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FISCAL POLICY CHALLENGES IN THE RESOURCE-RICH COUNTRIES

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Fiscal policy challenges in the resource-rich countries

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XÜLASƏ

The reliance of economies on commodity exports may cause heightened volatility in fiscal policy due to the inherent unpredictability of commodity prices. This paper employs a comparative analysis using data spanning from 2003 to 2022 across several oil-exporting countries to assess fiscal policy volatility in such nations.

The findings reveal a discernible elevation in fiscal policy volatility among oil exporters, underscoring the need for effective mitigation strategies. Moreover, the paper discusses various fiscal rules, their advantages, and drawbacks, while also examining Azerbaijan's current fiscal rule landscape and the need for further analysis on the procyclicality of its fiscal policy.

Keywords: *resource-rich country, government spending, export, fiscal policy, GDP*

JEL code: E62, F43, O40

INTRODUCTION

The resource-based economy definition is used for the countries that derive a significant portion of their gross domestic product (hereon, GDP) from natural resources. Most commodities exhibited significant price volatility at various times. The volatility in commodity prices results in the volatility of the economy in commodity-exporter resource-based economies. The economy of Azerbaijan experienced such an impact of commodities after the oil price crash in 2014-15. While the additional volatility caused by the resource dependency is enough to warrant different fiscal policy treatment in resource-based economies, the fact that government revenues are also significantly exposed to the resource revenues in those countries makes the need for tailored fiscal policy even more crucial.

LITERATURE REVIEW

There are many recently published research papers on the topic, and while most of them have a global focus, the research focused on the commodity-exporter countries is also noteworthy for the purpose of this paper.

Marioli et al. (2024) analyzed the data from a number of countries over the period from 1990 until 2021, and found that the commodity exporter countries have more volatile fiscal policies compared to the non-commodity exporter countries. Another finding was that emerging and developing countries have more volatile fiscal policies compared to developed countries. The dependence of economy on the commodities and poor institutional development were determined as the factors contributing to the fiscal policy variability in this research. The fiscal rules, liberalization of the capital flows, and freely floating exchange rate regimes were found to be effective for the solution of the fiscal policy volatility problem.

Ma and Lv (2023) analyzed the data from 96 countries over the period from 1990 until 2019. The focus of this paper was on the impact of financial development on fiscal policy volatility. The analysis results showed that higher financial instability is correlated with higher volatility in fiscal policy. The correlation was found to be even stronger in the periods of expansionary and recessionary phases of business cycles.

Brzozowski and Siwinska-Gorzelak (2010) analyzed the impacts of different types of fiscal

rules on fiscal policy stability. The findings exhibited that the fiscal rules limiting the amount of public debt contributed to stabilizing fiscal policy and decrease fiscal policy volatility. However the fiscal rules limiting the amount of fiscal deficit were found to be correlated with higher volatility of fiscal policy.

Nguyen et al. (2023) found that higher volatility of economic policies is correlated with the procyclical fiscal policies, which implies that fiscal policy volatility leads to the procyclical fiscal policy.

Chrysanthakopoulos and Tagkalakis (2024) analyzed data from 86 economies including both advanced and emerging countries. The findings exhibited an asymmetric impact of the fiscal rules during different phases of the business cycles. According to this paper, the fiscal rules resulted in procyclical fiscal policy during the expansionary phases of business cycles and countercyclical fiscal policy during the recessionary phases of business cycles.

Herrero-Alcalde et al. (2024) found that the expenditure rule contributed to budget sustainability by putting limits on current and primary government expenditure in Spain.

Matallah and Matallah (2017) analyzed the impact of fiscal policy on economic growth in another resource-rich country - Algeria throughout 1970-2015. The authors categorized government current spending into productive and unproductive categories. The current spending category included expenses on interest payments, some subsidies, wages, and salaries related to public administration and defense payments. The productive capital spending category included current government spending on education, healthcare, transport, residential real estate, etc. The long-run findings of the research paper are listed below:

- The statistically significant negative link between government unproductive current spending and economic growth
- The statistically significant negative link between government capital spending and economic growth
- The statistically significant positive link between government productive current spending and economic growth
- The statistically significant negative link between direct tax revenue and economic growth
- The statistically significant positive link between indirect tax revenue and economic growth

The findings of this paper regarding the short-term links between fiscal policy variables and economic growth are also noteworthy. They found statistically insignificant, but positive short-term links between real economic growth and 2 fiscal policy variables - direct taxes and unproductive current expenditures. Analysis results also exhibited significant negative short-term links between real GDP growth and 2 fiscal variables - indirect taxes and productive current expenditures. The negative link between these variables and economic growth is interesting as the latter 2 variables have a statistically significant positive link with economic growth in the long term, but a statistically significant negative link in the short term. The negative link found in the short-term model (in contrast to the positive link in the long-term model) can be attributed to the "automatic stabilizers" effect. It means that there has been a countercyclical movement of the mentioned fiscal indicators - they moved in the opposite direction to the general economy in the short term.

Another research paper on the dynamics of the fiscal policy in Algeria was written by Chibi, Benbouziane, and Chekouri (2014) covering the period from 1970 to 2011. The findings exhibited that fiscal policy in Algeria was historically procyclical rather than countercyclical. The authors also found that fiscal policy shocks had a stronger impact during the recession phases of business cycles compared to expansion phases in Algeria, this finding shows an asymmetric effect.

Aliyev and Nadirov (2016) identified a short-term negative correlation (though statistically insignificant) between government spending and non-oil economic growth in Azerbaijan. This negative relationship is partly attributable to the operation of automatic stabilizers.

Furthermore, Abbasov and Aliyev (2018) uncovered a bidirectional causality between government spending and economic growth in the short term. By synthesizing these two short-term findings, it can be inferred that fiscal policy in Azerbaijan is countercyclical in the short term, decreasing economic activity leads to an increase in government spending through the mechanisms of automatic stabilizers.

ANALYSIS

The World Bank research mentions notable fiscal problems of resource-rich emerging market countries in the report on Global Economic Prospects (January 2024). According to this report, the government debt-to-GDP ratio in these countries rose from 33% to 58% in the last decade. This ratio is expected to increase with current trends as the fiscal deficits of these countries are estimated at 3 times of commodity-importer countries.

One of the reasons for the higher fiscal deficits in resource-rich countries is the volatility in commodity prices. According to the World Bank report in 2022, down cycles in commodity prices have been longer than rising cycles in commodity prices. Governments without consistent fiscal rules may incur significant fiscal deficits when commodity prices drop because of this volatility in commodity prices. Let us assume a case of a plunge in commodity prices. As a result of decreasing prices, the commodity sector will shrink and the resource-based economy will experience economic contraction. Government revenues will also decrease accordingly, as the resource revenue has a significant weight in the government revenue of resource-rich countries. Now, we can analyze the possible discretionary fiscal steps and their expected impacts:

- Contractionary fiscal policy measures - this path can be chosen to prevent rising fiscal deficit and government debt. The drawback of this path is procyclicality. The decrease in resource prices already caused a slowdown in the economy, from the Keynesian point of view fiscal policy should be countercyclical, which implies taking expansionary fiscal policy measures (increasing government spending and transfers, decreasing taxes) to fight the slowdown in the economy.
- Expansionary fiscal policy steps - this path is more rational to mitigate the economic impacts of the commodity price plunge. The drawback of this path is the increasing fiscal deficit and government debt.

The case presented above offers a possible explanation for the higher government debt ratios of the commodity-exporter countries. Additionally, it presents an important characteristic of fiscal policy - procyclicality or countercyclicality. The aforementioned World Bank report presented some notable findings on the topic:

- Fiscal policies of the resource-rich countries have been more procyclical
- Fiscal policies of the resource-rich countries have been more volatile
- As a result of the procyclical nature of fiscal policies in resource-rich countries, governments failed to smooth business cycle and commodity cycle impacts on the resource-based economies
- Fiscal rules, Sovereign Wealth Funds, and general institutional development may be beneficial to prevent procyclical and volatile fiscal policies

We can also conduct similar analyses on specifically oil-exporter countries to find out whether the World Bank results hold. The "Oil rents" indicator from the World Bank database measures the difference between the value of oil production and total costs of production divided by Gross Domestic Product. Hence, we can use the "Oil rents" indicator as a gauge of the oil dependency of economies. Based on the last 10 years average, the following chart ranks countries from the countries with the highest oil rents to the lowest. Only countries that have higher than 10% oil rents as a percentage of Gross Domestic Product are included in the analysis. Some other indicators like the oil sector's weight in the countries' GDP, the oil sector's weight in exports, or the oil sector's weight in the government revenue would possibly be even more useful to gauge oil-dependent economies. Unfortunately, we could not find a uniform database for the

mentioned measures. Therefore, we choose to use the oil rents indicator from the World Bank database. Some of the countries with the highest oil rents are presented below:

Table 1: Oil rents %

Oil rent (%)	2018	2019	2020	2021	Average (10 yrs)
Iraq	46%	40%	27%	43%	41%
Kuwait	44%	39%	28%	0%	38%
Libya	30%	33%	9%	56%	31%
Saudi Arabia	28%	24%	16%	24%	29%
Congo, Rep.	38%	36%	22%	34%	27%
Angola	31%	28%	19%	28%	25%
Oman	24%	22%	15%	24%	24%
Equatorial Guinea	20%	19%	11%	15%	19%
Azerbaijan	24%	20%	11%	21%	19%
Gabon	18%	17%	10%	16%	18%
Iran, Islamic Rep.	28%	20%	13%	18%	18%
United Arab Emirates	17%	16%	10%	16%	17%
Qatar	16%	15%	11%	15%	17%
Algeria	16%	14%	9%	14%	15%
Chad	17%	16%	9%	17%	13%
Bahrain	11%	10%	7%	11%	13%
Kazakhstan	15%	13%	7%	15%	12%

Source: *World Bank*

In order to better understand the differences in the interaction between fiscal policies of resource-based economies and the rest, the comparison of countries given in the table above and the rest of the world would potentially yield useful insights.

Table 2: Government revenue-to-GDP ratio and its volatility

Country / Group	Average government revenue/GDP (20 years)	St.deviation
Algeria	36%	5%
Angola	31%	10%
Azerbaijan	36%	7%
Bahrain	23%	3%
Chad	18%	5%
Congo, Dem. Rep. of the	12%	3%
Equatorial Guinea	26%	7%
Iran	13%	3%
Kazakhstan	23%	4%
Kuwait	63%	7%
Libya	52%	21%
Nigeria	12%	6%
Oman	36%	5%
Qatar	40%	7%
Saudi Arabia	36%	9%
Average	**31%**	**7%**
Advanced economies	**36%**	**1%**
Emerging G-20	**27%**	**2%**
Emerging Market and Middle-Income Economies	**28%**	**1%**
Low-Income Developing Countries	**16%**	**2%**
Low-Income Developing Oil Producers	**14%**	**6%**

Source: *International Monetary Fund*

As mentioned earlier, the World Bank report on the Global Economic Prospects (January, 2024) argued that the fiscal policies of resource-rich commodity exporter countries are more volatile. The averages and standard deviations (20 years) of government revenue-to-GDP ratios from oil-rich countries and some analytical groups are presented in Table 2. The selected countries are chosen based on Table 1 - the countries with higher than 10% oil rents-to-GDP ratio according to the World Bank database. The comparison of average government revenue-to-GDP ratios among average oil-based economies, advanced economies, and other groups does not provide any significant insight. The average government revenue-to-GDP ratio of the selected oil-based economies is 31%, while advanced economies' average government revenue-to-GDP ratio is 36%, and for the low-income developing countries this ratio is 16%. As most of the oil-rich countries listed in the table fall between low-income countries and advanced economies, the 31% government revenue-to-GDP level is not far from expectation, it is also very close to the 28% Emerging Market and Middle-Income Economies analytical group as expected. Azerbaijan's government revenue-to-GDP level (36%) is higher than the average of the selected oil-rich countries and almost equal to the advanced economies.

The more important insight that can be derived from Table 2 is regarding the volatility of government revenue-to-GDP ratios. The average standard deviation of government revenue-to-GDP ratio among the selected oil-rich countries is 7%, which is higher than that of all other analytical groups - Advanced Economies (1%), emerging G-20 (2%), Emerging Market and

Middle-Income Economies (1%), and Low-Income Developing Countries (2%). Another interesting comparison is between Low-Income Developing Countries and Low-Income Developing Oil Producer Countries groups, while both categories only include low-income countries the oil producer countries have a 4% higher volatile government revenue-to-GDP ratio. The results of comparative analysis derived from Table 2 are in line with the World Bank's Global Economic Prospects report regarding the more volatile nature of commodity exporter countries.

A similar analysis can be conducted using the government expenditure-to-GDP ratio as well. The average and standard deviations of government revenue-to-GDP ratios based on the last 20 years' data from the International Monetary Fund are presented in Table 3:

Table 3: Government revenue-to-GDP ratio and its volatility

Country	Average government expenditure/GDP (20 years)	St.deviation
Algeria	39%	5%
Angola	31%	9%
Azerbaijan	32%	5%
Bahrain	30%	4%
Chad	18%	4%
Congo, Dem. Rep. of the	13%	3%
Equatorial Guinea	24%	9%
Iran	16%	3%
Kazakhstan	22%	2%
Kuwait	45%	10%
Libya	49%	14%
Nigeria	14%	2%
Oman	36%	6%
Qatar	31%	4%
Saudi Arabia	33%	4%
Average	**29%**	**6%**
Advanced economies	**40%**	**2%**
Emerging G-20	**31%**	**3%**
Emerging Market and Middle-Income Economies	**30%**	**2%**
Low-Income Developing Countries	**18%**	**1%**
Low-Income Developing Oil Producers	**16%**	**3%**

Source: *IMF*

The analysis based on average government expenditure-to-GDP ratios does not offer much (similar to the analysis based on the government revenue-to-GDP ratios). The average government expenditure-to-GDP ratio for the oil-rich countries is 29%, a little below the level of government expenditure-to-GDP ratio for advanced economies and emerging economies.

Azerbaijan's government expenditure-to-GDP level (32%) is a little bit higher than the emerging economies (30%) and below the advanced economies (40%). The comparison between low-income developing countries and low-income developing oil-producer countries also shows that the oil revenues do not cause a significant difference in the level of government expenditure-to-GDP ratio. But if one compares the volatility of government spending-to-GDP ratios, the results will be different from the level comparison. The average standard deviation of the government expenditure-to-GDP ratio for the selected oil-rich countries is 6%. For comparison, the standard deviation of this ratio is 2%, 3%, and 2%, respectively for the advanced economies, emerging G-20, and emerging market and middle-income economies analytical groups. Additionally, if one makes this comparison among low-income countries, it can be seen that the oil producer low-income countries have a 2% higher standard deviation of government expenditure-to-GDP ratio compared to the other low-income countries. While Azerbaijan has a lower volatility of government expenditure-to-GDP ratio compared to the average of the selected oil-rich countries, it is still above the advanced, emerging mid-income and low-income countries. The results of the comparative analysis derived from Table 3 (based on the government spending-to-GDP ratios) are also in line with the World Bank Global Economic Prospects report regarding the more volatile nature of commodity exporter countries' fiscal policies.

Another indicator of fiscal policy is the government deficit. The average and standard deviations of government deficit-to-GDP ratios based on the last 20 years' data from the International Monetary Fund are presented in Table 4:

Table 4: Government revenue-to-GDP ratio and its volatility

Country	Average government surplus/ deficit-to-GDP (20 years)	St.deviation
Algeria	-3%	8%
Angola	0%	5%
Azerbaijan	4%	6%
Bahrain	-7%	7%
Chad	0%	4%
Congo, Dem. Rep. of the	0%	1%
Equatorial Guinea	2%	11%
Iran	-3%	2%
Kazakhstan	1%	4%
Kuwait	18%	15%
Libya	4%	21%
Nigeria	-2%	5%
Oman	1%	10%
Qatar	10%	7%
Saudi Arabia	3%	12%
Average	**2%**	**8%**
Advanced economies	**-4%**	**3%**
Emerging G-20	**-3%**	**3%**
Emerging Market and Middle-Income Economies	**-3%**	**3%**
Low-Income Developing Countries	**-2%**	**2%**
Low-Income Developing Oil Producers	**-2%**	**4%**

Source: *IMF*

The average government surplus/deficit-to-GDP ratio for the selected oil-rich countries is positive (2%) and higher than the negative average for the advanced economies (-4%), emerging G-20 (-3%), and emerging market and middle-income economies (-3%). These results imply that the selected oil-rich countries have more government surplus in the last 20 years compared to the other analytical groups. It is noteworthy that there are 2 outliers among oil-rich countries, Kuwait (18%) and Qatar (10%). If these outliers are excluded from the data, the average for the selected oil-rich countries falls a little bit under zero. Additionally, when the average government surplus/deficit-to-GDP ratios of low-income developing countries and low-income developing oil producers are compared, it can be seen that there is no significant difference. Therefore, the results regarding the level of government surplus/deficit-to-GDP ratio are not conclusive. It is worth mentioning that Azerbaijan's average government surplus/deficit-to-GDP ratio (4%) is above the average of the selected oil-rich countries and the analytical groups like the advanced, emerging, and low-income countries.

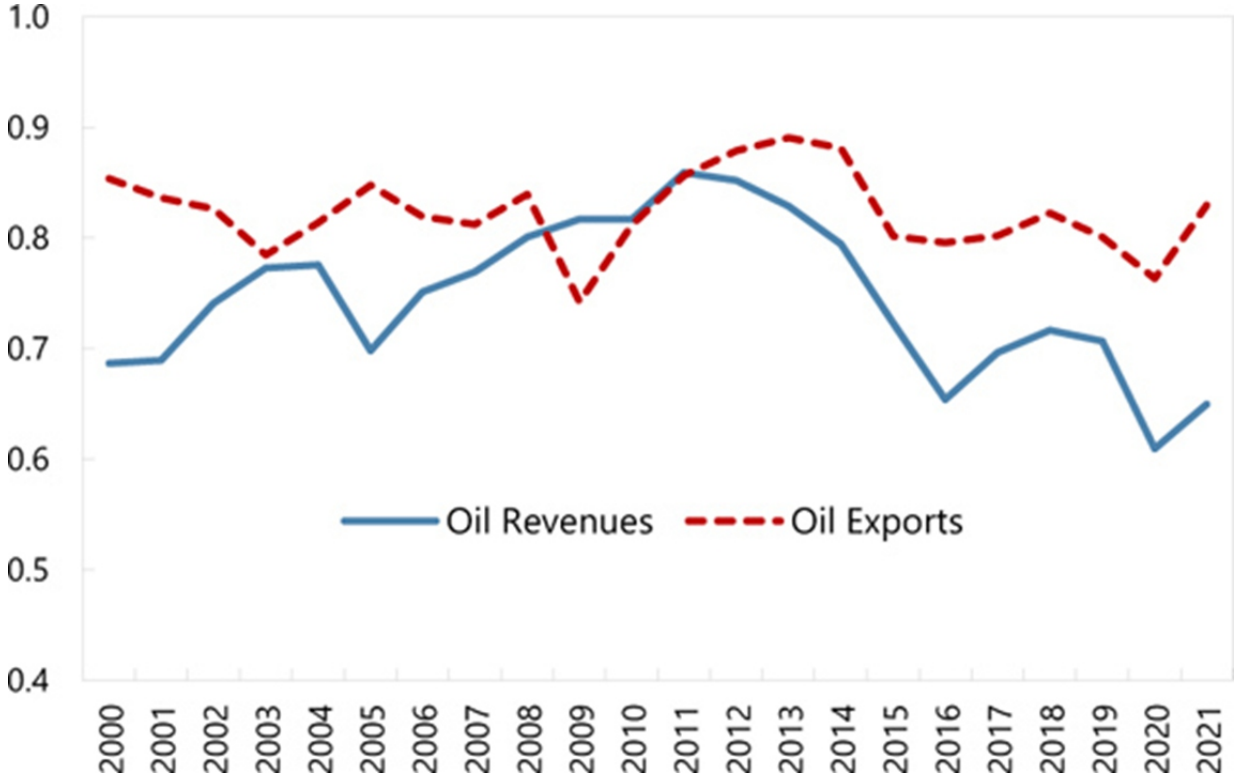
Similar to the government revenue and expenditures, the results from the comparative analysis of the government deficit-to-GDP ratios are in line with the World Bank Global Economic Prospects report. The average standard deviation for the selected oil-rich countries is 8% which is significantly higher compared to the volatility of government surplus/deficit-to-GDP ratios in the advanced, emerging, and low-income economies. Although Azerbaijan has lower volatility (6%) of government surplus/deficit-to-GDP ratio compared to the selected oil-rich countries (8%), it is still higher than other analytical groups. The comparison among low-income countries also shows that oil-producer countries have higher volatility of fiscal policy.

Now that we have established the helicopter view of the general characteristics of resource-rich economies, we can move on to the possible solutions for the fiscal policy volatility in commodity-exporter countries.

GLOBAL PRACTICE

Kuwait has an oil-dependent economy like Azerbaijan based on the World Bank oil rents database. According to an IMF paper named "Building a Medium-Term Fiscal Framework in Kuwait" published in 2023, the oil sector of Kuwait accounts for approximately 70 percent of budget revenues and about 80 percent of exports in the period of 2017-2021:

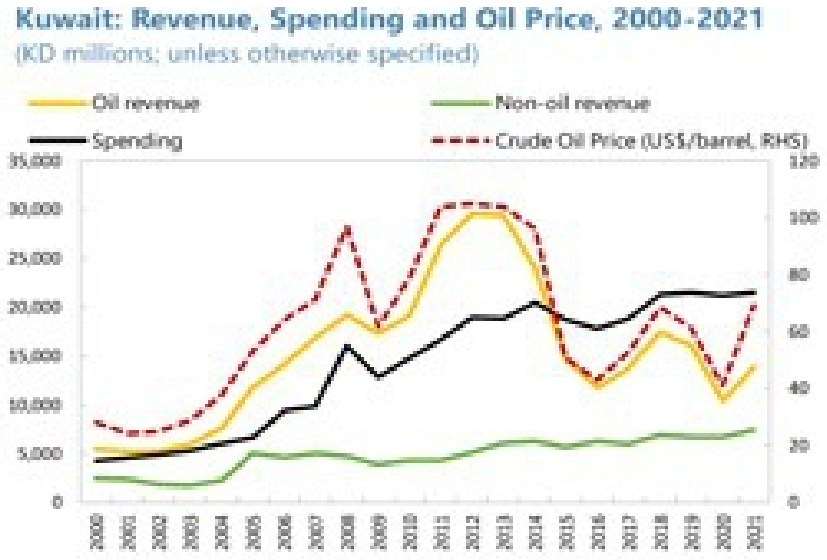
Chart 1. Weight of oil revenues in budget revenues and oil exports in total exports



Source: *International Monetary Fund*

One interesting fact about Kuwait's fiscal policy is that while budget revenues are volatile as a result of dependency on oil revenues, government spending in Kuwait has been historically more stable as you can observe in Chart 2. It means that Kuwait does not adjust its government spending based on oil prices in the short term, they use reserves accrued by oil revenues instead of reducing government spending in parallel with government revenues.

Chart 2. The dynamics of oil revenues, non-oil revenues, and government spending in Kuwait



Source: *International Monetary Fund*

Keeping government spending stable while budget revenues fluctuate in correlation with oil prices comes at the expense of reducing reserves aimed to be saved for the use of future generations. According to the IMF paper, after 2014-15 oil price crash in 2014-15 and the Covid-19 pandemic, the liquid reserves of the General Reserve Fund - which has the role of treasury and stabilization fund in Kuwait - almost depleted and to finance government spending the Kuwait government has been obliged to use more illiquid Future Generation Fund - which has role of protecting reserves for future generations as sovereign wealth fund - assets. Using illiquid assets to finance government spending is not an efficient practice as some amount of liquidity discount (based on the capital market situation at that time) will be incurred to liquidate illiquid assets.

The mentioned IMF paper makes some proposals on fiscal rules that Kuwait can use:

1. Rules on Fiscal Balance:

a. An overall balance rule - putting an upper limit to the deficit as a percent of GDP. The disadvantage of this approach is that this rule may result in procyclical fiscal policy, which is counterintuitive as fiscal policy should be countercyclical to mitigate business cycles. The reason for the procyclicality of this rule is that when there is a recession and GDP shrinks, this rule would require the government to reduce government spending or increase tax revenues in order to decrease the deficit amount, this approach would result in an even more severe recession. In summary, an overall balance rule will impede the automatic stabilizers and will not permit the government to make countercyclical discretionary fiscal policies.

b. A non-resource primary balance rule - excludes the oil sector revenues and the oil sector expenditures, and the fiscal balance (deficit or surplus) is normalized compared to non-oil GDP rather than total GDP. This approach is like a customized version of an overall balance rule approach for resource-rich countries.

c. A golden rule - this approach may be combined with an overall balance rule or a non-resource primary balance rule, the only difference is that under this approach, the budget deficit will be calculated net of government capital spending. The reason to exclude capital spending is the underlying assumption that government capital spending will be fuel for economic growth. While that underlying assumption is generally accepted, there are many side issues such as productivity of capital spending, governance quality, etc. While some research papers as Gupta et al. (2005), Hasanov et al. (2018), and Rivero and Guerrero (2022) support the assumption that there is a positive link between government capital spending and economic growth, Devarajan et al. (1996) found statistically significant negative link between government capital expenditure and real per capita GDP growth.

2. Structural rules:

a. A cyclically adjusted rule - this approach mitigates the procyclicality of fiscal balance rules by taking into consideration the impacts of business cycle movements on government spending and revenues. By adjusting for the business cycle fluctuations, this approach lets automatic stabilizers adjust budget deficit accordingly - increasing deficit or decreasing surplus during recessions, decreasing deficit or increasing surplus - during expansion and recession periods. The problem with this approach is that making adjustments for business cycle fluctuations is difficult and prone to errors, especially when data quality is not enough and the economy of the country is undergoing structural changes.

b. A structural rule - is an extended version of a cyclically adjusted rule. This rule makes adjustments for not just business cycles, but also other economic cycles such as credit cycles which significantly impact asset and commodity prices. Using this approach, governments may also account for one-off government spending plans. Under this rule, government spending is based on structural balance and assumptions of long-term oil prices.

3. Expenditure or Revenue rules

a. An expenditure rule - setting a ceiling for total government spending or sometimes current government spending. The ceiling can be set as an absolute amount, growth rate of spending, or as a percentage of gross domestic product. While the expenditure rule set as a loose

level or as a loose ceiling to the growth rate of government spending would allow for the automatic stabilizers to mitigate business cycle impacts, a tight expenditure rule set as a percentage of the gross domestic product would result in a procyclical fiscal policy similar to fiscal balance rules. The disadvantage of this rule is that as there are no requirements regarding the budget revenue side, the ability of this rule to ensure fiscal sustainability is under question.

b. A revenue rule - setting a ceiling or floor for budget revenues. Besides the common drawbacks of an expenditure rule, another disadvantage of this rule is that there is no limitation on government spending under this rule. Therefore, applying solely a revenue rule may not ensure fiscal sustainability.

In the chart below, there is a summary of the advantages and disadvantages for each fiscal rule mentioned above:

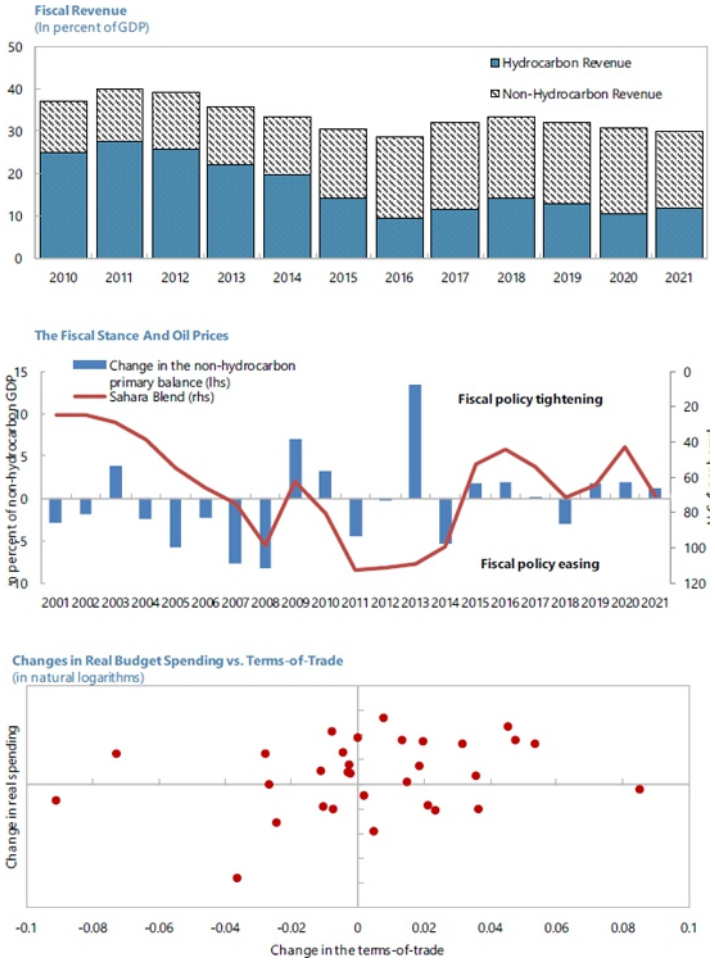
Chart 3. The pros and cons of fiscal rules

Overall Balance	**Golden (overall deficit net of capital expenditure)**
+ Easy to communicate and monitor	+ Protect public investment
+ Closely linked to debt sustainability	+ Intergenerational equity
+ Clear operational guidance	- Weak link to debt sustainability
- Could lead to procyclicality	- Creative accounting
- Could adversely affect quality of adjustment	
Expenditure	**Revenue**
+ Easy to communicate and monitor	+ Raise revenue or limit tax burden
+ Allow macroeconomic stabilization	- Weak link to debt sustainability
+ Clear operational guidance	- Could lead to procyclicality
+ Could ensure debt sustainability if well-designed	
- Could adversely affect quality of adjustment	
- May reduce incentive to raise revenues	
Cyclically Adjusted and Structural	**Non-Resource Primary Balance**
+ Foster economic stabilization	+ Easy to monitor
+ Good operational guidance	+ Could encourage non-resource revenue generation
- Difficult to compute and monitor	- Difficult to communicate
	- Narrow coverage and weaker link to financing nee

Source: *International Monetary Fund*

Algeria is also one of the countries with high dependence on the oil sector revenues. We can observe the procyclicality of budget deficits in Algeria in the following chart:

Chart 4. The non-oil budget deficit/surplus of Algeria and Sahara Blend crude oil prices



Source: *International Monetary Fund*

Fiscal policy has generally been more expansionary during high oil price periods and more contractionary during low oil price periods. The International Monetary Fund proposed the dual-pillar framework for Algeria. This framework has 2 main rules:

- The debt anchor - to ensure fiscal policy sustainability, this rule sets a ceiling for government debt.
- The savings floor - Most resource-rich countries have some kind of sovereign wealth fund like the State Oil Fund of the Republic of Azerbaijan. This rule requires keeping the liquid financial assets above some predetermined amount. One possible drawback of this rule is that liquid assets generally have lower returns than illiquid assets with higher illiquidity premiums. Therefore, if this limit is set at an extremely high amount, this rule would impede the accumulation of savings for future generations by decreasing the expected return on those funds.

The mentioned 2 rules combined may enable the country to ensure fiscal sustainability and to have a liquid asset base to conduct discretionary expansionary fiscal policy when the economy is undergoing a recession phase.

The tailored fiscal rule is crucial for Azerbaijan as well since a significant part of GDP and government revenues are derived from oil revenues. Currently, the fiscal rule of Azerbaijan is based on 2 metrics:

1. The ratio of non-oil budget deficit to non-oil GDP
2. The ratio of government debt to GDP

The first rule is similar to the non-resource primary balance rule described among the IMF proposals for the fiscal rule in Kuwait. The advantages of this rule include easy monitoring and the possibility of encouraging non-resource revenues. The main disadvantage of this rule is that it may limit future investments to promote the non-oil sector using oil revenues and Azerbaijan

made a significant amount of investments (financed mainly by oil revenues) to build infrastructure for transportation, education, healthcare and promote non-oil sectors of the economy throughout the 2000s and 2010s. Furthermore, Brzozowski and Siwinska-Gorzelak (2010) found that the fiscal rules on fiscal deficits like the first rule were correlated with higher fiscal policy volatility, while the rules on public debt like the second rule contributed to stabilizing fiscal policy.

We can analyze the current situation on the metrics. There is no publicly available data for the non-oil budget deficit in Azerbaijan and other countries with an oil-based economy. For the second metric, the World Bank has a metric named "Central government debt". The last data on this metric for Azerbaijan in the World Bank database is in 2021. The World Bank reported this ratio for 52 countries including Azerbaijan in 2021 and Azerbaijan has the lowest central government debt to GDP ratio among these countries. The full comparison with other oil-based economies as in Tables 2-4 is not possible as there is no data on this metric for most of these countries in 2021, but the comparison with some selected countries and analytical groups is presented in the table below:

Table 5: Central government debt to GDP ratio

Country	Average government debt-to-GDP (2021)
Azerbaijan	17%
Russia	21%
Kazakhstan	22%
Peru	36%
Turkiye	43%
South Korea	49%
Georgia	55%
Armenia	60%
United States	120%
OECD members	122%
High-income countries	127%

Source: *World Bank*

As can be observed from the comparison in Table 5, Azerbaijan's government debt-to-GDP ratio is currently very low.

CONCLUSION

This paper studied the volatility of fiscal policies with a specific focus on oil-based economies and the possible solutions to stabilize fiscal policies across these countries. The results of the comparative analysis showed that countries with oil-based economies including Azerbaijan have more volatile fiscal policies based on metrics like government revenue-to-GDP, government spending-to-GDP, and government deficit-to-GDP ratios.

Various proposals for fiscal rules aimed at stabilizing fiscal policy in oil-based economies have been presented, each with its own set of advantages and disadvantages. Additionally, the fiscal rules currently in place in Azerbaijan have been analyzed, with a particular focus on the government debt-to-GDP ratio, which is a pivotal aspect of Azerbaijan's fiscal framework. The conclusion drawn from this analysis is that Azerbaijan exhibits significantly low levels of indebtedness.

Although existing literature does not provide evidence for the procyclicality of fiscal policy in Azerbaijan, further research into this topic is warranted.

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RESURSLA ZƏNGİN ÖLKƏLƏRDƏ FİSKAL SİYASƏT ÇAĞIRIŞLARI

Cavid SEYFULLALI

XÜLASƏ

İqtisadiyyatların xammal ixracından asılılığı xammal qiymətlərinin dəyişkənliyi səbəbindən fiskal siyasətdə yüksək volatilliyə səbəb ola bilər. Bu araşdırmada neft ixracatçısı olan bir neçə ölkə üzrə 2003-2022-ci illəri əhatə məlumat bazasından və müqayisəli təhlil metodundan istifadə olunaraq həmin ölkələr üzrə fiskal siyasət volatilliyinin səviyyəsi tədqiq edilir. Nəticələrdə neft ixracatçısı olan ölkələrdə fiskal siyasət volatilliyinin nəzərəçarpacaq dərəcədə yüksək olduğu müşahidə edilir və bu volatilliyi azaltmaq üçün fiskal qaydalara ehtiyac olduğu vurğulanır. Bundan əlavə, məqalədə müxtəlif fiskal qaydalar, onların üstünlükləri və çatışmazlıqları müzakirə edilir, eyni zamanda Azərbaycanın mövcud fiskal qaydaların hazırki vəziyyəti barədə məlumat verilir. Son olaraq, Azərbaycanda fiskal siyasətin protsiklikliyi ilə bağlı əlavə təhlilin zəruriliyi qeyd edilir.

Açar sözlər: *resurslarla zəngin ölkə, dövlət xərcləri, ixrac, fiskal siyasət, ÜDM*

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