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Impacts of global and domestic shocks on inflation and economic growth for actual and potential GCC member countries

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ABSTRACT

By using a modern structural VAR with block exogeneity and identifying restrictions, this paper analyzes several global and regional oil and macroeconomic relationships related to the selected incumbent GCC member countries – Kuwait, Oman, Saudi Arabia – and the potential member Jordan. First, it examines the global macroeconomic linkages among the dollar exchange rate, oil price, China's producer price, U.S.'s export price, EU's export price and Japan's export price. Second, it investigates the effects of global and country-specific shocks on the industrial production and consumer price indices of these GCC member countries and the potential member Jordan. It thereby examines which individual global/local shocks command more importance in explaining the variations in the economic growth and inflation of each actual and potential GCC member. Third, it analyzes the similarities in economic growth and inflation among the GCC countries after controlling for different global and country-specific shocks. The results suggest that the overall CPI inflation rates of Kuwait, Oman, Saudi Arabia and Jordan are highly and positively correlated. The economic growth of Jordan shows negative correlations with those of the member countries. If the GCC members are to focus only on stabilizing inflation, there is no harm for them to accept Jordan as a new GCC member. However, if the GCC's objective is not only the stabilization of inflation but also the business cycle synchronization, the GCC members should be more cautious in accepting Jordan as a new member.

1. Introduction

The economies of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates (UAE) are similar in many ways. These economies are part of the Gulf Cooperation Council (GCC), and these have experienced increased integration for the last three decades (Kim, Hammoudeh, & Alesia, 2012), have effectively pegged their currencies to the U.S. dollar and have had open capital accounts.[1] They are highly dependent on oil production and exports for generating government revenues driven by an oversized public sector which is significantly manpowered by foreign labor. Moreover, many of these countries possess large endowments of foreign assets because of spurts of large oil revenues over the years, compared to their relatively narrow absorptive capacity which is hydrocarbon-based (Hammoudeh et al., 2009). They also share the same geographic area, language, climate and culture. However, the GCC countries are dissimilar in other important ways including economic growth and inflation, which are not always commensurate with the individual country's oil revenue prowess. Over the last two decades, the small oil producer Oman achieved the

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[1] Kuwait pegs its currency to a basket of major currencies that closely follows the U.S. dollar.

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highest economic growth associated with moderate inflation, while the world's largest oil exporter Saudi Arabia recorded the lowest economic growth over the sample period. The GCC country that has experienced the highest increase in the cost of living is UAE.

This disproportionate economic performance among the GCCs should have implications for their social and economic policies including policies that deal with cost and standard of living, fiscal responses to challenges, rigidity of the indigenous labor market, mismatch between education and the needs of the labor market, and the creation of the monetary (and hopefully fiscal) union. Historically, economic growth and inflation differentials between the GCC countries had diverged and persisted for some time and then tightened over other times to diverge again over the last two decades.[2] This differential in economic and inflation performances should not be very surprising despite the similarity between the GCC countries. These countries pursue different fiscal policies, their indigenous labor markets have different rigidities, their housing markets vary from surpluses to shortages, and their needs for food imports relative to domestic production vary. All these factors contribute to the GCC country differentials in economic growth and inflation. They also have an implication for any future expansion of the GCC membership.

The major focus of this paper is on the impacts of global shocks on the GCC countries' economic growth as embodied by changes in domestic industrial production, and inflation as represented by changes in the domestic consumer price index, and on the expansion of the GCC state membership. The global shocks include exchange rate shocks, oil price shocks, and shocks in export prices of the United States, eurozone, Japan and China. Shocks in China's export price are represented by the producer price index for lack of adequate data on the Chinese export price index. Domestic GCC country shocks include shocks to domestic industrial production and consumer price index, capturing shocks to domestic economic growth and inflation.

The GCC countries that are included in this study are determined by the availability of consistent data series on domestic industrial production and CPI. These are Kuwait, Oman and Saudi Arabia which are in fact good representatives of all the GCC members. Moreover, since the GCC countries have expressed interest in expanding its membership and pinpointed certain countries to be potential members who in turn also desire to join, we include Jordan as a potential GCC member country. Jordan does not produce oil, but shares geography, language and culture, and has economic and labor ties with the incumbent GCC member countries. To this end, we employ a structural VAR with block exogeneity and identifying restrictions to achieve the objectives of the paper. This model includes macroeconomic linkages among the exchange rate, oil price, the producer price of China, the U.S. export price, the EU export price and Japan export price. It also addresses relationships between industrial production and the consumer price indices of the selected incumbent and potential GCC member countries.

The results show that if the GCC members are to focus only on stabilizing inflation, there is no harm for them to accept Jordan as a new GCC member. On the other hand, since the GCC's objective is not focusing only on the stabilization of inflation but also on the synchronization of the business cycle, the GCC countries should be more cautious in accepting Jordan as a new member. Given the fact that Jordan is not an oil-producing country, it would be a difficult task to achieve successful business cycle synchronization between the GCC member countries and Jordan, particularly if they want to form a lasting monetary union with a common central bank.

The paper is organized as follows. After this introduction, Section 2 presents a review of the literature on the GCC integration, economic growth and inflation. Section 3 provides the model and its identification. Section 4 discusses the empirical results and Section 5 concludes.

2. Review of the literature

The literature on economic growth and inflation in the GCC countries has largely been carried out within the framework of examining the feasibility, suitability and desirability of having a monetary union embracing the six GCC countries.[3] The most prominent studies in this literature apply the standard VEC and conventional SVAR models to the economies of the GCC member countries or the GCC as a prospective union. Hammoudeh and Aleisa (2004) examine the financial integration in the GCC stock markets by using the VEC model. They find that these markets are cointegrated in the long-run, but in terms of the short-term dynamics the authors find limited causal relationships among them. By testing for cointegration among the domestic exchange rates, inflation rates, monetary bases and GDPs, Darrat and Al-Shamsi (2005) conclude that the GCC countries are compatible to form a monetary union and the delay is due to political considerations. Hebous (2006) stresses the similarities and the high convergence among the GCC countries, which render the macroeconomic cost of integration relatively low. Abu-Qarn and Abu-Bader (2007) examine the GCC economic integration by using three formal methods: the traditional SVAR, cointegration, and synchronization of business cycles. They conclude that all those methods render no support for establishing a GCC monetary union. Jean-Louis, Balli, and Osman (2012) examine whether the GCC countries have symmetric aggregate demand shocks and non-oil aggregate supply shocks with fellow GCC countries and with the U.S. and major European countries, by using a bivariate SVAR with long-run identifying restrictions. They find that all of these shocks are at least weakly symmetric among the GCC countries. Alkholifly and Alreshan (2009) argue that a unified monetary policy is necessary for a GCC monetary union to take place but is not sufficient to have a successful union. They stress the paramount importance of the fiscal and monetary policies for the union's success. Al-Omran (2010) investigates several factors that affect the readiness of the GCC countries to form a successful GCC monetary union and contends that these countries are not yet ready for monetary integration. By estimating a traditional

[2] Hammoudeh, S. 2010. "GCC Countries are Not Created Equal: Disproportions in GDP Weights, Economic Growth and Inflation". http://blogs.zawya.com/shawkat.hammoudeh/100610023728/.

[3] Bunik, Biswas, and Criddle (2009) examine economic similarities in South Asian countries and find that these countries are ready to form an optimum currency area.