ECONOMIC DIVERSIFICATION IN GCC COUNTRIES AND THE OPTIMALITY OF A MONETARY UNION

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Abstract

The paper examines the capacity of the GCC countries to bear the costs of monetary unification in the light of the indications arising from the traditional optimum currency area theory and in the contest of the deep structural changes that characterize their economies. The author argues that the conditions ensuring the success of a single currency are still lacking in the GCC countries and that the specialization patterns ongoing in their economies increase the risk of asymmetric shocks. In addition, these patterns can affect their ability to deal with the same shocks and, in particular, the ones arising from the exchange rate regime adopted. The paper, therefore, concludes that the GCC countries should introduce an exchange rate system which is best suited to their new economic realities and this need can arise both in the case that they introduce the single currency, and in the case that they retain their national currencies. A basket peg, which includes the most commonly used currencies in their international trade, is considered the best exchange system for these countries.

Keywords: GCC Monetary Union, Optimum Currency Areas, Business Cycle, Hodrick-Prescott Filter, Economic Diversification, Exchange Rate System, Dollar Peg, Basket Peg.

1.Introduction

In December 2002, in Manama, the Supreme Council of the Gulf Cooperation Council (GCC) decided to introduce a dollar peg exchange rate regime as a first step towards full monetary union, whose date was established in 2010. The six GCC member states (Saudi Arabia, Bahrain, Kuwait, Oman, Qatar, United Arab Emirates) considered the introduction of the single currency the height of the economic and political integration process started in May 1981.The differences of opinion and contrasts which occurred between the members about the project of monetary union have led to the withdrawal of Oman and the UAE, and to postpone to an unspecified date the introduction of the single currency. At present, therefore, the project concerns only four countries: Saudi Arabia, Bahrain, Kuwait, Qatar, although Oman and the UAE have reserved the right to join in the future.

The divergences that have arisen contribute to remind that, in the face of its many microeconomic, macroeconomic and political benefits, the single currency also entails costs. In fact, it implies a loss of exchange rate policy and a single address of monetary policy that may conflict with the needs of some countries in case of asymmetrical imbalances or different ability to bear the same imbalance.

Awareness of these costs has given rise to many contributions in order to verify the opportunity for the GCC countries to adopt a single currency. Studies have moved in different directions: some have focused on the costs and benefits of the single currency (Jadresic 2002, Hebous 2006, Ibrahim 2004, Furceri and Karras 2008), others on the conditions required by the optimal currency area theory (Laabas and Limam 2002, Mehanna and Hassan 2008, AlKholifey and Alreshan 2009, Benbouziane and Benamar 2010); on the degree of coordination of macroeconomic policies (Neaime 2006, Darrat and Al-Shamsi 2005, Sturm and Siegfried 2005, Kamar and Bakardzhieva 2006); on the symmetry of the structural shocks

that affected the GCC on the demand side and supply (Abu-Bader and Abu-Qarn 2006, Kandil and Trabelsi 2010, Rosmy, Balli and Osman 2012).

This paper lies in the approach of the traditional optimum currency area theory (OCA). It examines the capacity of the GCC countries to bear the costs of monetary unification in the context of the deep structural changes that characterize their economies. Indeed, these changes can affect the symmetry of business cycles and the likelihood of asymmetric shocks to occur. They may also affect the ability of countries to cope similar shocks in the same manner and, in particular, those transmitted by the exchange rate regime which is adopted. In these cases it may be necessary to define an exchange rate system that is best suited to the new economic realities of the GCC countries and this need can arise both in the case that they introduce the single currency, and in the case that they retain their national currencies.

This paper is organized as follows: section 2 examines the presence in the Gulf economies of the main conditions required by the OCA theory for the success of the single currency; section 3 focuses on the diversification process in place and its impact on the homogeneity of their economic structures; section 4 provides remarks not only for the opportunity of monetary unification, but also for the dollar peg regime that characterizes monetary relations of the countries in the area; section 5 concludes and draws some policy implication.

2. The theory of optimum currency area and GCC countries

In the economic literature it is generally recognized that monetary unification involves several microeconomic and macroeconomic benefits, which can be summarized as: gains in stability, competitiveness, increasing international trade, credibility and economic and political relevance. However, despite its many benefits, a single currency also implies the loss of monetary sovereignty, which can be costly in the presence of asymmetric shocks or a different ability to withstand the same shock.

From this awareness numerous contributions are derived. They are part of the OCA theory, identifying the conditions that reduce the risks associated with monetary unification. A pioneering contribution came from Mundell (1961), which identified in the labor mobility within the area the necessary condition for the achievement of the adjustment, even in the absence of exchange rate flexibility. Other conditions were further identified: price and wage flexibility, financial market integration (Ingram 1969), high degree of trade openness (McKinnon 1963), high intra-area trade, production diversification (Kenen 1969); fiscal integration (Kenen 1969); political integration (Mintz 1970). However, the multiplications of the listed conditions, instead of facilitating the identification of the optimum currency area, have made it more indefinite, since countries may have at the same time favorable and unfavorable conditions that make it difficult to arrive at a precise conclusion (Tavlas 1994).

Studies emphasizing the importance of the shock symmetry as an essential condition of an optimal currency area have contributed to overcome this state of uncertainty. Indeed, they have considered the other conditions listed above as a substitute in facilitating the adjustment, in the case that the symmetry condition was not sufficiently satisfied (Mongelli 2002). In other words, in the presence of asymmetric shocks, adjustment may be favored by the factor mobility and/or price and wage flexibility and/or financial market integration and/or effective fiscal coordination.

2.1. The conditions fostering adjustment

Several studies agree that in the GCC countries the key conditions fostering adjustment in the presence of asymmetric shocks are substantially absent.

Some of these have pointed out that characteristics of the labor market severely limit labor mobility and confine flexibility to the private segment of the market (Ibrahim 2004, Buiter 2007, Marzovilla 2013). Indeed, the high incidence of foreigners in the population and

labor force which characterizes the Gulf economies (Table 1), has led to the adoption of measures since the 1970's in order to guarantee citizens' rights by preserving their cultural identity and to ensure the temporary stay of foreigners. Some of these measures, such as the sponsorship system which regulates the recruitment of immigrants (kafala), weigh heavily on the characteristics of the labor market.

The kafala, in particular, requires foreign workers to find a citizen who legally guarantees for them (kafil) and prevents changes of employment without first finding another sponsor. In this way, the sponsorship system has increased the dependence of foreign workers on private nationals of the GCC countries, allowing the latter considerable influence on composition and amount of migration flows, as well as allowing major flexibility in setting wages and labor conditions - which often border on exploitation and black market situations. In addition, this system determines the concentration of foreigners in the private sector and citizens in the public sector. In fact, the greater competition that characterizes the private sector, reducing wages and worsening working conditions, makes it unattractive for nationals who prefer the public sector, attracted by high salaries, generous pensions, favorable working conditions and social status it confers.

Thus, it can be argued that, on the whole, the high incidence of migrants on the overall population and labor force in the GCC countries has resulted in the unequal allocation of rights and duties, which has adversely affected the labor mobility of citizens and reserved flexibility to foreigners in the private sector.

The trade openness condition argues in favor of the monetary union of the GCC countries (Table 1). Indeed, due to their small size, strong specialization in the hydrocarbons sector and limited production of agricultural goods, they are highly dependent on foreign trade not only for exports but also for imports of manufactured goods, raw materials, food, and this reduces the benefits of exchange rate flexibility.

However, the costs related to the loss of exchange rate flexibility are influenced not only by the degree of trade openness, but also by the intensity of trade between members. Indeed, the greater the inter-trade, the greater the benefits that will arise from the reduction of transaction costs. In this regard, despite significant progress towards economic integration made since 1983, when the free trade area was founded, the incidence of intra-trade on the total has always remained below 8% (Figure1). This result, however, improves if we consider only the non-oil inter-trade, in order to remove the influence of changes in oil price. Indeed, given the great relevance of hydrocarbon exports outside the GCC area compared to that of exports intra-area, any price fluctuation influences the real weight of regional trade, increasing it when the price falls and reducing it when the price rises.

As shown in figure 1, the incidence of intra-area non-oil trade on the total rises sharply, exceeding 20% on average in the 1995-2010 period. However, since the new millennium, it has been decreasing from 26% in 2000 to 17% in 2010. This disappointing result can be mainly attributed mainly to the substantial homogeneity of their factor endowments that leads them to compete mainly in the same production, related to the oil industry or to energy-intensive sectors.

This last feature also excludes the existence of the condition emphasized by Kenen as a condition for an OCA (1969): product differentiation which reduces the likelihood that a shock affects all the economic sectors of a country.

Figure 1: *Intra-area exports as a percentage of total exports*
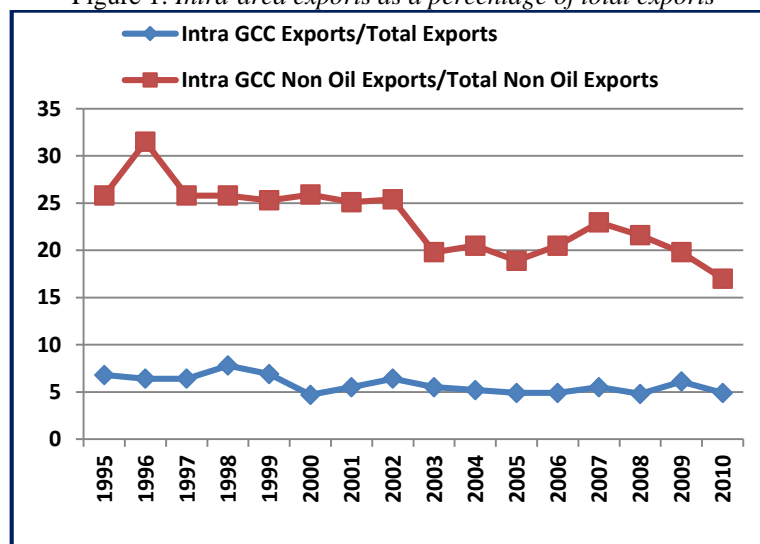
Own calculations on data from: Unctad, *Statistics database;* Arab Monetary Fund, *Economic Statistics Bulletin of Arab Countries*, 2011

Even the financial integration condition, posed by OCA theory as a condition to reduce the costs of monetary unification has not yet been sufficiently verified (Sturm, Strasky and Peschel 2008, Woertz 2008, Espinoza, Prasad and Williams 2010). At present, the financial markets of the GCC economies are not yet fully integrated. Significant differences still exist between the regulation of their markets both in terms of openness to foreign operators, as well as the discipline of dividend payments, remittances, checks on loans to non-residents and reserve requirements. Furthermore, in some countries, such as Bahrain and the United Arab Emirates, competitive behaviors govern the development of the financial sector due to their ambition to become international financial centers, hindering the process of harmonization of regulatory and supervisory systems.

Finally, the condition of fiscal integration, necessary to mitigate asymmetric shocks effects, is not yet present in the GCC area. In fact, its occurrence is subject to a high degree of political integration that, at present, is difficult to achieve. In addition, economic studies have shown a substantial lack of coordination of budgetary policies of the GCC countries (Mehanna and Hassan 2008, Kamar and Bakardzhieva 2006, Sturm and Siegfried 2005).

To conclude, the conditions facilitating adjustment in case of asymmetric imbalances are still largely absent in the Gulf area and the condition of the symmetry of shocks remains essential so that the monetary unification benefits outweigh the costs.

2.2. *Economic structure homogeneity and cycle symmetry*

The essential condition reducing the risk of asymmetric shocks is the similarity of economic structures of the members of the monetary union. Indeed, it reduces the likelihood that countries incur different imbalances and increases the likelihood of correlation of their cycles. In the GCC countries this condition has apparently occurred. In fact, they share a set of economic, political and social features. In particular, they are small countries geographically close, with: the same colonial experiences, language, culture, religion, political regimes; similar factor endowments and production structures; an arid climate and lack of water affecting the possibilities of the agricultural sector; a strong incidence of foreigners on population and labor force and a young and increasing population.

In a strictly economic perspective, GCC countries share a strong dependence on the hydrocarbons sector, the relevance of the public sector, a high trade openness, a labor market dominated by the presence of immigrant workforce and highly segmented between public and private.

As shown in Table 1, the energy sector weighs heavily on GDP, with a percentage over 40% in all economies, except for Bahrain and the UAE. Similarly, oil and gas revenues are the most important part of public revenue, with an incidence ranging from 62% in Qatar to 90,3% in Saudi Arabia. In addition, the hydrocarbon sector is the main source of exports, with the greatest contributions to those of Kuwait (92%), Saudi Arabia and Qatar (84.8%). Trade openness is high in all members and, in particular, in Bahrain (140,3%) and the UAE (143,5%). Foreigners are a high percentage of the population and labor force, with the highest incidence observed in Qatar and the UAE, and they are concentrated mainly in the private sector, where their weight on total labor force ranges from 79.7% in Bahrain to 99.2% in Qatar. Instead, the national labor force is concentrated in the public sector, with an incidence ranging from 54.3% in Qatar to 92% in Saudi Arabia. So, apparently, the condition of the economic structures homogeneity seems substantially verified in the GCC region and this should reduce the risk of different shocks and increase the cycle similarity. Some studies seem to confirm this conclusion pointing to the existence of correlation between GDP growth rates in the GCC countries (Neaime 2006, AlKholifey and Alreshan 2009).

Table 1. *Common features of the GCC economies*

	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
Share of Hydrocarbon GDP in Total GDP[1]	24,4	51,5	47,6	55,7	48	31,6
Share of Hydrocarbon Revenues in Total Public Revenues[1]	85,3	93,7	85	62,1	90,3	74,7
Share of Hydrocarbon Export in Total Export[1]	69,6	92	68,7	84,8	84,8	59,6
Trade Openness[1]	142,3	86,4	98,3	86,1	92,2	143,5
Population Median Age[1]	30,9	28,5	24,1	30,8	25,3	30,2
Share of Expatriates in Total Population[2]	53,9	32	38,9	89,3	31,6	88,5
Share of Expatriates Labor Force in Total Labor Force[2]	76,6	82,7	–	94,1	79,3	96
Share of Private Sector Expatriates Labor Force in Private Sector Total Labor Force[2]	79,7	95,5	86,4	99,2	89,1	64,6
Share of Public Sector Nationals Labor Force in Public Sector Total Labor Force[2]	85,3	70,4	86,3	54,3	92	84,9
Nationals Unemployment Rate[2]	18,4	3,4	–	0,2	12,4	14
Expatriates Unemployment Rate[2]	2	1,8	–	0,29	0,4	2,8

Sources: Arab Monetary Fund, *The Joint Arab Economic Report 2011*; IMF, Country Report; Unctad Statistics Database; Penn World Table; Cia, *The World Factbook*; Kingdom of Bahrain, Labour Market Regulatory Authority (LMRA), *Bahrain Market Indicators;* Institute of Banking Studies of Kuwait (Kibs), *Economic and Financial Data base for 2013;* Sultanate of Oman, *Statistical Year Book 2013*; Qatar Statistics Authority, *Qatar Information Exchange;* Saudi Arabian Monetary Agency (SAMA), *48th Annual Report;* UAE National Bureau of Statistics, *Demographic and Social Statistics.*
[1] Data refer to 2010
[2] Data of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia refer to 2011; the ones of UAE on Share of Expatriates Labor Force in Total Labor Force refer to 2008, on unemployment rate to 2009 and all other data refer to 2010.

However, a correct interpretation of the cycle symmetry cannot rely only on the consideration of GDP change rates, as growth average rates are not constant over time and, therefore, the same rate can have a different economic significance if it is observed in different periods. Most significant conclusions can be obtained with the use of the Hodrick-Prescott filter, which enables to decompose a time series into a trend component and a cycle component, minimizing the differences from the origin series under the constraint that trend variability is sufficiently small. The filter is applied to the time series of the GDP of the GCC countries for the 1980-2011 period. The data, taken by the *World Economic Outlook Database*, are annual, at constant prices and in logarithmic scale.

Figure 2: *Business cycles in the GCC countries, 1980-2011*
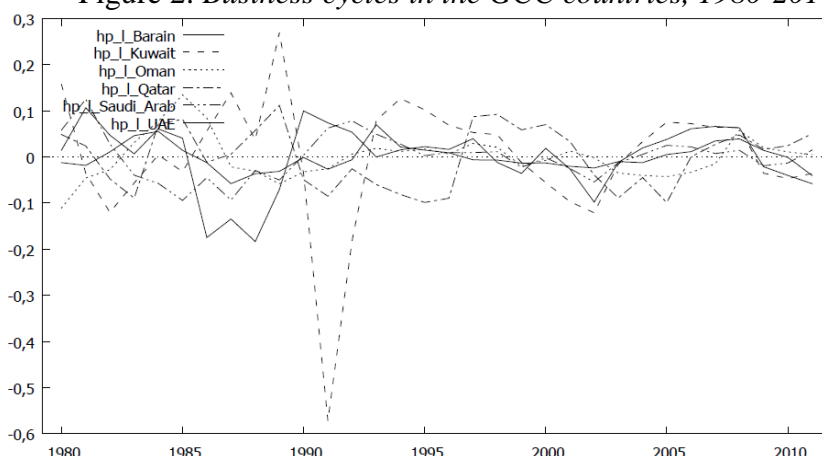
Own calculations on data from IMF Own calculations on data from IMF, *World Economic Outlook Database*

Figure 2 shows a significant difference of cycles, which is confirmed by the analysis of the correlation of filtered values. As highlighted by the correlation matrix (Table 2), positive and significant correlation coefficients are observed only between series of the UEA and Saudi Arabia (0.56), UEA and Bahrain (0.48), Bahrain and Oman (0.42). In all other cases, coefficients are not significant and often show a negative sign. Thus, despite the apparent homogeneity of their economic structures, GCC countries seem vulnerable to asymmetric shocks.

Table 2: *Correlation Coefficients, 1980-2011 (Critical value at 5% = 0,3440)*

	hp_l_Barhain	hp_l_Kuwait	hp_l_Oman	hp_l_Saudi_Ar	hp_l_UAE	hp_l_Qatar
hp_l_Barhain	1					
hp_l_Kuwait	0,1209	1				
hp_l_Oman	0,423	-0,0825	1			
hp_l_Saudi_Ar	0,0954	-0,2437	-0,4445	1		
hp_l_UAE	0,4854	-0,2487	-0,0476	0,5598	1	
hp_l_Qatar	-0,2235	0,2527	0,1496	-0,2527	-0,1731	1

Own calculations on data from IMF, *World Economic Outlook Database*

2.3. GCC countries are not an optimal currency area

The conditions ensuring the success of a single currency are still lacking in GCC countries. Although their economic structures are fairly homogeneous, their cycles are not synchronized; their productions are not sufficiently diversified; peculiarities of their labor market hinder labor mobility and limit wage flexibility only to the private sector of economy; the intra-area trade is still modest; the integration of financial markets and fiscal coordination are inadequate and inflation differentials remain significant. Finally, on a more general level, integration needs are often sacrificed to the desire to defend national sovereignty.

In this context, it is amazing that GCC states have been able to observe, in absence of capital movements controls, fixed exchange rates with the dollar for more than thirty years, bearing the costs of the monetary sovereignty loss. In fact, for several decades they, formally or informally, have tied their currencies to the dollar: Oman has officially pegged the riyal to the dollar since 1973; Saudi Arabia, Bahrain, Qatar and the United Arab Emirates, despite tying their currencies de jure to the SDR until 2001, have de facto pegged them to the dollar at a fixed rate since the eighties; the Kuwaiti dinar, formally tied to a basket peg until 2002, has always shown a pronounced stability against the dollar.

The answer to the apparent paradox lies in the presence in Gulf countries of a relevant public sector, which has been able to compensate with its significant oil resources the effects of economic fluctuations, and, above all, in the stability shown by the dollar until the beginning of the new millennium. This stability has allowed to reduce the costs due to the loss of the exchange rate policy even in absence of OCA conditions. The question, however, arises whether these economies will be able to continue to bear the costs of monetary sovereignty loss if the economic integration and diversification processes currently in progress will continue. In this regard, the OCA theory gives different answers.

According to the *endogeneity hypothesis,* monetary integration would promote conditions for its success ex post, even though they are not verified ex ante. Indeed, the monetary union, reducing exchange rate risks, uncertainty factors and transaction costs, would allow tighter mutual economic and financial relations, increasing the intra-area trade and business cycle synchronization (Frankel and Rose 1997). Instead, as suggested by the *Krugman specialization hypothesis*, a closer monetary integration, intensifying trade relations between countries, leads them to specialize in productions giving them a comparative advantage. This would result in a minor diversification of domestic economies, while asymmetric shocks are likely to increase and the income correlation are likely to decrease (Bayoumi and Eichengreen 1996).

With regard to GCC countries, monetary integration will have a better chance of success if the process of economic diversification tends to move on different routes from those assumed by the Krugman paradigm, allowing greater differentiation of production within the national economies so as to reduce the income volatility in case of shocks and increase the potential gains arising from the intra-trade. Therefore, it may be appropriate to focus on the specialization model currently ongoing in these countries.

3. The diversification process in GCC countries

In the new millennium, the rise of oil price has fostered the rapid growth of GCC economies. In fact, large oil revenues have favored policies aimed at reduce the dependence of economic growth from oil price variability, diversifying production structures, intensifying privatization and liberalization processes and stimulating foreign investments. This explains why in the 2004-2010 period the non-oil real GDP growth rate grew more than oil GDP. However, the reasons behind the production diversification has been different in each countries of the region, due to their differences in oil resources availability, population size and per capita income levels.

The shortage of oil and natural gas reserves is the main reason behind the privatization process undertaken by Bahrain and Oman. In fact, these countries have few hydrocarbons reserves, which are destined to end quickly. At current production rates it is estimated that those of Bahrain will be exhausted in less than ten years, and those of Oman in twenty. This awareness has pushed this two countries to diversify their economies. Advances made by Bahrain have been particularly relevant in services sector (tourism, commerce, banking, financial and insurance), while the process of diversification of Oman has been directed towards manufacturing and construction sectors. However, even countries with large oil reserves (Saudi Arabia, Kuwait, UAE) and natural gas (Qatar) have taken the road of diversification.

The impetus given by Qatar and the UAE to diversification policies can be attributed to the accumulation of a huge financial wealth in striking contrast to their small size and their limited population. Wealth concentration in a small group of countries joined together by a federation such as the UAE - whose size does not reach 84000 km^2 and whose domestic population is about 1.5 million - has led to employ it in those areas where investments appeared quicker and easier, thus giving rise to the dramatic growth of financial, insurance, property, transport and tourism sectors. As a result of their diversification policy, the UAE

have transformed deserts into modern cities, building artificial islands, tourist centers of great attraction, international airports, and more than 13 free trade areas. The same has happened in Qatar. Despite its small size (11.586 km^2) and a domestic population below 200.000 inhabitants, this country ranks second in the world for its richness in natural gas reserves. This has allowed to accumulate huge foreign reserves in the last decade, making it possible to finance an ambitious program of foreign investment and strengthen the banking sector and the manufacturing and construction sectors.

The need to reduce oil dependency also arises for Saudi Arabia and Kuwait. For them, this need also comes from the dual nature of their economic structures, that opposes to a modern oil industry, controlled by the public and by a few large families, a traditional industry and obsolete, primarily managed by the private sector. This situation is very risky, because it makes the economy particularly vulnerable to the vicissitudes of oil market. Moreover, with reference to Saudi Arabia, its economic structure is also unable to respond to the problem of the high unemployment rate of the nationals (12.4%), given the capital intensive nature of the oil industry. High unemployment rate among nationals contrasts with the large impact of foreigners on the total labor force and their low unemployment rates (0.4%). This contrast is due to the rigid segmentation of the Saudi labor market, which is characterized by a strong public sector where citizens constitute 92% of the workforce and a private sector where 89% of the workforce is foreign (Table 1). Although the segmentation of labor market between public and private is a common feature in all countries of the region, it is particularly serious for Saudi Arabia, where the saturation reached by the public sector cannot absorb high unemployment of citizens, while in the private sector the high incidence of immigrants, willing to work at lower wages and longer hours, worsens working conditions. These are incompatible with Saudis' economic and social expectations and fuel social tensions, which increase integration difficulties in a society where per-capita income is the lowest in the GCC region. However, Saudi Arabia and Kuwait, given their huge endowment of oil resources, have essentially exploited their comparative advantage, developing differentiation within energy-intensive heavy industry. Since the mid-nineties, the Saudi Kingdom has become one of the largest petrochemicals manufacturers in the world and the largest in the Arab world.

Overall, during the last decade, in the GCC region two models of specialization seem to have arisen. The first is that of the United Arab Emirates, Bahrain, Qatar and Oman, which have followed the path of diversification of their economic structures; the second is that of Saudi Arabia and Kuwait, who have focused on mining and oil sector (Table 3).

In particular, the United Arab Emirates and Bahrain have given great impetus to the services sector. As shown in Figure 3, in these countries the incidence of the mining and fuel sector on GDP has decreased during the 2000-2010 period, falling from 33.7% to 31.6% in the UAE and from 27.9% to 24.4% in Bahrain. Instead, the weight of the services sector has increased from 41% to 51% in the UAE and from 50% to 55% in Bahrain. Within the services sector, those related to distributive sectors have had the most significant impulse. In fact, their share to GDP has risen from 21.3% to 26.4% in UAE and from 22.6% to 31.3% in Bahrain. Among the services of the distributive sectors, those related to commerce, restaurants and hotels have had the most significant impulse in the UAE, while financial services, insurance and banking have increased substantially in Bahrain. This country has become the main financial center of the area, thanks to the opening of its market to foreign banks and to its advanced legislation which meets the highest international standards. In addition, Bahrain has become a major center of Islamic finance with many banks and insurance companies (takaful) operating for the regional market.

Unlike the UAE and Bahrain, the diversification process of Oman and Qatar seems to have preferred the construction sector and the manufacturing industries, to the detriment of that of the services sectors, whose share of GDP has decrease in Oman from 44.2% to 33.9%

and of that of the mining and the fuel, whose incidence has dropped in Qatar from 60.4% to 55.7, although in this country the weight of the hydrocarbon sector has remained very high.

Differently from the above experience, the weight of the mining and fuel sector has remained high and has even increased in Saudi Arabia and Kuwait (Table 3), compared with a significant decrease of Saudi Arabia services sector, from 39.95% to 33.8%, and the contraction of Kuwaiti manufacturing industries.

Table.3 - *The structure of gross domestic product by kind of economic activity*
(Percentage ratio)

	Bahrain			Kuwait			Oman			Qatar			Saudi Arabia			UAE		
	2000	*2005*	*2010*	*2000*	*2005*	*2010*	*2000*	*2005*	*2010*	*2000*	*2005*	*2010*	*2000*	*2005*	*2010*	*2000*	*2005*	*2010*
Agricolture, Fishing, Forestry	0,8	0,4	0,4	0,4	0,3	0,2	2	1,6	1,3	0,4	0,1	0,7	4,9	3,2	2,5	3,5	2,2	0,9
Mining, Quarrying, Fuel	27,9	25,4	24,4	47,9	52	51,5	48,9	48,9	47,6	60,4	59,6	55,7	37,1	48	48	33,7	35.5	31,6
Manufacturing Industries	11,2	12	17,1	6,9	7,3	5,33	5,4	8,3	9,8	5,4	8,4	7,3	9,7	9,4	10	13,4	12,5	9,7
Construction	3,4	4,6	3,4	2,2	1,4	1,7	1,9	2,5	6,2	3,6	5,7	5,2	5,9	4,6	4,3	6,5	7,1	11,6
Total Services Sectors, of which	51,9	55,4	56,4	39,8	36,5	39,3	40,2	36,9	33,9	28,5	23,6	29,8	39,8	32,7	33,8	40,7	40	43,6
Total Distributive Sectors	22,6	30,8	31,3	12	16,7	19,2	18	17,9	15,5	12,3	6,3	16,2	26,1	20,1	22,2	21,3	23,6	26,4

Own calculations on data from Arab Monetary Fund: *Economic Statistics Bulletin of Arab Countries*, 2011; *The Joint Arab Economic Report 2011*

4.The impact of the GCC specialization patterns in the cycle symmetry

Although the restructuring process of the GCC countries economic system is not yet complete, ongoing trends highlight the emergence within the area of different specialization patterns: on the one hand, we are witnessing greater openness towards the diversification of economic structure; on the other, we observe the persistence of the production concentration in the hydrocarbons sector. These trends are also confirmed by the Herfindahl - Hirschmann index, whose value - ranging from 0 to 1 (maximum concentration) - decreased significantly in Bahrain (from 0.42 to 0.34), Oman (from 0.80 to 0.59), Qatar (from 0.60 to 0.53) and in the UAE (from 0.55 to 0.42), in the 2000-2011 period. Differently, it increased in Kuwait (from 0.64 to 0.74) and remained high in Saudi Arabia (from 0.72 to 0.75) (UNCTAD database).

The patterns of specialization taking place in the GCC countries seem that, on one side, are reducing the differences between some countries and that, on the other side, are increasing the diversity between these ones and the others. If these trends continue, they may seriously affect the ability of the GCC economies to bear the risks arising from asymmetric shocks and the costs resulting from the same shock.

We can try to verify the plausibility of this hypothesis by observing whether the OCA conditions for the existence of the cycles symmetry have been verified for some countries in the 2000-2011 period, during which the aforementioned patterns of specialization have occurred.

To this end, it is appropriate to divide the 1980-2011 period, previously examined, into two sub-periods, 1980-1999 and 2000-2010, and evaluate them in respect to the existence of cycle symmetry, using the Hodrick-Prescott filter.

With reference to the 1980-1999 period Figure 4 shows that cycles are asymmetric, with the exception of those of Bahrain and Oman, and the United Arab Emirates and Saudi Arabia. Visual observation is confirmed by the correlation analysis conducted on filtered values (Table 4), which show a weak correlation between those of Bahrain and Oman (0.46) and a more significant correlation between those of the Emirates and Saudi Arabia (0,53).

Figure 4. *Business cycles in the GCC countries, 1980-1999*
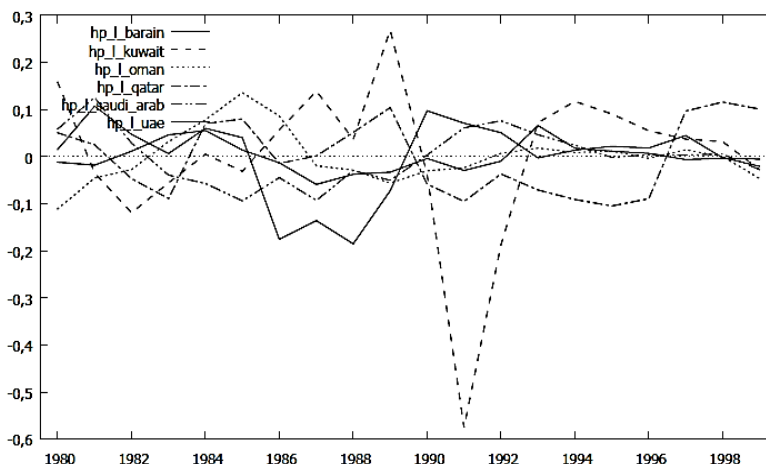
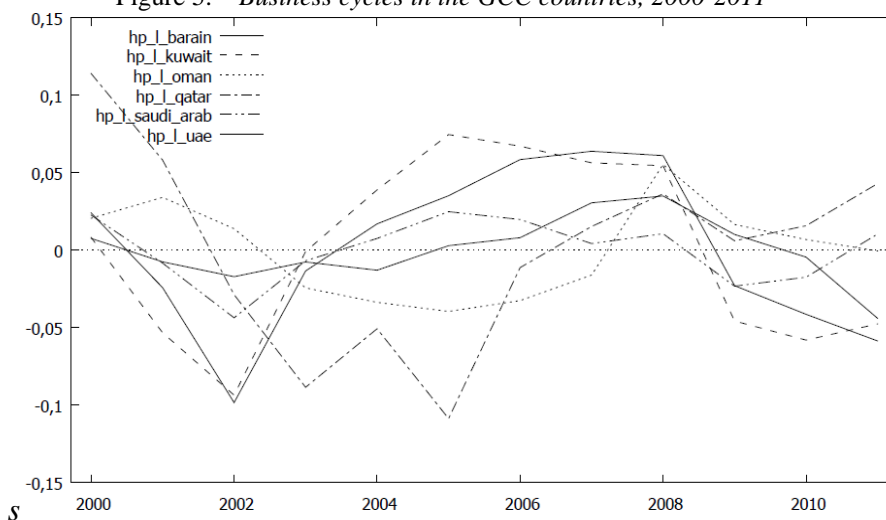Own calculations on data from IMF, *World Economic Outlook Database*

Table 4. Correlation Coefficients, 1980-1999
(Critical value at 5% = 0.4438)

	hp_l_Barhain	hp_l_Kuwait	hp_l_Oman	hp_l_Saudi_Ar	hp_l_UAE	hp_l_Qatar
hp_l_Barhain	1					
hp_l_Kuwait	0,0255	1				
hp_l_Oman	0,463	-0,0777	1			
hp_l_Saudi_A	0,0293	-0,3636	-0,4843	1		
hp_l_UAE	0,4068	-0,4206	-0,0348	0,5344	1	
hp_l_Qatar	-0,2666	0,3292	-0,0375	-0,3056	-0,1952	1

Own calculations on data from IMF, *World Economic Outlook Database*

These results change significantly if we consider the 2000-2011 period, during which the economic diversification process has intensified. The figure 5 shows that there is a close similarity between cycles of: Saudi Arabia and Kuwait; Bahrain and the UAE; Oman and Qatar. This conclusion is confirmed by the correlation analysis of filtered values (Table 5).

Figure 5. – *Business cycles in the GCC countries, 2000-2011*

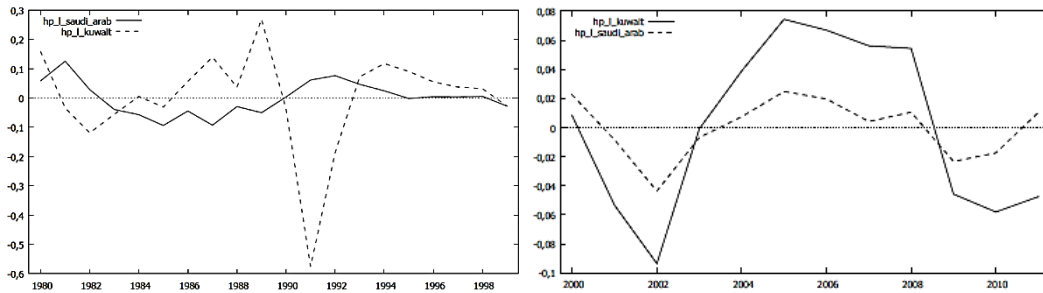Own calculations on data from IMF, *World Economic Outlook Database*

667

Table 5. *Correlation Coefficients, 2000-2011*
(Critical value at 5% = 0,5760)

	hp_1_Barhain	hp_1_Kuwait	hp_1_Oman	hp_1_Saudi_Ar	hp_1_UAE	hp_1_Qatar
hp_1_Barhain	1					
hp_1_Kuwait	0,5806	1				
hp_1_Oman	0,2172	-0,4409	1			
hp_1_Saudi_Ar	0,2199	0,8036	-0,3148	1		
hp_1_UAE	0,7579	0,94	-0,2076	0,7543	1	
hp_1_Qatar	0,1158	-0,2653	0,7016	0,0787	-0,003	1

Own calculations on data from IMF, *World Economic Outlook Database*

As shown in Table 5, unlike in the previous sub-period, Saudi Arabia and Kuwait show a close correlation of their cycles, with ratios exceeding 80%, while the correlation with the countries of the second group, except the UAE, is not very meaningful and even negative. The differences between the two periods are particularly evident in Figure 6. Although several factors may have influenced cyclical trends of the two countries, it is possible that a substantial part of their convergence is due to the diversification process which has followed the same path.

Figure 6. *Business cycles in Saudi Arabia and Kuwait*
1980-1999   2000-2011

Own calculations on data from IMF, *World Economic Outlook Database*

With regard to the second group of countries, a significant correlation exists between the cycles of Bahrain and the Emirates (0.75), and Oman and Qatar (0.70). This is markedly different from the first period when the value of the coefficient between Oman and Qatar was negative and that between Bahrain and the UEA insignificant. This is shown visually also in figures 7 and 8. Therefore, the process of diversification may have facilitated the synchronization of business cycles between some economies that have reduced their dependence on the hydrocarbons sector.

Figure 7. *Business cycles in Bahrain and the United Arab Union*
1980-1999   *2000-2011*
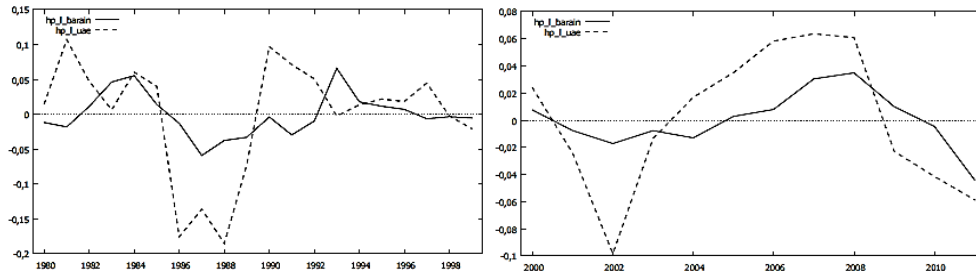
Own calculations on data from IMF, *World Economic Outlook Database*

Figure 8. *Business cycles in Qatar and Oman*
1980-1999   *2000-2011*

Own calculations on data from IMF, *World Economic Outlook Database*
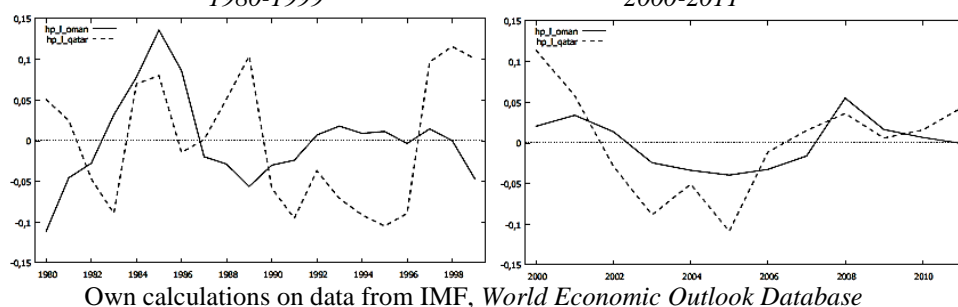
Finally, the diversification processes that characterized GCC countries seem to have led to greater diversity of Saudi and Kuwaiti economic structures compared to those of Bahrain, the United Arab Emirates, Qatar and Oman. This can increase the risks of asymmetric shocks and the costs associated with the adoption of a single currency. However, if these processes persist, these risks will arise whether monetary unification is brought up or not. Indeed, for over thirty years GCC countries have renounced their monetary sovereignty and pegged their currencies to the dollar.

5. The relevance of choosing the anchor of the exchange rate system.

In choosing the exchange rate regime a fundamental role is played by the ability to match the needs of economic stability with credibility in the same stability. This requirement implies a first fundamental choice between the adoption of a flexible exchange rate system or an anchor peg. Choosing the anchor peg entails sacrificing monetary policy independence and, in the presence of internal and external shocks, limiting the flexibility of national stabilization policies. In assessing this cost, however, it is necessary to consider that, if exchange rate flexibility is not associated with a solid and stable macroeconomic and institutional framework, it could involve the loss of internal and international credibility, with serious consequences on economic stability.

With regard to GCC countries, there is general agreement among economists on the anchor peg superiority. In fact, given their high dependence on oil revenues and their small size, a flexible exchange rate regime could cause a high volatility in exchange rates, in the presence of significant fluctuations in oil prices and international capital mobility. On the other hand, delays still characterizing their financial markets preclude the possibility of hedging currency risks with appropriate techniques.

However, after agreeing that the anchor peg can be the best regime for Gulf countries, it is necessary to carefully consider the type of anchor to be taken. Indeed, in this regime, the monetary policy direction of the entire area depends on that of the key currency country, regardless of the specific needs of members. This consideration is very important because the attenuation of homogeneity factors characterizing Gulf countries make them more vulnerable to the risk of asymmetric shocks and reduces their ability to handle the same shock. This requires to carefully consider the impact of shocks transmitted through the exchange rate system on members. In particular, insofar as some the countries are reducing their reliance on oil sector, and given their small size and large trade openness, the inflation effects on their products competitiveness not related to hydrocarbons becomes crucial. It is, therefore, essential carefully to assess the possible effects of the anchoring system on individual economies.

5.1 From dollar peg to basket peg

Since 1 January 2003 GCC countries have officially adopted a dollar peg regime as a first step towards their full monetary integration. A main reason for this decision was the marked incidence of oil revenues on total exports and public revenues. Since international oil prices are in dollar, pegging national currencies to the U.S. currency can ensure the stability of export earnings and government revenues, reducing foreign exchange risk.

However, in view of the monetary union and in the presence of diversification processes of production structures, the question arises if the dollar still represents the best currency as the anchor for the exchange rate system.

The dollar peg appeared to be adequate for Gulf countries until the beginning of the new millennium. Indeed, it has allowed to keep price dynamics basically stable for over twenty years. However, since 2002, it has become an instability propagator, fueling inflationary processes from the United States to GCC economies (Al-Qudsi et al. 2008, Saidi et al. 2009; Marzovilla, 2013).

In the presence of divergent economic cycles between the U.S. and GCC countries, the dollar peg translated the continuing surplus in the balance of payments of Gulf economies into increases in the monetary base, feeding the other inflationary pressures related to the expansion of public spending and investment, favored by rising oil prices, and to the rise in international prices of food commodities. In fact, U.S. expansionary policies came into conflict with the accelerated growth of GCC countries, requiring more stringent monetary policies. Instead, the need to defend the exchange rate and prevent capital inflows made it difficult to control monetary circulation. It led to the alignment of GCC member interest rates to the lower US rates. This can be seen quite clearly from 2007 onwards, when the short-term interest rates of Gulf countries fell in parallel with those of the US, despite the pressure of inflation existing in their economies. The consequences were negative real interest rates, which encouraged borrowing and the expansion of monetary offer in its broadest sense. This fuelled inflation and gave rise to speculative bubbles in those areas where bottlenecks were larger - e.g. the real estate sector.

The dollar peg also fueled the inflationary process through a cost effect, resulting from the depreciation of the dollar in the period 2002 - 2008, compared to major trading partners currencies among Gulf countries. Indeed, it also entailed the depreciation of GCC currencies compared to the euro and the yen, raising the prices in national currency for imported goods with serious impact on production costs, cost of living and wage trends. The pass-through effect plays a major role in Gulf countries, as their economies are characterized by limited agricultural production and manufacturing. For this reason they have to import a large share of their consumer goods, raw materials, intermediate inputs and capital goods. Against this backdrop, any increase in import prices resulting from dollar depreciation can jeopardize the working classes' living standards and fuel demands for wage rises along with social tensions. Indeed, the need to defend wage purchasing power resulted ultimately in a steady increase in basic salaries: in the 2005 - 2009 period wages rose in GCC countries as a whole by about 41% - the peak values being recorded in the UAE (46.6%) (Gulf Talent.com 2009).

In conclusion, in the presence of diverging business cycles in GCC countries as opposed to the U.S., the dollar peg translated an inflation process initiated by the increase in oil prices into a mixed inflation in which the pressures on demand side overlapped with the tensions on cost side.

The GCC mean inflation rate, as measured from the consumer price index, rose from the mean value of 0.2% in 1998-2002 period to 10.8% in 2008 - the peak values being recorded in Qatar (15%), Oman (12.6%), and UAE (12.3%). In Saudi Arabia, where inflation was always lower than 1%, consumer prices started to rise from 2006 so that the 2008 inflation rate was as high as 10% (IMF 2006, 2010).

At the same time, given the tendency to the nominal effective exchange rates depreciation of all currencies of the area, in line with the dollar, the real effective exchange rates showed divergent trends, reflecting the different levels of national inflationary imbalances. In fact, the decrease in those of Saudi Arabia, Oman and Bahrain was offset by the appreciation of those of the United Arab Emirates, Qatar and Kuwait (IMF Country Report). Thus, inflation has influenced the competitiveness of the GCC members in different way, threatening to create tensions that could compromise integration objectives.

In a context characterized by deep structural changes in Gulf economies, which tend to reduce their homogeneity factors, the experience of 2002-2008 period fuels doubts regarding the continuation of a rigid link between their currencies and the dollar. These doubts exist whether the national currencies are replaced by a single currency, or monetary union remains only at project level. However, in the former case they would become even more serious. Indeed, while in the absence of unification countries can always cut the close link with the anchor currency if it showed expensive, as was the case of Kuwait (Marzovilla and Mele 2010), with the accession to the union it becomes impossible to do so unilaterally.

Although the current difficulties of the euro area have fostered an appreciation of the dollar and inflationary pressures have been reduced in all GCC countries, the inflation risk is always present. In fact, the oil price rises and the current account surplus of Gulf countries may persist. In addition, the increase of U.S. public debt and fears related to possible effects resulting from the enormous liquidity created to rescue the American financial and economic system cannot exclude the possibility of a further depreciation of the dollar, especially in the case of EMU economic and governance recovery. In this perspective, rethinking the exchange rate regime may be appropriate.

In fact, the choice of a country to anchor its currency to a foreign currency or a basket of currencies can be determined not only by the need to ensure credibility and confidence in the choices of national monetary policy, but also by the direction and intensity of its trade and financial flows in the international market. It is evident that the larger is the relevance of existing transactions between an emerging economy open to international markets and an advanced economy, the greater is the convenience of the former to anchor its currency to that of the latter, in order to stabilize the effective exchange rate and reduce the fluctuations of trade and financial flows. In other words, the weight of currencies in the anchor peg regimes should also reflect the direction and intensity of economic and financial relations with foreign countries.

With reference to GCC countries, several studies agree that the best system is a basket peg in which, beside the dollar, there are major currencies used in their transactions and in particular the euro, given its wide use in trade with Gulf economies (Abed, Nuri Erbas and Guerami 2003; Aleisa, Hammoudeh andYuan 2008; Habib and Stráský 2008; Khan 2008; Jen and Bindelli, 2008; Saidi et al. 2008, Marzovilla 2013).

EU and EMU are GCC main partners on the side of their imports, consisting essentially of food and manufactured goods. Instead, the main markets for their exports, mainly represented by hydrocarbons, are the Asian countries and, in particular, Japan, Korea and China.

The different direction of imports and exports of GCC countries has important implications for the definition of an exchange rate system appropriate to their needs, considering the differences in the currencies used in their invoicing.

In fact, the currency revenues related to exports are mainly in U.S. dollars, because hydrocarbons are quoted in this currency and the dollar is widely used as a transaction currency in the Asian economies. Instead, the payment of their imports is largely in euro, given the current practice in European countries to invoice their exports in the national currency. In this context, the exchange rates euro-dollar are very important for GCC economies and substantial depreciations of the dollar, such as those that characterized the

2002-2008 period, can lead to significant currency losses. In addition, the exclusive link of Gulf currencies with the dollar can increase the costs related to pass through effect.

Over 23% of GCC countries imports, consisting essentially of manufactured goods and food products, originates in Europe. Indeed, dry climate, scarcity of arable land and high population growth rates make the internal supply insufficient to meet domestic needs and require these countries to import considerable amounts of food – whose prices markedly impact on working classes living conditions, particularly migrant workers. Since import invoicing from Europe is mainly in euro, its relevance and composition increase inflationary risks related to possible dollar depreciation . In this regard, Al-Qudsi et al. (2008) estimated that in the 2002-2008 period the pass through effect deriving from euro depreciation resulted in an increase in inflationary pressure by 15%.

The above considerations suggest the opportunity to increase the weight of the euro in the exchange rate systems of GCC countries. In fact, the substitution of a dollar peg to a basket peg that includes also the euro could bring undeniable benefits: firstly, the reduction of monetary circulation dependence from US monetary policy choices; secondly, the minimization of exchange rate fluctuations and the stabilization of effective exchange rates; thirdly, reducing the inflationary consequences of the pass through effect related to a possible dollar depreciation.

6. Conclusion

Two models of specialization seem to have arisen in the GCC region during the last decade.

The first is that of the United Arab Emirates, Bahrain, Qatar and Oman, which have followed the path of diversification of their economic structures; the second is that of Saudi Arabia and Kuwait, which have focused on mining and oil sector.

It appears that these trends have, on one side, reduced the differences between the economic cycles of the countries that have chosen the same path of diversification, and that have, on the other side, led to greater diversity compared to those of Saudi Arabia and Kuwait.

 If these trends continue, they may seriously affect the ability of the GCC economies to bear the risks arising from asymmetric shocks and the costs resulting from the same shock whether monetary unification is brought up or not.

In this context it is necessary to pay attention to shocks of external origin arising from adopted exchange rate system and, in particular, to those related to the economic policy choices of the country whose currency is employed as anchor.

The experience gained in the 2002-2008 period suggests the opportunity to replace the dollar peg existing today. In that period, in fact, in the presence of divergent cycles between the U.S. and Gulf countries and with the increase of current account deficits in the first and surpluses in second, the dollar peg has become a propagator of instability from the anchor country, amplifying the inflationary effects of oil price increase through a liquidity effect and a cost effect. In the presence of inflation differentials between countries, real effective exchange rates showed divergent trends, affecting the competitiveness of various members.

In order to prevent the occurrence of similar imbalances in the future, generating tensions compromising the integration objectives of the area, it is necessary to define a system of exchange rates that is the most suitable to new economic reality of GCC countries and this can be a basket peg in which, alongside the dollar, there are also the main currencies used in their trade and financial exchanges. Among these, the euro is the currency of their primary partner on the side of imports.

Such a basket has the advantage of preserving credibility and stability of expectation, anchoring national currencies to foreign currencies with a more solid and established reputation. Besides, it contributes to stabilize the nominal effective exchange rate, reduces the

pass-through effect risk in the case of dollar depreciation and recovers a partial flexibility in the monetary policy use, while releasing it from the only choices of U.S. monetary policy.

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