

POSSIBLE MITIGATION MEASURES FOR OVERCOMING NEGATIVE CONSEQUENCES OF OIL PRICE PLUNGES IN OIL-EXPORTING COUNTRIES

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ABSTRACT

Since the beginning of the last oil price plunge, many oil-exporting countries have faced radical negative changes in their macroeconomic situations because oil export proceeds constitute the lion's share of their national budget revenues. The article describes mitigation measures used by these countries and provides an analysis of reasons leading to their successes and failures. It is suggested to divide these measures into two groups: short- and long-term. The difference between them is that short-term measures are implemented in the periods of low oil prices, and the implementation of long-term measures continues in the periods of high oil prices. Transferring the 1st group measures to the 2nd group will certainly increase their effectiveness. It is also suggested that the following three factors play the crucial roles in overcoming negative consequences of oil price plunges: the government's commitment to the strict implementation of continuous and often difficult economic and policy reforms, the development of counter-cyclical policies and the establishment of longer-term planning horizon.

Key words: *oil price plunge, mitigation measures, oil-exporting countries*

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INTRODUCTION, LITERATURE REVIEW AND RESEARCH QUESTION

Since the beginning of the last oil price plunge, which started in June 2014, many oil-exporting countries (OECs) have faced radical negative changes in their macroeconomic situations because oil export proceeds constitute the lion's share of government revenues in these countries. Negative consequences include declining export earnings and hence declining budget revenues, low or even negative economic growth, serious declines in business activities and personal incomes, etc.

Obviously the OECs are very different with a different economic structure, due to the level of dependence on oil revenues, etc., however this commodity usually plays a very important role in the economy of every oil-exporting country, and these countries are usually heavily dependent on oil export revenues. The OECs use very similar strategies for overcoming negative consequences of oil price plunges, however the results these countries achieve are very different.

Such problems are generally typical for raw material export economic models as the "natural resource abundant countries systematically failed to achieve strong export led growth or other kinds of growth" Sachs and Warner (2001). Similarly, the strategies used for overcoming negative consequences of low prices on export commodities largely failed.

Keeping in mind the pace with which non-conventional sources of energy are replacing conventional ones, we can also assume that economic models based on the export of energy sources in general, and crude oil in particular, are not long-standing. Also environmental concerns are playing an increasing role in the modern world and do not favour oil as one of the main polluters. These are other strong arguments for the modernization of OECs economies.

In such major oil exporting countries like Saudi Arabia, Russia, Iraq, United Arab Emirates, Nigeria, Kuwait, Angola, Venezuela, Kazakhstan, Iran and some others, the governments remain the main engine of economies, the main employer and the main sponsor of infrastructural, industrial and other projects. This actually means that wide circles of population and private businesses in these countries depend heavily on oil revenues.

Obviously low oil prices provide some positive effects for OECs. They (i) include expulsion from the energy market or limiting the development of non-conventional energy producers (renewables, shale oil, etc.), (ii) benefits for non-oil sectors from lower energy prices, etc. However, the negative effects far outweigh the positive ones.

Studying what has been done in this area by other authors, we see that this subject generates a high interest among scientists, governments, financial institutions and the general public.

A very interesting analysis of how the oil price decline affected the OECs was made by Kitous et al (2016) “a 60% price fall, which is a stylized representation of the oil market change over the last two years. The results show that such an oil price drop has different effects across oil exporting countries, unsurprisingly strongly correlated with export dependence to oil. For instance, a 60% fall in the price of oil could lead to a reduction of the GDP of Sub-Saharan Africa by around 8.5%. Russia’s negative impact would lie around 4.4% and in Central Asia and Caucasus to 15.2%. Traditional oil producers would also have a substantial negative impact (-14.5% for Saudi Arabia and about -8.6% for Kuwait and the UAE), softened in their case by the substantial size of their reserves per capita, relative low exploitation costs, and large SWFs¹.”

Mathew (2000) pointed out that “At current oil export levels, Iran loses about \$1 billion per year in oil export revenues for every \$1 drop in oil prices. A serious implication of the decline in Iran’s oil export revenues has been the lack of available cash for the much-needed investment in the country’s oil sector. As a result, Iran is looking towards Western capital markets as a source of capital investment.”

Aleksandrova (2016) “The negative impact of oil price prompted CCA² countries to set new priorities for economic development aimed at restructuring their economic and financial systems, improving bank regulations in order to curb the effects of low oil prices, and overcome external shocks. The CCA governments of the oil exporting countries developed diverse structural programs consisting of proactive monetary and fiscal adjustment measures aimed at economic recovery. These measures were intended to diversify the countries’ economies, deal with

¹ SWF – sovereign wealth fund

² CCA – Caucasus and Central Asia

the weakened fiscal and external positions, balance consumption and improve the financial situation. Stabilization funds were also used to cover budget deficits and to finance domestic public investments.”

The main question of the current research is what determines the successes and the failures in overcoming the negative consequences of oil price plunges.

METHODOLOGY

Research was conducted on the basis of literature review and analysis of economic data. Empirical and comparative approaches were employed in this document to analyze what are the reasons leading to the successes and the failures in overcoming negative consequences of oil price plunges, and what lessons can be learned from them.

Data and graphics of the following institutions were used: the National Bank of Kazakhstan, Economist.com, the US Energy Information Administration and Macrotrends.

MAIN MEASURES USED BY OECs' GOVERNMENTS TO MITIGATE NEGATIVE CONSEQUENCES OF THE OIL PRICE PLUNGE

Financial and fiscal policy adjustments

In the times of low oil prices, significant financial and fiscal policy adjustments take place in almost all oil-exporting countries. These measures include reduction of public expenditures, external and internal borrowing, introduction of new taxes, in addition to increasing or sometimes decreasing and better administering existing taxes, the introduction of rules-based countercyclical policies, fighting illegal capital flight, depreciation of national currencies, etc.

Even though this is one of the first obvious responses to the decrease of budget revenues, such adjustments have to be thought-out thoroughly to avoid potential economic disadvantages. For example, over-taxation of businesses can easily

lead to a further decrease in tax collection, as businesses can choose to close down, avoid taxation or migrate abroad. This measure requires a high quality and consistent government strategic planning and management, and a well-balanced approach to its implementation.

A good observation about financial and fiscal policy adjustments was made by Luk (2017) "Efforts towards policy or fiscal reforms are often undermined during periods of strong oil prices. Oftentimes, it may lead to overly optimistic views that prices will continue to remain high, prompting governments to overspend. Saudi Arabia's massive fluctuations in budget balances went from 13.6% of GDP in 2012 to a deficit of -15% in 2015."

Withdrawals from reserve assets

OECs' governments use different budgetary and extra-budgetary funds (EBFs) to mitigate the impact of low oil price cycles. Budgetary funds are mostly used to mitigate first and immediate needs of the state budget, and are not planned for long-term use. In cases of longer declines of budget revenues, there is a need to use the so called sovereign wealth or stabilization funds, the aim of which is "to reduce the impact of volatile revenue on the government and the economy." Davis et al (2001).

Sugawara (2014) notes that "The econometric analysis reveals that stabilization funds contribute to smoothing government expenditure. The main specification shows that the expenditure volatility in countries with stabilization funds is 13 percent lower than that in economies without them."

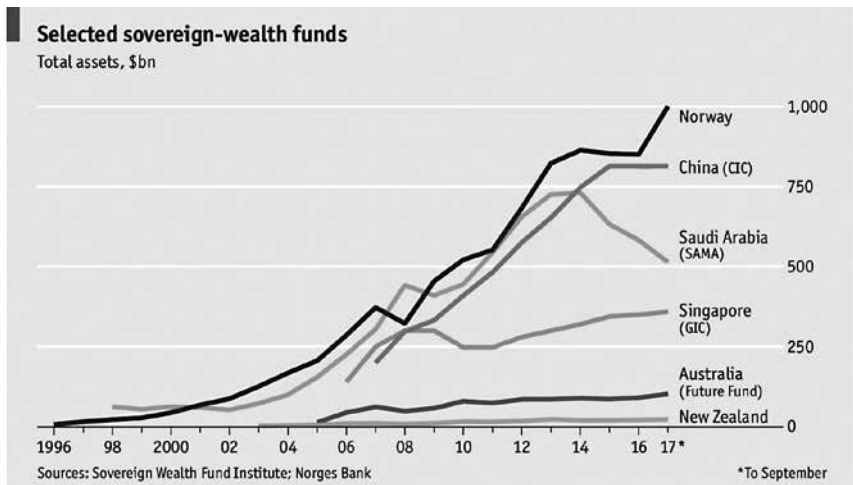
OECs' economies have become seriously dependent on stabilization funds, and this can lead to the depletion of the country's reserves in a fairly short time, because the periods of the biggest withdrawals from EBFs coincide with the periods of the smallest (if any) receipts. Another serious concern about stabilization funds is their ineffective management, which results in low profitability.

It is very interesting to have a look at successful examples. The best is certainly the Norwegian Government Pension Fund Global (please see Figure 1 below). In spite of its name, this is not a pension fund in the conventional sense, as it

derives its financial backing from oil profits, not pension contributions. This is a sovereign wealth fund. The main reasons behind the success of the Norwegian fund is the Norwegian government's adherence to strict economic, financial and fiscal policies. Other reasons include the Fund's sound management, absence of corruption and strict financial discipline.

Figure 1 below also shows that the Saudi fund SAMA started to decrease since 2014, i.e. since the beginning of the oil price plunge. It is very interesting to compare this fund's performance with the one of Norway.

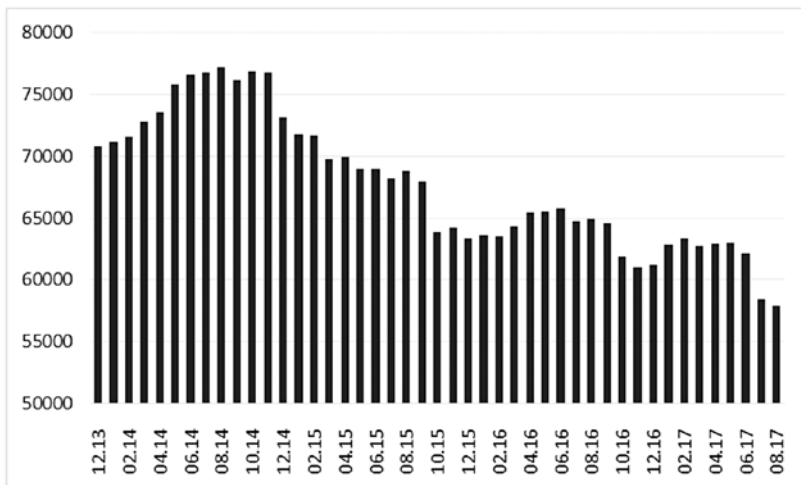
Figure 1. Selected sovereign-wealth funds



Source: *Economist.com*

Another example is the National Fund of Kazakhstan, which similarly to the Saudi fund SAMA started to decline since the second half of 2014 (please see Figure 2 below).

Figure 2. Dynamics of the Assets of the National Fund of Kazakhstan, US\$m

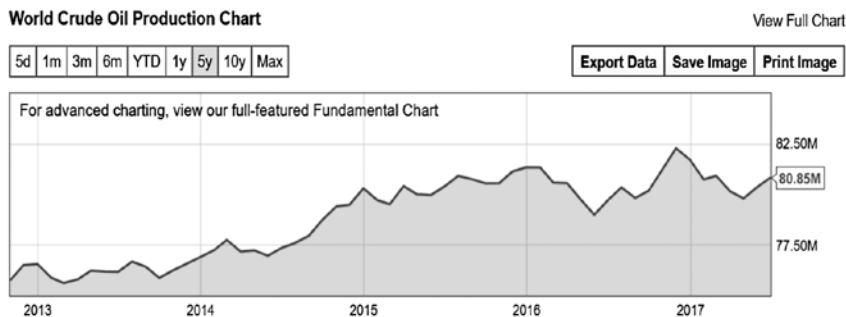


Source: Own construction based on National (Central) Bank of Kazakhstan data

Increase of oil production

The increase in physical volumes of production can partially or even completely compensate for the reduction in revenues from price reductions. This is why OECs use this strategy widely and this can be seen from the Figure 3 below as well. The substantial increase in crude oil production coincided with the beginning of the oil price plunge (mid-2014).

Figure 3. World Crude Oil Production Chart



Source: US Energy Information Administration data. YCharts construction.

However, this is not always possible. A quick increase of oil production requires high quality management, advanced technologies and long-term strategic planning. To be able to achieve this goal, oil companies must invest in geological exploration and new technologies in advance. This is often difficult as governments usually require oil companies (especially national ones) to finance different social programs, diverting finances from their core activities. Interestingly, the main OECs' competitors, namely the US shale oil producers, have access to and continuously adopt best technologies and practices in oil production.

A very important point related to the increase of oil production is that over-supply of crude oil to the world markets stimulates further decrease of oil prices. This fact is acknowledged by all the OECs, but attempts to increase oil prices through combined decrease of production have largely failed.

In general this policy, which leads to selling exhaustible resources at low prices, cannot be recommended, but often implemented because it provides immediate results.

Economic liberalization

“Economic liberalization encompasses the processes, including government policies, that promote free trade, deregulation, elimination of subsidies, price controls and rationing systems, and, often, the downsizing or privatization of public services” Woodward (1992). In most of OECs, economic liberalization is usually at the top of the agenda, when there are not enough oil export revenues to support the national economy, because economic liberalization usually positively affects the economy. So one of possible ways is the progressive elimination of government control over economic activities. However, in addition to such possible advantages of economic liberalization such as an increase in foreign investment, an increase in efficiency of domestic firms, a rise in the rate of economic growth, the control of prices, etc., there are also potential disadvantages, which include: the growth of unemployment, losses to domestic industries, which often cannot compete with foreign companies, an increased dependence on foreign economy, when an economic recession in one trading partner’s economy can spread into another’s economy, and unbalanced development of sectors.

Taking into consideration the potential disadvantages, OECs’ governments are in some cases reluctant to engage in economic liberalization and become less committed to economic liberalization reforms in the periods of economic upturn, which coincide with high oil price cycles. This circumstance raised scepticism about governments’ commitment and even the implementability of OECs’ economic liberalization programs. Hvidt (2013) notes that “over the last five decades, the GCC states have taken a number of important steps on the route to diversifying their economies away from dependence on oil and gas... Data shows, however, that the countries remain in a position where the oil sector continues to dominate the economy, and that few of the industries and services established would survive in a post-oil era... Viewed in this manner, the diversification strategy has largely failed.”

Main economic liberalization measures implemented in OECs are considered below. It should be noted that these measures are often quite closely inter-related.

Privatization

At first glance, this is a very attractive measure allowing the budget to receive revenues relatively quickly. And it does not only provide direct budget revenues

from selling. Privatization often grants a discharge from obligations to support loss-making government-owned assets. However, in the periods of low oil prices many assets in OECs tend to fall in price, and very often an OEC government receives just a small share of what it spent for purchasing or creating this asset. Because of this obstacle, OEC governments are often reluctant to undertake this measure in the periods of low oil prices, but their needs in budget revenues forces them.

In general, this measure as many other measures described below, should not be commenced after oil prices start to decline. A much wiser approach is to implement them continuously, and in the case of privatization, to sell government-owned assets in the periods of high prices accumulating these proceeds in stabilizations funds.

Economic diversification

Usually more diversified countries such as Canada, Mexico and Norway demonstrate smaller elasticity of GDP per capita to oil price movements. Unfortunately, this measure does not usually receive due attention in the periods of high prices. It comes to the top of national agendas in the periods of low oil prices, but it is obvious that economic diversification cannot bring the desired results within a short time. It has to be a lasting exercise, and OEC governments understand this well. This measure cannot be considered as a quick response, and has to be thoroughly prepared and implemented.

Attracting foreign direct investments (FDIs)

In some OECs only limited amounts of local capital can be used to finance economy in general and the energy sector in particular. This makes the attraction of foreign capital for privatization of existing or creating new businesses an important strategic task. It is important to point out that foreign investors bring not only funding, but also technologies, expertise and management. Even though receiving economic benefits from attracting FDIs takes some time, this is an attractive measure which is usually very favourably perceived. It is worth pointing out that there is always a time span between the commencement of attracting FDIs and the achievement of results. The OECs would be in a much better position if they started this process in the periods of high oil prices.

Small and medium entrepreneurship (SME) development

This measure also looks like an obvious response to the decrease of budget revenues. The usual logic is as follows: if governments cannot continue to exercise a paternalistic economic policy further, they should then let the citizens to take care of themselves, and where possible, create incentives for SME development. In practice this is quite difficult, as in the first place, starting a business in the periods of economic decline is more difficult due to narrowed consumption, and increased governments' attempts to increase taxes and customs duties. A good incentive could be partial government support for SME development through subsidized loans. However, such plans conflict with the need to cut public expenditures. Similarly to many measures mentioned above, this measure has much better chances for success if commenced in periods of high oil prices.

Establishment of longer-term planning horizon.

Even though the OECs made some important steps in this direction having recently prepared development programs aimed at reducing the dependence on oil, such as Saudi Vision 2030, Abu Dhabi Economic Vision 2030, Kuwait 2035 vision, etc., there is a clear need in longer-term planning, because as seen on the Figure 4 below, the high and low cycles can last 15-20 years, exceeding the planning horizon of OECs's development programs.

Figure 4. Crude Oil Prices - 70 Year Historical Chart



Source: Macrotrends

Other measures

Certainly, the measures listed above are not the only ones used by OECs' governments. There are others, but the author tried to concentrate on the most obvious and/or widely used measures.

RESULTS

Having considered the measures above, the author suggests to divide them into two main groups: (i) immediate measures, which are implemented in the periods of low oil prices and abandoned when oil prices grow again, and (ii) long-term measures that continue in the periods of high oil prices. It has been repeatedly noted above that transferring the 1st group measures to the 2nd group will certainly increase their effectiveness, and the implementation of the 2nd group measures should not be abandoned in the periods of high oil prices. Per the author's view, the main impediment, which prevents the implementation of all the measures mentioned above is the lack or absence of the government's commitment to continuous and difficult economic and policy reforms.

Based on the aforementioned, the following three factors can be identified as playing crucial roles in overcoming the negative consequences of oil price plunges:

1. Government's commitment to the strict implementation of continuous and often difficult economic and policy reforms. As described above, this is a key and decisive element in overcoming negative consequences of oil price plunges in oil-exporting countries.
2. Development of counter-cyclical policies. Practically no effective counter-cyclical policies have been developed in OECs so far. A good example could be the Chilean Structural Balance Policy, which already proved its effectiveness.
3. Establishment of longer-term planning horizon.

CONCLUSION

The OECs' governments can optimistically believe that the period of low oil prices will not last for long and give way to another period of high prices. However, the effect of the negative processes caused by the oil price plunge can stretch for a longer period and affect the economic stability in these countries for a longer time, even if the world situation changes. A set of long-term, balanced, coordinated and well-thought-out measures is essential for counteracting the negative consequences of the current and future oil price plunges. It is important to underline that serious commitment of OECs' governments to implementing the mitigation measures mentioned above is the cornerstone for their success.

As rightly mentioned Sheikh Zaki Yamani, a Saudi Arabian oil minister "The Stone Age did not end due to lack of stone, and the Oil Age will end long before the world runs out of oil." He said this more than 30 years ago, but with a few exceptions, OECs have failed to adapt themselves to oil price fluctuations and the approaching end of economic models based on the export of energy sources. It is time to take urgent measures to improve the situation.

REFERENCES:

- Aleksandrova, S. (2016). Impact of Oil Prices on Oil Exporting Countries in the Caucasus and Central Asia. *Economic Alternatives*, (4), 447–460. Retrieved from http://www.unwe.bg/uploads/Alternatives/S_A_2016_Issue4_en-5.pdf
- Davis, J., Ossowski, R., Daniel, J., & Barnett, S. (2001). *Stabilization and Savings Funds for Nonrenewable Resources-IMF Occasional Paper No. 205*. Washington DC: International Monetary Fund. <https://doi.org/http://dx.doi.org/10.5089/9781589060197.084>
- Hvidt, M. (2013). *Economic diversification in GCC countries: past record and future trends*. London: London School of Economics and Political Science. Retrieved from <http://eprints.lse.ac.uk/55252/>
- Kitous, A., Saveyn, B., Keramidis, K., Vandyck, T., Santos, L. R. L., & Wojtowicz, K. (2016). Impact of low oil prices on oil exporting countries. *Joint Research Centre Science for Policy Report*, European Commission (Vol. JRC101562). Sevilla. <https://doi.org/10.2791/718384>
- Luk, M. (2017). How Oil-Exporting Countries Navigate Low Price Environments. *IEEJ Energy Journal*, 12(1)(December), 1–26. Retrieved from <https://eneken.ieej.or.jp/data/7105.pdf>
- Mathew, R. (2000). Effect of Declining Oil Prices on Oil Exporting Countries. Retrieved October 3, 2017, from https://web.stanford.edu/class/e297c/trade_environment/energy/heffect.html

- Sachs, J., & Warner, A. (2001). The curse of natural resources. *European Economic Review*, 45, 827–838. Retrieved from <http://www.earth.columbia.edu/sitefiles/file/about/director/pubs/EuroEconReview2001.pdf>
- Sugawara, N. (2014). From Volatility to Stability in Expenditure: Stabilization Funds in Resource-Rich Countries From Volatility to Stability in Expenditure: Stabilization Funds in Resource-Rich Countries (No. WP/14/43). Washington DC. <https://doi.org/10.5089/9781475515275.001>
- Woodward, D. (1992). Debt, Adjustment, and Poverty in Developing Countries: National and international dimensions of debt and adjustment in developing countries, Volume 1. Debt, adjustment and poverty in developing countries: volume II - the impact of debt and adjustment at household level in developing countries. Pinter Publishers in Association with Save the Children. Retrieved from <https://www.cabdirect.org/cabdirect/abstract/19931856225>