Economic Policies and the Possibilities of Unified GCC Currency

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ABSTRACT

The aim of this study is to identify the extent to which the GCC countries can adopt similar economic policies by the time the GCC unified currency is formed in 2010. Among other convergence standards, we examined the economic structure of the GCC countries to identify similarities and differences. The study finds significant differences between the economic policies of GCC countries. Moreover, the results suggest that the GCC countries need more policy coordination to smooth out their differences thus designing more unified economic policies which would contribute to the establishment of a monetary union.

I. INTRODUCTION

At the early days of the Gulf Cooperative Council (GCC) in 1981, the leaders of Saudi Arabia, Bahrain, Qatar, Kuwait, Oman and United Arab Emirates declared that economic integration is one of their most important goals. This integration would eventually lead to forming a single currency. The leaders of the GCC decided that 2002 was the year for all member states to fix their currency against the United States dollar ($). However, the process since then has moved slowly. Nevertheless, in 2002 at the Doha summit, the year 2010 was set as the target date for the introduction of a single currency and the possible establishment of a central bank that would oversee monetary policies in the GCC area.

Collectively, the GDPs of Gulf Cooperative Council countries exceeded $340 billion in 2004 and per capita income was about $13,000. In addition, these countries have the extremely important edge of being the largest exporters, as well as having the largest oil reserves in the world. The road to a monetary union is neither an easy nor a smooth one, yet membership in a currency union provides potential benefits to the member states. One of the benefits is less uncertainty about future real exchange rates, which translates into economic welfare gains. In addition, a single currency promotes better policy coordination between different national economic policies. However, an important cost of joining a currency union is reduced policy independence. This means that membership in a monetary

union greatly reduces a member's control over its own monetary and fiscal policies when responding to country specific disturbances.

The primary objective of this study is to assess the optimality of a currency area in Saudi Arabia, Bahrain, Qatar, Kuwait, Oman and United Arab Emirates. Hence, it is crucial to identify the extent to which the GCC countries can adopt similar economic policies by the time the GCC unified currency is formed in 2010. The study examines the existing economic structure of the GCC countries so as to identify similarities and differences.

We have organized the rest of the paper as follows: Section **II** reviews the relevant literature. Section **III** discusses data and methodology. Section **VI** reports test results and finally, Section **V** concludes the paper.

II. LITERATURE REVIEW

Studies conducted about the GCC currency union are very limited, and most of them focus on the feasibilities and possibilities of establishing a unified currency system. One of the early studies is by (Laabas & Limam, 2002) which discusses the extent of the readiness of GCC economies to establish a currency union. Based on the theory of the Optimum Currency Area, this study uses the test of Generalized Purchasing Power Parity, which indicates that the real exchange rates of GCC countries do converge. Moreover, the study stresses that the GCC countries still need to meet the conditions of the currency unification zone since the convergence of the economic structures and macroeconomic indicators need to exist.

Fasano & Schaechter (2003) studied the circumstances and conditions that prevailed prior to the creation of a unified currency region. The study emphasized the necessity of creating and improving the institutional framework, as well as the quantitative standards required to assess the availability of the conditions needed for the establishment of a currency union such as: (1) Creating a bank that represents the GCC central bank and practices the role of the coordinator of all GCC central banks which could be transferred to a central bank for the GCC countries at a later stage; (2) Creating and developing effective monetary tools in all GCC countries; (3) Assigning limits to the government budget deficits; (4) Insuring greater openness among the GCC economies in a way that removes barriers and restrictions on the free mobility of capital and labor.

Abed, Erbas, & Guerami (2003) examine the choice of pegging the unified GCC currency to the US dollar, the European currency (the Euro), or to a basket of both the US dollar and the Euro. The study's findings show a great dominance of the US dollar over the Euro as well as over a basket of both the US dollar and the Euro. In addition, the study stresses that the preference toward the dollar is supported by the fact that the US dollar is a major international currency used in the international commercial settlements including oil, the highest export commodity share in the GCC total exports.

Jaderesic (2002) indicates that the absence of a local monetary policy responding to a local economy condition may not be as important for the GCC as it is in other unified economic zones. The reason for that is the great similarity between the economic

structures of the GCC economies, which suggests that a centralized policy would more likely be in harmony with most GCC countries. Therefore, for the GCC countries, adopting one policy may not be an obstacle in the way of the unified currency.

Canzoneri, Cumby & Diba (2004) examined whether the size of the country and its debt have any influence on the effectiveness of the monetary policy in the Euro zone. The study arrived at the conclusion that countries with medium level debt experience the implemented unified fiscal policy differently than larger debt level countries. The reason for this is the latter countries' financial status is characterized by greater sensitivity to the changes in fiscal policy. Moreover, these influences vary because of the stronger correlation between inflation in the large debt countries and inflation in the Euro zone.

The study by Putkuri (2003) examines the influence of the monetary policy on the prices and the economic activity of the member countries in the Euro zone. The study shows that this influence differs from one country to another and that the influence depends on the characteristics of the country and the maturity of its financial sector. The study focuses in particular on testing whether the monetary policy and its impact on the bank credit will lead to differences in the response of the supply of bank credit from one country to another within the Euro zone. The study shows that these differences depend primarily on the size of the financial sector and the amount of financial capital in a country; monetary policy is more effective in the large financial sectors, and more capital means that the financial sector will be better able to absorb fluctuations and the unexpected shocks of the monetary policy.

III- METHODOLOGY AND DATA

All GCC central banks emphasize the importance of maintaining predictable exchange rates and declare that they direct their monetary policies toward fostering economic development and growth while promoting international trade and price stability[1]. Prozecanski (1979) defines two different patterns in the behavior of monetary authorities. The first pattern is one that describes authorities who have the objective of maintaining price and/or currency stability. The second pattern refers to countries whose primary objective is to expand the money supply, which may result in an increase in the price levels and a devaluation of the currency. This pattern represents countries that finance their fiscal deficit.

When examining economic policies in the Arab countries using pooled data, it is customary to divide countries into two different groups based on oil production: oil producing and non-oil producing. Since the current study is concerned with the GCC member states, this division is rendered useless[2]. To achieve the goal of this paper, which is to identify a central bank's reaction function, the following simple single equation model is used:

$$M^s = a_0 + a_1 IR + a_2 P + a_3 Y + a_4 GOV + e \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where:

M^s is the rate of change in money supply defined as **M2**.

IR is the rate of change in international reserves.

P is the inflation rate.

Y is the rate of change in real income approximated by real **GDP**.

GOV is the rate of change in government spending.

e measures the residuals[3].

If the monetary policy were designed to promote prices and currency stability, the coefficient for inflation would be negative, while the coefficient for international reserves would be positive. Higher rates of inflation and dwindling international reserves would induce the central bank to follow a tight contractionary monetary policy to stop the depletion of foreign reserves. Furthermore, if the primary objective of the central bank is to finance government deficit, the behavior will be recognized through a positive coefficient for inflation, a positive response in government spending and an insignificant impact on real income. On the other hand, if the primary objective is to maintain a real level of liquidity, both coefficients for inflation and real income will be positive.

Data

We used yearly data on all six GCC countries, namely Saudi Arabia, Bahrain, Qatar, Kuwait, Oman and United Arab Emirates, on money supply (M2), international reserves, consumer price index (CPI), GDP, population and government spending. The data run from 1980 to 2000 and are taken from the International Financial Statistics (IFS) CD-ROM database, as well as the GOIC database. Due to lack of data on Kuwaiti for the years 1990 and 1991, we took averages to fill in the missing data.

IV- TEST RESULTS

The first model, where M2 is the dependent variable, was estimated using the Seemingly Unrelated Regression method (SUR). In a time series the Seemingly Unrelated Regression method was found to yield more efficient estimators than those obtained by the Ordinary Least Square (OLS), especially if the system of equations is expected to have contemporaneous correlation problems.

We used pooled data on all six GCC countries. Table (1) shows the SUR test results. The coefficient for inflation is positive at the 95% level of significance (2.45), and significant at the conventional level, while the coefficient for international reserves (-0.37) is negative and significant at the 95% conventional level. The coefficient for real income is relatively large which implies that monetary policies in all GCC countries correspond positively to changes in real income. The coefficient for government spending is surprisingly small and insignificant, as opposed to general belief. Variables collectively explain about 55% of the total variation in the monetary policy.

Table (1): The estimated coefficients of the equation (1) using SUR

a_0	P	IR	GOV	Y	R^2
-12.7	2.45 (5.01)	-0.37 (3.51)	0.032 (0.40)	2.54 (18.05)	0.55

It is worth mentioning that the above equation (1) did not give us a clear-cut

answer on the relationship between monetary policy and fiscal policy. We claim that the GCC countries resort to money financing. Government spending increased money supply while on the other hand international reserves did the opposite. This pattern is detected whenever the central bank functions as a printing press while attempting to improve the balance of payment. Hence, we cannot make any judgment on monetary policy based on this model[4].

Since our model required us to use pooled data, we found some studies on this subject matter. Kormendi et al, (1985) which pooled a set of developed and developing countries into one group did one of the first studies. Gupta (1985) criticized the Kormendi study for pooling data on countries that may not have had anything in common. Gupta divided the sample into two different groups: developed and developing countries. He retested the same model for the same countries for the same period and found completely different results. Pollak (1987) cautioned against pooling data and recommended testing for similarities in economic structures prior to pooling. Barghothi and Shotar (1998) used pooled data to examine the monetary policies in some Arab countries and found unreliable results, which were attributed to pooling the data on countries, which had different structural bases.

The GCC countries may share many economic, cultural and political characteristics. However, they differ in their initial endowments; some are rich in natural resources and have built and developed their economies based on that. Others on the other hand are not as fortunate; their economies depend heavily on trade, services and aid. To compensate for the shortcomings of pooling data and make sure that the pooling data for the GCC countries is justified we propose the following model:

$$\mathbf{Q = b_0 + b_1 M^s + b_2 P + b_4 GOV + u} \quad \text{..... (2)}$$

Where:

Q is the growth rate of real per capita income.

$\mathbf{M^s}$ is the growth rate of the money supply defined as **M2**.

P is the growth rate in the price level.

GOV is the growth rate of government spending.

u measures the residuals.

In principle, this model is designed to assess the impact of both monetary and fiscal policies on growth of each country. This is a widely used model, see for instance [Awad and Alsowaidi, 2005; Jayaraman, 2002; Barghothi and Shotar, 1998; Bynoe, 1995; Gupta, 1985; Prozecanski, 1979]. Again, the use of equation (2)[5] enables us determine how growth responds to economic policies and how effective these policies are in every GCC country, which in turn will help us determine how close these countries are to forming a monetary union. We expect countries with similar economic structures to have similar significant coefficients, and then the next step would be grouping these countries together. To this end we tested equation (2) using OLS. At this stage, we are concerned with the impact of monetary and fiscal policies on per capita income.

Table (2) shows that most countries have autocorrelation problems. To correct for this problem, we retested the model using maximum likelihood ratio (MLR).

Table (2): The estimated coefficients of per capita income equation (2) using OLS.

Country	a_0	P	M^s	GOV	R^2	D.W
UAE	5.7	1.3 (0.95)	-0.44 (1.3)	-0.2 (0.41)	0.06	0.81
Qatar	5.9	2.08 (2.2)	-1.97 (4.6)	1.06 (1.66)	0.77	0.94
Bahrain	4.2	0.21 (0.31)	٠,١٣ (1.0)	-0.21 (1.1)	0.09	0.72
Oman	4.3	-0.08 (0.25)	0.03 (0.61)	-0.01 (0.1)	0.06	0.81
Kuwait	7.4	-0.56 (0.65)	0.45 (1.2)	-0.45 (2.0)	0.23	0.80
Saudi Arabia	3.8	0.1 (1.37)	-0.77 (14.3)	0.44 (6.19)	0.97	1.72

Countries with significant negative coefficients for monetary policy were Qatar and Saudi Arabia. While the coefficients for UAE, Kuwait, Bahrain and Oman had a negative coefficient for fiscal policy. The negative sign for monetary policy contradicts economic theory. This could be attributed to the fact that expansionary monetary policy, which is supposed to stimulate growth, especially in a fixed exchange regime, increased imports and in turn, affected growth negatively.

Government spending is expected to have a positive significant but in our case government spending lowered per capita income; it seems to us that government crowded out private investment due to higher interest rates. The positive sign for the general price level should be taken in the context of the quantity theory of money, which we presume affected the growth rate. Table (2) shows that Kuwait, Bahrain and Oman share a negative coefficient for fiscal policy and a positive coefficient for monetary policy, while the United Arab Emirates is the only country that has insignificant negative coefficients for both monetary and fiscal policies. It is worth mentioning that equation (2) does not provide us with solid evidence about the similarities among the GCC countries. On the contrary, results suggest that there are existing structural differences, which could hinder the process of creating a single currency[6].

Based on the results, the GCC countries could be grouped into three different subgroups; the first of which includes Qatar and Saudi Arabia. The second group includes Bahrain, Kuwait and Oman. The third group would include the United Arab Emirates only. These results may shed some light and explain, earlier results obtained from using pooled data[7].

In theory, monetary unions for any economic block enhance economic benefits for all countries involved by eliminating foreign exchange risk and encouraging policy coordination. The key benefits from such an arrangement are evident. A single currency

would eliminate the transaction costs associated with using different currencies. This in turn reduces the magnitude of price differentials among the member states. Moreover, one can expect some efficiency gains with enhanced trade and capital flows. Even though GCC countries follow fixed exchange rate systems, a common currency is more credible than a fixed rate system. Moreover, a common currency would induce national price convergence and would imply a common real exchange rate for all members. On the other hand, a monetary union limits the central bank's control over monetary policy; also, the central bank has to forego some of its profits especially those associated with issuing currency.

V. CONCLUSION

In this paper, we attempted to assess the possibility of creating a monetary union for the GCC countries. This probability was tested using two different models; test results suggest that there are some significant structural differences between the GCC countries, which could reduce the expected benefits from such a union. The GCC countries share common values, traditions, language, religion, economic, cultural, and political characteristics that would facilitate and make easier the pursuit of a monetary union. However, they differ in their initial endowment, some are rich in natural resources and have built their economy based on that. Others are not as fortunate, and their economies depend heavily on trade, services, and aid. This may suggest that unified monetary policies that are basically, aimed at fighting inflation and stimulating economies need to consider the readiness of the local economic potentials in order to respond to these policies and ensure their effectiveness in achieving their goals. Moreover, the GCC countries need to grant more policy coordination to smooth out differences in order to facilitate a better design for unified economic policies that would contribute to the establishment of a monetary union.

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Endnotes

[1] The fact that oil and gas prices are denominated in US dollars and the fact that large exchange rate fluctuations with major trading partners can be damaging to domestic economic activities led all GCC countries to follow a fixed exchange rate policy against the US dollar.

[2] All are major oil-producing and exporting countries with the exception of Kingdom of Bahrain.

[3] All variables are in log form.

[4] Based on the test statistics: F={ (SSE-SSE*)/J}/{SSE*/(N-K)}

Where: SSE is the sum of squared error of the pooled data.

SSE* is the sum of squared error of the individual countries.

J is the number of restrictions.

N is the number of observations.

K is the number of parameters.

[5] Use of equation (2) is NOT for forecasting purposes. It is used as specified above.

[6] These results are similar to those obtained by Aleisa and Shotar, 2002.

[7] Not all economists encourage a monetary union amongst the GCC countries for two reasons:

- Trade is very small.
- There is no indication that the GCC countries are going to face economic problems (See Cecchetti, 2001).

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