

Macroeconomic Stability and Economic Diversification in Oil-Dependent Countries

About KAPSARC

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Key Points

Oil-dependent economies are vulnerable to macroeconomic fiscal instability stemming from high oil price volatility in the short - run and the exhaustibility of oil in the long - run. The workshop discussed the main challenges confronting oil-dependent economies that could stop them from achieving their long-term economic objectives. The workshop produced the following insights:

Oil abundance is a blessing rather than a curse. However, bad economic management could fail to deal with the adverse macroeconomic volatility associated with oil dependency. Prudent fiscal policies that help to reduce volatility and ensure the efficient allocation of government spending across sectors is critical in harnessing oil revenues for faster economic growth and development.

Unlike other resource-rich countries, the dollar-pegged exchange rate policy has served Gulf Cooperation Council (GCC) countries well in the past decades and is likely to continue to do so in the near future. However, further research is needed to examine the effectiveness of this policy when access to low-wage foreign workers is controlled and GCC economies are more diversified.

It is important to distinguish between different types of sovereign wealth funds as they serve different objectives, including short-term fiscal stabilization, long-term savings, and domestic development.

Since hydrocarbon-based economies are vulnerable to market failures that hamper the development of non-oil tradable sectors (i.e., the ‘Dutch disease’), governments have to intervene to promote the creation of new economic activities beyond their comparative advantage (i.e., oil- and gas-based industries).

Summary

The wealth generated by natural resource abundance presents an opportunity to stimulate economic growth and development.

Nevertheless, many countries have failed to effectively manage the wealth generated by these resources and have ended up with worse economies than countries that lack these resources, a phenomenon known as the 'resource curse.' Furthermore, countries that have succeeded to some extent in escaping the resource curse remain vulnerable to resource commodity price shocks and are, therefore, still dependent on depletable resources.

What are the factors that can lead to the emergence of a resource curse? One of the most prominent economic explanations is the so-called 'Dutch disease.' The large influx of foreign exchange associated with resource revenues induces the appreciation of the real exchange rate, lowering the competitiveness of non-resource tradable sectors. Other important economic factors include the volatility of commodity prices and the associated macroeconomic implications. On the other hand, political explanations of the resource curse include weak institutions, rent-seeking behavior, and corruption.

During the workshop, there was almost a consensus that oil abundance is a blessing rather than a curse. However, bad economic management could fail to deal with the adverse macroeconomic volatility associated with oil dependency. Well-developed institutions are essential in addressing the resource curse. A volatile national income and terms of trade require strong fiscal and monetary institutions, and improving the business environment to attract foreign direct investment requires sound legal and regulatory institutions.

Oil exporting countries have established sovereign wealth funds (SWFs) to help achieve short-term fiscal stabilization and long-term savings. It is important to distinguish between different types of funds as they serve different objectives. Stabilization funds aim to protect an economy from fiscal volatility in the short - run by stabilizing government expenditure in the context of fluctuating commodity prices. SWFs, on the other hand, focus more on generating alternative sources of income to replace oil revenues.

Traditional SWFs invest national oil revenues in foreign assets. The main objective of both stabilization funds and SWFs is to promote intergenerational equity and protect an economy from the macroeconomic instability associated with oil resource revenues. Other funds have development mandates and invest in their country's domestic economy, transforming oil wealth into produced capital and, potentially, human capital. These development-oriented funds should avoid investments in sectors that crowd out private sector investments and should focus instead on key strategic sectors that help to diversify their economies away from their reliance on the resource sector.

It is argued that economic diversification requires the leading hand of the government to create new dynamic export sectors. Governments should identify strategic sectors and fix the incentives for both firms and workers to (1) encourage more private sector investment in high-productivity tradable sectors that rely less on foreign low-skilled workers; and (2) limit the attractiveness of public sector jobs compared with jobs in the private sector.

Background to the Workshop

The growth of resource-abundant or resource-dependent economies often lags non-resource dependent ones, a phenomenon generally referred to as the ‘resource curse.’ The fiscal and macroeconomic adjustments for such resource-rich countries are further complicated by the volatility of commodity prices and revenues. Resource booms and busts often cause national economic diversification plans to stall. The economic manifestation of the resource curse is known as the ‘Dutch disease.’ This refers to the contraction in the non-hydrocarbon traded sectors following the large influx of foreign exchange associated with resource revenues, and the consequent appreciation of the real exchange rate. The appreciation of the domestic currency reduces the relative size of the country’s manufacturing exports and production, impacting long-term development. Countries that suffer from the Dutch disease are often advised to implement a combination of fiscal, monetary and economic policies to promote sectoral diversification, diversify government revenue sources and establish savings or stabilization funds.

KAPSARC is undertaking a project to address the macroeconomic and diversification challenges facing oil-rich economies. The project focuses on the economic performance and policy responses of Saudi Arabia during oil price booms and downturns.

One of the project’s deliverables is a book examining the scope and limitations of the resource curse hypothesis, the evolution of Saudi national net wealth and its components since the 1990s, and the macroeconomic challenges facing this oil-dependent economy. KAPSARC and the Economic Research Forum (ERF) co-hosted a two-day workshop in Riyadh on April 16-17, 2019. The workshop provided an opportunity to discuss four main themes relevant to hydrocarbon-based, mid-income economies such as that of Saudi Arabia and focused on:

- Economic and institutional factors contributing to the ‘resource curse,’ and how oil-dependent countries can escape such a fate.
- The path of sustainable development for resource-based economies that increases the contribution of human capital to wealth in the long term.
- The role of sovereign wealth funds in mitigating the fiscal impact of oil price volatility and achieving intergenerational equity.
- The main short- and long-term macroeconomic challenges facing Saudi Arabia, and the underlying development, employment and diversification challenges facing its oil-dependent economy.

The Macroeconomics of the Oil Curse and the Role of Institutions

Classical economists have argued that natural resource endowments contribute positively to economic development.

Historically, natural resources have played a role in the growth of industrialized economies, including coal and iron in Germany and the United Kingdom during their respective industrial revolutions, and minerals in the United States and Australia. Hence, countries abundant in natural resources can use these resources to stimulate economic growth and development. Nonetheless, many countries have failed to effectively manage the wealth generated by these resources and have ended up in worse economic outcomes compared with countries that lack them, a phenomenon known as the 'resource curse.' A more specific terminology, the 'oil curse' is used when the natural resource is oil.

What can lead to the emergence of a resource curse? One of the most prominent economic explanations is the so-called 'Dutch disease.' This refers to the contraction in the non-hydrocarbon traded sectors following the large influx of foreign exchange associated with resource revenues and the consequent appreciation of the real exchange rate. The appreciation of the domestic currency reduces the relative size of the country's manufacturing exports and production, impacting long-term development. Other important economic catalysts include the volatility of commodity prices and its associated macroeconomic implications. Political explanations of the resource curse include weak institutions, rent-seeking behavior, and corruption.

Recent studies have questioned the traditional interpretation of the resource curse hypothesis and argue that the volatility of output growth is the underlying force driving lower economic performance in resource-rich countries. They emphasize that resource abundance has direct

positive effects on growth but indirect negative effects through the volatility of output growth. In many resource-rich countries, the negative effects of volatility tend to outweigh the positive effects of resource abundance, therefore leading to lower average growth in those countries. That is why some argue that the curse should be referred to as a volatility curse rather than a resource curse.

Oil revenues represent a large share of oil-dependent economies' total government revenues. Fiscal planning is difficult as oil prices are extremely volatile and hard to predict. In fact, fiscal policies in oil-rich countries have been mostly pro-cyclical, which has further exacerbated the volatility effects of oil prices. Pro-cyclical fiscal policies diminish the efficiency of investments in physical and human capital and make the investment climate less attractive. Prudent fiscal policy that helps to reduce volatility by decoupling government expenditure from oil price fluctuations is vital. Macroeconomic institutions can address the volatility issue through establishing stabilization funds and introducing fiscal rules for accumulation and withdrawal, including a conservative oil price forecast in government budgets, adopting a medium-term expenditure framework, and/or hedging against low oil prices.

Although tackling volatility is a major step toward turning the curse into a blessing, it is unlikely to be sufficient. A deeper look into the pattern or the composition of government spending is critical for achieving the desired long-term development outcomes. It has been observed that capital expenditure is more responsive to changes in oil prices while current expenditure is more rigid. The rigidity of current government expenditure stems from the fact that oil-rich countries tend to increase government employment and infrastructure expenditure during oil booms, which raises the

government's wages bill and the operation and maintenance of the government's physical assets. The substantial allocation of labor to the government sector is inefficient as it prevents labor from moving to other highly productive sectors that could help to boost aggregate productivity growth and enhance the development of the non-oil economy.

Unlike other oil-rich countries, the dollar-pegged exchange rate system has served the Gulf Cooperation Council (GCC) countries very well. The stability of the currencies of GCC countries has helped to preserve confidence in their economies among investors, a cornerstone of attracting foreign investment and promoting economic diversification. In addition, currency pegs and flexible labor market policies have helped the GCC countries to

mitigate the Dutch disease effects by maintaining low wages. While the fixed exchange rate policy is likely to remain the most suitable policy for the GCC countries in the near future, further research is needed to examine its effectiveness once their access to low-wage foreign workers is controlled and their economic diversification improves.

Volatile national income and terms of trade require strong stabilizing fiscal and monetary institutions; the importance of such institutions in addressing the resource curse cannot be overstated. Recent studies have stressed that strong institutions contribute positively to better economic outcomes. Furthermore, fostering a business environment that encourages domestic and foreign investment requires sound legal and regulatory institutions.

National Wealth Accounting in Oil-Dependent Economies

The measurement of wealth provides key insights about the sustainability of a given economy and the evolution of its stocks of natural, produced, and human capital. This contrasts with the measurement of gross domestic product (GDP), which is a flow measure of income. Two measures of wealth can be used to estimate the value of national assets. The first measure is 'inclusive wealth,' coined by the United Nations Environment Programme, and defined as the sum of produced, natural and human capital. The second measure is 'comprehensive wealth,' as coined by the World Bank, which adds net foreign assets to the three wealth components of inclusive wealth.

In general, the wealth of a country is its cumulative stock of assets, while GDP is a flow measure of income derived from these assets. In fact, a country can boost its GDP by depleting its wealth, thus financing unsustainable consumption at the expense of future generations. This is why some have considered GDP insufficient as a measure of sustainable economic development. A national wealth accounting framework can highlight whether the development path of a country is sustainable and whether its wealth increases over time. This can help to ensure long-term national economic prosperity.

It was argued that human capital is the most important component of wealth, as it represents the largest share of wealth in all income groups

except the low-income group, where natural capital dominates. As countries transition from low- to medium- to high-income, the share of natural capital declines, whereas the shares of both produced and human capital increase.

For oil-rich economies, the important question is, How can oil wealth be efficiently transformed into other types of wealth? Hartwick's rule suggests that resource rents should be invested in other forms of productive capital to offset the fall in the stocks of non-renewable resources. Otherwise, overall wealth might decline since current consumption is financed by depleting natural capital assets.

Measuring wealth is a difficult task that requires numerous inputs and some assumptions about how to value each asset. This makes it hard to report wealth on an annual basis, as in the measurement of GDP. An alternative measure for economic sustainability is 'net adjusted savings' (ANS), or 'genuine savings.' ANS is a flow measure derived by adding investment in human capital to gross savings while subtracting the depreciation of natural capital and environmental damage caused by pollution. A negative ANS implies declining wealth over time. While ANS and a national wealth accounting framework provide valuable information, they should be considered complementary to GDP rather than substitutes, as they both provide valuable but different insights about the economy.

The Role of Sovereign Wealth Funds

Oil-dependent economies are vulnerable to macroeconomic fiscal instability stemming from the high volatility of oil prices in the short-run, and the exhaustibility of oil in the long-run. To address these issues, oil exporting countries established sovereign wealth funds (SWFs) to help achieve short-term fiscal stabilization and long-term savings. Over 50 countries have established such funds with more than \$8 trillion of combined assets under management, of which \$2.9 trillion belong to Saudi Arabia, Kuwait, the United Arab Emirates (UAE) and Qatar.

Traditional stabilization and savings SWFs invest resource-based revenues in foreign assets, transforming oil wealth into foreign financial assets. The primary objective of these funds is to promote intergenerational equity and protect their economies from the macroeconomic instability associated with resource revenues, including revenue volatility and the appreciation of the real exchange rate arising from the large inflows of foreign exchange (i.e., the Dutch disease). Stabilization SWFs aim to protect their respective economies from fiscal volatility in the short - run by stabilizing government expenditure despite fluctuations in commodity prices. Savings SWFs focus more on generating alternative sources of income to replace resource revenues after the depletion of the resource.

Other SWFs have development mandates and therefore invest significant parts of their governments' oil revenues in their domestic economies. Unlike SWFs' foreign investments, their domestic investments support the development of the local economy, enable economic diversification, and generate jobs for citizens. These investments transform oil wealth into produced and human capital. These funds are different from other government sector-oriented lending facilities because, rather than loaning money, they set up or participate in industrial

and services development projects, either as passive or active investors. For example, Saudi Arabia's official sovereign wealth fund, the Public Investment Fund (PIF) invests domestically and internationally, while lending agencies such as the Saudi Industrial Development Fund provide soft loans to local industrial enterprises.

Different sovereign wealth funds have different mandates. Some funds invest only in foreign assets (e.g., the Government Pension Fund of Norway and the Abu Dhabi Investment Authority [ADIA]). Other funds invest only domestically (e.g., Mubadala) or both domestically and internationally (e.g., PIF). Funds that invest only domestically tend to be more transparent. For instance, in the UAE, Mubadala scores ten out of ten in the Linaburg-Maduell Transparency Index, while ADIA scores six out of ten. In addition, funds that mix both domestic and foreign investments tend to underperform other funds.

Domestic investments by sovereign wealth funds can be classified according to their financial returns as well as their economic and social returns. Examples of investments that have high economic and social returns include public schools, public hospitals and infrastructure projects. In general, investments with high economic and social returns but low financial returns should be part of national fiscal budgets. These investments may have future recurring operations and maintenance costs, which should be taken into account in fiscal budget planning. Sovereign wealth funds should not seek investments that crowd-out private sector investments. However, private investors might not be willing to undertake low-return investments that have positive economic and social externalities. In such cases, sovereign wealth funds would be justified in stepping in to fill the investment gap, which could also encourage private investors to partner with them.

Economic Diversification in the GCC

In resource-rich economies, dependence on natural resource revenues is considered the main barrier to achieving economic diversification.

Some cross-country studies have found that the size of the resource rent is negatively correlated with diversification outcomes. The structural problems associated with the Dutch disease include the revenues generated by oil and oil-related products crowding out the development of other tradable sectors, which are the main drivers of sustainable long-term growth.

High oil revenues significantly improved the living standards of the citizens of GCC countries by enabling the development of infrastructure and human capital. However, the GCC economies still lack a diversified production base, making them vulnerable to oil price shocks. Non-oil output is concentrated in non-tradable services that rely mostly on low-skilled foreign labor, while the majority of tradable goods are imported. Furthermore, most of the national labor force is employed in the public sector, diverting resources from other more productive sectors that are crucial for boosting sustainable growth in the long - run. National unemployment rates in the region are high as most private sector jobs are oriented toward cheap low-skilled foreign labor producing non-tradable services, which are not aligned with the skill sets of national job seekers. The GCC countries aim to diversify their economies to create more jobs for their growing populations and to enhance the resilience of their economies against external shocks.

How can countries diversify their oil-dependent economies? And what is the role of governments in promoting economic diversification? What matters most is the development of the high-technology tradable sectors capable of exporting their products internationally. Such sectors lead to positive

spillovers in the rest of the economy and enhance productivity, helping to promote sustainable growth in the long run. Since oil-dependent economies are susceptible to developing resource curses that will hamper the development of non-oil tradable sectors, governments have to intervene to promote the creation of new economic activities beyond their comparative advantage in oil- and gas-based industries.

It is argued that economic diversification requires the government to create new dynamic export sectors. GCC countries should not merely follow the path of labor-intensive economies, but instead leverage their comparative advantages in selecting and developing sectors for diversification. Governments also have to fix incentives for both firms and workers to (1) encourage more private sector investments in high-productivity tradable sectors that rely less on foreign low-skilled workers; and (2) limit the attractiveness of public sector jobs relative to jobs in the private sector.

It is important to educate graduates for jobs in the sectors that governments seek to develop. Some argue that the misalignment of specialized graduates with the skills needed by the targeted sectors for development has resulted in a bottleneck that threatens to stall economic diversification in the GCC. Thus, it is essential that GCC countries produce specialized graduates that can drive the development of the targeted sectors. However, governments should not postpone creating the targeted sectors while waiting for skilled labor to develop. Instead, they should create the targeted sectors and then gradually introduce skilled graduates into the market to drive the growth of these sectors. Saudi Arabia has successfully used this approach in developing its petrochemical sector.

Some argue that promoting exports is a better approach to diversifying the GCC economies. In contrast to import substitution, export promotion policies keep firms exposed to international competition, which is essential for building highly productive sectors that are sustainable in the long-run. However, others argue that import substitution should not be excluded entirely, as some GCC markets are large enough to make import substitution viable in some industries. Therefore, such strategies are country-specific, and perhaps a combination of export promotion and import substitution strategies should be considered.

Small and medium-sized enterprises (SMEs) can potentially play a significant role in export promotion.

SMEs are known to boost economic growth by creating jobs, enhancing innovation, and promoting exports. Over a million people are employed by SMEs in Saudi Arabia. They also employ a significantly higher proportion of younger workers than the market average. However, the majority of SMEs in Saudi Arabia are mainly concentrated in the retail and construction industries. They tend to function more like rent-seekers as they leverage low-wage foreign labor to generate higher profits. This makes them highly unsustainable, especially after the Kingdom's recently imposed expatriate levies. Therefore, the success of SMEs in promoting economic diversification in the GCC is dependent on the nature of their enterprise and the value they add to the economy.

About the Workshop

The workshop was co-hosted by KAPSARC and the Economic Research Forum (ERF) and took place in Riyadh on April 16-17, 2019. It brought together more than 30 regional and international experts from think tanks, government, industry and academia to discuss key issues facing oil-based economies. The workshop was held under a modified version of the Chatham House Rule, under which participants consented to be listed below. However, none of the content in this briefing is attributable to any individual attendee.

List of participants

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Majid Al-Moneef - Secretary General of the Supreme Committee on Hydrocarbons, Kingdom of Saudi Arabia

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Ahmed Alabbadi - Economist, Saudi Arabian Monetary Agency (SAMA)

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Notes

About the team

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Nader AlKathiri

Nader is a Research Fellow in the Energy and Macroeconomics program at KAPSARC. His research interests include sovereign wealth funds, economic diversification, and economic modeling. He holds an M.Sc. in Applied Mathematics and Computational Science and an MBA in Finance.

Hossa Almutairi

Hossa Almutairi is a research fellow at KAPSARC. She is experienced in developing energy and economic models to study the impact of energy and environmental policies on economies. She has a Ph.D. and a master's degree in Applied Operations Research from the University of Waterloo and a bachelor's degree in Business Administration from King Abdulaziz University. Her research interests include energy and economic systems, sustainable development and wealth measurements. Her work has been published in the Journal of Global Optimization and Computer and Industrial Engineering journal. Prior to joining KAPSARC Hossa was a faculty member at the University of Wilfrid Laurier.

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Ryan is a Senior Research Analyst in the Energy and Macroeconomics program with a particular interest in natural resource economics and developing energy and economic models. Ryan holds a B.S. in Mechanical Engineering from Mercer University.

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May is an Intern in the Energy and Macroeconomics program at KAPSARC. She is pursuing a Bachelor of Business Studies in International Finance from Dublin City University at Princess Nourah University.

About the Project

The project is part of an ongoing analysis that addresses the macroeconomic and diversification challenges facing oil-rich economies. The project focuses on the economic performance and policy responses of Saudi Arabia during oil price booms and downturns. One of the project's deliverables is a book examining the scope and limitations of the resource curse hypothesis, the evolution of Saudi national net wealth and its components since the 1990s, and the macroeconomic challenges facing this oil-dependent economy.



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