knowledge Economy Index 2012* suggests that

[78] http://e-qanun.az/print.php?internal=view&target=1&docid=17199&doctype=0

[79] UNESCO Science Report 2010: The Current Status of Science around the World

Azerbaijan has improved its place by 15 places compared with 2000 and comes 79th among 145 states. Georgia and Armenia stood at 68th and 71st places, respectively. According to the sub-index of this overall index on "Innovation index", Azerbaijan came 89th among 145 countries. According to this methodology of the World Bank (a) innovations, (b) education and training system, (c) institutional environment and (d) ICT are major constituents of knowledge economy. Innovation is measured by the number of scientific researches per one million people (it was *1358 in Azerbaijan in 2008*); number of scientific articles published in scientific journals; number received patents; share of high-tech in exports; as well as amount of innovation expenditures.

Chart 23. Export and non-export companies engaged in innovations (in percentage)



Source: http://www.ebrd.com

Chart 23 shows technological innovation expenditures of industrial enterprises in Azerbaijan tend to spend less both in absolute terms and relative to the overall value-added generated in the industry. The overall amount of innovation expenditures of all industrial enterprises in Azerbaijan in 2010 accounted for 8.1 million manats, which is equal to 0.03 per cent of added-value created in the industry the same year. Innovation expenditures were largely incurred by processing enterprises (*mining industry innovation expenditures amounted to just five thousand manats*

in 2010), 62% of which was spent on purchase of equipment and machinery and 30% was spent on new products, services, and processes. For the training of personnel on innovations, 95.6 thousand manats was spent. In other words, another problem with less innovation costs of industries is that a big part of current expenditures goes to import of ready-made technologies rather than local enterprises creating them. It is to note that 97.5% of innovation expenditures go to product innovations and 2.5% to process innovations. On the basis of the findings of the surveys (2005-2009) of the traditional *Transition Report of* European Bank for Reconstruction and Development for 2010, which were administered through the consideration of various business environment and major parameters of the enterprises, a special weight of companies with R&D expenditures among export and non-export companies (*2010*) was calculated. As it is seen in the following chart, the number of companies that consider innovation as vital is a lot lower than that of other transition countries.

Institutional framework for the innovation-led scientific-research system

1) The Scientific Innovation Centre (SIC) under Azerbaijan National Academy of Science (ANAS) was set up by the Cabinet of Ministers in 2008, which is financed from the state budget and functions for the major purpose of reviewing scientific studies conducted in the country and creating information bank of advanced technologies and innovations in foreign countries, which relate with the development of science-intense sectors. Besides, the SIC carries out the state registry of scientific researches and experiments carried out by the ANAS, ministries, committees, concerns, autonomous organizations attached to companies, departments, higher education institutions, their subsidiaries and departments[80].

2) in 2009, the Fund for Science Development (FSD) under the president of Azerbaijan was founded with the major goal of providing targeted assistance in the form of grants to fundamental, application and innovation programmes and projects submitted by scientific organizations, education institutions and physical persons in the fields of nature, technology, and humanitarian and public sciences and promoting more scientific activity of scholars. Three million manats were transferred to FSD from the President's Reserve Fund of the state budget.

[80] http://www.science.gov.az/az/presidium/qeydiyyat_shobesi/index.htm
http://www.innovasiya.az/index.php?option=com_content&view=section&layout=blog&id=3&Itemid=17

Besides, 500 thousand manats were allotted from the President's Reserve Fund in 2010 for young scientists to participate in post-doctoral programmes at universities in Europe. A competition was held for young scientists and experts in 2011 to award grants to finance scientific-research programmes, projects and other scientific initiatives and scientific and innovation-oriented projects. 28 people were awarded grants, the maximum amount of which was 50 thousand manats. Yet, there is a need to make the procedures and distribution of this fund's finances more open and transparent, as well as the evaluation procedures of these reporting mechanisms.

3) In 2010, the Cabinet of Ministers approved the guidelines of admission to PhD and post-doctoral studies. These guidelines especially highlight that the existing scientific potential of higher education institutions as well as other education organizations should be evaluated and information about their scientific and innovation successes be collected[81].

Barriers to innovations. Just like individual companies are subjects of economic and export diversification, companies are also the subject of innovations. The findings of the surveys of the State Statistics Committee about the factors hindering innovations in enterprises are as follows. Table 11 shows that among the economic factors hindering innovations of enterprises, companies are more concerned about the lack of their funds and state support in this regard.

Table 11. Barriers to innovation (based on the number of companies surveyed by State Statistics Committee)

Indicators	Most important			important			Less important		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Economic factors									
Lack of personal funds	24	35	27	14	11	24	32	35	51
Lack of state funds	25	19	18	11	13	16	19	19	18
Lower demand for new products	6	38	5	16	7	22	37	38	35

[81] http://e-qanun.az/files/framework/data/19/f_19800.htm

Higher value of innovations	8	45	9	23	9	25	40	45	34
High economic risk	3	34	7	15	9	18	40	34	32
Long time before the return on investment for new products	7	47	3	12	10	16	42	47	38
Production factors									
Lower capacity of innovation potential of enterprises	8	18	19	17	18	19	27	18	24
Shortage of skilled labour force	3	27	2	9	9	10	38	27	26
Lack of information about new technologies	8	24	2	19	15	15	26	24	19
Unwillingness of enterprises to embrace innovations	4	29	10	10	10	12	36	29	23
Lack of information about potential markets	5	28	3	13	9	6	39	28	25
Lack of cooperation opportunities with other enterprises and scientific organizations	1	28	1	16	9	13	35	28	22
Other factors									
No need for new products as a result of previous innovations	2	35	3	3	4	9	47	35	45
No legislation, legal acts and incentives for innovations	7	25	4	14	10	13	26	25	22
uncertain amount of time required by innovation process	4	29	3	9	8	9	35	29	24
Underdevelopment of innovation infrastructure (e.g. Mediation, information, legal and bank services, etc.)	7	23	6	14	12	12	35	23	20

Source: http://www.azstat.org

4.5. New non-oil industry sectors

The development of new non-oil industries has been highlighted in the 2002-2005 state program on the development of small and medium enterprises, in the 2004-2008 and 2009 regional development programs, in the 2008-2015 food security programs, the 2005-2025 long-term strategy on the management of oil and gas revenues, the 2008-2015 state program on poverty reduction and sustainable development. The major purpose of the 2006-2010 industrial policy as identified in budget documents is to ensure sustainable and high growth in industry, improve production structure and efficiency of the industry. In order to reach this goal, the program stipulates various activities to promote innovations and investment in industry, as well as non-oil processing sector, expand the production of products to substitute imports and exports-oriented products. The following spheres of the industry are identified as priorities in the above-mentioned programs:

- *Fishing industry development*
- *Wider diversification of production in car-making industry*
- *Support for chemical industry to reduce dependence on the imported chemical raw materials and ready products*
- *Restructuring and development of metallurgy industry, including aluminium and pipe production through advanced technology, black and* Non-ferrous metal industry, *iron ore, support for alunite production, promotion of production of black metallurgy to meet modern standards and market needs, promotion of production of ready products from aluminium and other non-ferrous metals and from their scrap.*
- *Expanded production and export promotion of construction materials (gips, Tiles, Construction glues, cement and cement raw materials, bentonite) to neighbouring countries*
- *development of domestic production of foodstuffs (wine, meat and milk products, the sugary, canned fruit and vegetables) and export promotion;*
- *development of poultry industry*
- *Support the development of consumer goods industry, including sewing and weaving, carpet-making, silk-growing, on the basis of local raw materials (cotton, silk, leather)*
- *Production of handmade carpets.*

Current situation of industry. Table 12 shows that in 2000-2010 years, while the share of industry in GDP grew from 36.1% to 52.5%, the share of processing industry remained unchanged. Expression of the industry was mainly because of the oil sector and the share of mining industry in GDP in the same increased from 27.7% to 46%

Table 12. The share of added-value created by the industry in GDP.

Indicators	2000	2005	2006	2007	2008	2009	2010
Added value created by industry, in million manats	1722.2	6186.4	10742	16875	23840	17481	21827
Share of industry in GDP	36.1	49.4	57.3	59.5	58.5	49.1	52.5
Added value created by mining industry, in million manats	1307.5	5285	9542	15230	21152.2	15095	19125
Share of mining industry in GDP, in %	27.7	42.2	50.9	53.7	52.7	42.4	46.0
Added value created by processing industry, in million manats	250.1	814	1087.3	1418	1886.5	1958	2245
Share of processing industry in GDP, in %	5.3	6.5	5.8	5.0	4.7	5.5	5.4

4.5.1. Food industry. Food industry is one of the priorities of the government's industrial policy is to reduce the food dependence of the country. The government support for food industry was, first of all, evidence in the allocation of concessional credits to food industry. For example, in 2005-2010 years, 43.5% (239.2 million manats) of 550 million manats was spent on the projects related with production and processing of agricultural products. During this period, the following enterprises of food industry for established:

Table 13. Food industry enterprises established in 2000-2010 years

Year of establishment	Name of enterprise	Field of engagement	Production capacity	Location of enterprise
2001	European Tobacco Baku, a new enterprise in ETSC	Tobacco	2.6 billion units per year	Baku
2004	Tomato production	Food industry	1.2 thousand tons per year	Lenkaran
	Caucasus Cannery	Food industry	70 million standard cans per year	Khachmaz
	Sugar production	Food industry	7 tons	Masalli
	Beer production	Food industry	12.5 thousand decalitres per year	Lenkaran
	Beer production	Food industry	216.0 thousand decalitres per year	Mingechevir
2005	Cannery producing tomato	Food industry	100 thousand tons per year	Astara
	Factory producing juice	Food industry	7.3 million standard cans	Shaki
	Enterprise producing dairy products	Food industry	29 tons	Nakchivan
2006	Sugar factory processing sugar-beet	Food industry	6 thousand tons	Imishli
	Factory producing juice	Food industry	Annual 1.7 standard cans per year	Shaki
	Chocolate factory	Food industry	360 tons per year	Ganja
	Tea manufacturing and packing enterprise	Food industry	1000 tons per year	Nakchivan
2007	Cannery factory	Food industry	8.8 million standard cans per year	Gabala
	Pomegranate juice enterprise	Food industry	200 thousand standard cans per year	Goychay
	Vegetable oil manufacturing factory	Food industry	14 thousand tons per year	Shirvan
	Factory manufacturing dairy products	Food industry	30 thousand tons per year	Salyan
	Beer producing factory	Food industry	Million litres per year	Nakchivan

2008	Cannery	Food industry	52.6 million standard cans per year	Kurdamir
	Milk processing factories	Food industry	172.5 tons	Lenkaran, Gabala and Bilasuvar
2009	Beer producing factory	Food industry	100 thousand decalitres per year	Khachmaz
2010	Cannery	Food industry	50 million cans per year	Lenkaran
	Cannery	Food industry	25 million standard cans per year	Biləsuvar
	Tea factory	Food industry	150 tons per year	Lenkaran
	Dairy products manufacturing factory	Food industry	10 thousand tons per year	Zagatala
	Tobacco manufacturing factory	Food industry	3.6 thousand tons per year	Zagatala
	Salt production factory	Food industry	90 thousand tons per year	Absheron

As it is seen from Table 13, in 2000-2010 13 new food industry enterprises were established on personal entrepreneurs' own investments. Seven of these enterprises engage in production of canned fruits and vegetables, six in milk processing, four in beer production, three in production of juices, two in tobacco processing, two in tea processing, two in sugar production, and the rest in salt, vegetable oil, and chocolate production.

Apart from this, 22 refrigerated warehouses with a total capacity of 67.3 thousand tonnes of food products and 17 grain storages with a total capacity of 266.8 thousand tonnes were built and put into operation with concessional credits of NFES in 2005-2010. Besides, five enterprises with an annual production capacity of 55 million eggs, two enterprises with an annual production capacity of 6.3 thousand tonnes of poultry products and three enterprises with an annual production capacity of 98.4 thousand tons of milk as well as one enterprise with an annual production capacity of 2.8 million litres of alcoholic drinks, five canned fruits-vegetables enterprises with an annual production capacity of 24.3 thousand tons were established.

According to statistical information for 2000-2010 there has been a stable growth in production of food products except for production of alcoholic drinks and to tobacco processing, which can be seen from Table 14.

Table 14. Production volume of major food industry products

Product name	2000	2005	2006	2007	2008	2009	2010
Meat and meat products, thousand tons	107.9	132.6	133.8	144.0	155.2	167.5	174.5
Cheese and curds, thousand tons	29.8	33.5	33.8	34.2	41.8	42.5	43.3
Sugar and granulated sugar, thousand tons	0.5	3.5	21.6	306	272	316	335
Butter, thousand tons	12.8	14.2	14.3	14.4	14.1	20.7	20.9
Vegetable oil, thousand tons	4.2	64.1	40.4	68.4	77.9	70.9	88.7
Natural tea, thousand tons	1.5	7.5	7.7	7.9	7.1	10.7	10.8
Champagne wine, thousand decalitres	150.4	61.8	19.4	52.6	35.8	42.2	27.9
Wine, thousand decalitres	623.2	400.5	505	584	855.8	717	914
Vodka, thousand decalitres	450.4	484.3	536.4	1307	748.9	862	885
Cognac (brandy), thousand decalitres	386.1	66	64.5	72.1	62.7	22.6	81.4
Beer, thousand decalitres	711	2490	3163	3218	3229	3572	3771
Fermented tobacco, tons	5900	2600	2300	1000	1500	1543	2027
Cigarettes, million units	2400	5008	4620	3597	2661	2342	2191
Fruits and vegetables canned with vinegar and acetous acid, tons		479.2	918.3	2142	1220	1357	2757
Canned vegetables and fruits (including activity of households and physical people) (*thousand tons*)	12.4	23.2	20	20.6	128.9	129.7	137.1
Canned tomatoes (tomato paste), tons		3310	3677	1135	4905	4943	605
Salt, tons	4000	10374	10971	7111	7341	5466	4449

In 2000-2010 production of canned fruit and vegetables grew 11 times in natural units, cheese and curds production by 45%, meat production by 62%, butter production by 63.3%, beer production five times, vegetable oil production 21 times, tea-growing six times. However, a dramatic fall has been recorded in production of certain alcoholic drinks and tobacco products. For example, in the period under study, production of champagne went down 5.3 times, cognac production 4.5 times and ferment-added tobacco production 2.9 times.

Growth in production of most food products didn't result in major contribution to the economic diversification targets of the government and review of the following information makes it explicit:

- *The increased production of food in the country did not result in the fall of import of major products. For example, in 2005-2010 imports of fish and fish products increased from 8.3 thousand tons to 15.6 thousand tons, milk and cream imports from 7.3 thousand tons to 13.5 thousand tons, tea imports from 7.7 thousand tons to 14.5 thousand tons, unsalted fresh butter from 9.5 thousand tons to 11.3 thousand tons, vegetable oil from 68.5 thousand tons to 101.2 thousand tons, sugar raw materials from 152.1 thousand tons to 359.5 thousand tons, sweets from 43.6 thousand tons to 74.7 thousand tons, and tobacco import increased twice thus reaching 11.2 billion items.*
- *Growth in production of foodstuffs did not result in a bigger share of this industry in the overall export. While in 2005 the share of food industry in the overall exports of the country accounted for 7.5% of all exports, this figure went down to 2.7% in 2010. Increased production of some foodstuffs and their exports was mainly attributable to dependence of the national industry on raw materials from abroad. For example, in 2000-2010 vegetable oil production increased by 10000 tons to 28000 tons, and exports of sugar increased by 60000 tons reaching 204 thousand tons. However, 90-95% of raw materials for production of vegetable oil and sugar are brought from abroad.*
- *The share of added-value in GDP created by food industry went down dramatically and this field of industry did not contribute to economic diversification. So, in 2005 while added-value created in food industry (including drinks and tobacco) made up 2.4%, it was down to 1.5% in 2010.*
- *A look at the regional structure of food production shows that in many cases newly created enterprises cannot produce competitive products and therefore over time tend to dramatically lower production. For instance, in 2004 a plant*

of tinned food with an annual production capacity of 17 million standard cans was established by Azersunholding Company in Khachmaz district. While in 2005-2008 years production of fruit and vegetables tinned with vinegar-added tomato-paste reached 6,700 tons, in 2009 this figure was 5000 tons, and in 2010 it even went down to 340 tons. One can see that production of a newly operating enterprise soon went down by 20 times.

4.5.2. Metallurgy. In 2000-2010 significant changes were recorded in the development of metallurgy industry. While production of cast iron, construction reinforcements, and aluminium oxide and aluminium wires expanded in 2000-2005, their production went down considerably in 2006-2010.

Table 15. Share of major products in metallurgy industry

Product name	2000	2005	2006	2007	2008	2009	2010
Cast iron, tons	322	1631	1559	1305	1797	1578	1012
Steel, thousand tons	0.43	286.1	335.3	468	278.1	150.3	306.5
Steel pipes, tons	3.7	1257	14108	25706	28196	6918	36545
Construction reinforcement, thousand tons	0	234.5	268.1	184.3	203.4	96.4	131.4
Wires and cables from ferrous metal, tons	527.8	291	272	874.6	1266.3	449.8	124.1
Aluminum wire, tons	4	30	446	33.4	136.4	54	173.8
Aluminum rods, bars and profiles, tons	0	440.3	587.7	734	794.6	399	252.1
Aluminum oxide (clay soil), thousand tons	214.7	314.8	362.7	266.1	306.3	36.6	-

As seen from Table 15, compared to 2006-2007, production of cast iron went down from 1,559 tons to 1,012 tons, aluminium oxide from 363 thousand tons to 36.6 thousand tons, construction reinforcements from 268 tons to 131.4 thousand tons, aluminium wires from 446 thousand tons to 173.8 thousand tons. Production of wires and ropes in the category of black metals increased by 2.5 times in 2000-2008

years and amounted to 1.2 million tons. Yet, in 2010 its production was down by 10 times to 124 thousand tons. Stable growth was only recorded in production of iron and steel pipes. Despite growth in 2007, production of steel dramatically fell down in 2008-2009.

Table 16. A list of enterprises established in 2000-2010 in metallurgy industry.

The year of establish-ment	Name	Field of engagement	Production capacity	Location of enterprise
2001	Baku Steel Company Factory	Metallurgy (reinforcement production)	70 thousand tons per year	Baku
2007	Reconstruction of electrolysis plants No 1 and 2 of Azeraluminium OJSC	Metallurgy (aluminium production)	30 thousand tons per year	Sumgait
	Non-ferrous metal producing factory	Metallurgy	4.5 thousand tons per year	Nakhchivan

In 2000-2010 three metallurgy industry enterprises in were created. However, the following activities were carried out to privatize and restructure similar enterprises with a huge potential remaining from the Soviet time. In 2004 Azerbaijan Aluminium JSC was established on the basis of Ganja Clay Soil, Sumgait Non-Ferrous Metal and Dashkesen Alunitemine. Despite the fact that the production capacity of the enterprise was set to be at 5000 tons annually, in 2009 the enterprise managed to use only 10% of its annual potential capacity. In 2010 the production stopped entirely. In addition, in the same period, Azerboru JSC was privatized by Tarqol Investment from the UK, and Dashkasan Filizsaflashdirma JSC by Aldex Limited from the UK. Towards the end of 2010, the first building of Ganja Aluminium Plant with an annual production capacity of 50 thousand tons was completed by Det.AL Ltd from the UK. However, clearly these measures did not contribute to sustainable production growth in this sphere and did not result in contribution of metallurgy industry to economic diversification.

A number of measures were taken by the government to support production of aluminium in the country. In 2009 5 million manats was allocated on unconditional terms from the reserve fund of the government to pay the salaries of the people engaged in this sphere and in 2009-2010 the Central Bank financed credits in the amount of 250 million manats to these enterprises with the government guarantee.

In the past period it was impossible to convert metallurgy industry into a crucial field of industry in terms of contributing to economic diversification and a look at the following information proves this conclusion:

- *In 2005-2010 years the share of added value in GDP created in metallurgy industry was down from 1.46% to 0.16%;*
- *The share of products from this field in the overall exports of the country fell from 2.4% to 0.6% in 2005-2010.*
- *It was impossible to reduce dependence of the country on import of metallurgy industry products. In the period under study, the imports of steel semi-finished products increased from 1.2 thousand tons to 37.7 thousand tons, steel and cast iron from 65.2 thousand tons to 216.1 thousand tons, metal constructions made of aluminium from 767 tons to 3.3 thousand tons, steel-substitution imports from 125.1 thousand tons to 128.1 thousand tons.*

4.5.3. Consumer goods industry. Despite the fact that there is of in Azerbaijan's raw materials constitute a huge potential for development of consumer goods industry, in 2000-2010 there was a dramatic fall in consumer goods production.

Table 17. Production of major consumer goods

Product name	2000	2005	2006	2007	2008	2009	2010
Seedless raw cotton, thousand tons	37.7	56.0	54.8	40.9	22.3	12.1	11.4
Natural wool, tons	-	2.1	-	6.2	-	-	-
Ready cotton fabrics, thousand sq m	683	3099	3077	2202	823	807	1104
Ready silk fabrics, thousand sq m	0	437.2	295.7	424.9	496.7	543.6	735.6
Cotton bed linen, thousand units	385	561.6	543.5	118	114.2	286.1	125.3
Shoes, thousand pairs	0.1	360	327	381	381	858	267

Shirts for men and boys, thousand units	122	3.7	130.5	100.9	110.8	249.1	94
Carpets and carpet products, thousand sq m	15.8	630.3	269.2	3.2	20.6	12.8	3.3
Knitwear and hosiery, thousand pairs	738.2	2969	3196	3065	1868	1277	2004
Under and outer knitwear, thousand units	438.6	787.6	624.6	682.8	6.3	0	0
Wooden furniture for bedrooms, dining-rooms and living rooms, thousand units	0.3	10.7	22.1	20.9	28.1	14.9	9.1

In 2005-2010, seedless raw cotton production declined from 56 thousand tons to 11.4 thousand tons, ready cotton fabrics from 3.1 million square meters to 1.1 million square meters, cotton materials from 562 thousand units to 125 thousand units, carpets and carpet products from 630 thousand square meters to 1.1 thousand square meters, stockinet products from 3 million units to 2 million units.

Table 18. New consumer goods industry enterprises established by 2010

Year of establishment	Name	Field of engagement	Production capacity	Location
2006	Sewing factory	Consumer goods industry	60 thousand units per year	Lankaran
2008	Sewing factory	Consumer goods industry	80 thousand units per year	Agstafa
	Cotton processing factory	Consumer goods industry	7 thousand tons per year	Baku

The results of consumer goods industry indicators review are as follows:

- *In 2005-2010 the share of added value created by consumer goods industry (including sewing and leather industries) in GDP went down from 0.19% to 0.05%;*

- *The share of consumer goods industry exports in the total exports went down from 1.3% to 0.22% in 2005-2010 years. The export of major products of the field dramatically fell down. For instance, cotton fibre export decreased from 47.2 thousand tons to 3.3 thousand tons in 2005-2010.*
- *Dependence on imported consumer goods did not decrease. For instance, in 2005-2010 the import of cotton fabrics to the country increased from 3.3 million square meters to 5.7 million square meters, sewed carpets from 267.2 thousand square meters to 5.7 million square meters, artificial sewing threads from 140 tons to 2.1 thousand tons. Foreign trade statistics also suggest that in the past period more women's, men's and children's clothes were imported, indicating that efforts to produce exportable consumer goods industry products were ineffective.*

4.5.4. Chemical industry. Chemical industry (including rubber and plastic products) is one of major industries benefiting from the government's concessional support. Nevertheless, despite growth in the production in mid 2000s, there are serious falls in the recent years.

Table 19. Major chemical industry products

Main products by fields	2000	2005	2006	2007	2008	2009	2010
Ethylene, thousand tons	40.1	54.7	72.6	2.4	0	0	55.1
Propylene, thousand tons	18.5	29.2	37.6	26.3	34.9	22.2	19.5
Polymeric covering, thousand tons	0	1.5	0.9	0.8	0.3	0.3	0.5
Polyethylene, thousand tons	0	53.0	70.4	47.2	65.1	41.8	52.8
Sacks and bags from polyethylene, tons	304.3	1515.7	1366	10399.8	9760.7	10120.4	6433.8
Synthetic detergent, tons	2409	5999.6	3592	5920.6	5158.8	6760.5	1087.5
Technical soap, tons	31.7	1317	308.1	143.4	73	104	147.7
Laundry soap, tons	353.7	395.9	1386.2	1219.7	780.9	1732.3	1206.3

As seen from Table 19, although ethylene production in 2006 was 72.6 thousand tons, it was down to 55.1 thousand tons in 2010. Also, propylene alcohol production went down from 37.6 thousand tons to 19.5 thousand tons, polymeric covering production from 1.5 thousand tons to 0.5 thousand tons, raw materials polyethylene production from 70.4 thousand tons to 52.8 thousand tons, and production of sacks and bags from polyethylene from 10.4 thousand tons to 6.4 thousand tons.

Although establishment of a plant to produce washing powders in chemical industry allowed production of related goods in the initial years of 2003-2004, the subsequent years saw a recession in this field. The production capacity of the plant in Baku was intended to be 12 thousand tons. Yet, the plant never operated in its full capacity. Compared to the previous year, in 2010 synthetic washing powder production decreased from 6 thousand tons to 1.1 thousand tons, technical soap production from 1.3 thousand tons to 148 tons, production of soap for washing clothes from 1.7 thousand tons to 1.2 thousand tons.

The following conclusion can be drawn from examining the chemical industry figures:

- *The share of value-added created by chemical industry in GDP decreased from 0.48% to 0.25% and its exports as part of accumulated exports from 4.6% to 0.62% in 2005-2010.*
- *The exports of a number of chemical industry products explicitly decreased or even disappeared. For instance, while in 2005 3.2 thousand tons of sulphate and 6.9 thousand tons of caustic soda were exported, in 2010 their exports stopped completely, liquid caustic exports declined from 69.5 thousand tons to 9.2 thousand tons, polyethylene exports from 47.2 thousand tons to 46.1 thousand tons, substances produced from polymer from 61.6 thousand tons to 23.4 thousand tons;*
- *Efforts to eradicate dependence of the country on imported chemical products failed. For instance, in 2005-2010 imports of soap and other surface active washing and cleaning agents increased from 20.8 thousand tons to 41.6 thousand tons, imports of plastic kitchen dishes from 1.3 thousand tons to 2.8 thousand tons, imports of plastic construction materials from 800 tons to 3.2 thousand tons.*

4.6. Agriculture

One of the priorities of non-oil sector development of Azerbaijani government is agriculture. Agriculture has to be developed for the following reasons:

- *Food security. According to various estimations, at least 35-40 per cent of consumed food is from exports.*
- *The majority of economically active people are involved in agriculture. According to official statistics, the share of agriculture in overall employment is 40%.*
- *Potential for both exports and economic diversification. Agriculture is the raw materials source for both directly consumed agricultural products (e.g. fruit, vegetables, eggs, etc.) and processing industry. Taking into account the climatic conditions, traditional employment habits of the people in the country call for the development of agriculture as a sector of import-substitution and exportable products.*

The strategic targets the government has had regarding agriculture since 2000 are as follows:

- *Food security of the country*
- *Supply of raw materials to the food industry and of foodstuffs to people from local sources*
- *Promote expanded competitive agricultural production*
- *Promote export activities of agricultural farmers,*
- *Increase life standards of rural people through regional economic development*
- *Improve soil fertility and productivity as the major factor of production*
- *Turn agriculture into the major non-oil sector field*

The following are indicators that will allow evaluating the government's success in reaching the objectives of its agriculture policy:

- *The areas under grain crops will have reached 900 thousand hectares by 2015 with an increased productivity level of 32 centners per hectare and total production of 2.8 million tons;*
- *Meat production up to 340 thousand tons;*
- *Milk and dairy production up to 2.4 million tons;*

- *Poultry production up to 80 thousand tons through industrial mechanisms;*
- *Egg production up to 1.3 billion units;*
- *Potato production up to 1.12 million tons;*
- *Vegetables and melon crops production up to 1.72 million tons;*
- *Fruit production up to 800 thousand tons;*
- *Areas under oily plants up to 135 thousand hectares;*
- *Areas under beetroot up to 20 thousand hectares;*
- *Tea-leaf production up to 3 thousand tons;*
- *Areas under fodder crops up to 500 thousand hectares;*
- *Production of high-quality and balanced fodder up to 2 million tons.*

State expenditures on agriculture accounted for 10% of GDP. In 2008-2010, without taking into account credits received from international organizations for agriculture development, within the framework of functional sector of agriculture, NFES funds and budget investment projects, the government spent a total of 1.5 billion manats or 450 million manats annually on agriculture.

Direct state support to agricultural producers (unconditional subsidies and concessional credits) came from 5 additional sources[82]:

1) Agricultural producers were exempted from all taxes except land taxes;

2) Purchase and lease of advanced technology and equipment by Agroleasing OJSC to agricultural producers. During 2008-2010 approximately a total of 150 million manats, or an average of 50 million manats annually, were spent on purchase of technologies;

3) Subsidies from the state budget to agricultural producers sowing wheat and paddies, on a per-hectare basis, for fuel and lubricants, as well as for the sales of mineral fertilizers under concessional terms. In 2008-2010 the government allotted 324.6 million manats, which is, on average, 108.2 million manat expenditures annually;

4) Concessional credits from the State Agency for Agricultural Credits (with an annual rate of 6%). In 2008-2010 approximately 30 million manats, or 10 million manats annually, was spent through this channel;

[82] Information on financing of agriculture was taken from budget package submitted by NK to the Parliament, Internet site of Agroleasing OJSC (www.aqrolizinq.com) and Internet site of the National Foundation of Support to Entrepreneurship (http://aNFES.gov.az/az/).

5) Concessional credits of NFES (now at 6% compared to 7% in 2008). During 2008-2010 a total of 145.5 million manats was spent on agricultural development (both production and processing) through NFES, which is around 48.5 million manats annually.

Estimates suggest that the annual amount of state support for agriculture from all sources in Azerbaijan amounts to 220 million manats, excluding tax concessions. In 2008-2010, estimating by today's market prices, the total revenues from agricultural production were around 3 billion manats and added-value of agriculture was at 2 billion manats. Apparently, the subsidies accounts for 7% in total revenues and 10% in value-added.

Many international organizations maintain that Azerbaijan has agriculture with a huge export potential and a lot of Azerbaijan agricultural products are competitive. The 2006 World Bank study on "Realizing Azerbaijan's Comparative Advantages in Agriculture" states that in view of availability of favourable conditions for such high-value agricultural products as fruit, vegetables and dairy products Azerbaijan has an advantageous position. Such climatic and soil conditions promote growing a wide range of products from citrus to firm fruits. Fruit and vegetables are grown in many regions along the whole way from Guba and Khachmaz in the north down to Astara in the south with an access to both domestic and foreign export markets. There are favourable conditions for cattle-breeding and milk production too, and it is possible to produce all kinds of required fodder (green grass, hay and corns). Rich vegetation of Azerbaijan allows developing profitable natural and traditional oily plants industry[83]. World Bank calculations are based on competitive advantage theory and the in-country price of products chosen for the study was 40-60% below foreign market prices.

The "Domestic Resource Cost Analysis of Azerbaijan" report funded by USAID examines the competitive advantage of the country across a variety of agricultural products on the basis of financial and economic profitability indicators. According to the authors of the report, if any product does not bring in revenues without state support (e.g. direct subsidies); it is economically harmful even though it is still financially profitable. According to the study, several Azerbaijan fruits (apple, persimmon, cherries, pomegranates), as well as apple and pomegranate juices,

[83] Azerbaijan: Agricultural Markets Study. Realizing Azerbaijan's Comparative Advantages in Agriculture. www.worldbank.org

early potatoes, hazel, feijoa, kiwi, tomatoes and cucumbers grown in greenhouses have competitive advantages[84]. «Domestic Resource Cost» suggests that the less is the cost of domestic production vis-à-vis its sales price abroad, the more competitive the country is in that category of product. According to this theory, if domestic resource cost for any product is more than 1, it implies «competitive disadvantage», and if it is less than 1, it means «competitive advantage». For example, when production of each kg of apples is one dollar inside the country and it is sold for 2 dollars abroad, domestic resource cost is 0,50 (1/2), which means competitive advantage.

Providing agricultural credits in Azerbaijan, NFES also estimated the export potential of various agricultural products on the basis of different foreign trade theories[85]. Fund experts calculated export potential and competitive advantage of various agricultural products through Net Export Index (NEI) and Balassa Index. NEI implies that if the exports of a country in any given product category exceed its imports, there is a competitive advantage. For instance, in the past five years, apple exports of Azerbaijan exceeded its import twice, while grape exports were 10-12 times less than its imports. Considering NEI, there is a competitive advantage in apples and competitive disadvantage in grapes. According to estimations that NFES administered using the data for 2003-2007, Azerbaijan has a competitive advantage in potatoes, fresh vegetables and fruit, tea, liquorice, beetroots, and fruit-vegetable juices. According to the Fund's calculations based on Balassa Index, apart from fruit and vegetables, Azerbaijan has also a competitive advantage vis-à-vis its foreign trade partners in such agricultural product categories as butter and vegetable oil, tea, confectionery and tobacco. Balassa Index suggests that if the share of any product's exports in the total country exports is greater than the share of the country in the total exports of the world in that product, this country has a competitive advantage in the product in question. More than 1 Balassa index means competitive advantage and less than 1 competitive disadvantage.

Comparing to the statistics for 2002-2008, the export potential of those products with competitive advantage became limited in 2008-2010.

[84] USAİD. Program of Incerasing Competition in Private Sector. Analysis of International Resources of Azerbaijan

[85] Branches of Economy of the Azerbaijan Republic and Priorities of Economic Regions. Baku – 2009

Table 20. Production and export dynamics of some agricultural products in 2005-2010

Product name	Production, in thousand tons				Export, in thousand tons			
	2005	2008	2009	2010	2005	2008	2009	2010
Milk	1251	1382	1433	1536	0.172	0.127	0.23	0.14
Potatoes	1084	1077	983	953.7	38.9	86.4	82.3	63.9
Tomatoes	458.1	468	425	434	28.9	48.9	44.6	40.3
Onions	177.4	191	169	171.6	0.497	15.4	6.1	1.1
Cabbages	96.9	101.2	98.4	94.1	0.56	0.901	0.78	0.104
Carrots	6.7	7.4	8.8	8.9	0	2.1	0.403	0.455
Oranges	2.3	0.596	0.755	0.800	0	0	0	0
Tangerines	19.3	12.6	15.2	15.6	6.1	13.6	12.6	11.6
Fresh grapes	79.6	115.8	129.2	129.5	0.385	0.313	0.156	0.24
Apples	163.1	205	204.3	211.7	62.9	122.5	86.1	42.1

As seen from Table 20, although the exports of these products increased in 2008 compared with 2005, there was a significant fall in 2009-2010 relative to 2008. Although the decline in exports of certain products (onions, cabbages, tomatoes, potatoes) is directly explained by the fall in production, it is not the case with regard to other products. For example, even though apple production increased by more than 6 thousand tons in the last 3 years, apple exports declined by 80 thousand tons (about three times). It is true about carrots and milk exports too.

Thus, examining the statistics for agriculture in the last 10 years, the following conclusions can be drawn:

- *Despite its tenfold increase in nominal GDP in 2000-2010 years, added-value created by agriculture in GDP increased just 3 times in nominal terms. In the same period the share of agriculture in GDP decreased from 16% to 5.4%.*

- *The increased production of agriculture did not result in higher productivity in Azerbaijan. So the 50% increase (from 1.042 million hectares to 1.583 million hectares) in lands under crops and the 40% increase in the number of cattle (from 2 million cows to 2.7 million cows) made it possible for agricultural production to grow.*
- *This growth did not result in achieving strategic targets about less dependence and greater exports. For instance, while wheat production in the country reached 1.57 million in 2000-2005, it went down again to 1.31 million tons in 2010. In 2000-2010 wheat imports grew from 707 thousand tons to 1.33 million tons (about twice). Government statistics show that the country's need for wheat is 1.8 million tons, which suggests that in 2010 70% of the domestic need was satisfied with imported wheat. In the period under study, although milk and dairy products were reported to have increased by 50%, significant increases were recorded in imports of individual products. For instance, in 2000-2010 years, butter imports grew from 5.2 thousand tons to 8.2 thousand tons, cheese imports from 490 tons to 7.2 thousand tons. Moreover, despite agriculture being one of the government's economic and export diversification priorities, it failed to expand the share of agricultural products in total exports beyond 3-4%.*
- *According to the official statistics, production of several agricultural products slowed down. Honey production fell by more than 10 times to one thousand tons since 2000, green tea leaf collection 2 times to 500 tons, cotton production three times to 38.2 thousand tons, silk cocoon production ten times to 12 tons, tobacco production more than 5 times to 3.2 thousand tons.*
- *Neither production of fruit and vegetables nor their exports expanded. In 2000-2010 fresh fruit production increased from 477 thousand tons to 730 thousand tons, vegetables from 781 thousand tons to 1200 thousand tons, also exports of these products increased five times from 50 thousand tons to 250 thousand tons in total. Meat production is also reported to have increased more than twice in the same period and its import not to have exceeded 15%.*

Causes of slow development in agriculture. Examining the statistics shows, that despite agriculture is considered by the government and international organizations as one of the leading areas of exports and economic diversification at large, the share of this sector in added-value created in the economy and in the exports

considerably shrank after 2000. Despite the expanded funds of state budget for agriculture and financial resources directed to credits in this sector through other channels, it is possible to single out the following causes why agricultural development did not seriously contribute to diversification:

1. Even though more favourable conditions made it possible to grasp competitive advantage in certain products vis-à-vis foreign partners, competitiveness in foreign markets was not possible due to absence of effective export mechanisms. Price advantage can guarantee competitive products in foreign markets only when other conditions are met too. "Other conditions" include several important conditions. *Firstly*, there is a need to produce agricultural products that meet international standards – those of the Codex Alimentarius and adopted by the International Commission organized jointly by the WHO and the Food and Agriculture Organization of the United Nations and international quality standards on control over the quality of agricultural products «Diagnosis, Control and Awareness of Animal Diseases». This requires, first of all, presence of phytosanitary and veterinary laboratories to meet international standards in all regions with an equal access for farmers to use their services. It should be noted that such quality conditions are guaranteed through mutual control mechanism only in WTO and EU-member states. Azerbaijan is the member of neither of these bodies. *Secondly*, there is a need to build necessary infrastructure **(**organizational and legal**)** for the government to support exports. For instance, there has not been trade on the borders, while it is quite possible to organize common agricultural marketplaces on the border with Russia, Georgia and Turkey. No incentive mechanisms for agricultural exports have been established in the country, which would include such elements as simplified and speedier export procedures. **Also,** exports are hindered by unnecessary bureaucracy and informal fees on exports, which make export products more expensive**.** It requires both a long time and some informal payments to collect and hand in necessary papers (hygiene and compliance certificates, phytosanitary certificate or veterinary certificate) and receive certificates for agricultural products exports. Another noteworthy point is that the same certificates have to be obtained and procedures be repeated for different batches of the same product. Even if all the necessary papers are in order, entrepreneurs face a number of artificial obstacles while taking their products through the customs on the border, which require additional long time and expenses to pass by.

2. No procurement system for purchase of agricultural products from farmers for the state needs has been established. Such a system would call for necessary legal mechanisms to ensure purchase of agricultural products from the domestic market for the state's needs (hospitals, army, boarding schools, elderly houses, etc.) and an official guarantee that farmers' products will be procured by the state at reasonable prices.

3. Supply of mineral fertilizers for the lands suitable for agriculture has been inadequate. Mineral fertilizers (nitrogen, potassium and phosphor) are vital means to protect moisture in soil and one of the most important conditions to develop agriculture and improve competitiveness of products. Cultivated soil can recover their nutrients, which they give to products, through mineral fertilizers. According to the best practice available (the USA and Western European countries), the amount of per-hectare fertilizers (potassium, natrium and phosphor together) is 200-250 kg[86], while it is 15 kg in Azerbaijan[87]**.** According to "**Guidelines on Sales of Fertilizers to Farmers by Agroleasing OJSC and Other Legal and Physical Entities under Concessional Terms",** approved by Decree 32 of the Cabinet of Ministers of 15.02 2007, there are concessions for farmers to obtain mineral fertilizers. Farmers cultivating any kind of plants are entitled to get free fertilizers in the amount of 150 kg or compensation in the amount of 25 manats per hectare that they cultivate. Nevertheless, interviews with farmers revealed the following problems in obtaining fertilizers and compensations: a) despite certification of the fertilizers, they do not always meet required quality standards; b) farmers, especially small ones cannot afford fertilizers. Azerbaijan imports all the fertilizers for plant-growing from abroad. Import fees, transportation costs on the one hand and informal fees at customs and no competition in fertilizer imports on the other, are conducive to monopolistic prices in the market, thus making pesticides and fertilizers more expensive. Even the prices of some fertilizers brought through Agroleasing OJSC are sometimes higher than the price of products entrepreneurs sell. All this results in usage of mineral fertilizers declining 18.5 times from 740 thousand tons in early 1990s to 40 thousand tons in early 2000s.[88]

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[86] Problems of Degradation and Renovation of Productivity of Agricultural Lands in Russia. the Russian Academy of Agricultural Sciences. Moscow 2008

[87] http://www.azstat.org/statinfo/agriculture/az/018.shtml

[88] 2008—2015 State Programme on Food Security

4. The government has neither a well-thought strategy or short-, medium- and long-term action plans to inhibit deterioration of soil quality. The government is expected to hold clear mechanism to inhibit poor soil quality and eradicate its consequences. These mechanisms may address the following factors: a) factors leading to the loss of agro-chemical characteristics of soil and physical degradation b) factors related with soil salinity; c) factors of wind and water driven erosion.

5. State budget subsidies are not efficiently utilized. The existing legislation stipulates a package of subsidies to plant-growing farmers. Farmers are entitled to 4 types of subsidies (three of them are for plant-growing and one for cattle-breeding). They are for *fuel and motor oil, for mineral fertilizers, for high-quality seeds and for pedigree cattle.* According to Decree 32 of the Cabinet of Ministers of 15 February 2007, farmers will received 40 manats or an average of 50% of the cost of fuel and motor oils used in cultivating soil and for each used hectare of soil. In addition, subsidies in the amount of 40 manats are given for each hectare of wheat cultivation.

Besides, farmers engaged in plant-growing are entitled to get 150 kg of fertilizers free of charge or a compensation of 25 manats. According to the Cabinet of Ministers' Decree 103 dated 25 June 2007, farmers growing crops receive subsidies from the state budget for growing category 1 and category 2 reproducing seeds. Subsidies are given to applicants only when the applicant submits a copy of certificate as a proof of seed quality along with the certificate given by the regional seed inspection about sowing seeds and seedlings put on sale. According to the guidelines, depending on the type of products (a total of 12 types) of seedling farmers, category 1 reproducing seeds receive subsidies in the amount range of 10-21.68 manats per kilo (also, the amount of subsidies should not exceed 40% of the sale price of the product), category 2 reproducing seeds receive subsidies in the amount range of 7-14.19 manats per kilo (also, the amount of subsidies should not exceed 30% of the sale price of the product). Finally, according to the Cabinet of Ministers' Decree of 22 September 2008, 50% of purebred cattle brought from abroad by the state are given to the farmers as a subsidy.

In terms of efficiency and effectiveness, the general purpose of subsidies is to foster agricultural production. The government declared that due to the subsidies

wheat-sowing areas increased to 220 thousand hectares in 2008-2009 years compared with 2007. Yet, wheat-sowing land declined by more than 150 thousand hectares in 2010 compared with the previous year and equalled its level in 2008. WTO requires member states as well as those that are striving for membership to minimize the intervention into agriculture through any subsidies and expects the state support to produce effective results. One of the successful practices in this regard is to pursue a policy that will not affect agriculture production, but will preserve big potential of production, i.e. will support the financial situation of producers. This practice is followed in the EU, which is trying to remove state support from production[89]. Another best practice is that priorities areas for subsidies are identified. By pursuing such a policy, the country determines the most important areas and provides indirect support to the specific areas by not exceeding «de minimis» (special share of support). For instance, in Canada, egg, milk and chicken industries are examples of specific areas supported in this way[90]. Lastly, an OECD study shows that measures like "cost support" and "compensation of production factors" (e.g. fuel and lubricates) are considered to be tools of the least effect among all agriculture-promotional tools[91]. However, in Azerbaijan a great percentage of state support is given in this way. If the type and amount of subsidies are not differentiated according to the discrepancies in production costs and geographic-climatic conditions and accessibility of markets, it is difficult to recognize this approach as effective.

4.7. Tourism

Tourism was defined as one of the priority areas of non-oil sector development in the "2010-2014 State Programme on Tourism Development": "sustainable economic growth through development of non-oil sectors is one of the challenges our country is facing. Many studies suggest that for its perspective, tourism is one of the leading non-oil sector development areas"[92]. The officially declared target is

89 - http://www.oecd.org/dataoecd/61/3/39524780.pdf

90 - http://www.oecd.org/dataoecd/61/3/39524780.pdf

91 - Agricultural Subsidies in Belarus: Analysis of Efficiency and Evaluation of Compliance with WTO Requirements, 2003.

92 http://e-qanun.az/print.php?internal=view&target=1&docid=19342&doctype=0

to increase the share of tourism in GDP from 0.8% in 2009 to 3% in 2025[93]. In addition, competitive tourism industry, greater tourism revenues to state and local budgets and better tourism infrastructure and capacity are key objectives of the state programme.

Table 21. Development indicators of tourism

Indicators	2005	2006	2007	2008	2009	2010
Foreign country tourists incoming to Azerbaijan (in 1000 people)	1282	1262	1333	1899	1830	1963
Share of hotel and restaurant services in GDP (in %)	0.6	0.6	0.6	0.8	1.1	-
Number of tourism centres (units)	81	96	117	123	124	126
Number of incoming and outgoing tourists hosted by tourism centres (persons)	40008	45605	56290	59607	59700	69923
Revenues of tourism centres from touristic activities (in thousand manats)	4035.3	4788.1	11646.1	12988	14014	14755
Number of tourists accommodated in boarding-houses, recreation houses and sanatoriums (persons)	1622	11451	9431	4835	10046	4366

According to the statistical methodology of Azerbaijan, a tourist is defined to be a person who stays temporarily in the country where he or she travels for vacation, health care, relationship, studies, jobs, sports and religion for 24 hours through to 12 months[94]. Therefore, the State Statistics Committee and the Ministry of Tourism and Culture label overnight visitors entering the country through customs and staying in the country for 24 hours as tourists[95]. While calculating special weights of added-value of various economic activities in GDP, the State Statistics Committee does not show tourism separately. However, the share of added-value of ho-

93 http://az.trend.az/capital/business/1869213.html

94 http://www.azstat.org/statinfo/consumermarket/az/tur.shtml

95 http://unstats.un.org/unsd/publication/Seriesm/SeriesM_83rev1e.pdf

tels and restaurants, which are related to tourism, in GDP grew from 0.4% in 2000 to 1.1% in 2009[96]. Tourism expenditures of the state budget accounted for 0.2% in 2011. Average annual revenues of tourism premises in 2010 were 117 thousand manats and average monthly revenues 9759 manats. The annual net profit of all tourism businesses was 949 thousand manats. Of all incoming and outgoing tourists across economic regions, 82.1% falls into Baku.

The World Economic Forum's Travel & Tourism Competitiveness Index ranks Azerbaijan 79th with 3.7 points (a maximum of 7 points) among 133 countries in 2008 (a maximum of 7 points), 76th with 3.6 points in 2009, and 83rd with 3.8 points among 139 countries in 2011. According to this index, tourism infrastructure and air transportation in the country are not considered adequate, all the while this index appraises the scope of tourism legislation and increasingly qualified personnel as positive and ecology as negative[97].

The "State Program on Socio-Economic Development of Regions (2004-2008)" stipulated credits for entrepreneurship development, construction of tourism facilities and preparation of a number of legal documents. The "2010-2014 State Program on Tourism Development" was approved on 6th April 2010. Also, "Exemplary Charter of Tourism and Recreation Areas" was approved by the President's decree of June 20, 2008[98]. The Presidential decree on declaring 2011 the "Year of Tourism" and related Action Plan included cultural-tourism activities in the same year, better management and normative legislation, science and educations events, competitions, investments and development of tourism infrastructure.

In 2001 the Ministry of Youth, Sports and Tourism was established as a central government body to implement tourism policy in the country. Since 2006 structural reforms along with the tourism policy have been carried out by the Ministry of Culture and Tourism. In general, the national tourism policy is implemented by the Ministry of Culture and Tourism and its local departments both in regions and cities all over the country. The Department of Tourism under the Ministry is in direct charge of designing and implementing the policy. Likewise, an important role in implementing tourism policy in the country is played by the Department of Cultural Heritage of the Ministry of Culture and Tourism, and also by

96 http://www.azstat.org/statinfo/system_nat_accounts/az/index.shtml

97 http://www3.weforum.org/docs/WEF_TravelTourismCompetitiveness_Report_2011.pdf

98 http://azerbaijan.news.az/index.php?Lng=aze&Pid=25571 (10.11.2009)

the National Parks Department of the Ministry of Ecology and Natural Resources.

The Azerbaijan Republic became a member of the International Tourism Organization at the XIV General Assembly of the World Tourism Organization (WTO) held on 25th September, 2001 in Seoul, the capital of South Korea and hereby joined the international tourism movement.

Activities to build up tourism infrastructure. By the early 2012 12 tourism information centres (Lahij, Gala village, International Airport, Zagatala, Nakhchivan, Ganja, Guba, Lenkaran, Sheki, Khachmaz, Shamakhi, Baku) were established in the country. According to statistics available for early 2012, there are 137 tourism companies actively operating in Azerbaijan with domestic as well as foreign capital (mainly Turkish companies). For now there are 370 hotels in the country, 60 of which are based in Baku, providing tourism services. Some of them are five-star hotels. The Ministry of Culture and Tourism, the Tourism Institute of Azerbaijan, the World Tourism Organization and Kiyev Initiative Regional Program of the European Council jointly implemented six projects (German settlements in Azerbaijan, the Siemens in Gadabay, etc.) on specific tourism routes.

Training tourism personnel. The fact that the Azerbaijan Tourism Institute was founded in 2006 to train professional personnel for tourism indicated the progress of tourism according to the planned tourism policy. According to tourism competitiveness index of the WEF, Azerbaijan was ranked 54th in 2008 and 67th in 2009 for *human resources in tourism*. In particular, it was a progress to be ranked 85th in 2008 and 39th in 2009 for the availability of qualified human resources. But lack of qualified human resources in tourism is still an issue. Training personnel is a part of historical concept change in tourism policy. That is, the state tourism policy in the soviet period was concerned with social obligations for rehabilitation and treatment of citizens. However, tourism is supposed to be a field with potential to generate income and act as a catalyst for the country.

International cooperation in tourism. Some works have been done within intergovernmental agreements in tourism. That is, during the last 5 years, agreements on tourism cooperation were signed between Azerbaijan and Moldova, Belarus, Qatar, Greece, Kazakhstan, Pakistan, Jordan, France, Tajikistan, Egypt and Lithuania. Draft agreements on tourism cooperation have been developed between the Azerbaijan Republic and 26 countries (UAE, Kuwait, Russia, Saudi Arabia, Austria, Great Britain, Israel, Iran, Bahrain, Oman, Hungary, Korea, Switzerland,

Japan, Indonesia, the Kingdom of Brunei, Malaysia, San Marino, Morocco, Argentina, Mexico, Macedonia, Sweden, Philippines, Cuba and Croatia). As part of priority directions of building and nurturing multilateral partnerships, activities have been carried out to build relations with the World Tourism Organization, the Council of Europe, the Organization of the Islamic Conference, the CIS Council of Tourism, GUAM Organization for Democracy and Economic Development, the Organization of the Black Sea Economic Cooperation and other international tourism organizations, to join various existing programmes on tourism and ensure active participation in international events, develop projects and sign papers on mutual cooperation.

Development of tourism sub-sectors. So far, certain inventory, advertising and constructive measures have been taken in Azerbaijan for development of ecotourism (observation of the nature), medical tourism, business tourism, leisure and entertainment tourism, cultural tourism, religious tourism, mountain and winter tourism, congress tourism, marine tourism, sport tourism, hunting tourism, green rural tourism, summer tourism, historical tourism and "Silk Way" tourism. One of the biggest projects of the government in non-oil sector is Shahdag complex under construction in Gusar. In order to supervise the construction of the complex, Shahdag Winter and Summer Tourism Complex Administration was established under the Ministry of Culture and Tourism with the decree of 19 may 2008 of the Cabinet of Ministers. Construction of main premises of Shahdag Complex commenced in September 2009 and this complex is considered to be completed within 8-10 years at 4 stages.

Establishment of winter and summer tourism complex according to international standards and the biggest winter-summer tourism complex of the country may positively influence the tourism potential of the country on the whole, in particular the northern zones. The initial cost of this project is estimated at 1.2 billion USD[99].

Development of related fields along with infrastructural and regional development programs implemented substantially affect tourism development in Azerbaijan. That is, tourism is such a business domain whose development is very much associated with the direct development of those sectors (according to some opinions, the number of these sectors is more than 30). Yet, on the whole, the

[99] www.shahdag.az/eng/page6.html

country falls behind Georgia in the fields of competitive tourism, quality services and price parameters.

Obstacles for development of tourism sector. SWOT analysis of investment attractiveness of tourism sector was carried out in the final report of "Tourism Sector in Azerbaijan: Opportunities, Problems and Perspectives" prepared at the request of ATI 2010. Despite all the measures taken so far, the following challenges or weak points of tourism development were revealed[100]:

- *Nagorno Garabagh problem causing hindrance to due exploitation of regional tourism;*
- *Careless treatment of natural, historical and cultural heritage, and weak state and public control over the cultural and historical heritage as well as national parks;*
- *Probability of the influence of negative events published by media on foreign international community;*
- *Inadequate environmental protection in the country;*
- *Small number of large hotels and their mismatch with the country's original architectural specifications, along with the concentration of tourism enterprises in Baku;*
- *Availability of trips to regions mainly through highway (because of inadequate number of airports, railways and waterways);*
- *Regional infrastructure not in line with international standards (inadequate number of roads and telecommunication lines, lack of water and heating systems in regional centres, lack of leisure stops by tourism routes, unsustainable electricity and gas and etc.);*
- *Insufficient number of 4 and 5 star hotels and high-quality shopping centres in the regions of the country;*
- *Few ATMs available in the regions, inadequate application of "online" payment and shopping system in Azerbaijan;*
- *Inadequate number of tourism information points in the regions of the country and lack of language skills in international languages;*
- *Under-promotion of the country, lack of information (brochures, booklets and etc.) for tourists about Azerbaijan;*

[100] http://atib.az/Domains/atib/assets/file/default/ATIB_HESABAT_%28T.S.%29_.pdf

- *Poor treatment of foreign citizens on border customs points (bureaucratic hindrances in the forms of visa problems, disorder and insufficient tourism information advertisements, etc);*
- *Limited harbour and marine opportunities for yacht tourism despite huge sea borderline;*
- *Inadequate number of traffic signs in languages other than Azerbaijan language with traffic announcements only in the Azerbaijan language and the names of stations only in the official state language;*
- *Poor specialization in different areas of tourism, inadequate training opportunities for human resources and insufficient number of guide programs about tourism services and management of tourism.*

Besides these, lack of necessary coordination among public agencies (non-existence of Tourism Council and other coordination agencies), more poverty and low income level in the regions, expensive price of goods and services in the country and sustainable appreciation of the national currency also affect adversely development of tourism as a priority field of non-oil sector. In order to accelerate development of tourism, complex measures should be taken in strategic planning, visa and border regime, licensing and certification, regional development, and in stepping up promotion policy. Due to problems of a great number of remaining oil polluted areas in Baku city, traffic jams in the downtown and on the roads to the beaches and cottages, air pollution of the city beyond norm, and insufficient number of professional personnel, inadequate level of services in most tourism centres still remains a problem. Also, it is to note that incomes from tourism largely depend on information about the country and sometimes are subject to noticeable changes. In spite of all measures taken towards developing tourism, all of the above-mentioned challenges continue to make this too weak a field to become an alternative sector to non-oil sector.

5. ASSESSMENT OF DIVERSIFICATION POLICY OUTCOMES

5.1. Economic diversification indicators

Dependence on resources. According to IMF standards, if more than 25% of the budget incomes in countries with rich natural resources come from selling resources, the budgets of those countries are considered to be dependent on natural resources. Oil sector was still dominant in Azerbaijan prior to huge oil revenues that followed oil agreements. Despite decreasing oil and gas production year after year, SOCAR with production of about 9 million tons of oil and more than 4 billion m^3 of gas was considered as the first main income source of Azerbaijani economy. In the early 2000s, production of oil and associated gas was also launched by ACG and PSA. But it was still less than production of SOCAR.

While the share of oil sector in GDP of Azerbaijan was 24% by early 1990s, it reached 30.1% in 2000. A dramatic change in the share of oil sector in GDP was recorded in 2005. Due to doubled production by AGC PSA as compared to 2004, together with the oil price increases in the world market in the same year, the share of oil sector in GDP reached 44.09%. In the subsequent years, this trend was upward with 51.7% of GDP coming from the oil sector in 2011.

Table 22. Share of oil and gas production, and oil sector in GDP in 2000-2011

Indicators	2000	2005	2006	2007	2008	2009	2010	2011
Oil production, thousand ton	14000	22220	32273	42604.3	44527.2	50419.3	50795.5	45625,4
SOCAR	8944.4	8967.4	8993.8	8800.9	8651.3	9543.3	8459.7	8400,9
AIOC	5055.6	13252.6	23279.2	33803.4	35875.9	40876	42335.8	37224,5
Natural gas production, million m3	5642	6487.8	9044.8	16964.4	23405.4	23681.6	26349.6	25752,9
SOCAR	4191.7	3930.6	4456	5997.6	7752.6	6903	7178.9	7084,2
AIOC and Shahdaniz	1450.3	2557.2	4588.8	10966.8	15652.8	16778.6	19170.7	18668,7
Share of oil sector in GDP, in %	27.6	44.09	54.38	57.5	55.44	47.02	48.5	51,7

In 1999, the SOFAR was established in Azerbaijan to accumulate incomes from international oil and gas agreements, utilize them effectively for social and economic projects and ensure that future generations benefit from oil revenues too. Oil and gas revenues (government's share of profit oil, bonuses, acreage fees, transit fee payments, lease payments, etc.) are mainly accumulated in the SOFAR. The review of incomes and expenditures of the SOFAR during 2000-2010 years is given in Table 23.

Table 23. SOFAR incomes and expenditures over 2000-2010[101] (million manats)

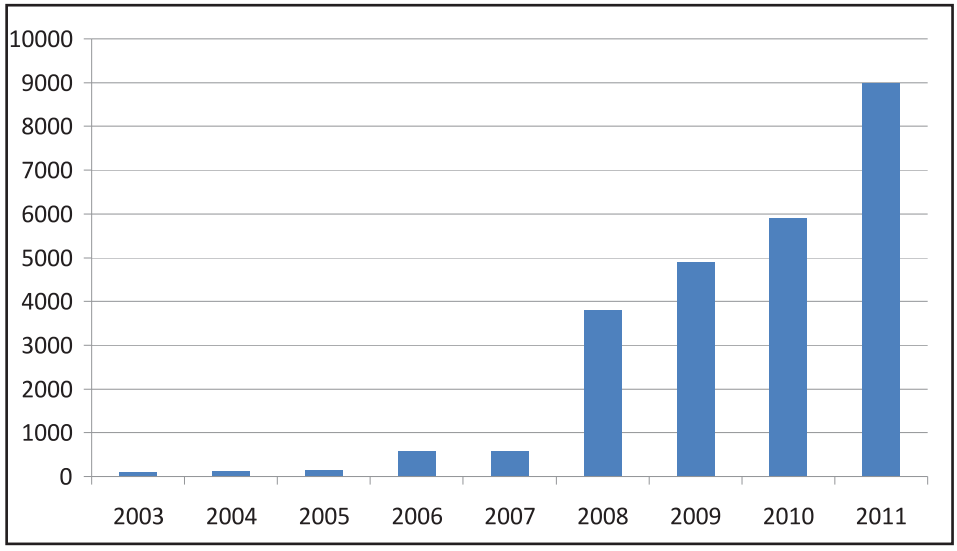
Indicators	2000	2005	2006	2007	2008	2009	2010
Incomes	248.2	660.0	986.0	1886.2	11864.6	8274.3	13088.5
Cumulative incomes	248.2	2361.5	3347.5	5233.7	17098.3	25372.6	38461.1
Expenditures	-	232.6	981.4	1061.2	4291.8	5294.5	6386.5
Transfers to the state budget	-	*150.0*	*585.0*	*585.0*	*3800.0*	*4900.0*	*5915.0*
Cumulative expenditures	-	720.1	1701.5	2762.7	7054.5	12349.0	18735.5
Fund's assets at the year-end:							
Million manats	248.2	1280.0	1267.4	2092.4	8986.7	11966.5	18165.7
Million USD dollar	270.9	1394.3	1454.5	2475.4	11219.2	14900.4	22766.8

Source: Annual operational reports of SOFAR and Cabinet of Ministers for the respective years.

A part of accumulated funds in the SOFAR has been transferred to the state budget every year since 2003 and utilized through the state budget.

[101] About 250.0 million manats was reimbursed to SOCAR in 2001.

Chart 24. Transfers from SOFAR to the state's budget during 2003-2011 (in million manats)



State budget revenues have been increasing fast as a result of transfers from the SOFAR to the state budget since 2003 and also due to such transfers rising from year to year and profit taxes paid by foreign oil companies (AIOC) since 2006. In 2010 state budget revenues (11403.0 million manats) increased by around 16 times as compared to 2000 (714.6 million manats).

There are 3 sources of oil revenues to the state budget - transfers from SOFAR, transfers from SOFAR and profit taxes paid by AIOC.

Table 24. Dynamics of oil revenues in formation of the state budget inflows over the period of 2004-2010 (in million manats)

Indicators	2004	2005	2006	2007	2008	2009	2010
Tax revenues from SOCAR	384.4	542.1	700.8	1080.7	1351.6	1273.2	1262.9
Tax revenues from AIOC			972.0	1831.5	2087.1	587.9	741.1
Transfers from SOCAR	130.0	150.0	585.0	585.0	3800.0	4915.0	5915.0
Other incomes of the state budget	966.8	1363.1	1624.2	2509.4	3524.0	3549.8	3484.0
Total inflows of the state budget	1481.2	2055.2	3882.0	6006.6	10762.7	10325.9	11403.0
Share of oil sector in state budget inflows, in %	34.7	33.7	58.2	58.2	67.3	65.6	69.4

As seen from Table 24, while the share of oil sector in budget incomes in 2004 was 34.7%, this rose to 69.4% in 2010. Also, dependence of the state budget on oil sector started to rise after 2010 (73.8% in 2011).

Diversification of GDP. In spite of the fact that the oil sector was playing a crucial role in Azerbaijani economy in early 2000, the role of agriculture, transportation and communication played equally important roles. While oil production accounted for 27.7% of GDP in 2000, 16.1% of GDP was due to agriculture, hunting, forestry and fishing and 12% due to storage and communication. Due to increasing oil production in Azerbaijan since 2005, the share of production sector reached about 50%. During 2000-2010, the share of agriculture, hunting, forestry and fishing in GDP fell 3 times to make 5.4%, whereas transportation, storage and communication to make 7.9%.

Moreover, in the meantime the structure of GDP underwent other important changes. The share of construction sector in GDP went up from 6.5% to 7.5%, provision of services in hotels and restaurants from 0.4% to 1.0% and that of financial activity from 0.9% to 1.9%. The share of other sectors in GDP either remained constant or decreased.

An indicator representing diversification across sectors in GDP is calculation of sectors. One of the indicators representing this concentration is an index named after economist **Orris C. Herfindahl**. This index fluctuates vary between 0-1, with the lowest indicator meaning the best situation of concentration (diversification) and highest indicating the worst situation of concentration (diversification). Herfindahl index is calculated according to the following formula:

$$H = \sum_{i=1}^{N} s_i^2$$

Here s_i indicates the share of added value created by a specific sector, while N indicates the number of all the selected sectors. Index varies within 0-1 interval. Closeness to "0" indicates the maximum export diversification, whereas closeness to "1" indicates non-diversification of economy or its dependence on one or several sectors.

Using this formula we are going to calculate concentration indexes of GDP across sectors during 2000-2010. As seen from Table 24, while the concentration index

of GDP across sectors in Azerbaijan in 2000 was 0.1381, this started to go up after 2005. This indicator even reached 0.309 in 2007, which indicates poor concentration of GDP across sectors in the same period. It is to note that Herfindahl index on sectoral concentration of GDP started to decrease again after 2007 and made up 0.237 in 2010.

Table 25. Share of value added of various areas of economy in GDP (in percentage)

Indicators	2000	2005	2006	2007	2008	2009	2010
Agriculture, hunting, forestry and fishing	16.1	9.2	7.1	6.5	5.6	6.1	5.4
Mining	27.7	42.2	50.9	53.7	52.7	42.4	46.0
Manufacturing	5.3	6.5	5.8	5.0	4.7	5.5	5.4
Construction	6.5	9.4	7.7	6.7	7.0	7.2	7.5
Wholesale and retail trade, repair of cars, household goods and personal belongings	6.3	6.1	5.4	5.0	5.5	6.7	6.6
Transportation, storage and communication	12.0	7.4	6.6	7.3	6.7	8.8	7.9
Real estate operations, renting and providing services to consumers	2.7	1.4	1.8	1.4	1.6	2.1	2.8
Public administration and defence; social securities	2.0	3.0	2.6	1.3	1.5	2.2	1.9
Education	4.9	2.5	2.3	2.6	2.8	3.7	3.3
Providing other utility, social and personalized services	4.6	1.3	1.5	1.1	1.6	3.1	1.5
Herfindahl index by field concentration of GDP	**0.1381**	**0.2111**	**0.2828**	**0.3090**	**0.2977**	**0.2081**	**0.2370**

This index fell to 0.2081 in 2009, which coincides with the period of declining share of oil sector revenues in GDP caused by falling oil prices in the world market. An-

other noteworthy point is the drop of concentration rate from 0.30 to 0.21 in 2009 due to increased concentration rate in GDP production during rapid rise in oil production during 2006-2008, and increase in investments through state budgets following the stabilized oil production. Herfindahl index rose again after 2010.

Diversification of labour market. There were not any drastic changes occurring in the structure of labour market of Azerbaijan during 2000-2010. The main changes are a slight decrease in employment (1,6 percentage points) in agriculture, as well as in the share of employment in the field of trade in GDP from 16.9% to 12.3%, and increase in the GDP share of construction from 4.1% to 6%.

Table 26. Employment structure of various sectors of economy over 2000-2010 (in percentage)

Sectors	2000	2005	2006	2007	2008	2009	2010
Agriculture, hunting, forestry and fishing	41.0	38.7	38.5	38.3	38.2	38.1	39.4
Mining	1.0	1.0	1.1	1.1	1.0	1.0	1.0
Manufacturing	4.6	4.9	5.0	5.0	5.0	5.0	4.8
Construction	4.1	5.2	5.3	5.3	5.4	5.4	6
Trade, repair of motor vehicles	16.9	15.6	15.8	15.8	15.9	15.9	12.3
Transport and storage	4.5	4.3	4.3	4.3	4.3	4.3	4.1
Public administration and defence, social securities	6.7	6.3	6.3	6.3	6.3	6.3	6.5
Education	8.6	8.5	8.3	8.4	8.4	8.5	8.1
Rendering health and social services to people	4.6	4.7	4.6	4.6	4.6	4.7	3.9
Leisure, entertainment and art activities	0.0	1.3	1.3	1.3	1.3	1.3	1.4
Herfindahl index by field concentration of labour market	**0.212**	**0.191**	**0.190**	**0.188**	**0.188**	**0.187**	**0.186**

Herfindahl index was used to calculate concentration of labour market across sectors.

$$H = \sum_{i=1}^{N} s_i^2$$

As seen, distribution indicator of labour market of Azerbaijan across sectors is satisfactory and was exposed to little changes during 2000-2010. While Herfindahl index by sector concentration of labour market was 0.212 in 2000, it dropped to 0.186 by 2010.

5.2. Major export diversification indicators

Sectoral concentration of exports. Selection of products to calculate export diversification across specific goods was conducted on the basis of 4-digit commodity codes and 10 commodities were selected.

After determining the share of major commodities in exports, Herfindahl index is calculated on the basis of these data. This index indicates the concentration rate of exports on the basis of shares of individual selected goods or sectors in overall exports. Herfindahl index is calculated on the basis of the following formula:

$$H = \sum_{i=1}^{N} s_i^2$$

Herfindahl index calculated to determine the concentration rate of major export commodities was at its highest (0.858) in 2008. A fall in oil prices in 2009 was accompanied with less oil exports and subsequently, decrease in export of crude oil. Yet, the share of crude oil in export and Herfindahl index rose again in 2010 and 2011.

As seen from Table 26, the concentration rate of export in the country is too high: 92.5% of all export in 2008 and 86.2% in 2011 was due to crude oil exports. Crude oil, natural gas and oil products accounted for 94.3% of all export in Azerbaijan in 2011, which suggests that the recent years' exports were due to the increased oil and gas production and higher oil prices in the world market.

Table 27. Share of major commodities in the exports of Azerbaijan over 2000-2011

Commodities	2000	2005	2006	2007	2008	2009	2010	2011
Fresh fruit	1.3	3.3	1.5	2.1	0.32	0.96	0.53	0.57
Sugar	0	0	0.5	2.5	0.17	0.69	0.68	0.75
Cotton fibre	2.1	0.93	0.6	0.52	0.03	0.12	0.02	0.02
Polymers of ethylene, in primary forms	0	0.37	0.9	0.6	0.17	0.24	0.23	0.27
Iron and steel	0	0.84	0.65	0.9	0.13	0.11	0.35	0.39
Raw aluminium	0.53	1.2	1.1	1.5	0.25	0.08	0.012	0.04
Aluminium oxides	1.2	2.3	2.4	1	0.11	0.02	0	0
Crude oil	56.4	51	60.4	53.1	92.5	81.7	86.7	86.2
Oil products	21.8	25.2	23.4	27.5	4.3	10.2	6	5.9
Natural gas	0	0	0	0.3	0.15	0.85	1.35	2.2
Herfindahl index by export concentration	0.366	0.325	0.420	0.359	0.858	0.678	0.756	0.747
Share of natural resources in export, in %	56.4	51.0	60.4	53.4	92.6	82.6	88.1	88.4

Share of resources in export. One of the remarkable points in Table 26, which specifies the share of main products in export, is a large share of natural resources and raw materials in overall exports. That is, the share of natural gas in export has been increasing over the recent year. The amount of produced and exported gas in Azerbaijan has been increasing over the recent years and amount of gas export is expected to leap over the next years. As seen from Table 27, export of crude oil and natural gas accounted for 88.4% of all the country's export in 2011.

Two products – crude oil and natural gas – were considered upon calculating the share of natural resources in the exports in Table 27: the share of natural gas has been increasing over the last 3 years. It is to note that there are also other exported

raw materials that have little share and volume in exports such as fibre, wool, raw aluminium, etc. Should these also be considered, crude oil and natural resources will continue to make up 90% of the country's export.

Measure of export sophistication (EXPY). The economic growth rate of countries with goods exports of fairly high productivity and profitability appears to be fairly stable and the economic welfare rather high.[102] The countries with high national incomes have more sophisticated export basket and low-income countries strive to achieve the same structure. In order to measure sophistication, profitability and quality of the overall export of the country, firstly the income level of each important product in export is measured. This indicator is called PRODY and is calculated through the following formula:

$$PRODY_k = \sum_j \frac{(x_{jk}/X_j)}{\sum_j (x_{jk}/X_j)} Y_j$$

Here:

x_{jk}/X_j *is the special weight of each product in the overall export of the country;*
$\sum_j (x_{jk}/X_j)$ *is the sum of special weights of specific goods in the overall export of countries exporting similar products;*
Y_j *- is the gross domestic product (GDP) per person in countries producing similar products;*

PRODY is the amount of GDP per person calculated by consideration of a country's share of a certain product within the total exports of both individual and groups. if (i) any given commodity is exported by high-income countries, and (ii) the same commodity has the share in equal size to other commodities of that particular country's exports equally distributed in the export structure of export countries, PRODY value is high.

In general, this indicator is considered to be a rather sophisticated form of "revealed comparative advantage - RCA" and Herfindahl index (which does not consider profitability of goods in export structure)[103]. RCA is calculated by dividing the export share of one or another product in the country into the share of the

[102] Hausmann, R., Hwang, J. and Rodrik, D. What You Export Matters. KSG Working Paper Series. 2005.

[103] César A. Hidalgo. The Dynamics of Economic Complexity and the Product Space over a 42 Year Period. CID Working Paper No.189. December 2009

same product in international trade and the country is thought to have competitive advantage in goods and services with a RCA value of more than 1 (production competence, optimal supply with raw material and capital, advantages in location and delivery, low level of other costs and etc.)[104]. For example: given the share of 86% of crude oil exports in overall exports in Azerbaijan in 2010, and the share of 7.98% of crude oil in world trade, RCA will be equal to 86/7.98=10.8. According to this indicator, Azerbaijan enjoys a comparative advantage and high competitiveness by crude oil.

After calculating PRODY separately for each main product in overall exports of a country, some PRODYs are multiplied by the export share of those goods and summed up based on the following formula:

$$EXPY_i = \sum_l \left(\frac{x_{il}}{X_i} \right) PRODY_l$$

High per capita GDP rate, high human capital development, a large number of labour force, and export of goods in the world market with higher prices all appear to be general characteristics of countries with high EXPY indicator.

Table 28 indicates PRODY and EXPY values and comparative advantage coefficient of Azerbaijani exports calculated on the basis of *UNCTAD Handbook of Statistics; UN Comtrade* and *World Bank's World Development Indicators*. This considered the first 10 products (*3-digit*) in the export basket of the country in 2010. Then, animal and vegetable oils shown separately in the UN database were merged into a single commodity and PRODY index was calculated for 9 commodities and in the end an overall EXPY figure was calculated for the country exports. During calculation, 25 major exporters were selected for certain commodities (*crude oil*, *oil products and natural gas*), while for other goods the number of major export commodities and their share in the world market was computed for 12-20 countries. It is to note that similar studies are conducted based on the above mentioned sources and as UNCTAD statistics present average figures for some export commodities for 2009-2010, there may be some differences recorded with official statistics of individual countries.

[104] J. Boccardo, V. Chandra, Y. Li and I. Osorio. Why Export Sophistication Matters for Growth?. PRMED, November 6, 2007

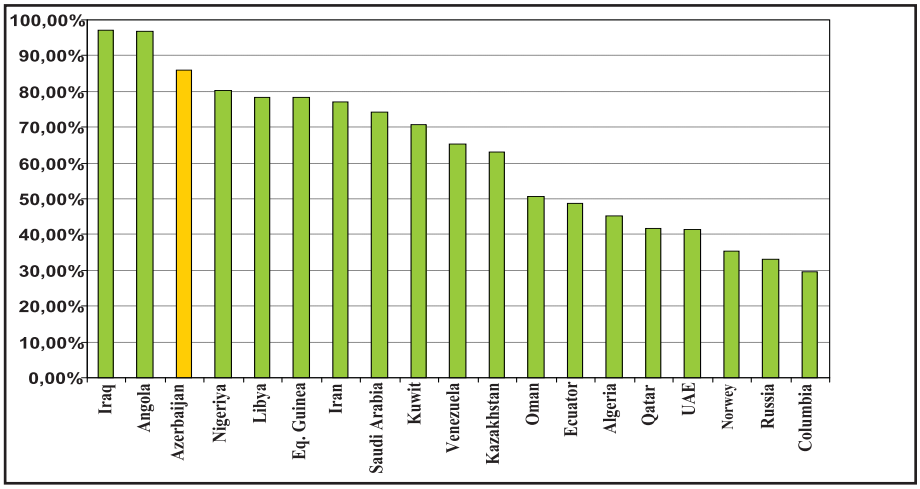
Table 28. Profitability level of major export products in "export basket" and total exports of Azerbaijan (2010)

Product name	Product code (SITC Revision 3)	PRODY (nominal USD)	Coefficient of comparative advantage (RCA ≥ 1)	Share of product in world export (%)
Crude oil	333	14197	10.8	7.98
Gasoline and other oil products	334	22382	1.28	4.31
Natural gas	343	18091	0.6	1.51
Sugar	061	5322	1.92	0.26
Fruit (fresh and dry)	057	10825	1.33	0.45
Vegetable and animal oils	421, 422, 431	3771	0.77	0.52
Polymers of ethylene	571	24158	0.47	0.43
Ship and boat parts	793	20853	0.86	1.05
Aluminium	684	23497	0.28	0.72
				Export Coverage Ratio (in %): **95.3** **EXPY: $ 13993**

Statistical source: UN Conference on Trade and Development (UNCTAD) and the World Bank's World Development Indicators (WBWDI)

Products with a PRODY value of less than 10000$ are considered to be low-income, those between 10000 and 20000$ mid-income goods, and those of over 20000$ high income goods. Furthermore, there are high-income products with PRODY value over 40000$. For example, this includes such products as pearls and other jewellery. Considering all the mentioned above and As seen from the table above, there are low-income and mid-income, as well as high-income products in the "export basket" of Azerbaijan. But the main problem lies in the fact that the "export basket" of Azerbaijan mainly consists of raw materials and semi-finished goods of no science and innovation intensity.

Chart **25. Special weight of crude oil in overall exports of countries in 2010 (in percentage)**



Source: UNCTAD Handbook of Statistics 2011

The product code of *crude petroleum & bituminous oil*, which has the first place in export structure of Azerbaijan for its special weight, is 333 according to *Standard International Trade Classification* or *3 digit* classification of "SITC Revision 3" system. In 2010, crude oil came among the first ten in exports of 63 countries (*25 exporting countries across the world were selected that have crude oil exports of more than 0.7% in the total world oil crude oil exports*), in 32 of which crude oil came first for its special weight in the export structure. There were 3 countries, which are Iraq, Angola and Azerbaijan, with a special weight of crude oil in export structure of more than 85%.

Along with poor countries such as Congo, Yemen, Sudan and Gabon with crude oil having the first-place special weight, there are also rich countries such as Canada, Norway and Kuwait[105]. Just because of it, despite crude oil being a raw material, PRODY value is not low (*14197$*) and EXPY denoting the sophistication and overall profitability of a country's exports is 13993$, which, although is a high figure for African countries where EXPY values varies between 5000-10000$, it is still low for European and Far East countries with EXPY value of more than 18000-20000$[106].

[105] http://www.unctad.org (Handbook of Statistic for 2011)

[106] Asier Minondo. Exports' Quality-Adjusted Productivity and Economic Growth. Department of Economics. Universidad de Deusto – ESTE. 2008

Table 29. High tech exports as a share of total export and exports of manufactured goods in total exports (in percentage)

High tech exports as a share of total export										
2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
0.29	0.39	0.37	0.26	0.18	0.06	0.06	0.07	0.02	0.03	-
High tech exports as a share of industrial export										
2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
4.6	8.8	7.9	5.15	2.2	1.1	1.7	3.4	0.92	0.98	1.1
Exports of manufactured goods as a share of total export										
2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
7.7	4.4	5.9	6.5	10.5	13.3	8.1	7.5	1.5	3	2.5

Source: World Bank Databank

High tech exports as a share of total export and exports of manufactured goods in total exports. More widely used definition for high-tech belongs to the National Science Foundation of America, which states: "If an industry's proportion of R&D employment is equal to at least the average proportion of R&D employment in all industries, it can be considered high tech[107]".

According to the OECD and the European Union, R&D expenditures should account for, on average, 10% of cost price of high-tech products and sectors. Table 29 indicates high tech exports of Azerbaijan as a share of total export and exports

[107] http://www.gccc.com/pdf/tech/defining.pdf

of manufactured goods in total exports[108]. The share of high-tech export in total export over the period of 1996-2010 reached its highest in 1998 (1%), while in 2009 this figure went down to 0.03%. The share of high-tech export in industrial export fell from 13.7% in 1998 to 1.1% in 2010. Exports of manufactured goods in total exports decreased from 14.2% in 1997 to 2.5% in 2010. Thus, the trend over the last 15 years is downward for each of 3 indicators. But one of the main reasons of this downward trend is the sharp rise in overall exports turnover during this period.

[108] http://www.oecd-ilibrary.org/docserver/download/fulltext/5lgsjhvj7nkj.pdf?expires=1332748854&id=id&accname=guest&checksum=2180F1665A56B43EF556F757E827EE9D

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