



Oil Dependence and Challenges of the Economic Diversification

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Introduction

Resource-rich countries face macroeconomic problems for different reasons. First of all when prices of commodities go down, the general incomes of the country decrease as well. The second reason is that resource-rich countries usually spend too much money for the poorly conceived government projects. Consequently, in the context of declining of the revenues, governments forced cuts to those projects or try borrow money from the international and regional financial institutes. Another reason is that in resource-rich countries which don't control government spending, high expenditures are reflected to increase the import. In other words, the enhancing of contraction in those countries promotes the import of construction materials.

As an oil-rich country, Azerbaijan also faces macroeconomic difficulties because of the volatility of incomes. In coordination with the decline of oil prices in the world market, the tempo of economic activities usually slows down. Azerbaijan started to get much more oil incomes after the Baku-Tbilisi-Ceyhan pipeline started to operate in 2005. In this time, everybody was thinking that the oil money would change their life and solve all the problems of the country. However, the institutional capacity of Azerbaijan's economy was not ready to manage billions of US dollars in this period. Despite big expectations over the last 10 years, the oil revenues have not solved some basic problems of the country like rural roads, the natural gas supply and the water supply in the regions. Nevertheless according to the State Oil Fund of Azerbaijan (SOFAZ), the fund got \$115 billion oil-gas revenues over the last 15 years, but 67.7% of accumulated revenues have been spent through January 1, 2015 (2015).

Therefore, the decline of oil prices in the world market over the last year created new macroeconomic problems for Azerbaijan. Even though the decrease of oil prices was obvious last year, the Azerbaijan government forecasted the price of oil in the state budget at \$90 per barrel. Because of incorrect forecasting the government has problems in the implementation of budget expenditures. In addition to the diminution of US dollars from the export, the government has difficulties controlling the exchange rate of the national currency. According to the Central Bank of Azerbaijan (CBAR) during the period December 2014 and April 2015, the foreign currency

reserve of CBAR decreased 44%. In other words, the CBAR spent \$6.6 billion for supporting the exchange rate of national currency. But in spite of efforts, the exchange rate of national currency devaluated 34% within a day on February 21 ("Financial Stability review 2014 and Quarter I, 2015," 2015).

Challenges of the economic diversification

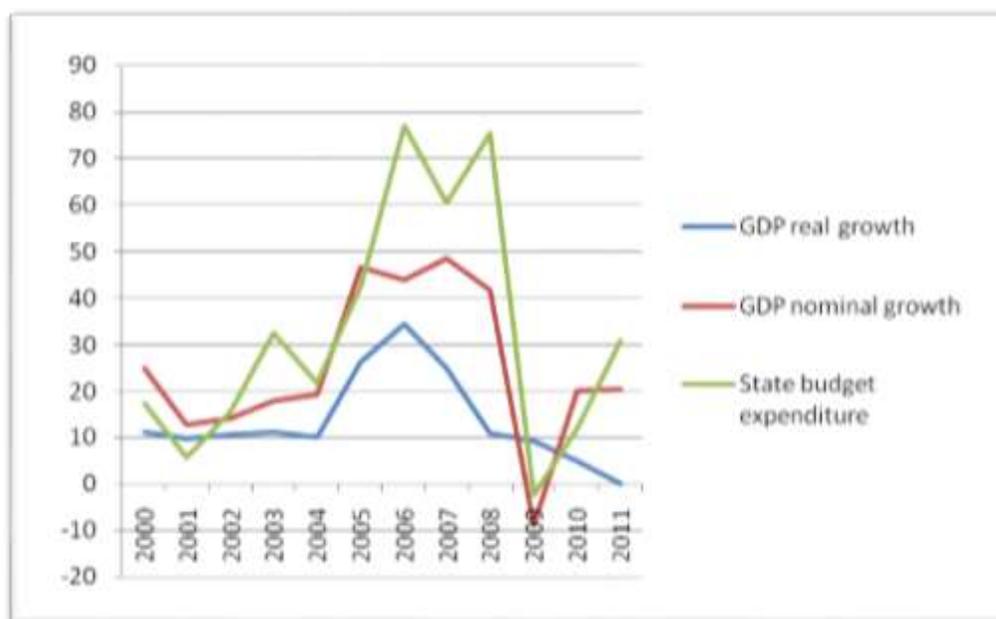
On September 20, 1994 Azerbaijan signed the agreement on the joint development and production sharing for the Azeri, Chirag oil fields and deep-water portion of the Gunashli field in the Caspian Sea with a group of international oil-gas companies including British Petroleum, Amoco and Statoil. This agreement known as "the contract century." Afterward the Azerbaijan government signed a similar agreement on the Shahdeniz natural gas field and on more than 20 other fields.

The commissioning of the Baku-Tbilisi-Ceyhan oil pipeline in 2005 is considered as the beginning of the oil boom in Azerbaijan. According to the State Statistic Committee of Azerbaijan (SSCAR) even though oil production was 16 million tons in 2004, it jumped up 43 million tons in 2007. During this period the GDP grew rapidly, that reached 35% in 2006 (2010). The rapid growth of GDP motivated development of the construction, retail trade, and service sectors. Also, Azerbaijan significantly reduced the measure of extreme poverty in the 2000s. Also the SSCAR reports that during 2001-2013 level of poverty decreased from 49% to 5.3% (2014). But obviously the government of Azerbaijan usually manipulates figures. Only those people who have income less than 2 dollars are recognized by the government as poverty-stricken persons

According to the Ministry of Finance, over the last 10 years the budget expenditures increased 10 times. Obviously the main source of the budget is transfers from the SOFAZ which is established in 1999 for the accumulation of oil-gas revenues. In 2013 the transfers from SOFAZ to state budget was 63% of total incomes of the state budget (MoF, 2014). The second largest donor of the state budget is BP, the operator of the "contract century," the third is the state-owned oil-gas company SOCAR. Generally, this facts design level of dependence of the state budget on the oil-gas sector in Azerbaijan.

In the first decade of independence Azerbaijan closely cooperated with international financial institutions regarding the macroeconomic stability and institutional reforms. But in the early 2000s, when Azerbaijan started to gain oil money, the government completely changed policy in the cooperation with the IMF and the World Bank. In fact the government stopped cooperation with the IMF. The collaboration with the World Bank and other donors like the European Bank for Reconstruction and Development and the Asian Development Bank passed to a new stage. The Azerbaijani government started to receive loans from the international donors for infrastructure projects. According to the Ministry of Finance the foreign debt of the country is \$6.5 billion for the beginning of 2015. Signed agreements between the Azerbaijan government and international donors suggest that in the upcoming years this debt will increase to \$11 billion ("Information on the foreign debt," 2015).

Chart 2. Economic growth tempo in 2000-2004



Source: State Statistical Committee of Azerbaijan

At the given moment, the Azerbaijan economy closely depends on the oil production and price. The problem is that, on the one hand, the oil production has been decreased year-by-year, on the other hand, oil prices in world markets are volatile. Throughout the global financial crises in 2008 when the oil prices slumped Azerbaijan had financial crises as well. But unfortunately the government didn't learn any lesson, and has not carried out important reforms for the declining dependents on the commodity sale. The Ministry of Finance reports in the Budget Package 2015

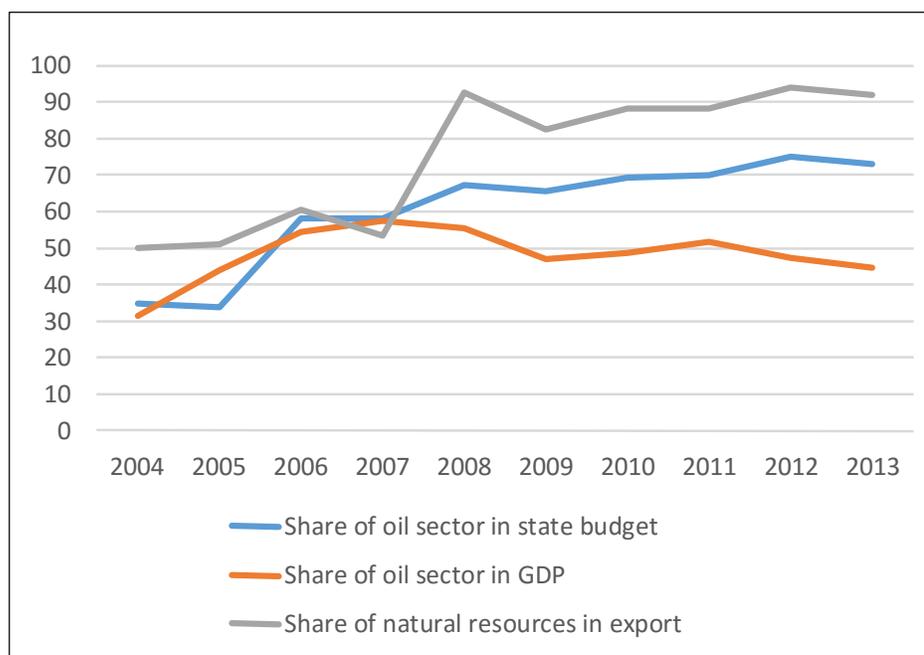
that 45% of GDP and 70% of budget incomes are shaped at the expense of the oil sector (2014). But these indicators show only the direct contribution of the oil sector to GDP and the government incomes. If we consider also indirect and in-kind contributions to the economy, the amount of dependence on the commodity will be too high. Actually the structure of the export of Azerbaijan can be considered as a good example for the illustrating of oil-dependence of economy. According to the SSCA the share of oil-gas sector in the total export was equal to 92% in 2013 ("The foreign trade of Azerbaijan," 2014).

Aslanli and colleagues analyze the main obstacles of the diversification of the non-oil sector in their study titled "Assessment of economic and export diversification:"

Yet, the government has not taken adequate measures towards establishing an investment environment necessary for economic diversification [and the legislative base] for competition or eradicated official, and non-official obstacles. According to the existing measurement of government effectiveness, the executive branch of the Azerbaijan government did not improve in terms of effectiveness over the period 2003-2010.

Actually, the approach of the government regarding the economic diversification is still uncertain. The authors scrutinize some speeches of President Ilham Aliyev in this regards:

Some statements of the President 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 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 (Aslanli et al., 2013).

Chart 2. The trend of the resource dependence in 2004-2013

Sources: Ministry of Finance of Azerbaijan

Eventually, over the last 10 years the Azerbaijan government adopted several state programs and action plans regarding the development of different fields of non-oil sectors. Additionally since 2005 the government adopted three state programs on the development of regions. However, the government didn't evaluate results of those programs. Generally speaking, the government doesn't have a clear strategy and a measurable results-oriented program related to the economic and export diversification. If we review the government we see that there are dozens of targets, but not one of them is specific and achievable.

Another problem of the government policy is the lack of spending rules. Analysis of the state budget indicators show that the 2013 state budget expenditures were 20 times more than in 2000. Particularly after 2010 the government started to spend a significant share of oil revenues accumulated in the SOFAZ every year.

The main direction of expenditures are natural and social infrastructure, beautification of the capital Baku and sport infrastructure. However, there is a big question about the effectiveness of expenditures. According to Transparency International, Azerbaijan is one of most corrupted countries in the world ("Global Corruption Barometer," 2013).

The International Monetary Fund measured the public investment efficiency in 71 countries in 2011 and developed an index on these issues. According to the index, spending 35%¹ of the budget to public investment projects, Azerbaijan got 1.53 points (out of 4 points) and came in 43rd among 71 countries. The country gained very low points - 0.5 points out of 4 - category of appraisal of public investments (this category includes strategic management, availability of sectoral strategies, and transparency of appraisal standards). Next in the category of selecting of investment projects, Azerbaijan's score is 1.6, in the categories of management and evaluation both are 2. In other words the index claim that the 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 (Dabla-Norris, Brumby, Kyobe, Mills, & Papageorgiou, 2011).

The comparative analysis and case studies

One of common indicators for measuring of the export diversification are diversification and concentration indexes. For the comparative analysis of the export diversification we take three similar counties – Russia, Kazakhstan and Norway, all counties like Azerbaijan economically concentrated to oil and gas.

Table 1. Diversification and concentration indexes in export of Azerbaijan and similar countries

Countries	2005			2013		
	Number of products	Diversification index	Concentration index	Number of products	Diversification index	Concentration index
Azerbaijan	171	0.764	0.573	182	0.785	0.876
Russia	248	0.662	0.352	256	0.604	0.377
Kazakhstan	195	0.757	0.605	225	0.740	0.651
Norway	232	0.647	0.453	236	0.612	0.391

Source: UNCTAD Handbook of Statistics 2014

¹ About \$5.1 billion

The table 1 describes that unlike other countries Azerbaijan could not decrease concentration. In the contrary, in the period of 2005-2013, the diversification index² of Azerbaijan increased from 0.764 to 0.785 and it means that the country diverged from world average regarding the structure of export. On the other hand, the during analysis period only Azerbaijan's concentration index³ out of four countries increased significantly: from 0.573 to 0.876. The concentration indexes of Kazakhstan and Russia also slightly went up. Only Norway decreases its exports concentration on oil and gas.

Resource-rich countries have extremely different experiences. Only a limited number of resource-rich countries succeed in the point of view of diversification. The book "Plundered Nations?: Successes and Failures in Natural Resource Extraction" edited by Paul Collier and Anthony J. Venables, the professors of Economics at the University of Oxford illustrates the level of success of eight resource-rich countries. The professors reference the "resource curse" idea of many economists in the 1980s and 1990s:

According to the "resource curse," a natural resource rich country was condemned, at best, to lack development in tradable non-resource goods and to possibly become a nonproductive rent-seeking society. At worse, the curse would lead to endemic corruption or even violent conflict over control of the dominant resource. Of the eight countries this book examines, only Chile

² The diversification index ranges from 0 to 1 reveals the extent of the differences between the structure of trade of the country and the world average. The index value closer to 1 indicates a bigger difference from the world average. Diversification index is computed by measuring absolute deviation of the country share from world structure as follows:

$$S_j = \frac{\sum_i |h_{ij} - h_i|}{2}$$

where

h_{ij} = share of product i in total exports of country

h_i = share of product i in total world exports

³ Concentration index, also named Herfindahl-Hirschmann index, is a measure of the degree of market concentration. It has been normalized to obtain values ranking from 0 to 1 (maximum concentration), according to the following formula:

$$H_j = \frac{\sqrt{\sum_{i=1}^n \left(\frac{X_{ij}}{X_j}\right)^2} - \sqrt{1/n}}{1 - \sqrt{1/n}}$$

where

H_j = country index

X_{ij} = value of exports for country j and product i

$$X_j = \sum_{i=1}^n x_{ij}$$

and Malaysia have managed to convert their resource bases successfully into more diversified economies with sustainably rising standards of living (2011).

Collier and his colleague conclude that only Cameroon has clear unsuccessful experience, where the welfare of people fell following the resource boom, but others - Iran, Kazakhstan, Nigeria, Russia, and Zambia - got mingled results.

This study suggests that the oil-rich countries should consider the economic diversification policy as a sensitive issue. The economic diversification policy should be accompanied by institutional reforms, transparency, and accountability of the government.

Most of the economists focused on the resource economics believe that the most successful experience is Norway in its resource management. Unlike many resource-rich countries, Norway limits the spending of the oil revenues and accumulates its reserves in the Government Pension Fund.

Matthias Lucke, the senior researcher at the Kiel Institute for the World Economy conducted the comparative analysis between the Caspian Basin countries and Norway and introduces Norway's Government Pension Fund - Global (GPF) as a benchmark: "Fund assets grew particularly rapidly when the oil price increased sharply during the early 2000s. Today, the fund is one of the biggest sovereign wealth funds worldwide with total assets of approximately US\$400 billion, equivalent to 111% of Norway's 2009 GDP" (2011).

The main difference between the State Oil Fund of Azerbaijan and Norway's Government Pension Fund - Global is that the Norwegian sovereign fund doesn't transfer part of its revenues to the budget. Effectively managing of revenues, GPF achieves a 4% real rate of return, and only part of this revenue is considered as a reliable source of Norway's budget. Consequently, the central government budget of Norway doesn't depend on the oil-gas prices.

Summarizing all given examples, the countries with successful experiences, in fact, chose different ways of development. For example, Malaysia and Chile succeed in economic diversification, but the former preferred the development of the private sector, the latter did it with effective management of the state-owned companies. In this regard, the Norwegian experience also is specific. There is at least one principal difference between Azerbaijan and Norway.

Eventually, before receiving oil-gas revenues, the Norwegian economy was diversified. But Azerbaijan has to start everything from the beginning.

Conclusion and recommendations

Unlike Azerbaijan, Malaysia, Chile, and Norway didn't have the best international experiences when they achieved the sustainable economic development. But the problem is that Azerbaijan has already missed about 10 years and the oil boom is finishing soon.

In spite of the missed years, Azerbaijan still has an opportunity to diversify its economy. The main opportunity is that the government has about \$35 billion reserves in the SOFAZ. In this circumstance, first of all, the government should change its "spending rules," and continues the accumulation of oil revenues. Here the Norwegian Pension Fond model can be the best model for Azerbaijan.

The second important government policy approach must consider the establishment enabling an environment for investment, as well as for small and middle entrepreneurship. Also, the government should reform the foreign trade policy, decrease the cost of foreign trade, and eliminate corruption. In this field, the experience of Chile can be useful for Azerbaijan.

Finally, Azerbaijan must conduct institutional reforms in the state-owned companies. Presently the state-owned companies function ineffectively, also they receive the allocations from the state budget in large volumes. However the state companies have several advantages for the development. For example companies like Azerbaijan Airlines (AZAL) and Energy (Azerenerji) are natural monopolists and they have enough resources to become big donors of the state budget. Thus, the government should continue institutional reforms and privatization in the public sector.

Eventually, these reforms can give opportunities to the country diversify its economy and achieve the sustainable development.

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Oil dependency will not aid sustainable economic growth, thus Nigeria must industrialize and diversify. 1.3 Research Questions. The research questions can be summarized as: 2. a. What is the impact of oil dependence on the Nigeria's economic growth? b. Would Nigeria achieve sustainable growth with a resource based growth. policy? c. What has been the reason behind Nigeria's volatile growth? A lot of studies performed better after the reconstruction of the variables. This section will explain the role of diversification as the determinant of economic growth. 2.2 Structural Economist View. Structural economist argues many claims of mainstream economist. The idea of less reliance on primary good production and diversification is what the structural economist view lies on. Alwaleed points out, for example, that oil revenue accounted for 92 percent of the state budget and nearly 90 percent of the country's export revenue. Thus, in his estimation, even a modest decline in demand from the United States (or other nations with technologically recoverable shale deposits) would have dire consequences for Saudi Arabia's economy and political stability. Saudi Arabia is not the only country that should be worried about the extent to which its government is dependent on resource extraction. As of 2012: Oil and gas revenue accounts for 81 percent of Qatar's budget revenue.