COVID-19: Impact of Lower Oil Export Revenues on the Finances of Gulf Oil-producing Countries[1]

Ryohei Ikarii
Senior Economist
Energy Data and Modelling Center

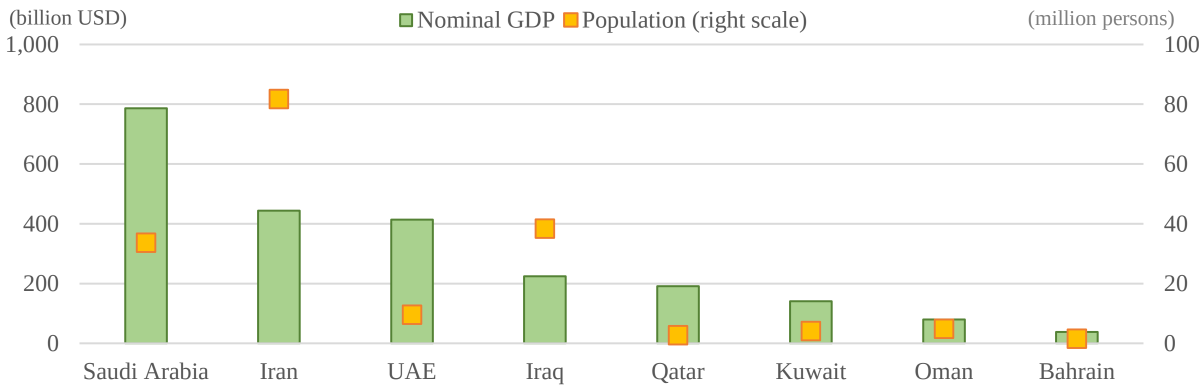
1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic causes a tremendous amount of infections and deaths in the world and forces numerous cities and borders to be closed. Stagnation in overall energy consumption, due to lockdowns, results in a substantial decline in global oil demand. Even after the Organization of the Petroleum Exporting Countries (OPEC) and other oil-producing countries agreed to reduce production by a total of 9.7 million barrels per day (bpd), the West Texas Intermediate crude futures contract temporarily plunged last April into negative territory for the first time in history. Weak oil prices are hitting hard the finances of oil-exporting countries and among them are Persian Gulf oil-producing countries that are key suppliers to many countries in the world. Destabilization of their financial, economic, political and social structures should be avoided. This paper analyses the impact of weak oil prices and lower oil exports on the revenues and finances of each Gulf oil-producing country.

2. Overview of Gulf oil-producing countries

The economic size of the eight Gulf oil-producing countries (six Gulf Cooperation Council members, Iran and Iraq) is $2.3 trillion, of which Saudi Arabia accounts for one-third (Figure 1). Their population totals 180 million, of which Iran commands nearly 50 percent (%).

Figure 1 Nominal GDP and population (2018)



(Sources) IMF REO; World Bank (2020) "Population (Open Data)"

3. Methodology

Crude oil export revenues are computed by multiplying each country's daily export volume (as reported in the IMF IMF REO[2]) by the international oil prices of $52.8/bbl for 2017, $68.3/bbl for 2018 and $61.4/bbl for 2019 (as reported in the IMF WEO[3]). The oil production and export volume for the eight Gulf oil-producing countries in 2020, relative to 2019, is assumed to be lower by 5.23 million bpd and by 4.61 million bpd, respectively. The 2020 crude oil export revenues are projected

[1] This paper covers the six GCC countries, Iran and Iraq as eight Gulf oil-producing countries.
[2] International Monetary Fund, "Regional Economic Outlook Middle East and Central Asia" (April 2020)
[3] International Monetary Fund, "World Economic Outlook" (April 2020)

by multiplying each country's projected export volume (as estimated by the IMF REO, the IEA OMR[4] and the IEA GER[5]) by an estimated international oil price of $35.6/bbl (IMF WEO).

In the factor analysis of the year-on-year changes, the price impact of the COVID-19 pandemic on oil export revenues is based on each country's export volume for 2019 multiplied by the change in oil prices of $25.8/bbl (the gap between the actual oil price in 2019 and the projected price in 2020). The export volume impact is estimated by multiplying the projected drop in each country's export volume between 2019 and 2020 by the projected oil price of $35.6/bbl for 2020. The price and export volume impacts are combined to compute the impact on each country's revenue.

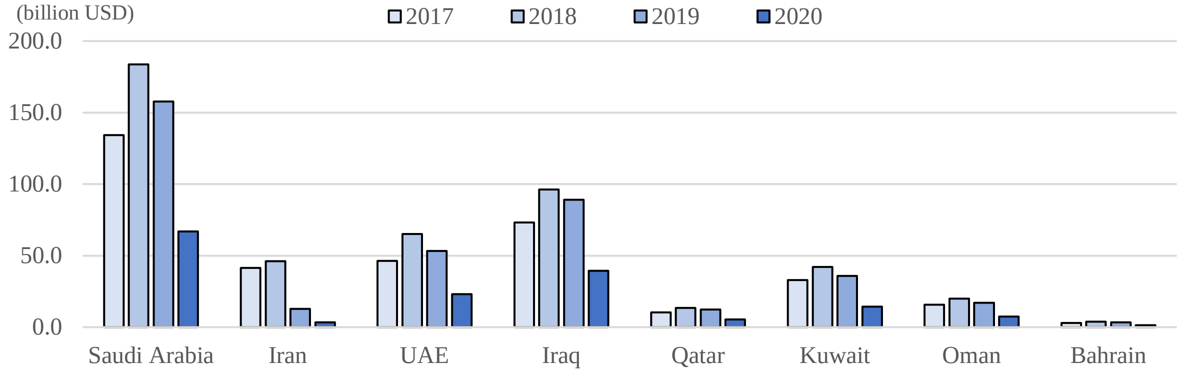
The price impact on government finance is estimated by multiplying each country's export volume, assumed unchanged from 2019, by the gap between the oil price for a balanced budget for 2020 in the IMF REO and the projected price for 2020. The export volume impact on government finance is estimated by multiplying the gap between each country's planned oil export volume for a balanced budget for 2020 and its estimated volume for 2020 by the projected oil price for 2020 of $35.6/bbl. Both impacts are combined to compute the impact on each government finance.

This impact of the oil export revenue decline on government finance is divided by total budgeted expenditure to compare the impacts among countries. The oil and gas revenue in a budget is divided by overall budgeted revenue to see how each government finance depends on oil and gas revenue. Comparison between the above two percentages would imply how vulnerable the government finance of each country, who is dependent on oil export revenue, is in case that each takes balanced budget.

4. Impacts on crude oil export revenues in 2020

Given the global oil demand decline and resulting oil price drops, oil export revenues in 2020 for the eight Gulf oil-producing countries are estimated to decline by $220 billion from 2019. Since the export revenue is a component of GDP, the export revenue decline of $220 billion amounts to a weakening of 9.3% from 2019 in nominal GDP terms. Considering the economic interdependence between countries, the decline is far from negligible for the whole of the Gulf oil-producing countries (Figure 2).

Figure 2 Oil export revenue (results for 2017-2019 and estimates for 2020)



(Sources) IMF WEO; IMF REO; IEA OMR; IEA GER

A breakdown of the decline in export revenue into its price and volume components indicates that the impact of lower prices is far more substantial than that of the lower export volume, caused by the global oil demand plunge through lockdowns (Figure 3). Of particular interest, the loss of export revenues for Saudi Arabia is $90.8 billion, the largest among the Gulf oil-producing countries. It is comprised of an oil price impact of $66.2 billion (73% of the total) and of a volume impact of $24.6 billion (27%).

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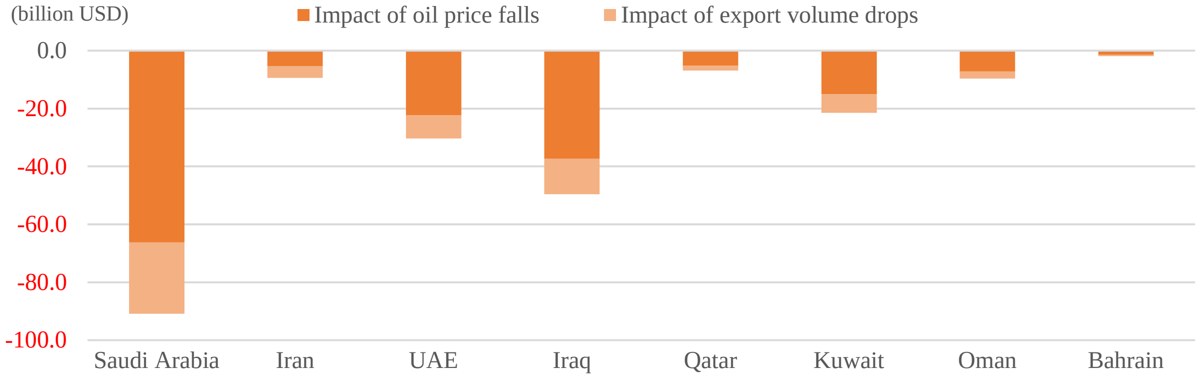
[4] International Energy Agency, "Oil Market Report" (April 2020)
[5] International Energy Agency, "Global Energy Review 2020" (April 2020)

Figure 3 Oil export revenue declines and their factor analysis (estimates for 2020)



(Sources) IMF WEO; IMF REO; IEA OMR; IEA GER

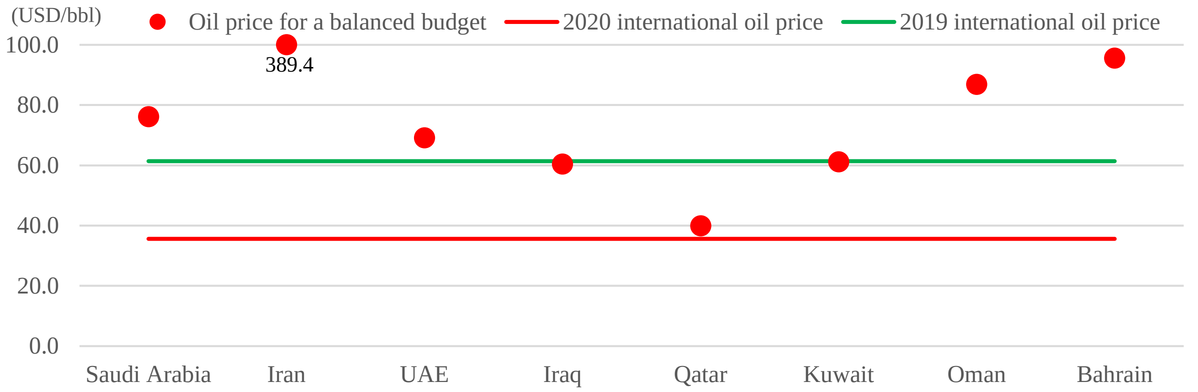
5. Impacts on 2020 government finance

The Gulf oil-producing countries depend heavily on oil exports for their government revenue; therefore, the impact of lower revenues from oil exports for each country's government finance is quite relevant. If the government revenue includes all of the oil export revenues, Saudi Arabia's revenue would be $128.6 billion short of the initially anticipated level in its 2020 budget. Revenue shortages would total $48.2 billion for Iraq, $37.0 billion for the United Arab Emirates, $21.3 billion for Kuwait, $16.7 billion for Oman and $3.8 billion for Bahrain.

Situations in Iran and Qatar differ somewhat from those in other Gulf oil-producing countries. The oil price for a balanced budget for Iran is as high as $389.4/bbl, indicating the enhancement of U.S. economic sanctions and an assumed budget deficit. In contrast, the oil price for a balanced budget in Qatar is as low as $39.9/bbl, the lowest among the Gulf oil-producing countries, with the impact on government finance limited to $2.5 billion. However, it should be noted that natural gas accounts for half the Qatari export revenue, indicating that natural gas exports have a greater impact than oil exports.

A factor analysis of the impact of lower export revenues on government finance in the Gulf oil-producing countries shows that the price impact is also larger than the volume impact. On an average basis for the Gulf oil-producing countries, other than Iran, the price impact in 2020 is 3.6 times greater than the volume impact. The large gap between the price and volume impacts may be attributable to a deeper-than-expected plunge in crude oil prices and an optimistic pricing for formulating budgets (Figure 4). If the Gulf oil-producing countries wish to enhance their resilience to shocks, such as the COVID-19 tragedy, they should estimate crude oil prices more conservatively for the purposes of formulating budgets.

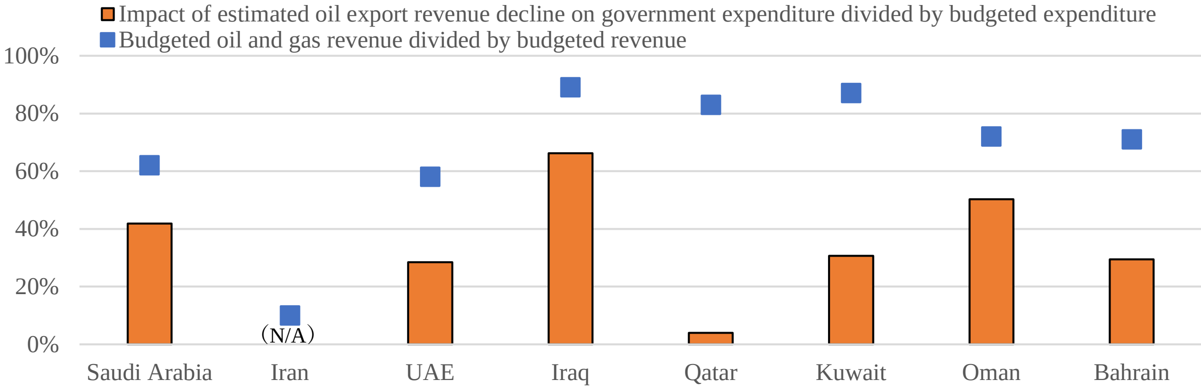
Figure 4 Balanced budget oil prices and international oil prices



(Sources) IMF WEO; IMF REO

The percentage of the impacts on Gulf oil-producing countries government finance shows also a severe situation (Figure 5). If the government revenue includes all of the oil export revenue, as in the above case, government revenue would decline by two-thirds in Iraq, by 50% in Oman, by 42% in Saudi Arabia, by 31% in Kuwait, by 30% in Bahrain and by 28% in the UAE. Qatar's revenue decline is estimated to be as low as 4%, but the impact of lower natural gas exports on its government finance could be large. The combined impact of $258.1 billion for seven Gulf oil-producing countries, other than Iran, is equivalent to nearly 30% of their budget revenue.

Figure 5 The impact of estimated oil export revenue decline on government expenditure and the share of budgeted oil and gas revenue in government revenue (estimates for 2020)



(Sources) IMF WEO; IMF REO; IEA OMR; IEA GER; World Bank Group (2019) "Gulf Economic Update"; IEEJ
(Note) As Iran is suspected to have formulated a budget assuming a deficit, the impact of the oil export revenue decline on government expenditure is given as N/A (not available).

Gulf oil-producing country governments recognize their overdependence on oil exports and hope to tighten their budgets. Under the current pressure from COVID-19, they are trapped into massive withdrawals from foreign exchange reserves to meet government expenditure expansion and investments in priority areas[6].

6. Conclusion

Lower oil prices and reduced demand, under the COVID-19 pandemic, have remarkably diminished the oil export revenues and the budget balances of the Gulf oil-producing countries. Of particular interest, weak oil prices have had a huge impact that is in part attributable to optimistic oil price projections and in part attributable to much greater-than-assumed drops in prices. To ease similar impacts in the future, the Gulf oil-producing countries should project more conservative oil prices when formulating budgets and reduce their heavy dependence on oil revenue. Given that the international crude oil price may remain weak in 2021 (around $37.87/bbl, as anticipated in the April 2020 IMF World Economic Outlook), Gulf oil-producing countries could be plagued with budget deficits, making it difficult to address increases in COVID-19 patients and unemployment. This could lead to financial and economic deterioration as well as political and social destabilization.

This is a matter of grave concern not only to Gulf oil-producing countries but to all oil-importing countries, including Japan. To avoid destabilization, Gulf oil-producing countries should learn lessons from the COVID-19 disaster and accelerate their self-help efforts to diversify their economies and cut government spending. On the other hand, Japan and other oil-importing developed countries should enhance their bilateral cooperation with them to reduce their dependence on oil with investment in activities such as the production and export of blue and green hydrogen.

Contact: report@tky.ieej.or.jp

[6] Saudi Arabia announced to cut expenditure by $26.6 billion, raise the value added tax from 5% to 15% and cut citizen allowances, while Oman announced a budget cut. A few budget-tightening measures have thus been taken among Gulf oil-producing countries.