External Economic Fluctuations and Domestic Savings: A Study of Selected Oil Countries

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Abstract

The oil-producing countries generally suffer from a disturbance in the level of domestic savings, arising from the instability of incomes linked to oil revenues. Therefore, this study aimed to know the impact of external economic fluctuations on the level of domestic savings, and five oil-producing countries were selected for the period (2005-2017). Problem statement is The Study problem lies in the following question: Is saving able to finance economies in oil countries, in light of external shocks?). Study hypothesis (The multiplicity of external shocks cracks domestic savings, as well as their fragility in oil countries in general, which is negatively reflected in the sustainability of savings in generating investment and production in the oil economies.). The study concluded that the low level of domestic saving against economic fluctuations makes the country weak in adjusting the economic environment to absorb the impact of economic fluctuations. The study recommended building domestic savings and stabilizing incomes in order to strengthen the channels of financing the national economy.

Keywords

External Economic Fluctuations, Domestic Savings Level, Oil Revenue to GDP Ratio, Domestic Savings to GDP Ratio, Oil Countries.

Introduction

All world economies are exposed from time to time to the crises and fluctuations that afflict the axis of its economic system and its financial, monetary and real components alike. And those crises and fluctuations, taking place with most of the macroeconomic variables, have started to interact in the final outcome in the income, output and expectations cycle, which took a challenge for the decision-maker in order to control these interactions to spare the economy the pressures of instability.

The new international environment is closely interconnected with each other, so international shocks would affect all economies, and in order to mitigate them or face them prudently, this necessarily necessitates high experience by the decision-maker in leading the economy to life. During the period (2005-2007), the world was exposed to the two most powerful shocks, the first in (2007), which was known as the global financial crisis, due to mortgage transactions in most countries of America and Europe, which moved to all countries of the world. The second was the year (2014), which was known as the global oil price crisis, which deteriorated, thus confusing global production, marketing and consumption of crude oil. Its repercussions left the global economy in a significant slowdown for several years.

Therefore, one of the safe channels in the local economy that provides the necessary financing for productive and investment activities is national savings, and the issue of the sustainability of those savings is of great concern to the decision maker, in order to achieve the sustainable development goals for developing countries, and to achieve a stable flow of funds needed to nerve industry and technology in developed and emerging countries. Whereas, these savings are an effective tool in facing external shocks, and have the ability to mitigate these shocks in the overall economic system. Problem statement is The research problem lies in the following question: Is saving able to finance economies in oil countries, in light of external shocks?). Research importance is Building national savings is an urgent necessity in order to support macroeconomic stability, and that would provide a good amount of flexibility in the face of external shocks, and try to weaken its repercussions on local economies, so as to ensure the maintenance of productive activities in an efficient manner. Research hypothesis (The multiplicity of external shocks cracks domestic savings, as well as their fragility in oil countries in general, which is negatively reflected in the sustainability of savings in generating investment and production in the oil economies.) Research objectives:

1. Study the levels of national savings in the countries of the study sample.
2. Study the effect of external shocks on the ratio of saving to GDP in the countries of the study sample.
3. Study the effect of external shocks on the ratio of oil revenue to GDP in the countries of the study sample.

Research Methodology (Relying on deductive style coupled with inductive style in analyzing the components of the phenomenon, through illustrative graphs, through relying on research, books, periodicals and international data to support the hypothesis of research or not.), Time Limits - Duration (2005-2017), in which the world faced the two strongest external shocks in 2007 and 2014. Time Limits - Duration (2005-2017), in which the world faced the two strongest external shocks in 2007 and 2014. Spatial boundaries - Iraq and Saudi Arabia (oil countries in OPEC), Azerbaijan, Russia and Norway (oil countries outside OPEC). *Literature review*, External shocks exert a variety of influences in the international environment and world economies, regardless of the severity of the impact on economic variables, as external shocks greatly affect the levels of poverty among the population, especially the farmers' segments (Hans Lofgren & Others, 2001). Perhaps structural adjustment is one of the policies adopted by a number of countries in the face of external shocks, and these policies were fruitful according to the nature of the economy, as some countries were able to reduce inflation rates, monetary and financial deficits, and reduce the current account gap to manageable levels (Valpy Fitzgerald & Khwaja Sarmad, 1997). Countries in the world in general, and oil-producing countries in particular, face great challenges due to their exposure to external shocks, as most oil economies suffer from a decline in their economic performance under conditions of shocks. These economies also have an interest in the banking sector in order to achieve acceptable rates of economic growth, by increasing government investment in oil revenues, to overcome problems at the local economy level (Jabir Ibrahim Mohammed & Others, 2020). The deficit of the current account in the balance of payments is the first absorber of the impact of external shocks on the economies of countries in the world, as exchange rates decline and financial markets slowdown, which paves the way for a decline in macroeconomic indicators in general in most countries of the world, especially developing ones (Khwaja Sarmad, 1992). The synchronization of major crises (external shocks) and secondary crises (internal shocks), under economically cautious conditions, causes great damage to the national economy. The local currency must be linked to a basket of various international currencies in order to avoid the greatest possible damage to the economy from exposure to external shocks (Joseph Whitt, 1999). "*The knowledge gap*" in this study links the impact of external shocks on domestic savings, considering that domestic saving is the most important channel for financing the economy, which positively affects the financial markets and the banking sector, and thus reduces the risks of fluctuating macroeconomic indicators in light of external shocks.

Theoretical Framework

Savings is one of the channels for financing economic activities in society, and it reflects the public's awareness of the importance of their role in controlling their behavior towards dealing with income, as controlling consumption is very important, because it works to maximize savings in the other side of the equation.

The reason for saving is mostly either in order to maintain consumption in the long term after stopping work (retirement), or because of uncertainty about sudden changes in income, the increase in necessary expenditures, changing consumption tastes by adding luxury goods as necessary commodities over time, etc. The goal of saving is to maximize the life expectancy of a family's life (Barbara Kauffmann, 1991). Savings are affected by several factors, the most important of which are the age of family members, household wealth, past savings, interest rates, inflation, tax rates and financial regulations, foreign savings and demographic variables (Gulnur Muradoglu and Fatma Taskin, 1996).

Savings are defined as (residual income after meeting consumption requirements). or that it is (the families' decision to give up consumption at a certain point in time to be able to consume later in the future) (Mark Gersovitz, 1988). Savings can be classified into three categories: (personal saving), which is the available income from which consumption is excluded, or it is that part of the income that does not go immediately to spending on goods and services but rather is savings, and the second category is (business enterprises saving), which is total profits minus taxes and dividends. The third category is (government savings), or what is known as budget surplus, which is the sum of government personal and commercial savings that are used in times of crisis or when a public budget deficit occurs (Shimelis Kebede Hundie, 2016). The surplus of the trade balance is settled in favor of saving, which drives economic growth and sustainable development.

Savings play an important role in promoting sustainable economic growth, when it is used efficiently towards profitable investment opportunities that benefit the economy in the public interest, which increases degrees of economic well-being, and obtaining credit on favorable terms is extremely important for institutions and individuals to expand their investment projects and plans. The fact that access to finance is crucial for the survival and sustainability of these entities in the economy, and hence, ultimately results in the interest of sustainable development, employment, and asset formation in the economy (Tumeleng Pleasure Mongale and Others, 2018). Net savings are created when personal disposable income is more than personal spending, and companies have undivided profits for shareholders. Or, when the current government spending is less than the current government revenue, total savings also includes net savings and depreciation provisions to replace real assets in the future (Reza Najarzadeh and Others, 2014). Keynes confirms that the motives behind families saving are (Mykola Zhuk, 2015):

1. Create a cash reserve in the event of unexpected negative events in the future.
2. Ensure that expenditures are stabilized upon retirement, when income decreases or stops.
3. Receive interest payments.
4. Families will be able to increase expenses in the future.
5. They have a feeling of independence and free opportunities, although the ideas, intentions or specific needs are not clear.
6. The possibility of participating in a potential business, or preparing or expanding future projects.
7. Leave the will.
8. satisfying their greed, which is the reason for not wanting to spend.

In any case, the total national saving represents the total savings for families and private and public institutions, in order to be able to expand existing projects, create new projects, enhance infrastructure, support investment, increase production, face crises, deal with expectations and increase the overall benefit in the community supporting for welfare and prosperity.

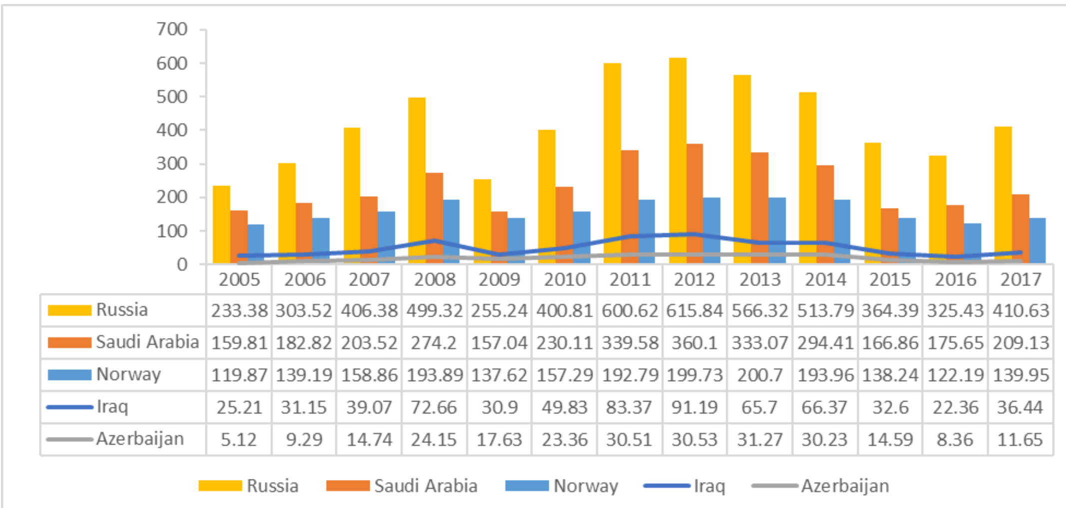
As national savings are a local means or channel for financing the necessary investment and production projects in the country, away from external borrowing or the use of international parties in order to generate other channels to finance the economy, as well as the importance of the national savings channel in facing the fluctuations of business cycles with high flexibility, and maintaining economic stability and the country's financial system. This necessitates the need for the decision maker to pay attention to the sustainability of national savings in order to serve the development and economic growth programs in a consistent manner.

Data were collected for five countries (Iraq, Saudi Arabia, Azerbaijan, Russia and Norway) for the period (2005-2017). Descriptive analysis of indicators was used, through graphs and tables. The countries were grouped into separate indicators, and the indicators were collected for each country separately.

Indicators Analysis

1. ADS

Aggregate domestic savings are one of the main pillars in the structure of the local economy, as the protective wall when the national income is cracked, and the high degree of inequality in its distribution, as well as feeding the financing systems of productive, distributive, commercial and investment activities in any economy.



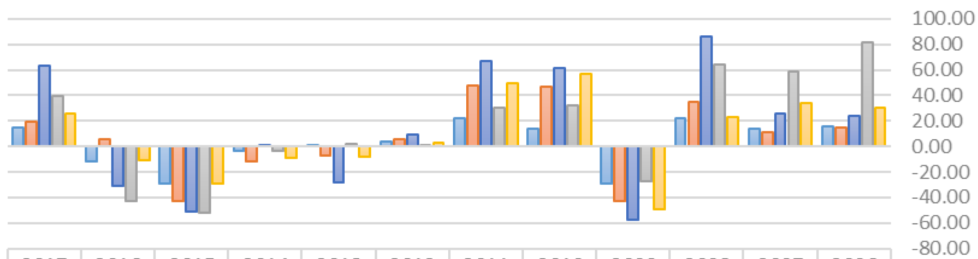
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Russia	233.38	303.52	406.38	499.32	255.24	400.81	600.62	615.84	566.32	513.79	364.39	325.43	410.63
Saudi Arabia	159.81	182.82	203.52	274.2	157.04	230.11	339.58	360.1	333.07	294.41	166.86	175.65	209.13
Norway	119.87	139.19	158.86	193.89	137.62	157.29	192.79	199.73	200.7	193.96	138.24	122.19	139.95
Iraq	25.21	31.15	39.07	72.66	30.9	49.83	83.37	91.19	65.7	66.37	32.6	22.36	36.44
Azerbaijan	5.12	9.29	14.74	24.15	17.63	23.36	30.51	30.53	31.27	30.23	14.59	8.36	11.65

Chart 1 Aggregate domestic savings in the oil countries selecting for the period (2005-2017) (billion dollars)

Source: - World Bank, statistics, various countries and years.

World economy, statistics, various countries and years.

Chart (1) presents the sequence that the study sample countries enjoyed during the study period, as Russia ranked first, as it had the highest total domestic savings (233.38) billion dollars in 2005. and the minimum (615.84) billion dollars in 2012. As for the second rank, it was from Saudi Arabia's share, which ranged between savings as a maximum and a minimum between (166.869) billion dollars in 2015 and (339.58) billion dollars in 2011. Norway ranked third, as savings ranged as a maximum and a minimum limit between (119.87) billion dollars in 2005, and (200.7) in 2013. Then Iraq and finally Azerbaijan. The high savings awareness and the multiplicity of savings channels that arise from the multiple forms of retaining individual wealth are a reflection of the extent of the culture and awareness of the public in the use of income. What means, according to the results of Figure 1, that the Russian public is the most aware and efficient in managing its available financial resources during the study period, followed by the Saudi public, then the Norwegian, then the Iraqi and the Azerbaijani. The saving in Saudi Arabia is higher than that of Norway, due to the high level of income generated from petroleum containers and related activities.



	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Russia	26.18	-10.69	-29.08	-9.28	-8.04	2.53	49.85	57.03	-48.88	22.87	33.89	30.05
Azerbaijan	39.35	-42.70	-51.74	-3.33	2.42	0.07	30.61	32.50	-27.00	63.84	58.67	81.45
Iraq	62.97	-31.41	-50.88	1.02	-27.95	9.38	67.31	61.26	-57.47	85.97	25.43	23.56
Saudi Arabia	19.06	5.27	-43.32	-11.61	-7.51	6.04	47.57	46.53	-42.73	34.73	11.32	14.40
Norway	14.53	-11.61	-28.73	-3.36	0.49	3.60	22.57	14.29	-29.02	22.05	14.13	16.12

Russia Azerbaijan Iraq Saudi Arabia Norway

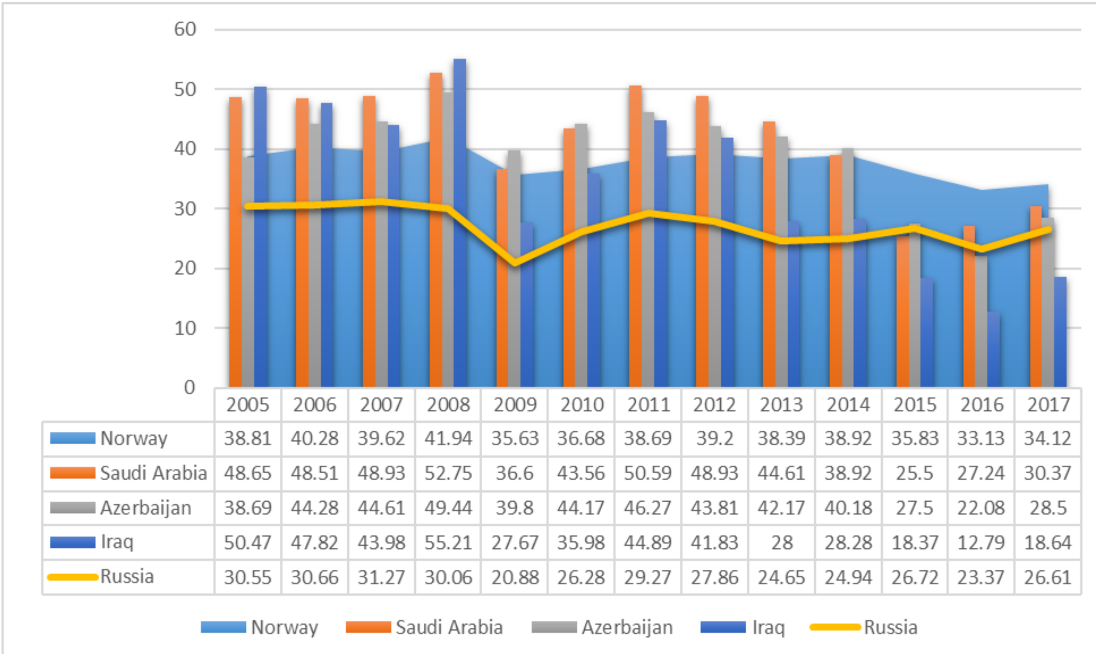
Chart 2 Savings growth rate in the oil countries selecting for the period (2005-2017) (%)

Source: Researchers' work based on Chart 1 data.

Chart (2) provides us with savings growth rates in the study sample countries, as they ranged in Russia at (-48.88% ~ 57.03%), while in Azerbaijan they ranged between (-51.74% ~ 81.45%), and in Iraq they ranged between -57.45% ~ 85.97%, and in Saudi Arabia they ranged between (-43.32% ~ 46.53%), and in Norway they ranged between (-29.02% ~ 22.57%), and 2009 witnessed a decrease in the growth of savings in all countries of the study sample, due to its impact by the global financial crisis (the first external shock), and the period (2013-2016) in which the growth of savings was exposed to decline again, due to its impact on the second external shock during the study period represented by the global oil price crisis. This means that the first and second external shocks caused the growth of savings in the study sample countries, which threatens the sustainability of the total domestic savings as an important source of sustainable development financing.

2. Saving Level to GDP Ratio

This indicator shows the extent to which domestic savings from families and institutions contribute to financing the economy. and its production activities. The higher the values of this indicator, it indicates the positive economy. This indicator was calculated in the study sample countries, and the results were as follows:



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Norway	38.81	40.28	39.62	41.94	35.63	36.68	38.69	39.2	38.39	38.92	35.83	33.13	34.12
Saudi Arabia	48.65	48.51	48.93	52.75	36.6	43.56	50.59	48.93	44.61	38.92	25.5	27.24	30.37
Azerbaijan	38.69	44.28	44.61	49.44	39.8	44.17	46.27	43.81	42.17	40.18	27.5	22.08	28.5
Iraq	50.47	47.82	43.98	55.21	27.67	35.98	44.89	41.83	28	28.28	18.37	12.79	18.64
Russia	30.55	30.66	31.27	30.06	20.88	26.28	29.27	27.86	24.65	24.94	26.72	23.37	26.61

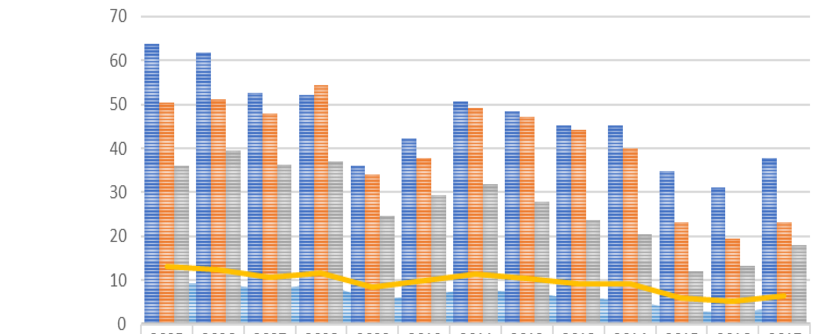
Chart 3 Saving level to GDP ratio in the oil countries selecting for the period (2005-2017) (%)

Source: - World Bank, statistics, various countries and years.
World economy, statistics, various countries and years.

According to this indicator, Saudi Arabia ranked first, it has ranged between (25.5% ~ 52.75%), followed by Azerbaijan in the second rank, which has the index ranged between (22.08% ~ 49.44%), and then Iraq in third place, ranging between (12.79% ~ 50.47%), and then Norway in the fourth rank, which ranged between (33.13% ~ 41.94%), and finally Russia in the fifth rank, where the index ranged between (20.88% ~ 31.27%), during the study period according to Chart (3). And the reason that made Iraq before Norway and Russia, according to the above indicator, is the growth of savings during the research period, due to the expansionary policies adopted by successive governments in Iraq, because of the high oil revenues that caused high incomes, in general, and then savings, as well as limited output in favor of the oil sector.

3. Oil Revenue to GDP Ratio

This indicator shows the extent of the economy's dependence on the natural resource, oil, to finance its economic activities. The high values of this indicator represent the negative economy and vice versa. The higher the values of this indicator, the more severe the economy receives external shocks. This indicator was calculated in the countries of the study sample, and the results were as follows:



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Norway	9.27	9.22	7.87	9.25	5.53	6.48	8	6.96	5.81	5.62	3.13	2.68	3.75
Iraq	63.82	61.7	52.73	52.21	36.16	42.21	50.77	48.43	45.32	45.33	34.9	31.16	37.78
Saudi Arabia	50.38	51.15	48.05	54.26	34.07	37.9	49.29	47.22	44.19	40.01	23.29	19.43	23.1
Azerbaijan	35.95	39.56	36.33	37.03	24.54	29.3	31.76	27.8	23.69	20.46	12.04	13.17	17.87
Russia	13.14	12.44	10.57	11.58	8.43	9.94	11.37	10.33	9.08	9.19	5.93	5.16	6.43

Cart 4 Oil revenue to GDP ratio in the oil countries selecting for the period (2005-2017) (%)

Source: - World Bank, statistics, various countries and years.
World economy, statistics, various countries and years.

According to Chart (4), Iraq occupied the first position, as the index ranged between (31.16% ~ 63.82%), and then in the second place came Saudi Arabia, it has the index ranged between (19.43% ~ 51.15%), and in the third place came Azerbaijan, which the index in it ranged between (12.04% ~ 39.56%), and in the fourth place came Russia, it has the index ranged between (5.16% ~ 13.14%), and in the fifth place came Norway, which has the index ranged between (2.68% ~ 9.27%) according to Chart (4).

Conclusions

1. The ranking of countries according savings level is as follows:

Russia	Saudi Arabia	Norway	Iraq	Azerbaijan

2. The ranking of countries according Aggregate Domestic Savings to GDP ratio came as follows:

Saudi Arabia	Azerbaijan	Iraq	Norway	Russia

3. The countries ranked according oil revenue to GDP ratio:

Iraq	Saudi Arabia	Azerbaijan	Russia	Norway

4. The savings to GDP ratio has had a more severe impact on Iraq than the ratio of oil revenue to output affected by external shocks due to the rentierness of the Iraqi economy.
5. Saudi Arabia had less influence than Iraq in the two indicators. And if the biggest effect was in favor of the external shock savings index, because the Saudi economy depends heavily on oil in production, but it is much less than the Iraqi economy:
6. In Russia, the ratio of saving to output exceeded the ratio of oil revenue to output, which means that there is a large diversification in output, which preserved the sustainability of national saving when receiving two external shocks, and that the largest impact was at the oil revenue index:
7. In Norway, the impact of the two external shocks was slight compared to the rest of the countries in the research sample, despite the superiority of the saving index over the oil revenue index, which supported the sustainability of national savings in financing productive and investment activities in the economy:
8. The two indicators were affected in Azerbaijan in the second shock more than the first shock, although the amount of deviation between the two indicators is not significant:
9. The countries that are most dependent on oil revenue to finance the economy were the most affected by external shocks on the one hand, and the most influencing the savings-to-output ratio on the other hand, which means that their national savings have been cracked by shocks and their role in financing sustainable development programs has decreased, which has affected negatively in its sustainability in order to finance the economy, and its production activities. As for the countries that relied less on oil revenue to finance the economy, they had a greater amount of savings and were abler to face external shocks and that their national saving level did not crack much, which positively affected the sustainability of national savings in financing the economy.

Recommendations

1. Increasing public awareness of the importance of the domestic savings industry, as it is the protective wall in the economy in terms of financing and increasing production and investment.

2. Directing the economic decision towards motivating individuals to increase savings versus unjustified consumption by reviving the role of monetary and financial institutions and increasing the quality of their credit services.
3. Public awareness of the importance of the role of savings in financing the economy and productive activities, and that a social responsibility imposes itself in developing countries is the most urgent need for financing channels, and ways to sustain them in order to achieve the requirements of sustainable development in them.
4. The necessity to diversify the activities of the GDP as it has a role in building a solid wall of sustainable national savings that will finance various productive and investment activities in the local economy.
5. Reducing dependence on oil to finance the economy and increasing the role of savings works to strengthen the forward and backward ties of production activities and enhances the economy's ability to face external shocks and at the same time reduces the problems of budget deficit and external debt.

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