Alumni Festival 2020

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Cambridge Judge Business School, Fellow at King's College

Institutions and macroeconomic policies in resource-rich Arab economies

Saturday 19 September, 13:30 -14:30

UNIVERSITY OF CAMBRIDGE

Alumni Festival 2020

Housekeeping Notes

- Your Microphone and Camera will be turned off throughout
- This session will have a Q&A at the end, please submit your questions during the webinar
- We will do our best to address as many audience questions as possible, but we not be able to answer all of them
- This event is being recorded and will be uploaded onto our ‘Dear World, Yours Cambridge’ YouTube page later in October

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For over 80 years the Arab region has been deriving massive wealth from its natural resources. Its economic performance has been at the mercy of the ebbs and flows of oil prices and its resources have been slowly depleting. The critical question is how Arab countries might escape the oil curse.

Institutions and Macroeconomic Policies in Resource-Rich Arab Economies focuses on the unique features of the Arab World to explain the disappointing outcomes of macroeconomic policy. It explores the interaction between oil and institutions to draw policy recommendations on how Arab countries can best exploit their oil revenues to avoid the resource curse. Case studies and contributions from experts provide an understanding of macroeconomic institutions (including their underlying rules, procedures, and institutional arrangements) in oil-rich Arab economies and of their political economy environment, which has largely been overlooked in previous research.

Institutions and Macroeconomic Policies in Resource-Rich Arab Economies offers novel macroeconomic policy propositions for exchange rate regimes, fiscal policy, and oil wealth distribution that is more consistent with macroeconomic stability and fiscal sustainability. These policy reforms, if implemented successfully, could go a long way toward helping the resource-rich countries of the Arab region and elsewhere to avoid the oil curse.

Jacket image: ARV / Alamy Stock Photo

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Institutions and Macroeconomic Policies in Resource-Rich Arab Economies
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Institutions and Macroeconomic Policies in Resource-Rich Arab Economies

EDITED BY
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JEFFREY B. NUGENT,
AND HODA SELIM

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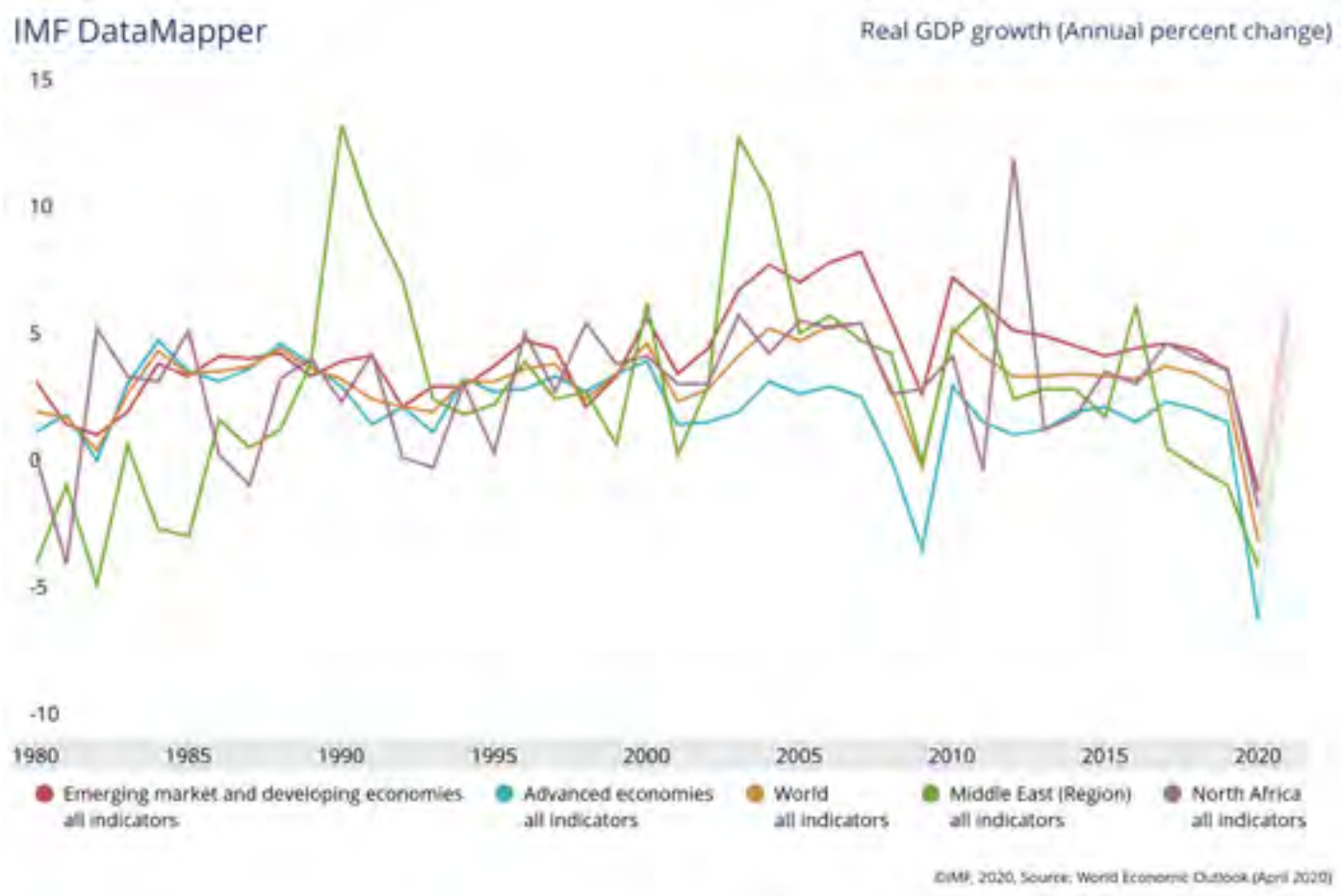
Jeffrey B. Nugent, Professor of Economics, University of Southern California, USA; Senior Associate, Economic Research Forum, Egypt.

Hoda Selim, Research Fellow, Economic Research Forum, Egypt.

Volatility is a Major Problem in the MENA Region

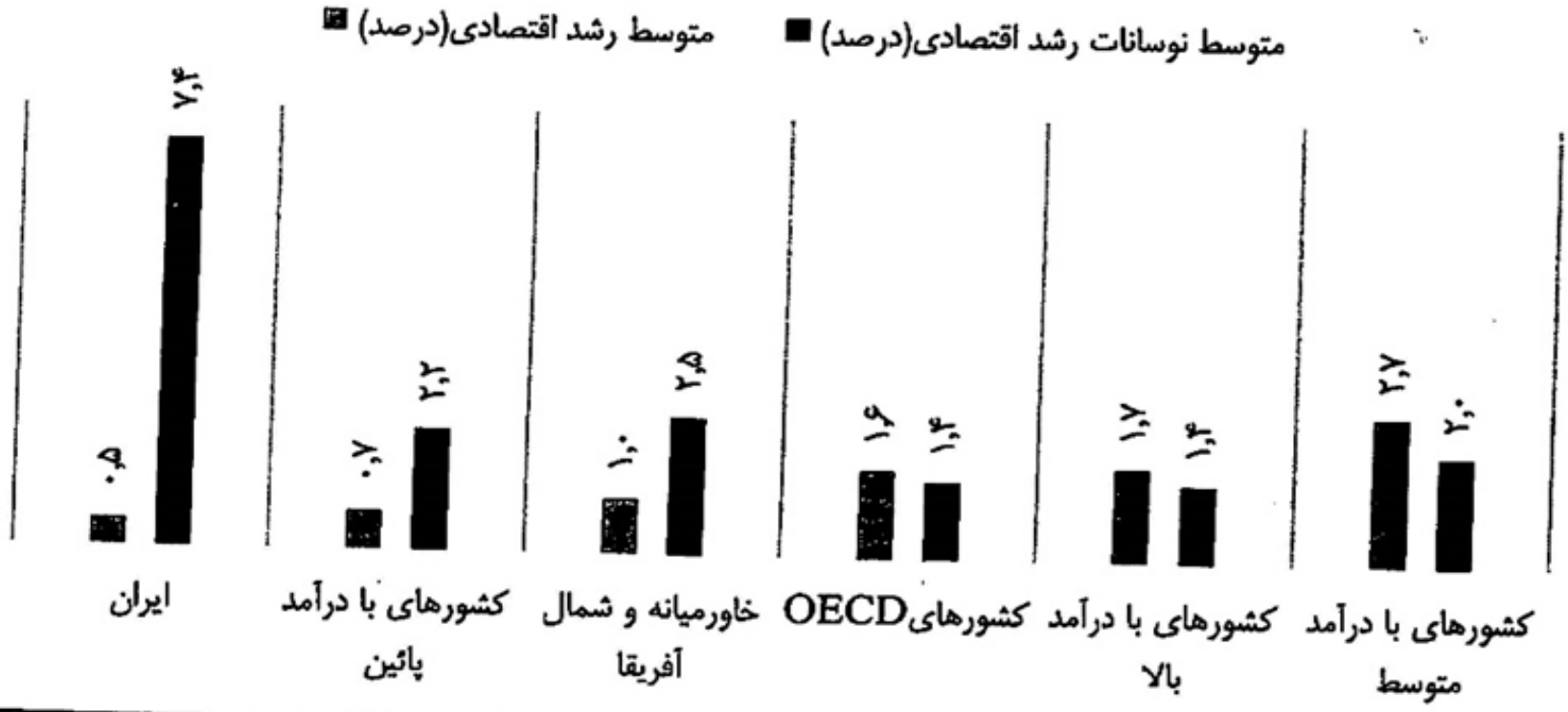
- It is clear from the MENA region that if commodity price volatility is **not managed properly**, it can result in higher GDP growth volatility and **disappointing long-term economic performance**.

- GDP growth volatility in the GCC countries has been **at least three times higher** than that of Chile and Norway.



Output Growth and Volatility in Iran and by Regions

شکل ۱-۲۰- مقایسه متوسط رشد اقتصادی و نوسانات آن در بازه زمانی ۱۹۸۰-۲۰۱۵



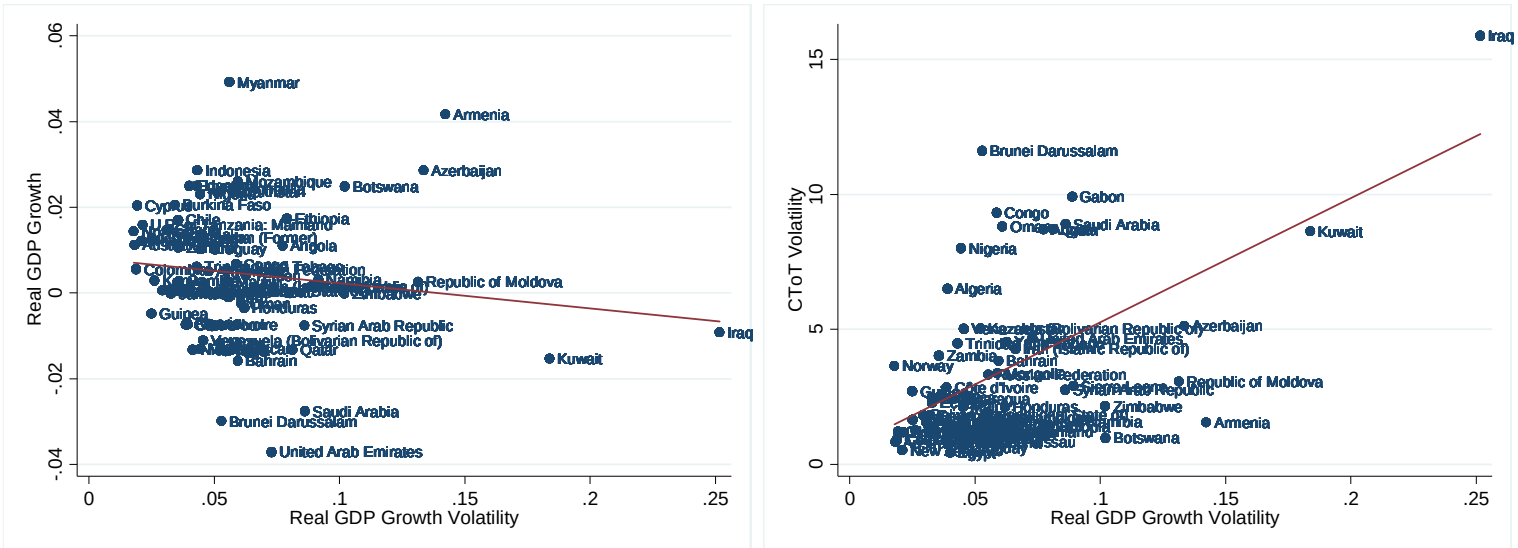
منبع: بانک جهانی

The Volatility Curse

- While commodity price booms significantly increase economic growth, **volatility affects it negatively;** for more details see Chapter 3 of Mohaddes et al., (2019 this volume) and Mohaddes and Raissi (2017).
- Fiscal and current account balances of commodity exporting countries are affected by swings in resources revenues with **destabilizing effects on the macroeconomy**.

higher volatility in output dampens growth was in fact discussed extensively in the seminal paper of Ramey and Ramey (1995). Moreover, we note that in our sample of 69 commodity-dependant countries, there appears to be a positive association between CToT volatility and GDP growth volatility—which in turn has a negative effect on output growth.

Figure 1: Scatter Plots of GDP Growth and Volatility of CToT against Volatility of GDP Growth, 1981-2014



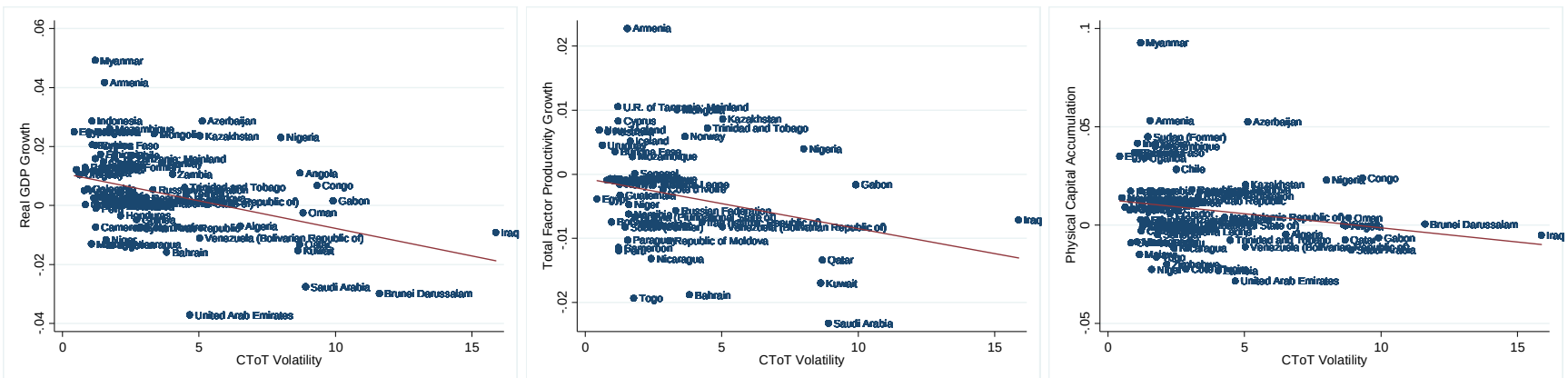
Source: Authors' calculation based on data from *Penn World Table Version 9.0* and International Monetary Fund *International Financial Statistics* databases. These are cross-sectional averages over 1981-2014.

The Volatility Curse

- Do natural resource abundant countries have **fewer possibilities for technological progress?**

- Is the **capital accumulation** another important channel through which volatility affects GDP per capita growth?

Figure 2: Scatter Plots of CToT Volatility against Real GDP growth, TFP Growth and Capital Accumulation, 1981-2014



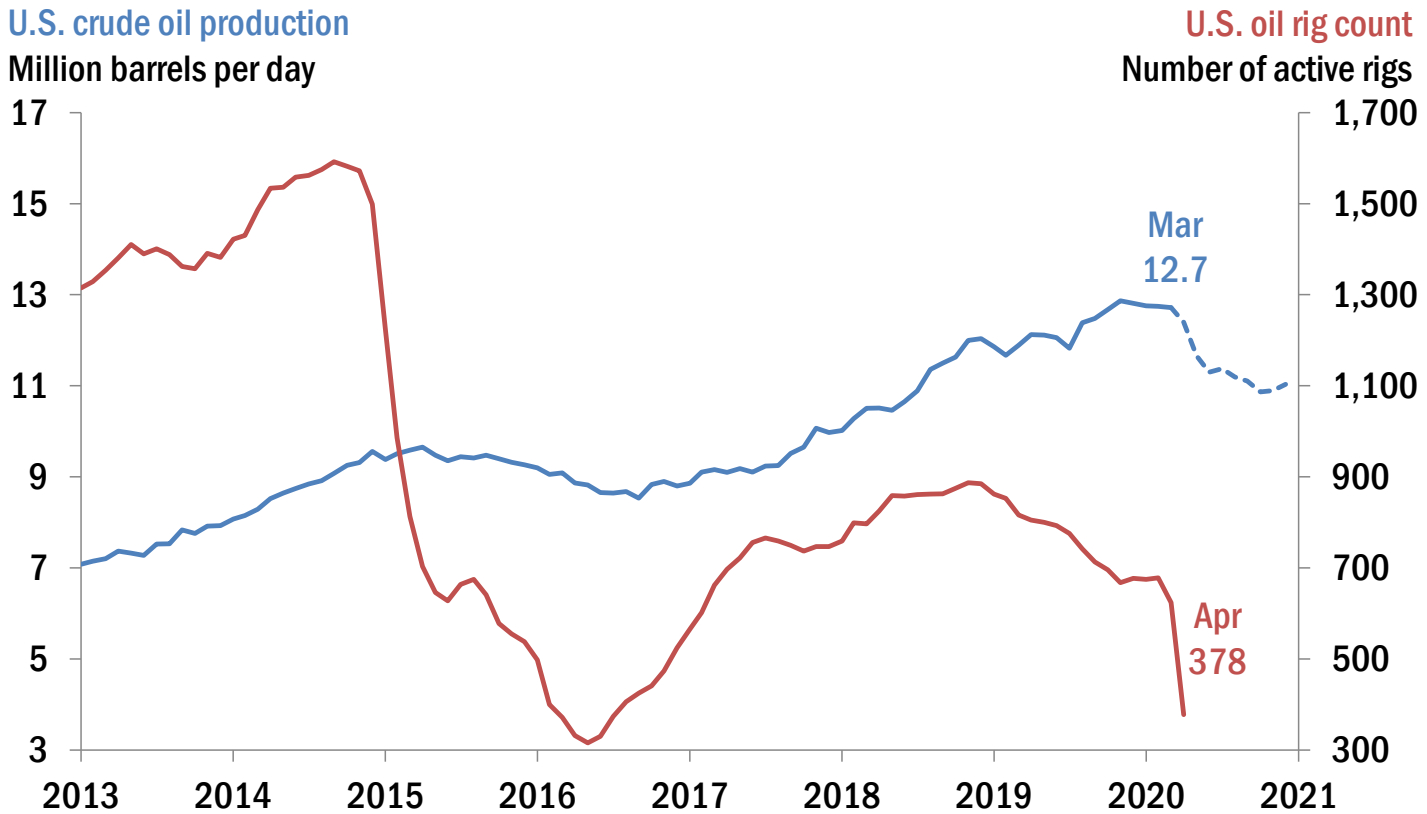
Source: Authors' calculation based on data from *Penn World Table Version 9.0* and International Monetary Fund *International Financial Statistics* databases. These are cross-sectional averages over 1981-2014.

3.1 The Long-Run Effects of Volatility

A New Oil Order: A Low Oil Price Environment?

- The technological advancements over the last decade have not only reduced the costs associated with the production of unconventional oil, but they have also

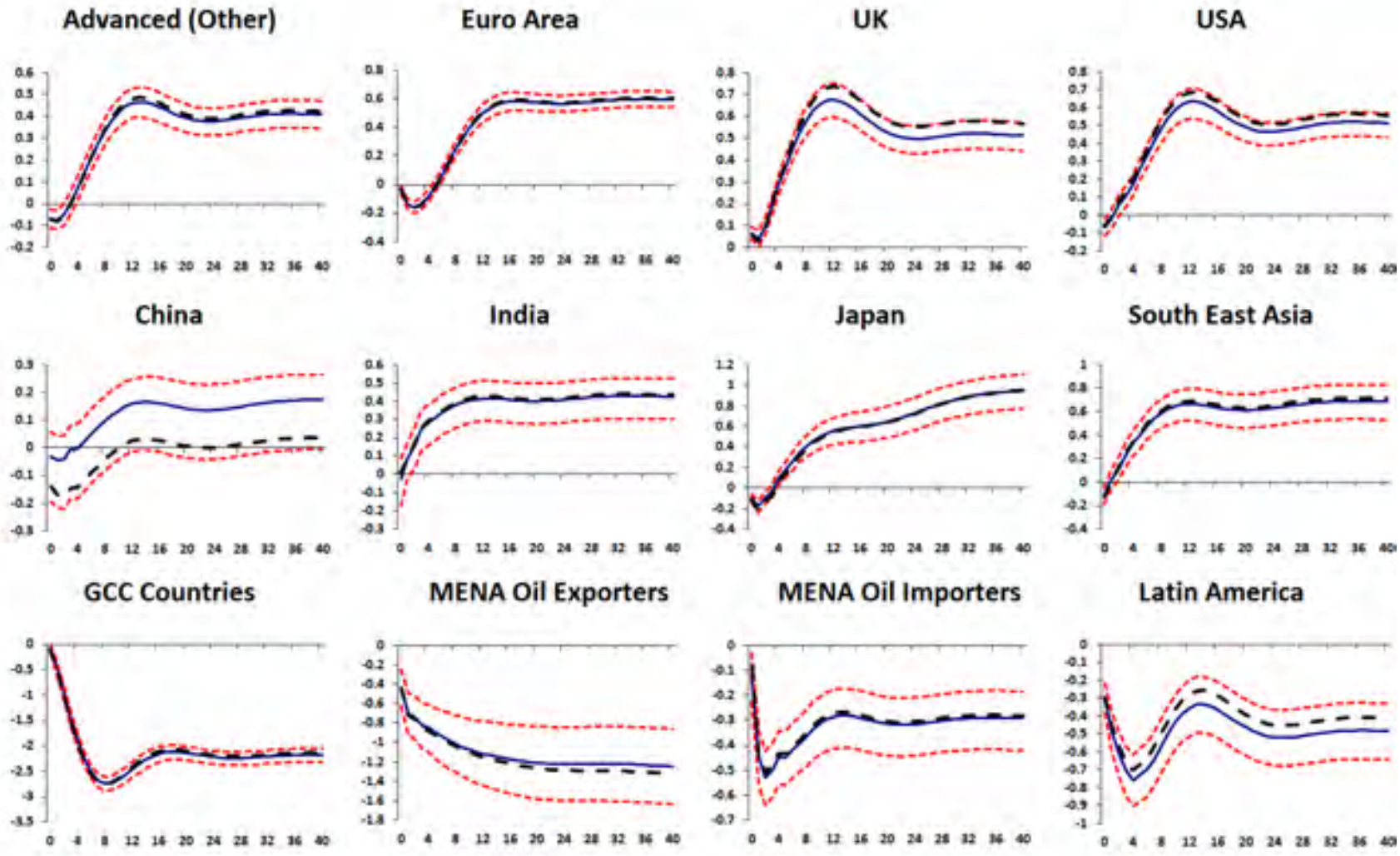
U.S. Oil Production & Rig Count



Federal Reserve Bank of Dallas

NOTES: Dashed line shows the forecast as of 5/12/20. Rig count series shows the last weekly count each month.
SOURCES: Baker Hughes; Energy Information Administration.

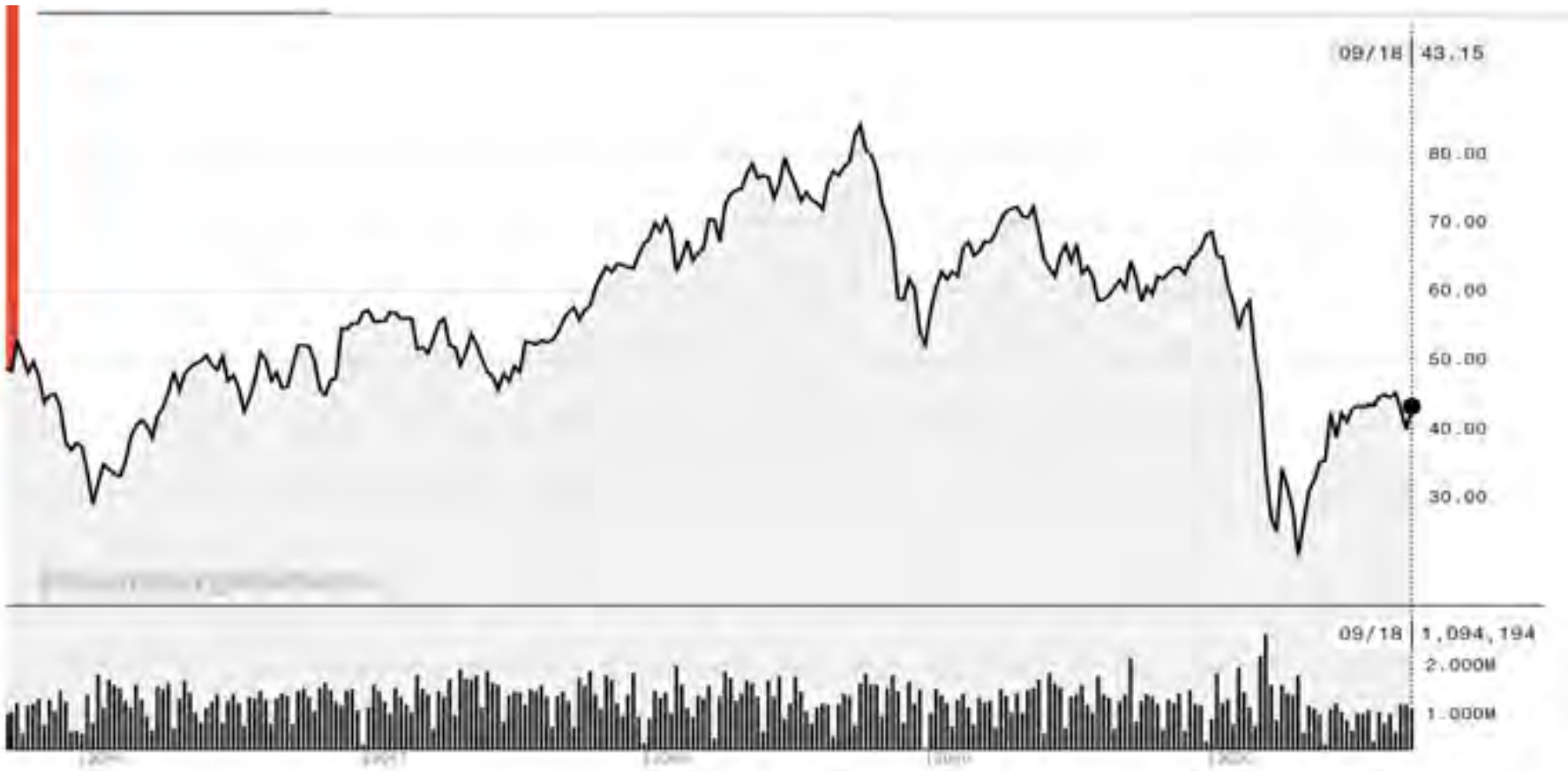
Impact of the U.S. Oil Supply Revolution on Real Output (Mohaddes and Raissi, 2018)



Notes: Figures are median (blue solid) and median target (black long-dashed) impulse responses to a one standard deviation fall in the price of oil, equivalent to an annualized drop of 51% in year 1 and 45% in year 2, together with the 5th and 95th percentile error bands. The impact is in percentage points and the horizon is quarterly.

A New Oil Order: A More Volatile Environment

- Are we in a low oil price environment?
- This is not just about low oil prices, but more **uncertainty** and more **volatility**.
- Bottom line: policy makers should think about **volatility** as opposed to (just) **sustained low or high prices**.

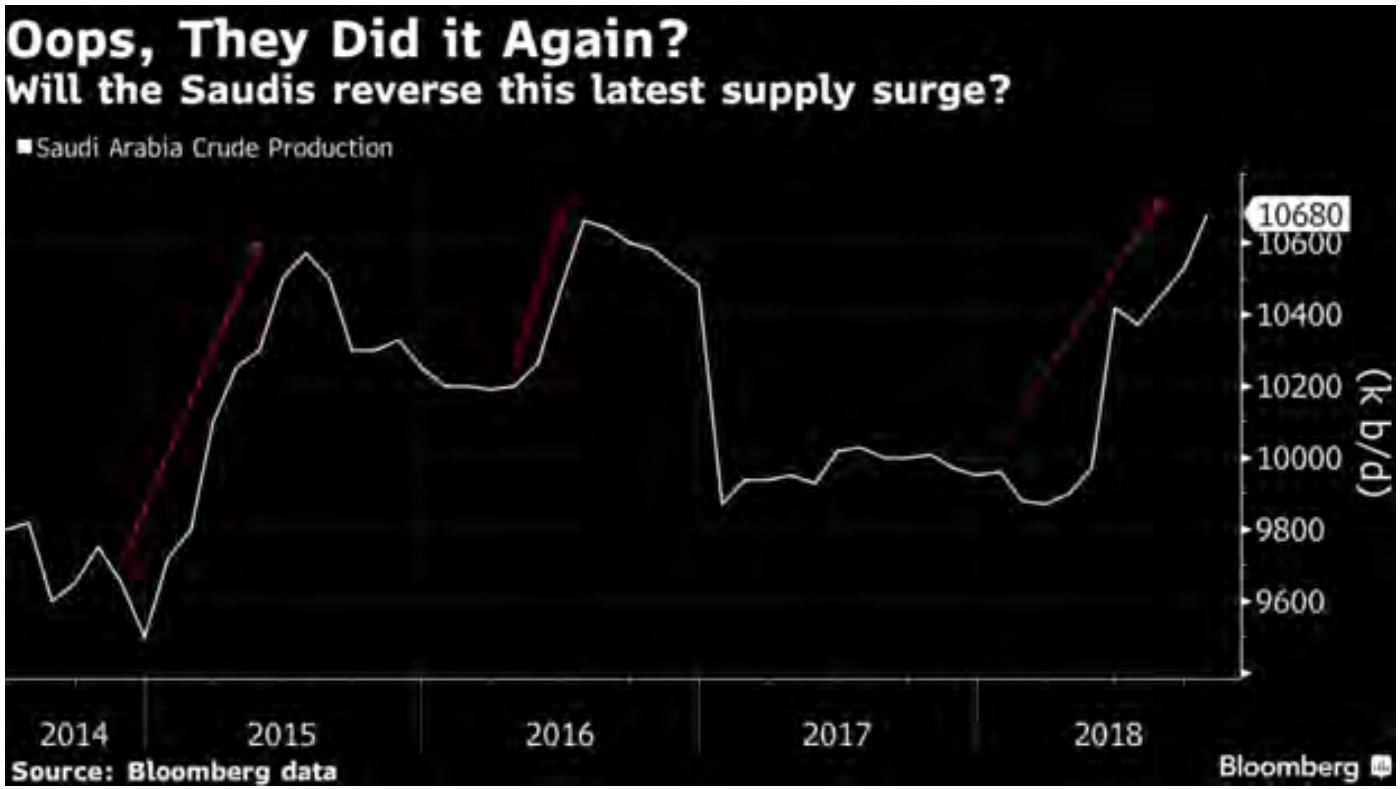


New Source of Volatility: the Trump Factor

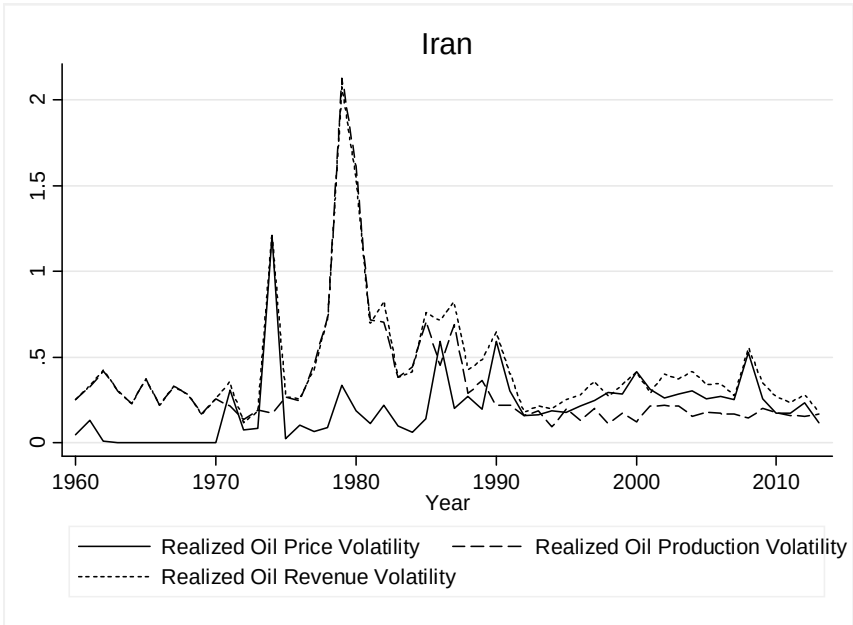
- President Trump is the new "swing factor" in global oil markets.
- What are the effects of the **competing policy objectives** of the Trump administration on the oil market?
  - Geopolitical agenda: **sanctions on Iran**;
  - Domestic political agenda: lowering **American petrol prices**; and
  - **Trade wars** with China and the EU.

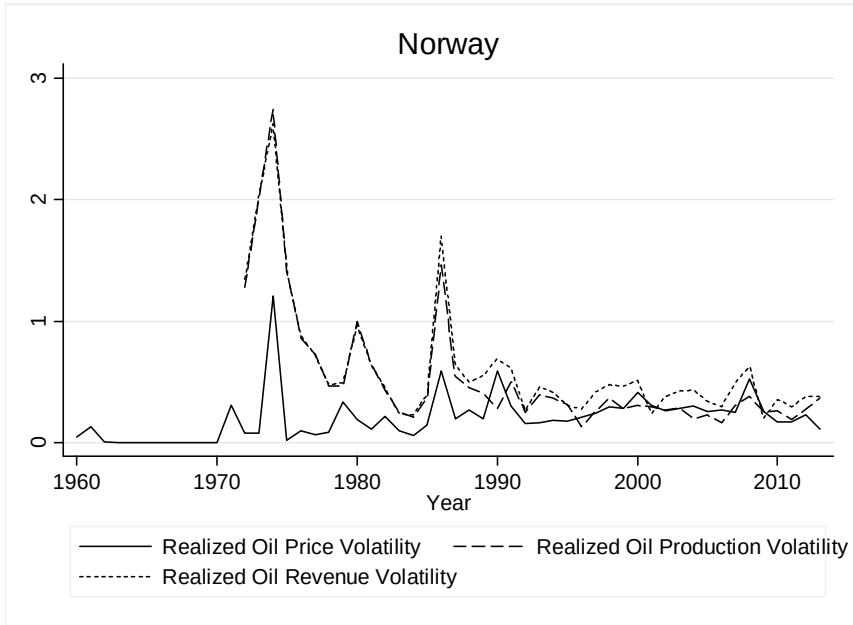
What about OPEC Policy?

- Major source of oil price volatility. Just take the last few years, where an **increase in supply has been quickly reversed**.
  - In 2015: waging a price war against U.S. shale oil producers;
  - In 2016: maximizing sales before OPEC agreements;
  - In 2018: pressure due to sanctions on Iran and President Trump (as discussed).



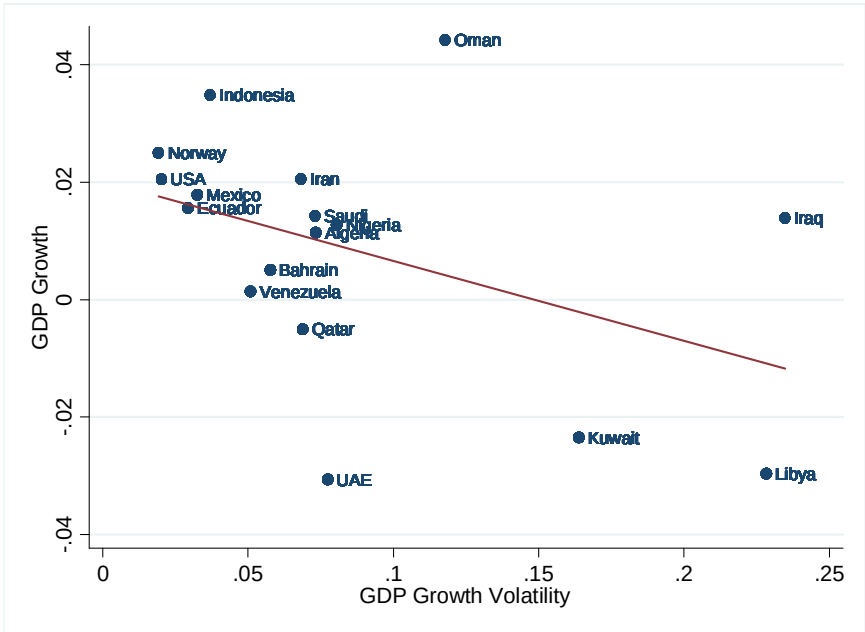
Realized Volatility of Oil Prices, Production, and Revenues, 1961–2013

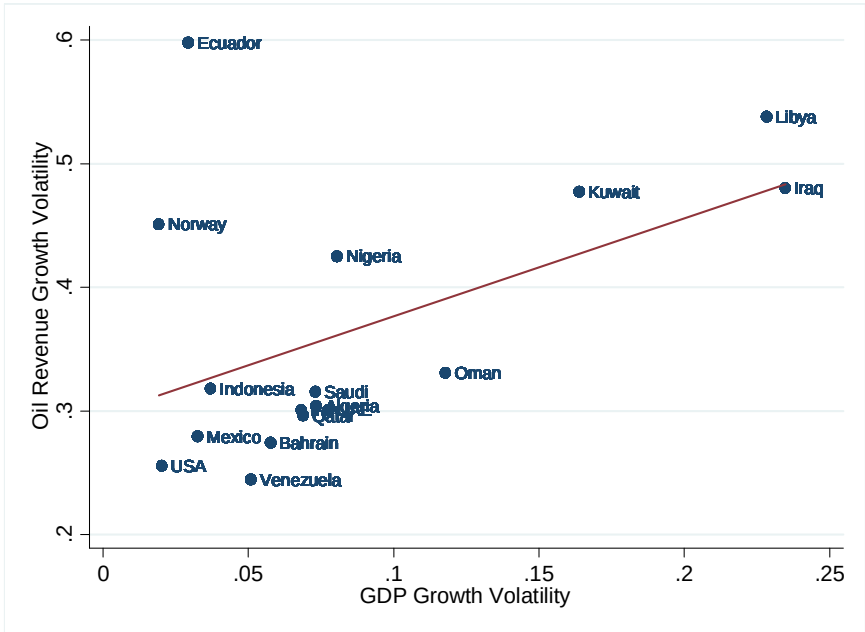




Source: Mohaddes and Pesaran (2014), *One Hundred Years of Oil Income and the Iranian Economy: A Curse or a Blessing?*, Routledge.
Notes: Based on data from World Bank *World Development Indicators* (WDI), *Penn World Table Version 8.0*, and International Monetary Fund *International Financial Statistics* databases.

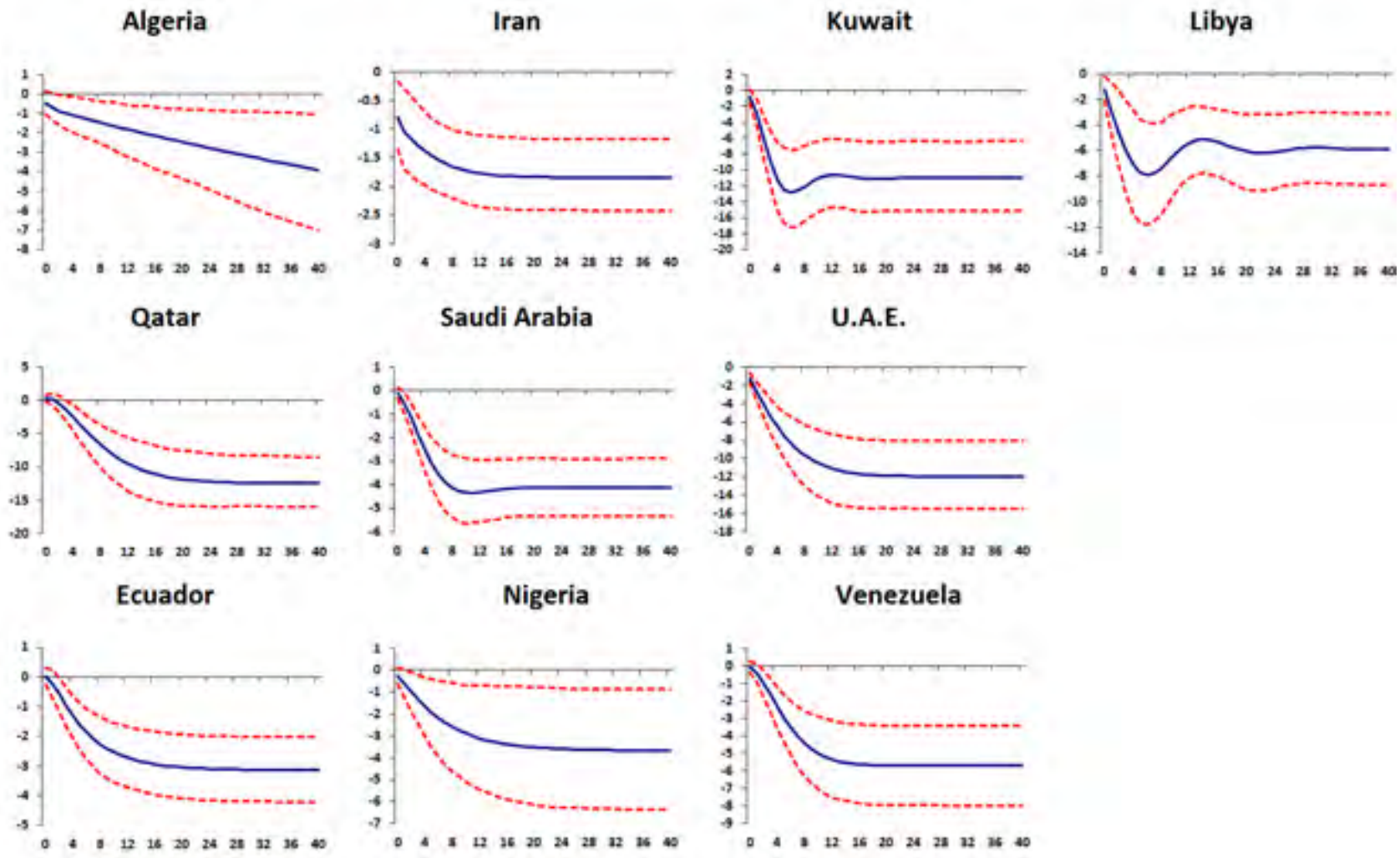
Scatter Plots of GDP Growth and Volatility of Oil Revenue Growth against Volatility of GDP Growth, 1961-2013





Source: K. Mohaddes, J.B. Nugent, and H. Selim (2019), *Institutions and Macroeconomic Policies in Resource-Rich Arab Economies*, Oxford University Press. Notes: Based on data from World Bank *World Development Indicators* (WDI), *Penn World Table Version 8.0*, and International Monetary Fund *International Financial Statistics* databases. These are cross-sectional averages over 1961-2013.

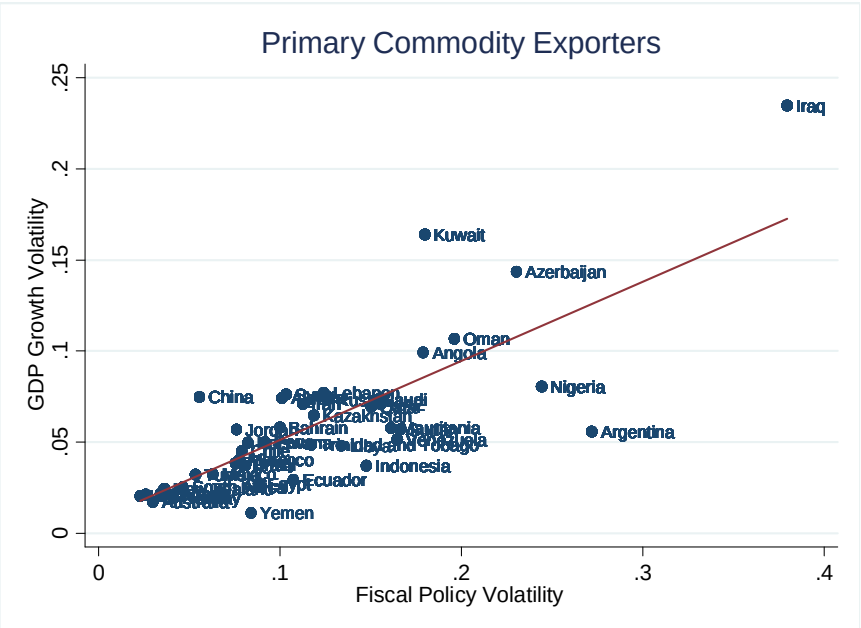
Impact of a Negative Oil Revenue Shock for OPEC Countries (Mohaddes and Raissi, 2018)

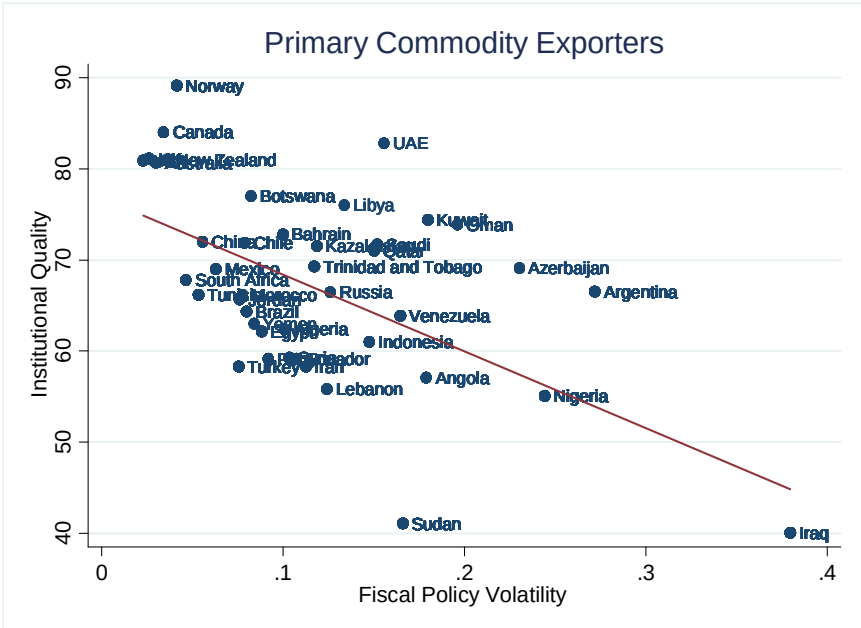


Notes: Figures are median generalized impulse responses to a one standard deviation fall in oil revenue, together with 95 percent bootstrapped confidence bounds. The impact is in percentage points and the horizon is quarterly.

The Role of Institutions and Policy Frameworks

- What is the potential **role of institutions and policy frameworks**, and in particular **fiscal policy**, in dampening the negative effect of commodity price volatility.





Source: K. Mohaddes, J.B. Nugent, and H. Selim (2019), *Institutions and Macroeconomic Policies in Resource-Rich Arab Economies*, Oxford University Press.
Notes: This volatility is interpreted as the component of discretionary policy which is not related to smoothing the business cycle, such as changes in political preferences or the decision by the politicians to generate a short-term boom so as to keep the population happy–as was seen in the region following the Arab Spring.

The Role of SWFs and Institutional Quality

- SWFs have been established for a variety of reasons, ranging from **fiscal stabilization** (that is to help smooth the impact on government spending of revenues that are large and volatile), to **long-term saving** for future needs of the economy, or of specific groups such as pensioners, or for future generations.
- Monaddes et al. (2019, this volume) show that countries that have a SWF have, on average, performed better when it comes to **mitigating the negative growth effects of CToT volatility** and managed to sustain a higher level of capital accumulation in the face of the extreme volatility in resource revenues.

Listing the origin of accumulated funds by country in Table 2, we observe that the majority of these SWFs (19 out of 29) were set-up using revenues from exports of crude oil and gas. A large portion (10 out of 29) was established in countries that are major oil exporters and are members of the Organization of the Petroleum Exporting Countries (OPEC), denoted by * in Table 2. We also provide the inception year of the funds in the same table. However, note that it usually takes years (if not a decade) to set-up a SWF, as prior to inception, parliament needs to debate the architecture of the fund; for instance, the amount transferred to the SWF in each fiscal year and whether there are any provisions for withdrawing from the fund to finance public expenditure as opposed to just using interest income from the endowment for the budget. Nevertheless, the fact that a country has established a SWF provides a valuable signal, as it indicates that the government and the legislature would like to manage the resource wealth efficiently and are concerned with (and willing to deal with) macroeconomic stabilization as well as intergenerational equity.

Table 2: Sovereign Wealth Funds by Origin and Inception

Country	Origin	Inception	Country	Origin	Inception
Algeria*	Oil and Gas	2000	Mongolia	Minerals	2011
Angola*	Oil	2012	New Zealand	Non-Commodity	2003
Australia	Non-Commodity	2006	Nigeria*	Oil	2012
Azerbaijan	Oil	1999	Norway	Oil	1990
Bahrain	Oil	2006	Oman	Oil and Gas	1980
Bolivia	Non-Commodity	2012	Panama	Non-Commodity	2012
Botswana	Minerals	1994	Peru	Non-Commodity	1999
Brunei Darussalam	Oil	1983	Qatar*	Oil and Gas	2005
Chile	Copper	2006	Russia	Oil	2008
Gabon*	Oil	1998	Saudi Arabia*	Oil	1952
Ghana	Oil	2011	Senegal	Non-Commodity	2012
Indonesia	Non-Commodity	2006	Trinidad and Tobago	Oil and Gas	2000
Iran*	Oil and Gas	1999	United Arab Emirates*	Oil	1976
Kazakhstan	Oil	2000	Venezuela*	Oil	1998
Kuwait*	Oil	1953			

Notes: Some countries have more than one fund, here we have taken the inception year to be that of the first fund, which tends to be the main one. * indicates that the country is a member of the Organization of the Petroleum Exporting Countries (OPEC). Source: Sovereign Wealth Fund Institute.

Is Oil Abundance an Institutional Curse?

In this new volume entitled "**Institutions and Macroeconomic Policies in Resource-Rich Arab Economies**" (Oxford University Press, 2019), Jeff Nugent (USC), Hoda Selim (IMF) and I argue that while:

- oil revenues over the last half century have greatly **lowered the incentive in resource-rich Arab economies (RRAEs) to develop the institutions** (including political, fiscal and monetary institutions) that have emerged elsewhere,

- one should note that the GCC countries, because of their revenues (in the form of import duties, fees on religious pilgrims, etc.) and small populations, seem to have **not had that incentive even before oil** was discovered in the region.

- For instance, prior to oil, given that the current GCC region was largely made up by merchant societies (relatively open to international trade), much of the revenues came from customs duties collected from the merchants, there had thus been little need in these countries to develop the kinds of fiscal institutions capable of raising taxes from the local populations. (Saudi Arabia was an exception as external trade was somewhat less important, and fees obtained from visitors on the Hajj were the most important source of Saudi revenues).

Policy Implications

- While abundance of oil in itself is growth enhancing there are two main problems with this oil income: one is the volatility of oil revenues, and the second is that it accrues to the government.

- The fact that oil revenues accrue to the government tends to make the government less immediately accountable for their policies and actions, and increases incentives for **rent-seeking activities**.
  - Devarajan (2019, this volume) shows that in RRAEs accountability is associated with better public expenditure outcomes. To overcome the lack of accountability of governments for oil revenues and also enhance public spending efficiency, he suggests transferring oil revenues directly to citizens and then taxing them.

- The **quality of institutions** (political, fiscal and monetary) governing macroeconomic policy matter more than the abundance of oil and gas revenues for macroeconomic outcomes including long-run growth and stability.
  - The undesirable consequences of commodity price volatility can be avoided if resource-rich countries are able to improve the **management of volatility in resource income**: strengthen institutions and policy mechanisms which act as shock absorbers in the face of high levels of oil revenue volatility.

Policy Implications

- Better conduct of fiscal policy.
  - **Revenue re-balancing:** raising non-distortionary taxes, such as consumption tax (VAT) and reducing the dependence on oil revenue;
  - **Improved tax administration**; and
  - **Spending side**: better targeting of subsidies (electricity, water, petrol). Urgent reforms are needed in the area of energy subsidy – which results in waste, economic distortions and air pollution.

- **Diversification is key**, but this does not mean petrochemical industries!
  - It will be **important to reform the economic structure**, increasing transparency and openness to private sector initiatives and foreign investment and improve the business environment in general.

- **Improving the functioning of financial markets** is also a crucial step as this allows firms and households to insure against shocks, decreasing uncertainty and therefore **mitigating the negative effects of volatility on investment and economic growth**.

Concluding Remarks

- **Volatility** is a major problem in the MENA region and macroeconomic policy has not helped!
  - A clear **role for institutions and the government** (fiscal policy) in offsetting some of the negative growth effects due to the **volatility curse**.

- The **new oil order** is a serious challenge for the MENA region:
  - in particular for oil-exporting countries, as lower oil prices weaken domestic demand as well as external and fiscal balances;
  - but also for oil importers, as gains from lower oil prices are offset by a decline in external demand/financing by MENA oil exporters given strong linkages between the two groups through trade, remittances, tourism, foreign direct investment, and grants.
  - it implies more **uncertainty** and more **volatility**, with adverse effects on economic growth.

- The **policy choices are not easy** and will most likely require **a new social contract**.

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Q&A

This event has been recorded and will be uploaded onto our ‘Dear World, Yours Cambridge’ YouTube page later in October

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