OPEC+'s "Reasonable Oil Price Level" Notion and the External Breakeven in Saudi Arabia, Russia and Canada: Accounting for Economic Cycles and Pipeline Politics

Noha A. Razek, Assistant Professor of Economics, the University of Regina, Canada, +1(306)5854176, noha.razek@uregina.ca Emilson Silva, Professor, Department Chair, CAIP Chair, Alberta School of Business, Canada, +1(780)2481312, emilson@ualberta.ca Nyakundi Michieka, California State University, Bakersfield, +1 661-654-2465, nmichieka@csub.edu

Overview

In December 2016, OPEC members and 11 non-OPEC countries issued a Declaration of Cooperation to stabilize the global oil market through voluntary production adjustments. These countries, collectively known as OPEC+, seek to create a sustainable, stable oil market and establish a reasonable oil price that benefits all industry stakeholders and the global economy. OPEC+ meetings led by Saudi Arabia and Russia reflect participants' commitment to the Declaration of Cooperation (Fattouh & Economou, 2018; OPEC, 2019). The question is, what oil price is reasonable? We attempt to answer this question for Saudi Arabia, Russia and Canada.

After the 2014 adverse oil price shock and a long-lasting low oil price regime, in early October 2018, prices for Brent and West Texas Intermediate (WTI) hit approximately USD 86/barrel and USD 75/barrel, respectively; however, by late November 2018, spot oil prices fell below USD 70/barrel, reaching approximately USD 57/barrel (Bent) and USD 50/barrel (WTI). Oil producers immediately focused on their balance sheets. The estimated fiscal breakeven for Saudi Arabia was approximately USD 83/barrel in 2018 and was projected to be approximately USD 73/barrel in 2019 (FRED, n.d.). However, Russia stated that it is comfortable with a 60 USD/barrel oil price, because the government's budget is based on a price of USD 40/barrel (Nabiullina, 2018; Paraskova, 2019). In 2018, Canada's federal court put a halt to the expansion of the Trans Mountain oil pipeline. In response, West Canadian Select (WCS) was trading at a USD 28.49 discount to WTI by the end of November, injuring the provincial economy of Alberta, Canada's largest oil producer, with repercussions for the Canadian economy. Alberta's Minister of Finance referred to the situation as a national crisis and called upon the federal government to provide assistance (McNeil, 2018).

In addition to fiscal strain, oil exporters' external balances come under pressure and current accounts deteriorate when oil prices drop. Although some oil exporters can finance external deficits through their external wealth, other oil exporters face pressure on their reserves. It is important to assess oil exporters' external balances. The current account for an economy with limited export diversification and a prominent oil sector is inextricably tied to the oil balance, creating a systematic relationship between the current account and oil prices. Managing their foreign assets would enable oil exporters to mitigate abrupt declines in oil production and exports, and make their economies more resilient to oil price shocks. Fiscal and external sustainability are not perfect substitutes unless oil producers are fully owned and operated by the government. Benchmarking would help policymakers determine the magnitude of policy adjustments needed to attain external breakeven (i.e., to finance their external deficits) (Allegret et al., 2014; Arezki & Hasanov, 2013; Behar & Fouejieu, 2016; Tabeke & York, 2011; Versailles, 2015).

Despite the importance of addressing external balance in oil producing economies, most research on oil producers is focused on fiscal sustainability. Few researchers have investigated external balances for oil exporters (Akanbi & Sbia, 2018; Allegret et al., 2014; Behar & Fouejieu, 2016; Gnimassoun et al., 2017; Morsy, 2009; Tabeke & York, 2011). Research on the relationship between the current account and oil prices is inadequate, and most researchers have used panel data rather than country-specific data. Moreover, only Kilian et al. (2009) accounted for global business cycles, and no researchers have accounted for the impact of pipeline constraints.

Rather than analyzing the fiscal breakeven or full-cycle breakeven, we examine the effect of the oil price threshold on external balances with the aim of evaluating a country's ability to finance its external deficits. Building on Gnimassoun et al.'s (2017) work, we adopt a macroeconomic approach, explore the impact of pipeline politics and geopolitics, and account for cyclical movements. We study Saudi Arabia and Russia because they play leading roles in OPEC+ and the global oil market. Canada is an interesting case because it is not a member of OPEC+ and has a more diversified oil exporting economy. Zooming in on oil producing provinces, Alberta, which is heavily oil dependent, faces the same economic issues as Saudi Arabia and Russia. Alberta faces pipeline politics and is landlocked, with more accentuated takeaway obstacles; Russia has faced international sanctions and pipeline politics; and Saudi Arabia has endured recent attacks on key infrastructure, including its vital East-West pipeline, oil tankers passing through the strait of Hormuz, and Aramco facilities.

Methods

We perform detailed case studies of Saudi Arabia, Russia and Canada, because the relationship between oil prices and a country's current account depend on the features of economy, the extent of domestic financial development, the level of international financial market integration, and how foreign exchange rate reserves are managed. Ignoring non-linearity can lead to policy errors with potentially serious consequences (Enders, 2015). We apply a threshold autoregression (TAR) to estimate the threshold oil price effect and account for cyclical effects. For robustness, we consider threshold vector autoregression (TVAR), self-exciting threshold autoregression (SETAR) and smooth threshold autoregression (STAR); and test for strong and weak exogeneity. We account for several variables: the current account to gross domestic product (GDP) ratio; the change in net foreign assets to GDP ratio; the fiscal balance to GDP ratio; Brent oil price; oil price differentials, refinery margin and capacity utilization; official international reserves; propensity to spend oil revenues on imports; and real effective exchange rate. We study time samples of 1980–2018, 2002Q1–2019Q1, and 2005Q1–2019Q1 for Saudi Arabia, Russia, and Canada, respectively.

Results

The oil price threshold effects on the external balance to GDP ratio are approximately USD 61–65/barrel, USD 57– 58/barrel, and USD 74–76/barrel for Saudi Arabia, Russia, and Canada, respectively. Our estimate for Russia is consistent with Renaissance Capital's estimated breakeven of USD 56/barrel for the overall fiscal balance (rather than USD 40/barrel for the primary balance), as reported by Aris (2018). Saudi Arabia is negatively affected by geopolitics, regardless of the oil price regime; Russia has managed to weather the effects of Western sanctions; and Canada is particularly negatively affected by pipeline politics under the low oil price regime. For Canada, although oil price increases may have negative effects on the current account under the low oil price regime, the negative effects of "Dutch disease" are outweighed by positive effects under the high oil price regime.

Conclusions

A reasonable oil price is greater than USD 61–65/barrel for Saudi Arabia, USD 57–58/barrel for Russia and USD 74–76/barrel for Canada; i.e., it is not good news for the respective country if oil prices are within or below the stated ranges. These results explain why, in 2019, Saudi Arabia was not comfortable with USD 60/barrel oil price and was willing to cut production to drive oil prices upward, whereas Russia viewed an average oil price of USD 60–65 USD/barrel as reasonable.

References

- Akanbi, O. A., & Sbia, R. (2018). Investigating the twin-deficit phenomenon among oil-exporting countries: Does oil really matter? *Empirical Economics*, *55*(3), 1045–1064. https://doi.org/10.1007/s00181-017-1336-0
- Allegret, J.-P., Couharde, C., Coulibaly, D., & Mignon, V. (2014). Current accounts and oil price fluctuations in oilexporting countries: The role of financial development. *Journal of International Money and Finance*, 47, 185– 201. https://doi.org/10.1016/j.jimonfin.2014.06.002
- Arezki, R., & Hasanov, F. (2013). Global imbalances and petrodollars. The World Economy, 36(2), 213-232.
- Aris, B. (2018, January 26). Russia Inc goes into profit as the budget breakeven price for oil falls to \$53. The Moscow Times. https://www.themoscowtimes.com/2018/01/26/russia-inc-goes-into-profit-as-the-budgetbreakeven-price-for-oil-falls-to-53-a60302
- Behar, A., & Fouejieu, A. (2016, June). External adjustment in oil exporters: The role of fiscal policy and the exchange rate (IMF Working Paper No. WP/16/107). https://www.elibrary.imf.org/view/IMF001/23411-9781484379929/23411-9781484379929/23411-9781484379929.xml
- Enders, W. (2015). Applied econometrics time series (5th ed.). Hoboken, NJ: Wiley.
- Fattouh, B., & Economou, A. (2018, April). Oil supply balances: The four cycles of the OPEC oil output policy. Oxford Institute for Energy Studies. https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/04/Oil-Supply-Balances-The-Four-Cycles-of-the-OPEC-Oil-Output-Policy.pdf
- FRED (n.d.) Breakeven fiscal oil price for Saudi Arabia. https://fred.stlouisfed.org/series/SAUPZPIOILBEGUSD
- Gnimassoun, B., Joëts, M., & Razafindrabe, T. (2017). On the link between current account and oil price fluctuations in diversified economies: The case of Canada. *International Economics*, 152, 63–78. https://doi.org/10.1016/j.inteco.2017.07.001
- Kilian, L., Rebucci, A., & Spatafora, N. (2009). Oil shocks and external balances. *Journal of International Economics*, (2), 181–194. https://doi.org/10.1016/j.jinteco.2009.01.001
- McNeil, S. (2018, November 30). WCS discount "a national crisis": Alberta finance minister. *BNN Bloomberg*. https://www.bnnbloomberg.ca/wcs-discount-a-national-crisis-ceci-1.1176588
- Morsy, H. (2009). *Current account determinants for oil-exporting countries* (IMF Working Paper No. WP/09/28). https://www.imf.org/external/pubs/ft/wp/2009/wp0928.pdf
- Nabiullina, E. (2018). Topic: Russia's rocky road to the (inflation) target. Lecture in honor of M. Camdessus. *Central Bank of the Russian Federation*. http://www.cbr.ru/eng/press/st/2018-09-06/
- OPEC. (2019, December 6). *The 7th OPEC and non-OPEC Ministerial Meeting concludes*. https://www.opec.org/opec_web/en/press_room/5797.htm
- Paraskova, T. (2019, January 23). Russia's wealth fund: Oil price war with U.S. would hurt Russian economy. *OilPrice.com*. https://oilprice.com/Energy/Energy-General/Russias-Wealth-Fund-Oil-Price-War-With-US-Would-Hurt-Russian-Economy.html
- Tabeke, M., & York, R. (2011). External sustainability of oil-producing sub-Saharan African countries. (IMF Working Paper No. WP/11/207). https://www.imf.org/en/Publications/WP/Issues/2016/12/31/External-Sustainability-of-Oil-Producing-Sub-Saharan-African-Countries-25197
- Versailles, B. (2015, October). Middle East and Central Asia Department Regional Economic Outlook. MENAP oilexporting countries: Grappling with lower oil prices and conflicts. *International Monetary Fund*. https://www.imf.org/en/Publications/REO/MECA/Issues/2019/04/17/reo-menap-cca-0419