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Editorial

A Note on Oil Price Shocks

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1. Introduction

Many empirical studies have examined the role of oil price fluctuations on macroeconomic activities. This editorial contributes to the debates on the linkages between oil price shocks and macroeconomic activities, and sheds new light on quantifying the effects of oil price shocks on commodity markets.

2. Discussion

The current literature on the macroeconomic impacts of oil price shocks can roughly be classified into three different groups. The first group includes numerous studies that analyze how oil price shocks influence a country's economic growth via supply- and/or demand-side transmission channels—for example, Mork et al. (1994) [1], Lardic and Mignon (2006) [2], Rahman and Serletis (2012) [3], and Cross and Nguyen (2016) [4].

The second group argues that an increase in the price of crude oil is likely to trigger inflationary pressure through the supply channel and results in a higher price level for the final output of goods. Thus, the second group tackles to what extent oil price shocks influence inflation across countries—for example, Darby (1982) [5], De Gregorio et al. (2007) [6], Valcarcel and Wohar (2013) [7], and Sultan et al. (2020) [8].

The third group tackles the problem from the observation that an increase in oil prices is likely to drive up (down) exports of petroleum products (final products) in an oil-exporting country (an oil-importing country) and improve (deteriorate) its trade balance, thereby appreciating (depreciating) the domestic currency. Thus, the third group examines the effects of oil price shocks on a country's exchange rate—for example, Backus and Crucini (2000) [9], Baek et al. (2019) [10], Musau and Veka (2020) [11], and Marquez (2022) [12].

A crucial point frequently overlooked and rarely investigated in historical empirical studies is that, although the fluctuations of oil prices are endogenously determined by varying mixtures of distinct oil supply and demand shocks, and hence, their macroeconomic effects are likely to vary depending on different shock components, contemporary research typically assumes that changes in oil prices are an exogenous phenomenon with respect to global macroeconomy trends, and their effects would always be the same, regardless of the sources of shocks. Thus, their empirical approaches may be mis-specified, questioning the credibility of the results. In fact, Kilian (2009) [13] empirically supports that oil price shocks are historically triggered by crude oil supply shocks, by oil-market-specific demand shocks (known as oil-specific demand shocks), and by innovations to the demand for all industrial commodities driven by the global business cycle (known as aggregate demand shocks). Accordingly, a relatively small but recently growing body of literature examines the macroeconomic impacts of different oil shock components—see Kilian et al. (2009) [14], Guerrero-Escobar et al. (2019) [15], and Baek and Yoon (2022) [16]. For example, Baek and Yoon (2022) [16] document that, because the macroeconomy in Indonesia is driven by varying combinations of aggregate demand shocks and oil-specific demand shocks, the premise that oil prices are exogenously determined with respect to the global economy is not plausible.

3. Conclusions

This editorial provides an in-depth discussion of the empirical analysis of the relationship between oil price shocks and macroeconomic activities. As noted, the assumption of exogenous oil price shocks in an empirical model is not credible from an econometric standpoint, and a large proportion of previous studies inevitably suffer from model misspecification. As a result, it is desirable to consider various shock components in studying oil price impacts on macroeconomic activities and commodity markets in the future.

Conflicts of Interest: The author declares no conflict of interest.

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