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Fiscal policy implementation in Azerbaijan before, during and after the oil boom

Khatai Aliyev[1,2,3], Ilkin Gasimov[3,4]

ABSTRACT This study reviews Azerbaijan's fiscal policy implementation and discusses its changes before, during and after the oil boom. Specifically, the period prior to 2005 is considered pre-boom, 2005-2014 is considered the oil boom and the years after 2014 are considered the post oil boom period. It is observed that the country's fiscal policy was only slightly expansionary prior to the oil boom but highly expansionary during the oil boom. However, such expansion has not been sustainable due to being financed mostly by direct transfers from State Oil Fund of the Republic of Azerbaijan (SOFAZ) and taxes on the oil industry. As a result, the post oil boom period is characterized by contraction in the form of sharply decreasing public expenditures and initiatives to increase tax revenues, at least by preventing tax evasion. The expectations for the upcoming years include maintaining a contractionary policy by both decreasing budget expenditures and increasing tax rates or tightening measures against tax evasion. This study helps understand the current and near-term future fiscal policy challenges in Azerbaijan.

KEY WORDS: Fiscal policy; budget expenditures; tax policy; oil boom; Azerbaijan

JEL Classification: E62, H20, H50, H61

[1] Azerbaijan State University of Economics (UNEC), Azerbaijan; [2] Baku Engineering University, Azerbaijan; [3] ASERC, Azerbaijan; [4] Institute for Scientific Research on Economic Reforms, Azerbaijan

1. Introduction

The government's role in modern economies is essential from several perspectives. Modern books on macroeconomics broadly discuss basic concepts underlying the application of fiscal policy and its tools. Briefly, fiscal policy is how the government determines the level and allocation of budget expenditures and revenues, defines tax rates and applies several tools affecting the nation's economy. In a resource-rich country, such as Azerbaijan, the aspects of fiscal policy implementation are identical to the above, while its effectiveness is investigated empirically. Thus, several studies have measured the relationship between public expenditures and economic growth in Azerbaijan (Aliyev, 2013; Aliyev & Nadirov, 2016; Bashirli & Sabiroglu, 2013; Dehning, Aliyev & Nadirov, 2016; Hasanov & Alirzayev, 2012; Hasanov & Mammadov 2013; Koeda & Kramarenko, 2008; Sabiroglu, Bashirli, & Qasimli, 2011). However, none of the referenced studies analyze the fiscal policy implementation before, during and subsequent to an oil boom. Therefore, this analysis of Azerbaijan's fiscal policy implementation is novel and helps to understand the reasons and consequences of upcoming fiscal challenges. This article presents a descriptive evaluation of Azerbaijan's fiscal policy implementation at different stages of economic development.

Correspondence concerning this article should be addressed to: **Khatai Aliyev**, Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan. E-mail: khatai.aliyev@unec.edu.az

To comprehend the context of "before-during-and-after the oil boom", note that the post oil boom notion has not been covered by the existing literature. The earlier studies of Aliyev (2014), and Aliyev and Suleymanov (2015) segment the historical development of Azerbaijan's economy as follows: the recession period (1991-1994), the restructuring period (1995-2005) and the oil boom (after 2005). Accordingly, we can define the period before the oil boom as 1991-2005. In 2005, the Baku-Tbilisi-Ceyhan (BTC) oil pipeline commenced operations, at the same time as oil production rose sharply. Oil production peaked at over 1 million barrels per day in 2010, decreasing ever since. Despite the falling production, oil prices remained very high until the end of 2014, with the country continuing to enjoy the oil boom. However, beginning with the last quarter of 2014, oil prices fell almost three-fold, forcing the government of Azerbaijan to struggle with severe economic policy challenges and leading to two devaluations of the national currency (AZN) in 2015, by 33% on February 21 and by 47.6% on December 21.

The end of the oil boom of 2005-2014 signified a new milestone for Azerbaijan's economy. In this context, we argue that Azerbaijan has entered a new era or, more specifically, the post oil boom period beginning in early 2015. Analyzing the fiscal policy changes during the two periods is both interesting on its own and crucial to predicting the policy's economic consequences during the post oil-boom period and the coming years.

2. Government budget

After 1991, the government budget of the Republic of Azerbaijan was considerably enlarged, with its structure additionally being significantly changed. Note that 1991-1994 was a recession period with Azerbaijan at war with Armenia due to the Nagorno-Karabakh conflict. Therefore, we choose 1995, when macroeconomic stability was first attained, as the starting point for our analysis of Azerbaijan's fiscal policy.

It is useful to examine the general trends presented in the figure 1. The difference in the budget policy between the periods before the boom and during the oil boom is easily noticeable. Until 2005, neither Azerbaijan's budget expenditures nor revenues exceeded two billion AZN. In the government budget for 2004, both expenditures and revenues are approximately 1.5 billion AZN. The size of the budget expanded every year except 1998, though the increases were slight. Another important characteristic of this period concerns the budget deficit. Except in 2004, when the budget was nearly balanced, budget deficits were incurred in all years, including 2005. Figure 1 shows the inflation-adjusted trend of budget expenditures and revenues.

The remarkable fiscal policy change after 2005 evidenced the start of a new period. In contrast to the government's cautious approach towards expansionary fiscal policy, e.g., increasing budget expenditures, before the oil boom, budget expenditures in 2006 already reached 2.5 times the level of 2004. As the revenues rose as well, the budget had a surplus of 78 million AZN. The same pattern was observed during the following two years, as the size of the government budget increased significantly. As a result, the budget exceeded 10.7 billion AZN in 2008, increasing five-fold compared to 2005. Due to decreasing oil prices, the budget size stabilized at approximately 11 billion AZN in 2010 after a slight contraction in 2009.

However, it did not remain long. Hence, 2011 government budget expenditures were nearly 15.4 billion AZN with the surplus of approximately 400 million AZN. An upward trend of government budget expenditures remained, although their changes were not matched by those of revenues. Except in 2013, the government budget balance remained negative after 2011. Nevertheless, it is crucial to note the increasing budget deficit. While the deficit stood at only 135 million AZN in 2012, it rose to 308 million AZN in 2014 and was expected to approach approximately 842 million AZN in 2015. Despite sharp decreases in budget expenditures proposed for the following year, the proposed budget deficit was proposed to be approximately 1.7 billion AZN in 2016.

The basic reasons underlying the fiscal policy changes are the amounts of transfers from SOFAZ to the government budget, as well a soil price volatility. Figure 2 shows this correlation graphically based on quarterly data. A positive correlation is clearly observed between oil prices and government budget revenues. Moreover, the changes in budget revenues are due to changes in direct transfers from SOFAZ to the government budget.

Figure 2 also shows that the government's expansionary fiscal policy during the oil boom was not financed by increasing tax revenues. Indeed, the total

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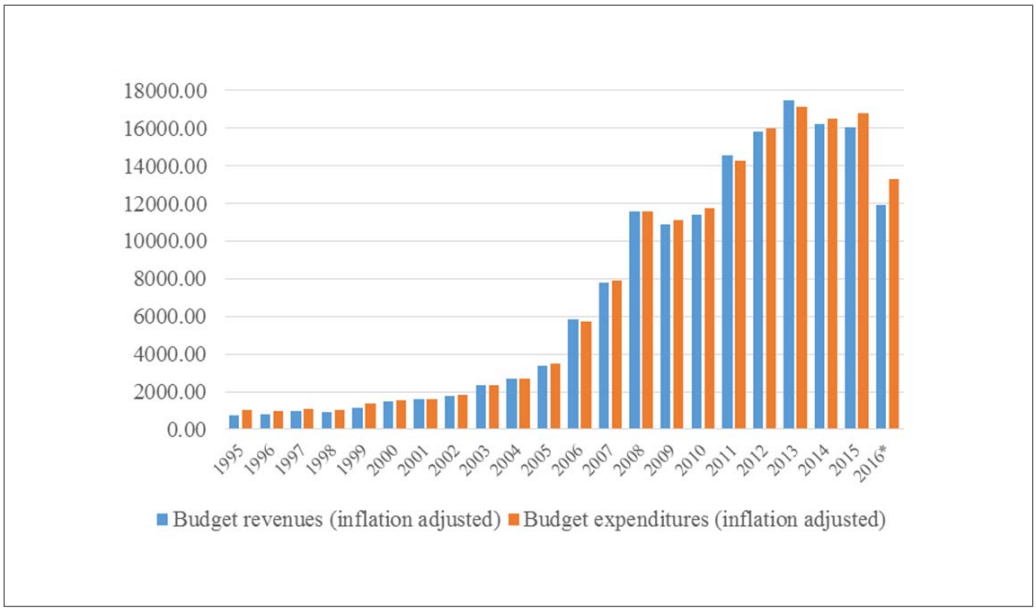

Figure 1. Government budget revenues and expenditures (millions AZN, base year 2010)
Source: Adapted from "Statistical Database" by the State Statistical Committee of the Republic of Azerbaijan (2016, January). Retrieved from https://www.azstat.org/MESearch/search?departament=10&lang=en

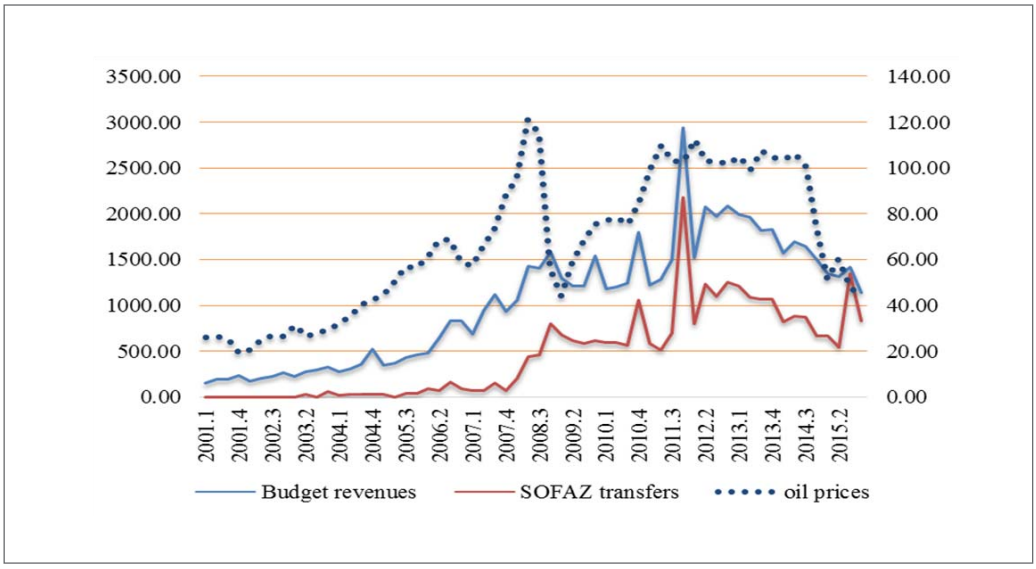

Figure 2. The budget revenues vs. SOFAZ transfers (left axis, millions AZN, inflation adjusted - base quarter 2000Q4) and oil prices (right axis, USD)
Source: Adapted from "Statistical Bulletin" by Central Bank of Azerbaijan (2016, January). Retrieved from https://en.cbar.az/pages/publications-researches/statistic-bulletin/, "Reports archive: quarterly statements" by State Oil Fund of the Republic of Azerbaijan (2016, January). Retrieved from and http://www.oilfund.az/index.php?page=hesabat-arxivi&hl=en_US

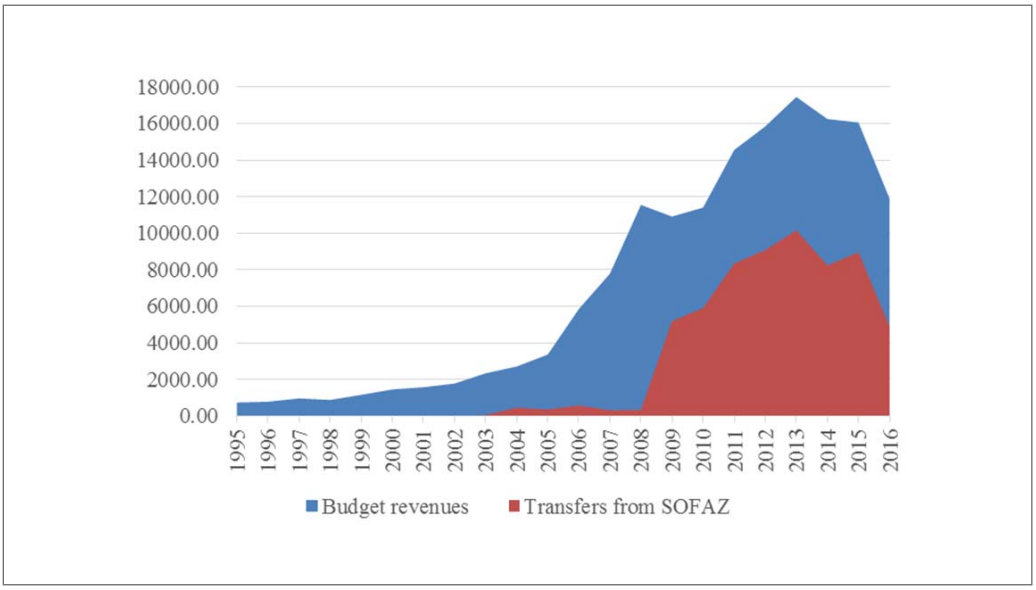

Figure 3. Direct SOFAZ transfers to the government budget (millions AZN, inflation adjusted – base year 2010)
Source: Adapted from "Statistical Bulletin" by Central Bank of Azerbaijan (2016, January). Retrieved from https://en.cbar.az/pages/publications-researches/statistic-bulletin/, "Reports archive: quarterly statements" by State Oil Fund of the Republic of Azerbaijan (2016, January). Retrieved from and http://www.oilfund.az/index.php?page=hesabat-arxivi&hl=en_US

amount of transfers from SOFAZ to the government budget reached 59.3 billion AZN by July 2015 (SOFAZ, 2015). Accordingly, we will discuss tax-based fiscal policy changes later.

In addition, SOFAZ financed many state projects beyond the scope of government expenditures. If we consider the government to be responsible for such projects under the fiscal policy framework, it is worth examining the latest statistics. Thus, the primary projects financed by SOFAZ involved spending 1,847.6 million AZN on improvements in social condition for refugees and IDPs, 779.6 million AZN invested in the construction of the Oguz-Qabala-Baku water supply system, 1196.1 million AZN expended on the reconstruction of the Samur-Absheron irrigation system, 90 million AZN invested in the statutory capital of the State Investment Company, 441.4 million AZN financing of the "Baku-Tbilisi-Kars railway", 127.2 million AZN financing of the "State Program on education of Azerbaijani youth abroad in the years 2007-2015", and 596.1 million AZN spent on the construction of "STAR" Oil Refinery Complex.

An analysis of revenue sources of Azerbaijan's government budget can yield a better understanding of fiscal policy changes during the mentioned periods. Diversification of budget revenue sources is crucial for long-term stability. However, Figure 2 shows the dependence of budget revenue on the SOFAZ transfers and world oil prices. Illustrating it more effectively, Figure 3 shows the share of direct transfers from SOFAZ in the total budget revenue.

Apart from the dependency on direct transfers from SOFAZ, it is noteworthy to review sources of non-transfer revenues and changes across the periods of interest. According to the data obtained from the State Statistical Committee of the Republic of Azerbaijan, the dominant revenue sources of the government budget before the oil boom were the Value Added Tax (30%), the corporate income tax (14.8%), and the labor income tax (14.68%). In 2005, the crossover year towards the oil boom, these remained almost unchanged. The only relatively noticeable changes occurred in the share of the corporate income tax, increasing to 17.29%, and taxes on international trade and transac-

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Table 1. Government budget revenues by source

	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenue-total (millions AZN)	714.6	1220.9	1509.5	2055.2	3868.8	6006.6	10762.7	10326	11403	15700.7	17281.5	19496.3	18400.6
(%)	100	100	100	100	100	100	100	100	100	100	100	100	100
							including:						
Labor income tax	94	150.4	221.6	317.43	407.30	588.59	627.188	581.87	590.2	715.7	813	859.7	980.3
(%)	13.15	12.32	14.68	15.44	10.53	9.8	5.83	5.63	5.17	4.56	4.7	4.4	5.33
Corporate income tax	125.9	178.3	223.4	355.39	1360.5	2457.7	2862.32	1329.2	1429.9	2134	2252	2374.8	2302.7
(%)	17.62	14.6	14.8	17.29	35.16	40.92	25.6	12.87	12.5	13.59	13.03	12.18	12.51
Land taxes	6.7	11.3	14.1	15.267	18.547	27.089	30.6301	26.235	35.3	35.3	30.6	33.1	35.4
(%)	0.94	0.93	0.93	0.74	0.48	0.45	0.28	0.25	0.31	0.22	0.18	0.16	0.19
Property tax	11.8	26.6	32.2	40.436	55.792	72.3	112.892	66.168	101.8	103.9	105.1	125.1	141.3
(%)	1.65	2.18	2.13	1.97	1.44	1.20	1.05	0.64	0.89	0.66	0.61	0.64	0.77
VAT	190.8	409.7	452.7	599.87	737.85	1179.2	1910.87	2012.8	2082.	2222.7	2366.9	2710.0	3119.6
(%)	26.7	33.5	30.0	29.2	19.07	19.63	17.75	19.5	18.26	16.15	13.7	13.9	16.95
Excise tax	22.4	67	72.4	140.98	187.37	402.88	486.874	485.15	514.9	480.2	531.5	593.3	797.3
(%)	3.13	5.49	4.79	6.85	4.84	6.71	4.52	4.7	4.51	3.06	3.07	3.04	4.33
Tax on mining	50.4	56.7	97.8	53.540	100.16	123.16	147.610	121.90	130.1	129.8	125.8	121.5	116.2
(%)	7.05	4.64	6.48	2.60	2.59	2.05	1.37	1.18	1.14	0.82	0.73	0.62	0.63
Taxes on int. transactions	63.4	92.7	101.5	205.18	139.34	293.2	449.712	418.13	291.8	433.1	592.5	675.2	684.7
(%)	8.87	7.59	6.72	9.98	3.60	4.88	4.18	4.04	2.56	2.76	3.43	3.46	3.72
Other taxes	9.00	12.8	16.5	28.1	40.9	68.591	96.8	86.793	90.3	140.6	157.6	161.5	192.7
(%)	1.26	1.05	1.09	1.37	1.06	1.14	0.9	0.84	0.79	0.89	0.91	0.82	1.04
Other receipts	140.2	215.4	277.3	299	821.1	793.76	4037.73	5197.7	6136.2	9305.4	10306.5	11842.1	10030.4
(%)	19.62	17.64	18.4	14.55	21.22	13.21	37.5	50.33	53.81	59.27	59.64	60.74	54.51

Source: Adapted from "Statistical Database" by the State Statistical Committee of the Republic of Azerbaijan (2016, January). Retrieved from https://www.azstat.org/MESearch/search?departament=10&lang=en

tions, growing from 6.72% to nearly 10%, while the portion of other receipts fell by approximately 4%.

During the initial years following the start of the oil boom, sharp increases in the amount and share of the corporate income tax are observed. In comparison to 2005, the amount grew fourfold in 2006 and nearly sevenfold in 2007. This explains its share climbing to 40.92% in 2007.

In the following years, the contribution of all other sources decreased, while the share of other receipts (primarily direct transfers from SOFAZ) reached the peak level of 60.74% in 2013.

A detailed description of quantitative changes in the government budget throughout the years is available in Table 1. None of the tax-based revenue sources have expanded proportionally to changes in the government budget.

2.1. Budget expenditure analysis by source

The allocation of budget expenditures is as important as the change in the government's total spending. While investigating the role of public expenditures in economic growth, many scholars separate "productive" expenditures (Aschauer, 1989; Del Monte & Papagni, 2001; Glomm & Ravikumar, 1997). Scholars promote several factors behind unproductive budget expenditures. For example, Del Monte and Papagni (2001) stress the influence of bureaucratic corruption one efficiency of public expenditures. Examining resource-rich economies, Coutinho (2011) states that sharp revenue increases "tend to be channeled to low-return, overly ambitious projects, which crowd out private investment".

Additionally, the structure of budget expenditure in Azerbaijan changed significantly during the past. Supporting the argument of Coutinho (2011), the especially significant changes were observed during the oil boom. To obtain better results in this context, it is necessary to analyze the structure of budget expenditures during the time period.

During 1991, the first year of independence, the amount of budget expenditures was 192.8 million AZN, of which 52.7 (27.33%) and 92.8 million AZN (48.13%) were spent on the national economy and social and cultural activities, respectively. Four years later in 1995, the total amount of budget expenditures reached 428.4 million AZN. Of this amount, 52.6 million AZN or 12.28% was directed to the national economy. The share of social and cultural activities in budget expenditures was 35.3%, or 152.2 million AZN. The increases in these figures during four years can be explained by political and economic stability and the signing of the Baku-Tbilisi-Ceyhan (BTC) oil pipeline agreement, called the "Contract of the Century".

During the next five years covering the time period 1995-2000, the budget expenditures increased, reaching 764 million AZN. Of this amount, 89.4 million AZN (11.7%) was spent on the national economy and 382.6 million AZN (50.07%) on social and cultural activities. In 2005, the total expenditure amounted to 2140.681 million AZN. Of this amount, 20.77% was spent on the national economy, whereas 39.39% was directed to social and cultural activities. Supported by the start of the oil boom in 2005, the total budget expenditure during 2005-2013 increased sharply, reaching 19143.5 million AZN in 2013. The spending on the national economy and the social and cultural activities amounted to 8207.5 AZN and 4081.8 AZN, respectively.

Trends in other parts of the budget expenditure during 1991-2014 are also interesting. Additionally, it is valuable to examine expenditures in the main sectors, such as education, health care, and science, to understand the fiscal policy implementation background. The statistics show that although the monetary amounts of the mentioned expenditure categories increased during 1991-2014, their percentage shares did not increase and even decreased in some years. For example, the education share of budget expenditures was 39.98% in 1991, becoming 34.65% in 2014. This tendency was also observed in the healthcare sector, at 16.7% in 1991 and 14.83% in 2014. The percentage share of science spending was the only increasing category, from 0.57% to 0.66% during this period, a fairly small change. More detailed statistics are presented in Table 2.

The overview of expenditures shows overall that Azerbaijan's fiscal policy has been largely expansionary during the oil boom but turned contractionary during the subsequent years. On the other hand, by January 1, 2015, the country's external debt amounted to 5081.5 million AZN (6478.2 million USD), or 8.6% of GDP. Of the external debt amount, 7.3% was extended for up to ten years, 60.2% for up to twenty years, and 32.5%

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Table 2. Government budget expenditures by source

	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Expenditure-total (millions AZN)	764	1234.5	1502.1	2140.7	3790.1	6086.2	10774.2	10503.9	11765.9	15397.5	17416.5	19143,5	18709.0
(%)	100	100	100	100	100	100	100	100	100	100	100	100	100
including:													
National economy	89.4	242.9	290.9	444.7267	1246.89	2350.004	4958.599	4373.9	4889.9	6803.2	6960.7	8207.5	7598.7
(%)	11.70	1968	19.36	20.77	32.90	38.61	46.02	41.64	41.56	44.18	39.97	42.87	40.61
Social and cultural activities	382.6	535.2	642.2	843.3	1049.7	1670.3	2312.5	2763	2901.4	3447.2	4072.9	4081.8	4484.4
(%)	50.07	43.35	42.75	39.39	27.69	27.44	21.46	26.30	24.66	22.39	23.38	21.32	23.97
of which:													
Education	181.8	234.8	294.1	372.50	479.06	722.99	979.719	1147.90	1180.8	1268.5	1453.2	1437.7	1553.9
(%)	47.52	43.87	45.79	44.17	45.64	43.28	42.37	41.55	40.70	36.80	36.68	35.22	34.65
Health care	40.9	55.3	73.5	115.25	161.10	257.19	346.228	402.366	429.2	493.4	609.4	618.9	665.3
(%)	10.69	10.33	11.44	13.67	15.43	15.40	14.97	14.56	14.79	14.31	14.96	15.16	14.83
Social protection and security	139.3	214	236.5	304.92	341.48	594.77	846.384	1054.42	1123	1495.4	1769.5	1750.3	1971.2
(%)	36.4	39.98	36.83	36.16	32.53	35.61	36.60	38.16	38.70	43.38	43.44	42.88	43.95
Other	20.6	31	38.2	50.589	67.144	95.295	140.225	158.267	168.4	189.9	240.8	274.9	294.0
(%)	5.38	5.79	5.95	5.99	6.40	5.70	6.06	5.73	5.80	5.51	5.91	6.73	6.55
Science	9.3	16.6	20	28.8	32	43.9	62.1	83.3	92.8	106.1	116.7	117.0	124.2
(%)	1.22	1.34	1.33	1.34	0.84	0.72	0.58	0.79	0.79	0.69	0.67	0.61	0.66
Administrative expenditures	111.4	189.4	245.2	330.3	421.54	629.9	786.32	938.6	971.5	992.2	1271.5	1398.6	1553.3
(%)	14.58	15.34	16.32	15.43	11.12	10.35	7.30	8.94	8.26	6.44	7.30	7.31	8.30
Other expenditures	171.3	250.4	303.8	493.6	1040	1391.9	2654.7	2345.1	2910.3	4048.8	4994.7	5338.6	4948.4
(%)	22.42	20.28	20.22	23.06	27.43	22.87	24.64	22.33	24.73	26.3	28.68	27.88	26.44

Source: Adapted from "Statistical Database" by the State Statistical Committee of the Republic of Azerbaijan (2016, January). Retrieved from https://www.azstat.org/MESearch/search?departament=10&lang=en

for over twenty years (The Ministry of Finance of the Republic of Azerbaijan [MOFAZ], 2015).

3. Tax policy

After regaining independence in 1991, the tax policy and related reforms were among the most important issues for the newly independent country. The first step of the tax reform was made by establishing a tax service under the Ministry of Finance in 1990. However, after regaining independence, this service became more important for the state; hence, the tax service was separated from the Ministry of Finance into the Main State Tax Inspectorate under the Republic of Azerbaijan established in 1991. The main idea behind this action was to improve the tax legislation and increase efficiency of tax collection. This process continued during the subsequent years, resulting in the Ministry of Taxes being founded on February 11, 2000 on the basis of the Main State Tax Inspectorate. The primary idea behind the changes was to ensure the state control over the collection of tax payments and to adapt the tax system more precisely to the economic system.

The taxation system in the Republic of Azerbaijanis based on the Tax Code adopted in 2000. Other legal acts and international treaties adopted into local law also play an important role in ensuring a sufficient tax policy. Taxes in the country are divided into three levels: state taxes, autonomous republic taxes and local (municipal) taxes. According to the Tax Code on corporate income taxes, the Value Added Tax (VAT), excise taxes, property tax, land tax, road tax, mining tax and simplified tax are the proper taxes in the Republic of Azerbaijan.

According to the Tax Code of the Republic of Azerbaijan, persons with a monthly income of less than 200 AZN do not pay taxes on the first 93.50 AZN. The personal income tax rate on the monthly income of up to 2000 AZN is 14%. In other words, 14% tax rate applies to persons with annual incomes of up to 24000 AZN. However, persons with monthly incomes greater than 2000 AZN are taxed 280 AZN plus 30% of income over 2000 AZN. In addition, taxes at the rates of 3% for employees and 22% for employers have to be paid as Social Protection Fund contributions.

On the other hand, companies meeting certain criteria must pay corporate income taxes. This tax is 20% of the annual profit. VAT is levied via another tax form on companies with incomes of 150 000 AZN during 12 consecutive months, and individuals earning 90 000 AZN during 12 consecutive months. The rate of VAT in Azerbaijan is 18%.

Excise taxes are considered indirect taxes on producers and importers of excise goods. The rates of excise taxes for various goods are as follows: 0.2 AZN per liter of sparkling wine, 0.08 AZN per liter of beer and beer-containing drinks, 12.5% for tobacco products, etc. Such taxes also apply to cars, other vehicles such as yachts, and sports boarding depending on the engine volume. The tax rates per ccm for vehicles with engine volume of up to 2000ccm, 3000 ccm, 4000 ccm, and more than 4000ccm are, respectively, 0.15 AZN, 300AZN plus 1 AZN per ccm, 1300 AZN plus 2 AZN per ccm, and 3300AZN plus 4 AZN per ccm.

The property tax is assessed on assets carried on balance sheets and asset registers. This tax is calculated as 1% of the average annual net book value of fixed assets. In addition, the land tax was levied on land owners or users on the territory of the Republic of Azerbaijan. The rate of this tax is 0.06 AZN for every statutory unit.

The road tax is intended for transport equipment entering the territory of the Republic of Azerbaijan. The rate of this tax depends on various criteria, such as capacity, weight, andthe number of seats. Additionally, privately owned transport vehicles are also subject to road tax. Government-owned and agricultural vehicles are exempt from this tax. The tax rate on transport facilities is as follows: 0.01 AZN per ccm for passenger cars with engine capacity up to 2000 ccm. The tax rate on cars with the engine capacity over 2000 ccm is 20AZN plus 0.02 AZN per ccm of capacity exceeding 2000 ccm. The tax rate of 0.02 AZN per ccm is intended for buses and other auto transport.

According to the Tax Code of the Republic of Azerbaijan, companies and natural persons extracting minerals within the territory of the Republic of Azerbaijan and its sector of the Caspian Sea are liable for a mining tax. It is calculated on the total volume at wholesale prices per m^3.

A simplified tax system is intended for establishments with a net book value of more than 1 million AZN, which are not registered as VAT payers. The simplified tax rate is 4% for activities performed in Baku and 2% in other regions. For persons in the construction industry, the respective tax rate is 10 AZN per m^2.

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The simplified tax rate on passenger transport vehicles with capacity of up to 13 passengers is 1.8 AZN per seat. Vehicles with 13-31 seats have to pay 21.6 AZN plus 0.5 AZN per every seat beginning with the 13th. The simplified tax rate on passenger vehicles with more than 31 seats is 30.6 AZN plus 0.3 AZN per every seat beginning with the 31st. This tax type is calculated for taxis at 9 AZN per vehicle and for freight transports at 1 AZN per 1 ton of carrying capacity.

As stated above, there are also other tax-levying entities, such as Nakhchivan Autonomous Republic (NAR) and municipalities. NAR taxes are the same as state taxes, while local taxes can be grouped as follows: land tax, property tax, profits tax and mineral royalty tax.

3.1. Tax policy changes prior to and during the oil boom

To better understand Azerbaijan's tax policy changes before, during and after the oil boom, it is necessary to divide government taxation policies into two subgroups, resource sector and the non-oil sector.

Non-oil sector taxation is more interesting and important for understanding the situation. There are several explanations for this. First, the "resource curse" theory indicates that countries facing a resource boom that do not develop non-resource sectors can encounter a number of challenges (Auty, 1993). It is not a secret that taxes can play an active role in stimulating non-oil sectors, such as agriculture and manufacturing. Although the amount of tax revenues from the non-oil sector increased overtime consistently with an economic expansion, such revenues represent a very small share of the budget due to revenue flows from resources. As a result, the non-oil sectors became "forgotten fields" of the government (Zermeño, 2008).

According to the Ministry of Tax of the Republic of Azerbaijan, the highest rate VAT was reduced from 28% to 20%in 1993 and from 20% to 18%in 2001, remaining the same afterwards. The corporate income tax rate also decreased overtime, in 1997 to 32%, in 1999 to 30%, in 2000 to 27%, in 2003 to 25%, in 2004 to 24%, in 2006 to 22%, and lastly in 2010 to 20%. The property tax rate changed only once within the entire period, increasing in 2001 from 0.5% to 1%. Before the oil boom, the government did not change the lower income tax bracket, while reducing the upper bracket in 1996 and 2000 from 55% to 40% and to 35%, respectively. In 2004, the only change was an increase of the lower bracket by 2% from 12% to 14%.

After the start of the oil boom in 2005, various tax rates declined. For example, just before the expected oil boom, in 2004, the social security contributions (SSC) by employers and employees decreased from 28% to 25%. One year later, the corporate income tax rate was reduced from 24% to 22%. Moreover, the "Law on Tax Concessions to Agricultural Product Producers" adopted in 2001 was extended once in 2003, and for the second time in 2008 until 2014 (Ahmedov, 2013).

According to this law, legal entities that produced agricultural products were exempt from the corporate income tax, VAT, simplified tax and property taxes on production of agricultural goods. The above law also covered natural entities producing agricultural products by exempting them from VAT and property tax.

3.2. Tax policy changes "post" the oil boom

Due to the decline in oil production and export revenue, the government had to change certain policies. This process was accelerated by sharply decreasing oil prices in global markets. The tax policy was also affected by these events. As a result, the tax rates and penalties were increased, while enforcement was strengthened. For instance, the "Changes in the Tax Code of the Republic of Azerbaijan" was adopted by the parliament on October 20, 2015. According to the new rules, the rates of actions on simplified tax and public catering increased from 4% to 6% and 8%, respectively. Another change involved an imposition of a 10% tax on gambling revenues after 2016.

Penalties for tax violations were also raised from 400, 800 and 1200 AZN to 2000, 4000 and 6000 AZN for first, second and third tax offenses. In addition, the mining tax rate was increased from 10 AZN to 45 AZN for every m^3. According to changes in taxation, the levy on buildings rose to 45 AZN for every m^2 compared to the prior rate of only 10 AZN.

The penalties are not limited to tax violations. In May 2015, the parliament of the Republic of Azerbaijan amended "The code of administrative offenses". According to the new rules, persons selling ethyl alcohol, alcohol-containing drinks and tobacco products to those below the age of majority will be fined 100 AZN. Prior to the change, the penalties for such violations

were 15-40 and 40 AZN, respectively. The penalties on smokers are also being considered. The parliament is discussing an amendment to "the code of administrative offenses". According to this law, those smoking in prohibited places will be fined 30 AZN. In places with the warning signs "smoking is forbidden", punishment for natural persons is 400 AZN. For legal entities, the respective amount is intended to be 1000 AZN.

4. How effective is the fiscal policy?

The effectiveness of fiscal policy tools can be investigated by examining their contributions to primary macroeconomic indicators. For a resource-rich economy challenged by "resource curse" symptoms, development of the non-oil sector is a priority. Several studies focus on possible negative impacts of injecting revenues from production of natural resources into the national economy through fiscal channels, particularly in developing countries. Thus, such negative impacts can be considered the reason for weak institutional development (Gylfason, 2006; Xavier & Subramanian, 2003), "the Dutch Disease" (Auty, 2001; Krugman, 1987), etc. Accordingly, a comparative trend analysis of the total budget expenditure and the non-oil GDP that might provide a first impression is presented, followed by a review of recent empirical studies examining this topic in the context of Azerbaijan's economy.

Figure 4 shows a comparison of trends of both variables more clearly. The graph shows quarterly values of inflation-adjusted indicators. According to the figure, a positive correlation is expected, as the trends demonstrate changes occurring almost in parallel. In the second decade of the 21st century, this topic is starting to be analyzed empirically. While examining the Dutch Disease symptoms in Azerbaijan's economy, Hasanov (2013) observes a "spending effect" due to budget expenditures. In another study by Hasanov and Mammadov (2013), the author investigates the relationship between the budget expenditure and non-oil economic growth during 1998Q4-2012Q3 by applying a single equation-based, Autoregressive Distributed Lags Bounds Testing (ADLBT) approach developed by Pesaran, Shin and Smith (2001), and the system-based cointegration approach of Johansen (1988), and Johansen and Juselius (1990). The result confirms the existence of a positive and statistically significant long-run impact on the non-oil sector development. Hasanov and Mammadov (2013) concludes with a 0.55 estimate of the elasticity coefficient. A similar finding is obtained in Hasanov and Alirzayev (2012).

Hasanov, Yusifov, Mikayilov, Aliyev and Talishinskaya (2015) empirically examine the impact of social and physical infrastructure spending on tradable and non-tradable sector growth in Azerbaijan by using the ADLBT approach to cointegration during 1995-2014. According to the research results, the contribution of physical infrastructure spending is statistically significant for both but varies in sign between positive for non-oil tradable and negative for non-oil non-tradable GDP growth. However, the research fails to observe a significant effect of social expenditures on non-oil tradable GDP, while such effect is statistically and economically significant, and positive for non-oil non-tradable growth.

More recently, Aliyev and Nadirov (2016) and Dehning et al. (2016) studied the issue from different perspectives. Thus, Aliyev and Nadirov (2016) examined the relationship of interest by applying the ADLBT approach to cointegration of data covering the period 2000Q3-2015Q2, while controlling for oil prices and production, as well as non-transfer budget revenues (direct transfers from SOFAZ are excluded). In this context, this study can assess the fiscal policy impact on non-oil GDP through both expenditure and tax channels. It is reassuring that authors also observe a positive and significant long-run elasticity of the impact of budget expenditures on the non-oil sector, with the elasticity coefficient of 0.55 in agreement with Hasanov and Mammadov (2013). Examining the fiscal policy impact through the tax channel, Aliyev and Nadirov (2016) obtain a theoretically consistent, negative and statistically significant elasticity effect of approximately 0.45.

Moreover, Dehning et al. (2016) investigate the efficiency of budget expenditures in terms of supporting the non-oil sector by dividing the public expenditures into 6 categories (capital, education, health, social, government administration, and other expenditures) before and during the oil boom for the period 2000Q1-2014Q4 by using the ADLBT approach to cointegration. While again controlling for oil-related factors (namely, oil prices and production) and the tax channel effect, authors observe a consistently positive, and statistically significant contribution. The impact

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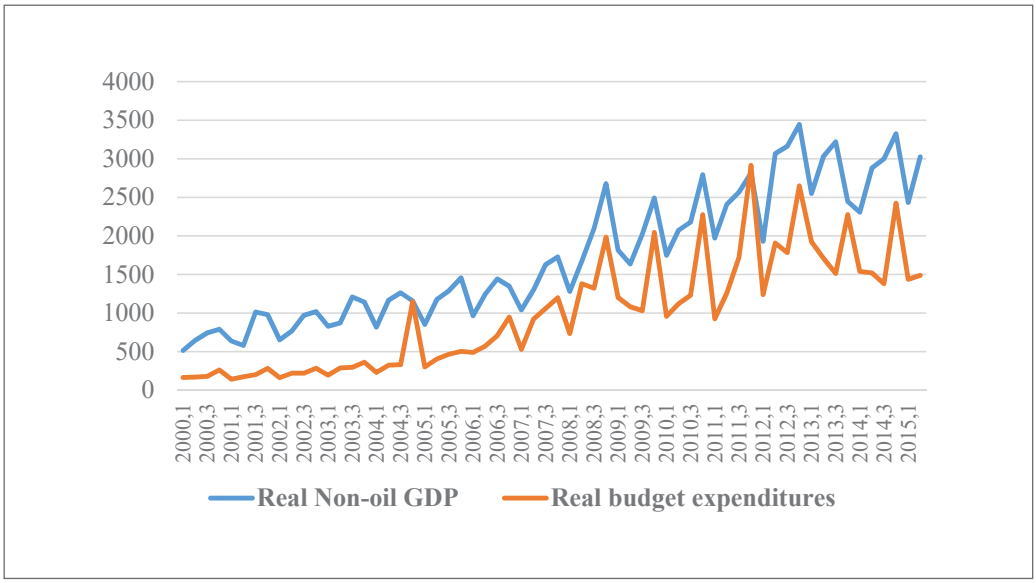

Figure 4. Non-oil GDP vs. the budget expenditures (millions AZN, base quarter 2000Q4)
Source: Adapted from "Statistical Bulletin" by Central Bank of Azerbaijan (2016, January). Retrieved from https://en.cbar.az/pages/publications-researches/statistic-bulletin/

of education expenditures being positive but statistically insignificant is the only exception. The findings of Dehning et al. (2016) demonstrate significant changes in the efficiency of public expenditures before and during the oil boom. The impact of all expenditure categories on non-oil GDP has been significantly lower during the oil boom than prior to 2005. The effect of the tax channel is always negative, as expected, yet is statistically significant in only 2 models (Dehning et al., 2016).

Beyond observing a statistically significant relationship, it is noteworthy to examine the economic significance of public expenditures in the developing non-oil sector. The elasticity coefficient is 0.55 according to both Hasanov and Mammadov (2013) and Aliyev and Nadirov (2016). In other words, a 1% increase in public expenditures leads to 0.55% rise of non-oil GDP. At first sight, this effect is fairly strong, unless the amount of non-oil GDP in Azerbaijan's economy is considered. The expenditure multiplier can be easily calculated using the elasticity coefficient in Hasanov and Mammadov (2013), and Aliyev and Nadirov (2016). By using quarterly data from Aliyev and Nadirov (2016) with the elasticity coefficient of 0.55, we obtained an estimate of the quarterly expenditure multiplier for Azerbaijan. The results are very informative as to the efficiency of public expenditure. Before the oil boom, the average expenditure multiplier was approximately 1.99, while in 2005 it decreased to nearly 1.57, dropping below 1 and reaching the value of 0.87 in 2007. Almost the same trend continued during the other years of the oil boom. The average multiplier coefficient for 2010-2014 being lower than 0.90 supports this argument.

Note that the science expenditures never exceeded 0.84% during the oil boom. However, Lucas (1988) emphasizes the importance of increasing human capital to stimulate the long-run economic growth through public investments in education, while Romer (1990) underscores the significance of research and development (R&D) expenditures for this objective. Although Azerbaijan's choice of directing high capital expenditures of the state budget primarily to public infrastructure spending is also supported theoretically by Barro (1990), the question of efficiency remains open to discussion.

5. Concluding remarks

This study analyzed the experience of a resource-rich country, namely, Azerbaijan, in terms official policy implementation throughout several periods roughly labeled as before, during and after the oil boom. The country remains resource-rich; however, unbalanced expansionary policies appear unsustainable at least in the near-term. To understand the way to the near future, it is useful to review the fiscal policy implementation before and during the oil boom.

Before the oil boom, the fiscal policy in Azerbaijan's economy was stable and expansionary. In fact, the budget revenues still depended on oil production and export during the initial years of the new millennium. Despite the relatively small earnings from the resource sector, the government of Azerbaijan established the State Oil Fund of the Republic of Azerbaijan (SOFAZ) on December 29, 1999 to ensure efficient management of accumulated oil revenues and used the fund to implement important socio-economic projects. There were no direct transfers from SOFAZ to the state budget before 2003, while the amounts transferred remained relatively small until 2006. Additionally, both expenditures and revenues of the state budget were manageable.

However, the government embarked on an unbalanced and greatly expansionary fiscal policy immediately after 2006, the period called the "oil boom" by Aliyev (2014) and Aliyev and Suleymanov (2015). On the one hand, the budget expenditures increased significantly each year due to direct transfers from SOFAZ, and indirect revenues from the oil sector as taxes and other sources. On the other hand, the tax policy and collection were of lower priority to the government. Both channels led to the fiscal policy of rapid expansion during this period. However, the efficiency of public expenditures and tax concessions is open to further discussion.

Although a decline in oil production was expected and observed beginning in 2011, the government continued to follow an expansionary policy. However, oil prices tended to decrease after December 2014, with this trend continuing during 2015. The budget deficit peaked at 842 million AZN in 2015 and was planned to be approximately 1.7 billion AZN in 2016. Aside from the deficit amount, the budget expenditures are 3.2 billion AZN less than in 2015. This represents a sharply contractionary fiscal policy implementation from the expenditure side. On the other hand, fiscal policy has been consistently expansionary in the context of the tax policy before and during the oil boom, yet seemed to become slightly expansionary after the boom ended. The result is an undeveloped, uncompetitive, and local market-oriented domestic non-oil economy. All of these features portend challenges for Azerbaijan's economy in the near future.

References

Ahmedov, R. (2013). The influence tax regulation to the agricultural sector development. Tax Journal of *Azerbaijan*, *2,* 149-162.

Aliyev, I. (2013). Essays on natural resource impact (Unpublished doctoral dissertation). Center for Economic Research and Graduate Education, Charles University Prague, Prague.

Aliyev, K. (2014). *WTO membership and South Caucasus Economies*. Saarbrücken: LAMBERT Academic Publishing.

Aliyev, K., & Suleymanov, E. (2015). Macroeconomic Analysis and Graphical Interpretation of Azerbaijan Economy in 1991-2012. *Expert Journal of Economics*, *3*(1), 40-49.

Aliyev, K., & Nadirov, O. (2016). How fiscal policy affects non-oil economic performance in Azerbaijan? *Academic Journal of Economic Studies,* 2(3), 11-29.

Aschauer, D. A. (1989). Is public expenditure productive? *Journal of monetary economics*, *23*(2), 177-200.

Auty, R. (1993). *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London, UK: Routledge.

Auty, R. (2001). *Resource Abundance and Economic Development*. Oxford, UK: Oxford University Press.

Barro, R. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy*, *98*, 103-125

Bashirli, S., & Sabiroglu, I. (2013). Testing Wagner's Law in an oil-exporting economy: The case of Azerbaijan. *Transition Studies Review*, 20(3), 295-307.

Central Bank of Azerbaijan. (2016, January). Statistical Bulletin. Retrieved from https://en.cbar.az/pages/publications-researches/statistic-bulletin/

Coutinho, L. (2011). The resource curse and fiscal policy. *Cyprus Economic Policy Review*, 5(1), 43-70.

 DOI: 10.5709/ce.1897-9254.265

Dehning, B., Aliyev, K., & Nadirov, O. (2016). Modelling 'productivity' of budget expenditure items before-and-after the oil boom in a resource rich country: evidence from Azerbaijan. *International Journal of Economic Research*, *13*(4), 1793-1806.

Del Monte, A., & Papagni, E. (2001). Public expenditure, corruption, and economic growth: The case of Italy. *European Journal of Political Economy*, *17*(1), 1-16.

Glomm, G., & Ravikumar, B. (1997). Productive government expenditures and long-run growth. *Journal of Economic Dynamics and Control*, *21*(1), 183-204.

Gylfason, T. (2006). Natural resources and economic growth: From dependence to diversification. In H. G. Broadman, T. Paas, & P. J. J. Welfens (Eds.), *Economic Liberalization and Integration Policy*. Options for Eastern Europe and Russia (pp. 201-231). Berlin: Springer-Verlag.

Hasanov, F.,& Alirzayev, E. (2012). *The government spending, FDIs and the non-oil sector of the oil-exporting economy.* Unpublished manuscript, Institute for Social Sciences and Humanities, Qafqaz University, Baku, Azerbaijan.

Hasanov, F. (2013). Dutch disease and the Azerbaijan economy. *Communist and Post-Communist Studies*, *46*(4), 463-480.

Hasanov, F., & Mammadov (2013). The role of the fiscal policy in the development of the non-oil sector in Azerbaijan (MPRA Working Paper No. 65571). University Library of Munich, Germany. Retrieved from https://mpra.ub.uni-muenchen.de/65571/1/MPRA_paper_65571.pdf

Hasanov, F., Yusifov, S., Mikayilov, C., Aliyev, K., & Talishinskaya, S. (2015). The role of social and physical infrastructure spending in tradable and non-tradable growth. Forthcoming *Contemporary Economics.*

Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control*, *12*(2-3), 231-254.

Johansen, S., & Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration-with applications to the demand for money. *Oxford Bulletin of Economics and statistics*, *52*(2), 169-210.

Koeda, J., & Kramarenko, V. (2008). Impact of government expenditure on growth: The case of Azerbaijan (Working Paper No. 08/115). International Monetary Fund. Retrieved from https://www.imf.org/~/media/Websites/IMF/imported-full-text-pdf/external/pubs/ft/wp/2008/_wp08115.ashx

Krugman, P. (1987). The narrow moving band, the Dutch disease, and the competitive consequences of Mrs. Thatcher: Notes on trade in the presence of dynamic scale economies. *Journal of Development Economics*, *27*(1-2), 41-55.

Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, *22*(1), 3-42.

MOFAZ. (2015, February 18). Foreign state debt of the Republic of Azerbaijan for January 1, 2015. Available at http://maliyye.gov.az/en/node/1808

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, *16*(3), 289-326.

Romer, P. (1990). Endogenous technological change. *Journal of Political Economy*, 98(5), 71-102.

Sabiroglu, I. M., Bashirli, S., & Qasimli, F. (2011). Creating a favourable deployment mechanism of oil and gas revenues with regard to volatile oil prices: The case of Azerbaijan. *Transition Studies Review*, *18*(1), 179-199.

SOFAZ. (2015). Latest figures: at October 01, 2015. Available at http://www.oilfund.az/en_US/hesabatlar-ve-statistika/son-reqemler.asp

State Oil Fund of the Republic of Azerbaijan. (2016, January). Reports archive: quarterly statements. Retrieved from http://www.oilfund.az/index.php?page=hesabat-arxivi&hl=en_US

The State Statistical Committee of the Republic of Azerbaijan. (2016, January). Statistical Database. Retrieved from https://www.azstat.org/MESearch/search?departament=10&lang=en

Xavier, S., & Subramanian, A. (2003). Addressing the natural resource curse: an illustration from Nigeria (Working paper No. 9804). The National Bureau of Economic Research.

Zermeño, M. (2008). Current and proposed non-oil tax system in Azerbaijan (Working Paper No. 08/225). International Monetary Fund. Retrieved from https://www.imf.org/external/pubs/ft/wp/2008/wp08225.pdf

 DOI: 10.5709/ce.1897-9254.265