

ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA

**MACROECONOMIC POLICY ANALYSIS FOR REGIONAL COORDINATION
IN THE ESCWA REGION: BUSINESS CYCLE SYNCHRONIZATION AND
MACROECONOMIC POLICY COORDINATION**

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Executive summary

Countries in the ESCWA region are actively moving towards greater participation in the global economy. While most ESCWA members are now members of the World Trade Organization (WTO), some countries have either signed or are finalizing trade agreements with the European Union (EU). The increasing trend towards regional and international globalization is presenting the region with several monetary and fiscal challenges. Consequently, greater macroeconomic policy coordination and cooperation could be instrumental in terms of preparing for enhanced regional integration.

In addition, ESCWA member countries are opting for increased regional economic integration in the future. An important part of economic integration is the increase in cross-border trade through the lifting of trade barriers as provided for within the frameworks of the Gulf Cooperation Council (GCC) and the Greater Arab Free Trade Area (GAFTA). However, given the unstable monetary, macroeconomic and financial environments in certain parts of the ESCWA region, it is doubtful that the pursued macroeconomic policies will provide the required stability for increasing economic integration on a regional scale. Moreover, as regional and global liberalization proceeds, formulated policies can increasingly come under pressure for not providing a stability that is needed for sound macroeconomic policy coordination in the new context of regional integration. Macroeconomic policy coordination as an integral part of bilateral and multilateral free trade agreements in the ESCWA region could therefore prove indispensable for successful economic integration.

Given the low level of economic integration within the ESCWA region, this study examines the case for increased policy coordination and, ultimately, the adoption of a common single currency. Such adoption is likely to succeed if optimum currency area (OCA) conditions are fulfilled. One of the key OCA theory positions is that business cycle symmetry among currency union members is necessary in order to carry out a common monetary policy. On the other hand, asymmetric cycles imply that different areas of the currency union would require different monetary policy responses.

In order to achieve this objective, this report assesses the degree of business cycle synchronization in the ESCWA region. This is relevant for the purpose of providing a better understanding of the influence of important trading partners on business cycle fluctuations in the domestic economy. Moreover, it has an important implication in terms of evaluating costs and benefits of macroeconomic coordination. Following an evaluation and calculation of measures of intraregional trade (trade intensity) and economic structure differences, this report quantifies the relationship between trade intensity, economic structure and business cycle synchronization; and discusses how trade integration within ESCWA member countries is likely to shape future business cycle patterns within the region.

Empirical evidence obtained in this study reveal the following: (a) ESCWA-wide business cycles have not become highly synchronized with one another; and (b) the degree of business cycle synchronization is related to trade intensity. These results appear to suggest that trade intensity does induce higher business cycle correlation in the ESCWA region. This finding can be important for policymakers, particularly in the countries of the GCC. Given that the formation of a monetary union is likely to increase intraregional trade for member countries, the general criteria of synchronic business cycles for entering a currency union could be fulfilled in the future and satisfied ex-post, if not ex-ante.

In the more diversified economies (MDEs) of the ESCWA region, a large number of idiosyncratic fluctuations persist. Moreover, owing to low levels of intraregional trade and the different stages of development between the GCC countries and MDEs, the effectiveness of macroeconomic policies is expected to be different among this latter group of countries. Consequently, further deepening of economic integration could open the door to extreme types of policy coordination in the very long run, including, for example, monetary union. In the near future, different monetary and fiscal policy responses in MDEs are required in order to manage macroeconomic volatility in these countries. Within that context, the key challenge is to improve the monetary and fiscal institutions in order to enhance the possibility and the scope for more effective counter-cyclical macroeconomic policy.

As a result, the optimal strategy for MDEs is to wait some years after the countries of the GCC have formed a monetary union before engaging in other forms of policy coordination with the Gulf sub-region. It is expected that, with time, the integration process will proceed further. Subsequently, the convergence will have proceeded to the extent that shocks of an asymmetric nature and contagion will constitute less of a danger.

This study concludes therefore that the time for adopting a common currency for the ESCWA region has not yet arrived. However, ESCWA members can still benefit from some particular form of macroeconomic policy coordination, including six types of macroeconomic policies that are reviewed in this report, namely: trade policy coordination, monetary and financial policy coordination, exchange rate policy coordination, fiscal policy coordination, development policy coordination and labour policy coordination.

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ABBREVIATIONS

FTA	free trade area
GAFTA	Greater Arab Free Trade Area
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
HP	Hodrick-Prescott
EMU	European Monetary Union
EP	Egyptian pound
ESCWA	Economic and Social Commission for Western Asia
JD	Jordanian dinar
KD	Kuwaiti dinar
LAS	League of Arab States
Mercosur	Southern Cone Common Market
MDEs	more diversified economies
NAFTA	North American Free Trade Agreement
OCA	optimum currency area
OLS	ordinary least squares
OPEC	Organization of Petroleum Exporting Countries
SR	Saudi Arabian riyal
WDI	World Development Indicators
WTO	World Trade Organization

References to the dollar symbol (\$) indicate United States dollars.

Introduction

Economic integration is high on the agenda of policymakers in the region. This commitment to promote regional trade and to achieve economic integration is confirmed by such prominent initiatives as the Greater Arab Free Trade Area (GAFTA), signed in 1997, and the Gulf Cooperation Council (GCC), signed in 1982. The notion of pan-Arab integration dates back to 1953 when the League of Arab States (LAS) was established. The engine of integration is primarily open trade, supported by institutional development and harmonization aimed at building an environment that is conducive for investment and business activities. Trade integration needs to create sufficient interdependence in order to make further integration both necessary and desirable. The ultimate aim must entail the establishment of a complete set of pan-Arab institutions and full monetary union.

To that end, there is a need to investigate the consequences of the independent macroeconomic stabilization policies in GAFTA members, particularly those in the ESCWA region. The implementation of the GAFTA agreement could have considerable effects on the macroeconomic dynamics of the region, given that financial and trade integration among GAFTA partners can lead to closer links in business cycles. Consequently, this business cycle symmetry can alter the desirability of alternative macroeconomic policies for GAFTA member countries, thereby rendering them good candidates for further macroeconomic policy coordination.

Despite their limitations, optimum currency area (OCA) criteria are a good preparatory point to look at the viability of initiating a dynamic process of policy coordination in a regional framework. The issue of macroeconomic policy coordination depends on both national considerations and on externalities associated with the regional dimension of transmission of shocks.¹

The OCA theory attempts to explain the benefits of forming a monetary union and of reducing distortions through a common currency. A currency union is essentially the last stage of economic integration and represents a region or a zone of countries with the following attributes: (a) a single currency is in circulation; (b) a single monetary authority operates and maintains a common pool of reserves; (c) a single exchange rate policy exists; and (d) free trade and open trade agreements are prevalent within the region.² It is pertinent to acknowledge that while advantages and disadvantages of a common currency are not similar in each instance, they are mainly dependent on specific conditions that affect the area that seeks to introduce common money.

Theoretical and empirical literature identifies different types of regional interdependencies in order to assess the optimality of a currency area. Business cycle synchronization is one of the main criteria used to evaluate the desirability of a currency union. Other criteria include similarities of trade patterns and levels of economic development, the degree of labour mobility, dissimilarity in the commodity composition of production, and the eventual existence of fiscal transfers between partners.

This study focuses on the business cycle synchronization criterion. Information relating to the level of business cycle synchronization is important given that it can shed light on the likelihood of a further deepening of the economic integration process. It provides an indicator of the necessity of independent monetary and fiscal policy. Members of a free trade area (FTA) are more likely to consider further steps to enhance economic integration when business cycles become more similar and when macroeconomic volatility is dominated by shocks common to other regional trading partners. Consequently, a coordination of macro stabilization policies can become more desirable, with a common currency as the ultimate form of policy coordination. A country in a currency union that is suffering economic downturns shared by others in the union loses comparatively less by surrendering its monetary policy to the union. In other words, the interest rates that are appropriate for the rest of the union are equally likely to be appropriate for that given

¹ H. Escaith, "Regional integration and macroeconomic coordination", *CEPAL Review* 82 (April 2004), pp. 55-73.

² T.K. Jayaraman, "Dollarisation of the South Pacific Island Countries: results of a preliminary study" (University of the South Pacific, February 2005), pp. 197-227.

country. However, being compelled to accept the interest rate constraint is more likely to be costly where cyclical correlation is low.

On the contrary, if shocks were predominately country-specific (idiosyncratic shocks), resulting in a low degree of business cycle synchronization, then policy synchronization and coordination would be less likely to help reduce macroeconomic volatility. This requires authorities to conduct independent monetary and fiscal policies that are potentially different from those pursued by trading partners. This strategy is generally seen as more important in helping an economy to adjust to these idiosyncratic shocks and to reduce macroeconomic variability.

Assessing the degree of business cycle synchronization among Arab countries is also important for a better understanding of the influence of trading partners on the business cycle variations in domestic economies. The optimality of a currency area is supposed to be positively correlated with the level of interdependence among regional trading partners.

However, the direct application of the OCA criteria can be misleading. Specifically, the area could fulfil the criteria after it enters a monetary union given that business cycles could become more synchronized as a result of increasing trade among member countries. Another potential source of higher business cycle correlation in a currency union is more coordination of economic policies.³ This means that a currency area that is not optimal ex-ante could turn out to be optimal ex-post as the increase of trade interdependence supports the increasing correlation of business cycles.

Within that context, a recent study by Glick and Rose used a sample of 217 countries over the period 1948-1997 to reveal that those countries that had joined a currency union had experienced economically and statistically significant increases in trade and that, moreover, the increase in trade had been as high as 300 per cent.⁴ Similarly, earlier study by Rose used data for a large number of countries over the period 1970-1990 and found that bilateral trade was higher for a pair of countries that used the same currency than for a pair of countries with their own sovereign currencies.⁵ Furthermore, Frankel and Rose suggest that a currency union can triple trade with other currency union members, with no evidence of trade diversion.⁶

In addition, from a theoretical perspective, the effect of trade integration on business cycle synchronization is ambiguous given that increased trade can lead business cycles to divergence or convergence.⁷ That is, macroeconomic synchronization is not an automatic by-product of trade integration. If trade integration results in a higher share of intra-industry trade, business cycles will become more similar as industry-specific shocks affect trading partners in a similar way (common shocks). Alternatively, there are theoretical arguments that economic integration among dissimilar countries could in fact lead to reduced, not increased, macroeconomic synchronization by way of increased inter-industry trade as a part of a specialization process of the countries concerned, which could leave them more prone to asymmetric shocks. In other words, if trade integration results in more specialization, then business cycles are likely to become less similar as shocks specific to particular industries (idiosyncratic shocks) will become responsible for shaping business cycles. However, trade is not the only factor influencing business cycle synchronization.

³ Investigating the relationship between trade interdependence and business cycle synchronization, Frankel and Rose have argued that the OCA criteria are endogenous. J. Frankel and A. Rose, "The endogeneity of the optimum currency area criteria" (National Bureau of Economic Research, August 1996).

⁴ R. Glick and A. Rose, "Does a currency union affect trade? The time series evidence", *European Economic Review*, vol. 46, Issue 6 (2002), pp. 1125-1151.

⁵ A. Rose, "One money, one market: estimating the effect of common currencies on trade", *Economic Policy*, Issue 30 (2000), pp. 7-45.

⁶ Specifically, every 1 per cent increase in a country's overall trade (relative to GDP) raises income per capita by at least one-third of a per cent. J. Frankel and A. Rose, "An estimate of the effect of common currencies on trade and income", *The Quarterly Journal of Economics* (May 2002), pp. 437-466.

⁷ K. Shin and Y. Wang, "Trade integration and business cycle synchronization in East Asia", *Asian Economic Papers* 2:3 (The Earth Institute at Columbia University and the Massachusetts Institute of Technology, 2004).

Other factors that matter include the similarity of production structure, policy coordination and financial integration.

In the Arab region, the GAFTA framework aims to reduce macroeconomic volatility through the design of appropriate macroeconomic policies and the establishment of adequate institutions to support them. Macroeconomic volatility is a potential obstacle for a country hoping to reap the full benefits from economic integration. The principal reason is that those benefits accumulate primarily by means of trade and investment; and macroeconomic volatility, which is traditionally high in the ESCWA region, represents a powerful restriction to both trade and investment flows.

Given the low level of economic integration in the ESCWA region, this study evaluates whether ESCWA member countries must advance the process of policy coordination, thereby leading ultimately to a monetary union or whether, instead, ESCWA members need to intensify intraregional trade before moving towards stronger policy coordination. The advantages of forming such a union are self evident, particularly in terms of promoting trade and growth. The disadvantages include, most notably, the loss of the ability to pursue an independent monetary policy.⁸

Consequently, there is a need to explore how the advantages can offset the disadvantages. One decisive factor is a specific sort of convergence of candidate economies in a given union, namely, a synchronization of the business cycle. A second decisive factor is the similarity of the economic structure, namely, shares of different sectors of the economy. However, while differences in composition of the economy are also a basic source of trade benefits, these differences in composition can equally be a source of asymmetric shocks.⁹

This study analyses the optimal sequences of deepening economic integration in the ESCWA region. Within that context, two specific issues are raised, namely: (a) given the degree of trade interdependence in the ESCWA region, is the chosen sequence the most appropriate for the region; and (b) if open trade is the engine of integration, is coordination of macroeconomic policy required first as an instrument to promote trade growth among countries with low levels of intra-trade, rather than the other way around.

Research appears to imply that a currency union could be an engine of trade integration.¹⁰ In addition, research looking at the stability properties of a common currency indicates that common currency countries outperformed countries that have their own individual national currencies.¹¹ Currency union countries exhibit lower inflation rates and a better growth performance, albeit higher volatility, than in countries with their individual national currencies. In general, existing research seems to suggest that more policy coordination could be the optimal initial point in the process of economic integration between countries with low levels of intraregional trade and a history of economic and political instability, as in the case of the ESCWA region.

This study is organized into five chapters. Chapter I provides an overview of the issue of homogeneity in the ESCWA region and its suitability for policy coordination and, ultimately, for the introduction of a common currency. Within that context, homogeneity is analysed by discussing the regional growth performance, volatility and policy coordination during the past two decades. An important part of economic integration is the increase in cross-border trade through the lifting of trade barriers as provided for in such initiatives as the GCC and GAFTA.

⁸ For more on this debate, see J. Frankel, "Real convergence and Euro adoption in Central and Eastern Europe: trade and business cycle correlations as endogenous criteria for joining EMU" (2004), which was presented at the Conference on Euro Adoption in the Accession Countries - Opportunities and Challenges, (Prague, 2-3 February 2004).

⁹ Ibid.

¹⁰ A. Rose, "One money, one market: estimating the effect of common currencies on trade", *Economic Policy* (2000).

¹¹ S. Edwards and I. Magendzo, "A currency of one's own? An empirical investigation on dollarization and independent currency unions", Working Paper 9514 (National Bureau of Economic Research, February 2003), which is available at: www.nber.org/papers/w9514.

In order to assess whether these trade initiatives have promoted intraregional trade, chapter II discusses trade openness and trade interdependence in the ESCWA region. Chapter III provides measures of business cycle synchronization for the region based on different econometrical filters and on annual data.

Clearly, trade integration is a dynamic process; and as trade intensities and compositions of trade flows change so will business cycle patterns. Chapter IV assesses the consequences of closer trade integration and the impact of trade intensity on business cycle synchronization. This chapter analyses the link between trade structure and business cycle synchronization in the ESCWA region.¹² Based on empirical results obtained in this study, chapter V provides some conclusions and policy implications for the ESCWA region.

¹² The model in chapter IV is based on J. Frankel and A. Rose, “The endogeneity of the optimum currency area criteria” (National Bureau of Economic Research, August 1996).

I. GROWTH PERFORMANCE AND POLICY COORDINATION IN THE ESCWA REGION

During the past decades, the ESCWA region has suffered from a non-stable macroeconomic environment, a high volatility of growth rates and a lack of policy coordination at a regional level. Macroeconomic volatility is a potential barrier for a country hoping to reap the full benefits of trade integration. The lack of macroeconomic policy coordination among ESCWA member countries therefore raises new questions relating to the design of adequate macroeconomic policies that address volatility. This chapter characterizes the growth performance and GDP volatility in the ESCWA region. In addition, it analyses the development of macroeconomic policy coordination during the past two decades.

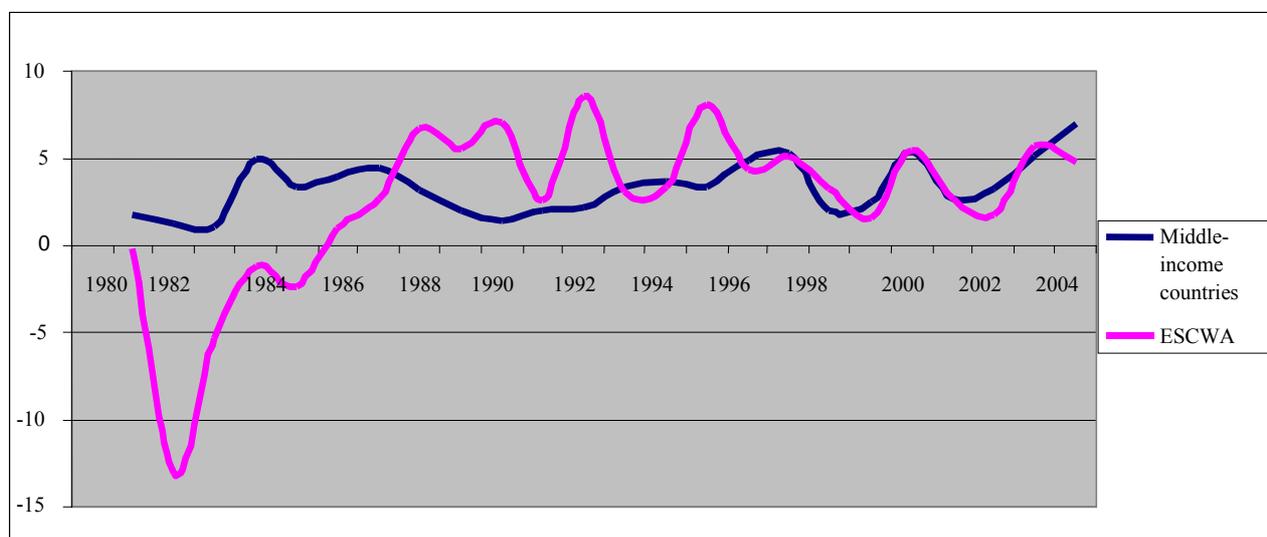
A. GDP GROWTH AND VOLATILITY: 1980-2004

Average growth in the ESCWA region improved significantly from the 1980s to the 1990s. However, growth rates have shown a very volatile behavior, especially during the first decade. Despite the observed decline in volatility, this issue remains essential given that the existing volatility in the ESCWA region could constitute an obstacle to efficiency, growth and investment.

1. GDP growth

Over the past two decades, economic growth in the ESCWA region has been lower than in most other middle- and low-income regions. The average annual growth of real GDP in the ESCWA region during 1980-2004 was 2.5 per cent, compared to an average of 8 per cent in East Asia and Pacific, and 5.5 per cent in South Asia.¹³ Figure I illustrates annual growth rates in the ESCWA region and in middle-income countries.¹⁴

Figure I. Real GDP growth rates in the ESCWA region and in middle-income countries, 1980-2004



Sources: ESCWA, *National Accounts Studies of the ESCWA Region* (over the period 1980-2002); *Survey of Economic and Social Developments in the ESCWA Region 2004-2005* (E/ESCWA/EAD/2005/6); and the World Bank, *World Development Indicators Database 2005*.

¹³ By contrast to fast-growing regions, Latin America and the Caribbean also experienced slow growth during the period 1980-2004, with an average annual increase in real GDP of 2.4 per cent.

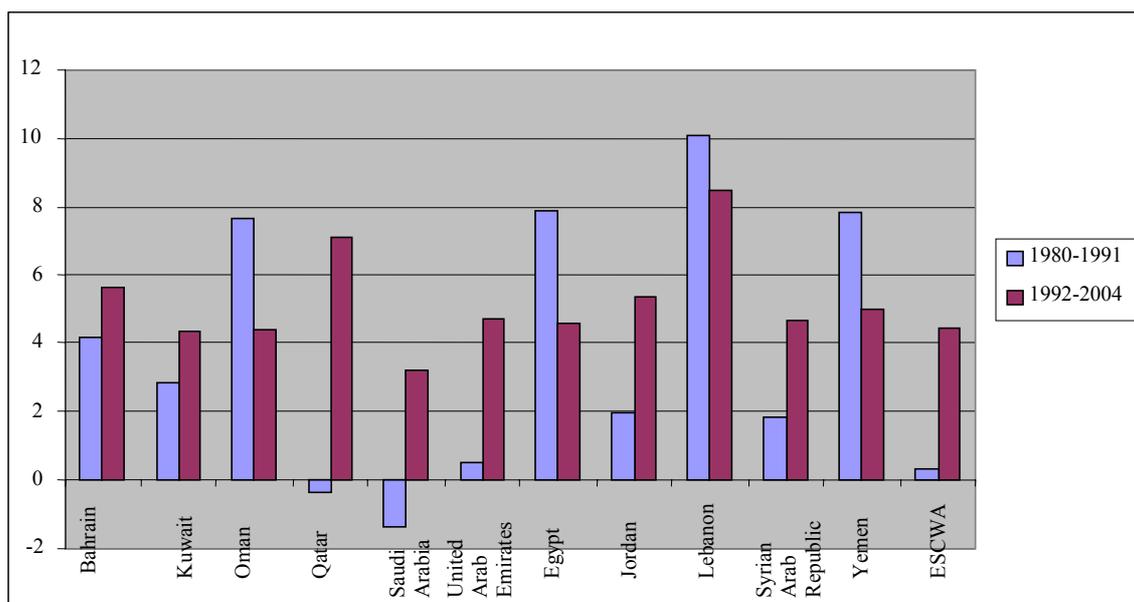
¹⁴ Middle-income countries are defined by the World Development Indicators (WDI) as those in which 2004 gross national income per capita was between \$825 and \$10,065.

As can be seen from figure I, following a sharp decrease in real economic activity during the first half of the 1980s, GDP growth in ESCWA picked up in the late 1980s. In the early 1990s, annual growth rates in ESCWA were mainly exceeding the average for the group of middle-income countries. Since 1997, growth rates in ESCWA have followed a pattern that is similar to that of middle-income countries.

Figure II depicts the average annual growth rates of 11 ESCWA member countries for two periods, namely, 1980-1991 and 1992-2004. While average annual growth of the ESCWA region was virtually zero during the first period, it improved during 1992-2004, reaching a rate of 4.5 per cent.

The first half of the 1980s was characterized by a sharp decline in oil prices, which resulted in a strong economic slowdown in several oil-exporting countries of the ESCWA region. In the second half of the 1980s, growth rates increased steadily, while oil prices remained on a low level until the first Gulf War. In the past years, most countries of the region have experienced relatively high growth rates, owing mainly to the increasing trend of oil prices that started in 1999. In general, the overall regional growth rate is strongly driven by growth in Saudi Arabia. While the share of Saudi Arabia's GDP to total regional GDP declined from 56 per cent in 1980 to 38 per cent in 2004, the Saudi Arabian economy is still by far the largest in the region. Consequently, the decline in real GDP in Saudi Arabia between 1980 and 1991 explains the bulk of ESCWA's poor economic performance during this period. When Saudi Arabia is excluded from the sample, the average annual growth rate in the region was 2.4 per cent in the first period, and 5.4 per cent in the second.

Figure II. Real GDP growth rates in ESCWA member countries, 1980-2004
(Percentage)



Sources: ESCWA, *National Accounts Studies of the ESCWA Region* (over the period 1980-2002); and *Survey of Economic and Social Developments in the ESCWA Region 2004-2005* (E/ESCWA/EAD/2005/6).

In order to account for the differences in the economic structures of the different ESCWA member countries, it is useful to divide the countries into two sub-regions, namely: (a) the member countries of the GCC, which comprise Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates; and (b) the MDEs, which comprise Egypt, Jordan, Lebanon, Syrian Arab Republic and Yemen.

During the 1980s, the average annual growth in the GCC countries was negative, owing mainly to the poor performance of the Saudi Arabian economy. However, during the 1990s, the downward trend in real GDP in the GCC countries was reversed. Real GDP in the cluster of GCC countries grew at an annual rate

of 3.6 per cent during 1992-2004, which represents a considerable improvement from the average annual decline of 0.1 per cent experienced during 1980-1991. Certainly, the growth pattern in the GCC countries is strongly affected by developments in oil markets. However, figure II illustrates that even among the GCC countries, the economic performance during the past two decades exhibited substantial differences. Specifically, average growth rates in Bahrain and Oman were significantly higher than those in Saudi Arabia and the United Arab Emirates, especially in the 1980s. Oman's annual growth during the 1980s averaged 7.6

per cent, which was by far the highest among the GCC countries, followed by Bahrain and Kuwait, with averages of 4.2 per cent and 2.8 per cent, respectively. Saudi Arabia experienced negative average annual growth during the first period (-1.4 per cent). However, this trend was reversed during the second period with real GDP growing at an average annual rate of 3.2 per cent. In both Qatar and the United Arab Emirates, GDP rates increased significantly from the first to the second period, rising from an average of -0.4 per cent to 7.1 per cent in Qatar, and from 0.5 per cent to 4.7 per cent in the United Arab Emirates. The rapid increase in oil prices since 2002 helped to fuel a strong economic rebound in the ESCWA region, particularly in the GCC countries.

By contrast to the GCC cluster, the MDEs of the ESCWA region had a positive growth record in both periods. Between 1980 and 1991, annual real GDP growth in this group of countries averaged 6.4 per cent. During the second period (1992-2004), the MDEs experienced a decline in the annual growth rate of GDP, averaging 4.9 per cent. Jordan and the Syrian Arab Republic achieved higher growth in the second period than in the first, whereas the remaining countries in that group experienced decreasing average growth rates from 7.9 per cent to 4.5 per cent in Egypt, 10 per cent to 8.5 per cent in Lebanon, and 7.9 per cent to 5.0 per cent in Yemen.

2. GDP volatility

In addition to relatively low growth rates, the ESCWA region experienced high volatility of GDP growth during 1980-2004. As shown in figure I, while GDP growth rates in the ESCWA region have been highly volatile during the 1980s, volatility declined significantly in the second period. There is a need to pay special attention to GDP volatility in the ESCWA region given that it can reduce the benefits of economic integration by restraining the rise in foreign trade and investment flows through which the gains accumulate.

Macroeconomic volatility in the ESCWA region mirrors both the presence of external shocks, mainly to oil prices, and the use of inadequate macroeconomic policies and underdeveloped financial systems, which can act as shock absorbers. In fact, oil prices show a similar pattern of high volatility throughout the 1980s and a much lower volatility in the 1990s.

Figure III depicts the extent of GDP volatility measured by average standard deviations of ESCWA member countries during the two periods, namely, 1980-1991 and 1992-2004. In general, volatility declined significantly in the ESCWA region. In the second period, it reached a level lower than the one observed in East Asia and Pacific, and marginally higher than the level in Latin America and Caribbean.¹⁵ Lebanon, Kuwait, Saudi Arabia and United Arab Emirates had the highest degrees of volatility in the region during the 1980s. While GDP volatility in Lebanon decreased significantly from the 1980s to the 1990s, it continued to be the highest in the region, followed by Kuwait.

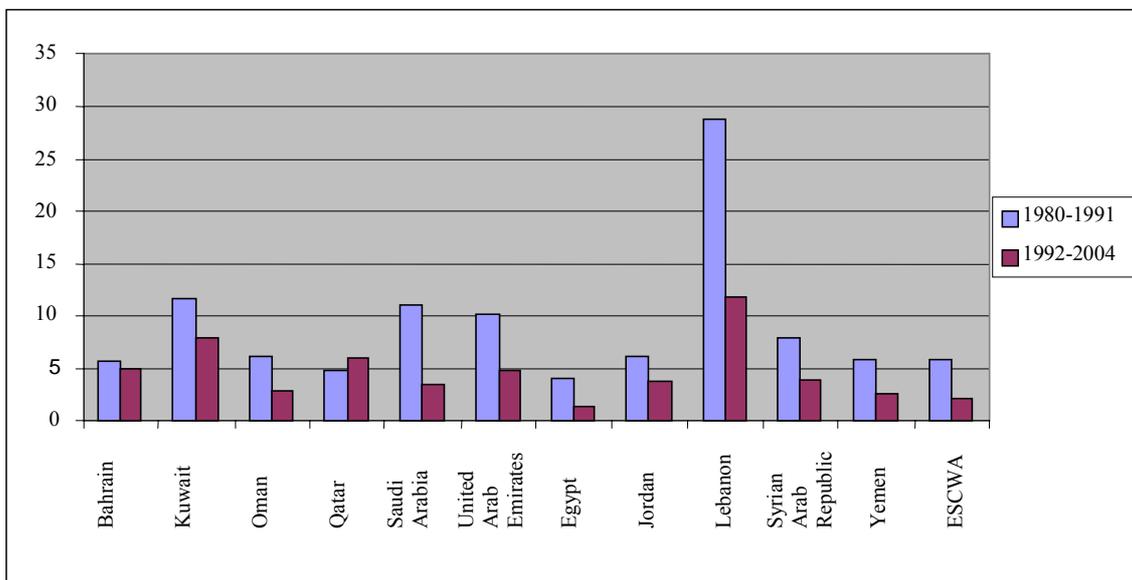
Despite the significant decline of GDP growth volatility in the region, a further decline is desirable. Empirical evidence suggests that volatility deters economic growth by discouraging both productivity and investment.¹⁶ In the presence of higher macroeconomic volatility, economic actors confront greater uncertainty. This discourages investment activities given that, in many cases, decisions cannot be reversed without significant costs. Moreover, volatility hampers the ability of economic agents to allocate economic

¹⁵ While in the ESCWA region the standard deviation of GDP growth was 2.18 during 1992-2004, it was 4.04 in East Asia and Pacific and 1.93 in Latin America.

¹⁶ G. Ramey and V. Ramey, "Cross-country evidence on the link between volatility and growth", *American Economic Review*, 1995, vol. 85, Issue 5, pp. 1138-1151.

resources efficiently as the useful information contained in relative price and profitability signals can be obscured by aggregate macroeconomic instability. Similarly, several empirical studies have confirmed that macroeconomic volatility, particularly real exchange rate variability, deters foreign trade as well.¹⁷

Figure III. GDP volatility in ESCWA member countries, 1980-2004
(Standard deviations)



Sources: Calculations based on ESCWA, *National Accounts Studies of the ESCWA Region* (over the period 1980-2002); and *Survey of Economic and Social Developments in the ESCWA Region 2004-2005* (E/ESCWA/EAD/2005/6).

Consequently, during the period 1980-2004, the ESCWA region experienced improvements both in terms of average GDP growth rates and of GDP growth volatility.

B. MACROECONOMIC POLICY: 1980-2004

Over the past two decades, a non-stable macroeconomic environment has plagued the ESCWA region with negative implications for regional integration efforts. ESCWA member countries have experienced several episodes of monetary instability that have hindered efforts aimed at integrating their economies. On the monetary side, exchange rates have generally been fixed to the United States dollar; and the success of the policy of nominal pegged regimes to the dollar has not been homogeneous across the region. Several member countries have experienced episodes of high domestic inflation, coupled with a loose expansion of the supply of money (M2). Consequently, this has resulted in a steady appreciation of the real exchange rates in some ESCWA members.

1. Exchange rate policies in the ESCWA region: 1980-2004

By pegging their currencies to a relatively low-inflation currency, particularly the United States dollar, and by relying on high interest rate policies to defend the exchange rate, ESCWA members have attempted to contain and roll back inflationary pressures. While this policy has helped them reduce inflation substantially, it has also generated persistent real exchange appreciations in some countries; losses in international competitiveness; fluctuations in GDP growth rates; and large trade and budget deficits. In some

¹⁷ In an empirical analysis of the impact of real exchange rate volatility on export flows in less developed countries, higher real exchange rate uncertainty were found to increase the risk to foreign transactions, thereby leading traders to demand higher profits, which reduces the total volume of trade. A. Arize, T. Osang and D. Slottje, "Exchange-rate volatility and foreign trade: evidence from thirteen LDC's", *Journal of Business and Economic Statistics* (American Statistical Association, 2000), pp. 10-17.

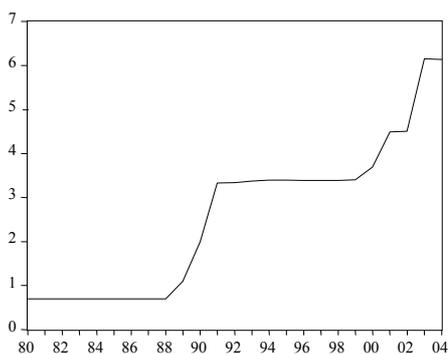
ESCWA members, a rigid nominal exchange rate regime combined with strict anti-inflation policies have led to cumulative real exchange rate overvaluations. This resulted in a steep devaluation of the Egyptian pound in 2001-2002, and of the Lebanese pound during the period 1990-1992. However, for the countries of the GCC, a fixed exchange rate arrangement continues to play a pivotal role as these countries prepare to introduce a common currency in 2010.

Monetary and exchange rate instability in the MDEs, particularly in Egypt and Jordan, has led to several episodes of devaluations against the United States dollar. After a period of exchange rate stability, Egypt was pressured recently to float its exchange rate. This can be attributed to monetary pressures and the mismanagement of monetary policies. The Jordanian dinar (JD) and the Egyptian pound (EP) were both devalued in 1988 after years of poor macroeconomic conditions in both countries. In Egypt, the depreciation of the pound reached some 300 per cent, declining from a little below parity to the dollar in 1988 to EP 3.2 per dollar in 1991. Similarly, Jordan's currency experienced significant devaluation during the same period, declining against the dollar from JD 0.30 in 1988 to approximately JD 0.71 per dollar in 1991. While the dinar has stabilized since then, the Egyptian pound was devalued again in 2000-2002 (see figure IV).

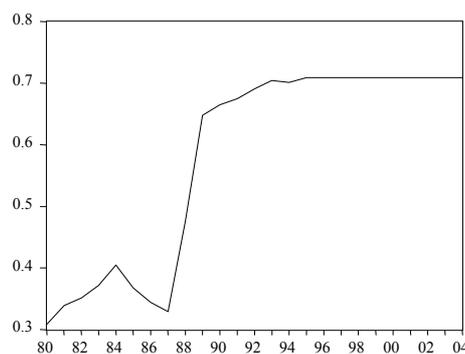
Figure IV. Exchange rates in selected ESCWA member countries, 1980-2004

A. More diversified economies

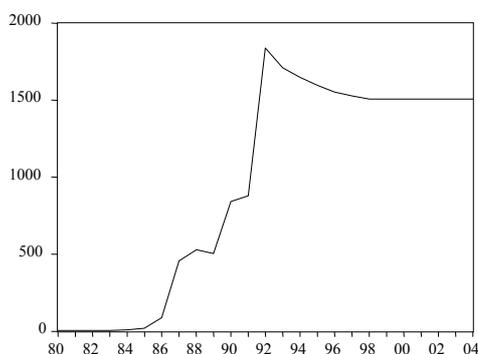
1. Egypt
(National currency per \$)



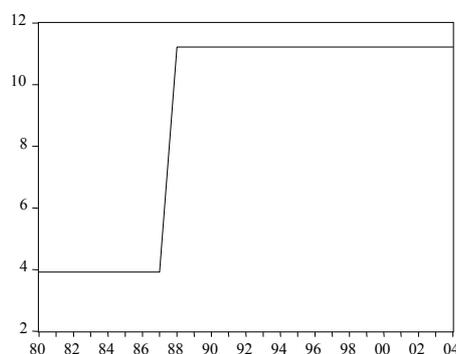
2. Jordan
(National currency per \$)



3. Lebanon
(National currency per \$)

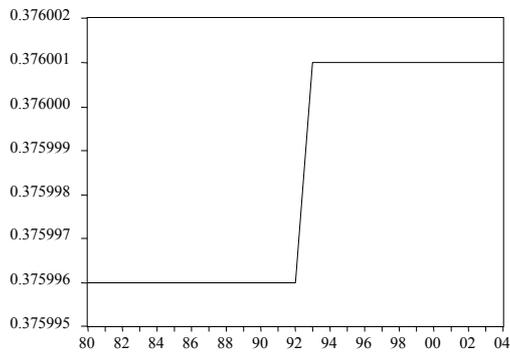


4. Syrian Arab Republic
(National currency per \$)

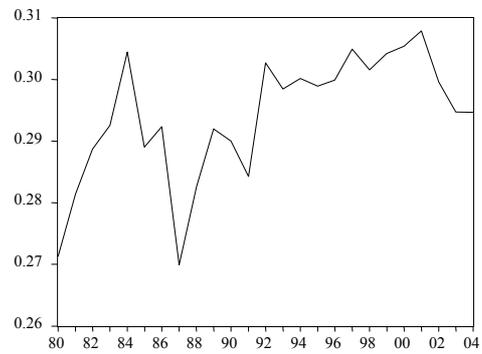


B. GCC countries

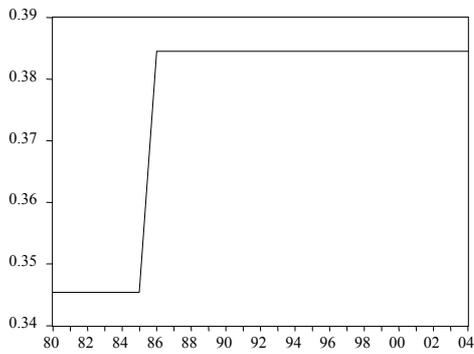
1. Bahrain
(National currency per \$)



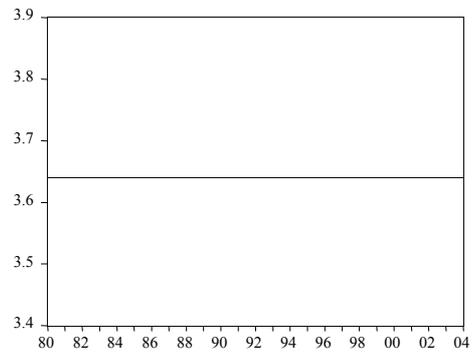
2. Kuwait
(National currency per \$)



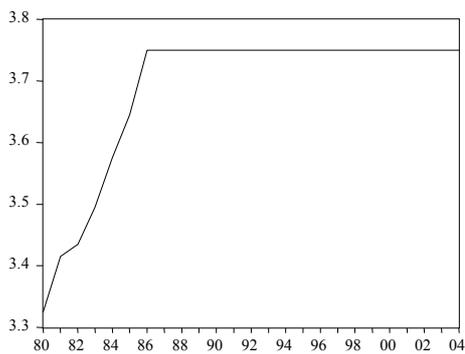
3. Oman
(National currency per \$)



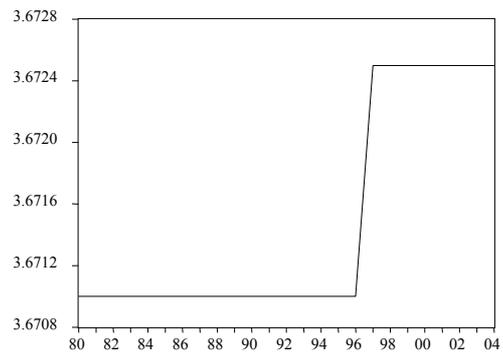
4. Qatar
(National currency per \$)



5. Saudi Arabia
(National currency per \$)



6. United Arab Emirates
(National currency per \$)



Sources: International Monetary Fund (IMF), International Financial Statistics Database (IFS 2005); and the World Bank, World Development Indicators Database 2005.

In the GCC countries, the exchange rate arrangements are rigid and fixed to the United States dollar with very narrow exchange rate bands. The Kuwaiti dinar (KD) has effectively been pegged to the dollar since the early 1990s. From KD 0.27 to the dollar in the early 1980s, the dinar depreciated to approximately 0.30 per dollar in 1984, and has fluctuated within a very narrow margin of KD 0.27-0.31 per dollar over the past two decades. The Saudi Arabian riyal (SR) has been officially pegged against the United States dollar since the mid-1980s. After being pegged to the dollar in 1980 at SR 3.3, the riyal depreciated by some 15 per cent to SR 3.75 per dollar between 1980 and 1986, and has been pegged at SR 3.7 per dollar since 1986. The national currencies of Bahrain and the United Arab Emirates have also been pegged to the dollar since 1980, at approximately 0.37 Bahraini dinars and 3.67 dirhams per dollar, respectively.

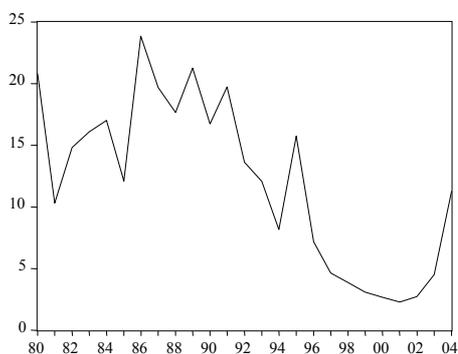
2. Interest and inflation rate policies in the ESCWA region: 1980-2004

The periods of currency devaluations were coupled with rising inflationary pressures. In Egypt and Jordan, while inflation rates were at approximately 20 per cent during the mid- and late 1980s, they have since been on the decline, standing by the end of 2004 at 11 per cent in Egypt and 3 per cent in Jordan (see figure V). These rates had peaked in Jordan in 1989 at some 25 per cent and in Egypt at approximately the same level. The monetary authorities in Egypt and Jordan have been successful in controlling inflationary pressures since the late 1980s through a monetary policy rule of nominal exchange rate targeting. By targeting the nominal exchange rate, the inflation rate has been below the 5 per cent rate since the late 1990s.

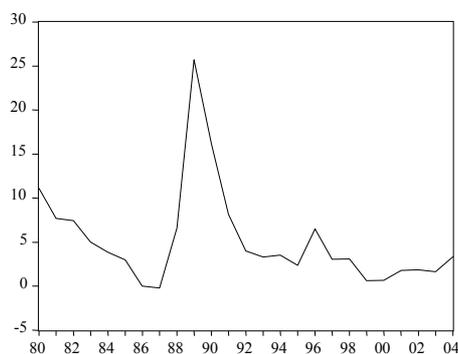
Figure V. Inflation rates in ESCWA member countries, 1980-2004
(Percentages)

A. More diversified economies

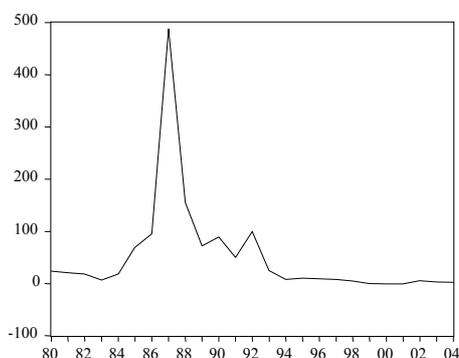
1. Egypt



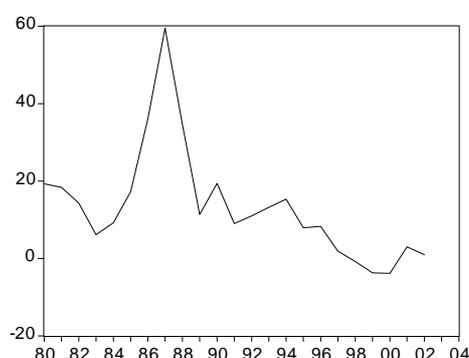
2. Jordan



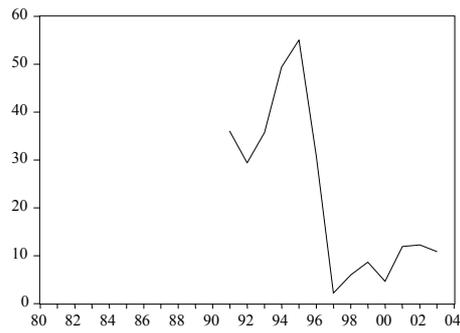
3. Lebanon



4. Syrian Arab Republic

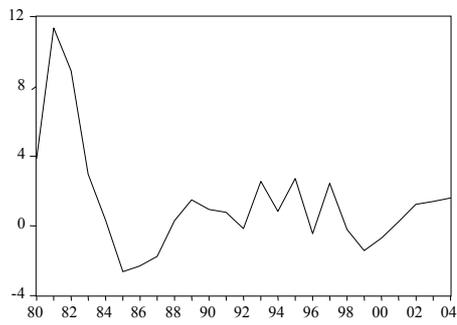


5. Yemen

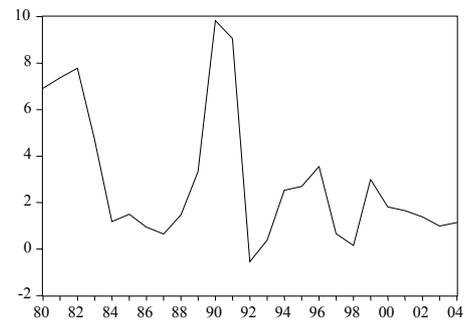


B. GCC countries

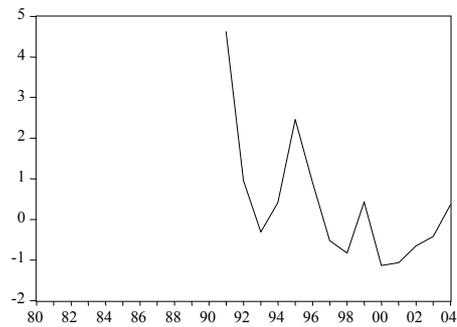
1. Bahrain



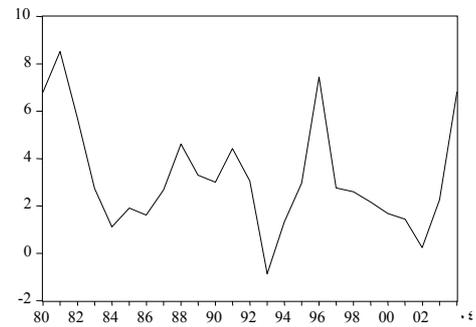
2. Kuwait



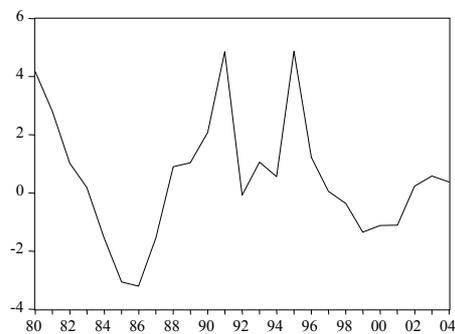
3. Oman



4. Qatar



5. Saudi Arabia



Sources: International Monetary Fund (IMF), International Financial Statistics Database (IFS 2005); and the World Bank, World Development Indicators Database 2005.

Note: Inflation rates are based on consumer price indices.

Lebanon was plagued by very high inflation rates during the late 1980s. However, a restrictive monetary policy targeting price stability has successfully controlled inflation, and the Lebanese economy has experienced a sharp decline in inflation rates since the early 1990s, with current inflation rates hovering between 2 and 3 per cent. Similarly, the Syrian Arab Republic has been successful at keeping inflation rates below the 4-5 per cent level since the early 1990s. From a peak of 60 per cent in 1987, the inflation rate in that country dropped to approximately 2 per cent in 2002. Yemen is in a similar situation whereby inflation rates have been contained and have declined since 1991.

Similar dynamics are observed in the GCC countries of the ESCWA region. In Bahrain and Saudi Arabia, inflationary pressures of the early 1980s appear to have been contained and inflation rates were approximately 2 per cent by end of 2004. In Kuwait, inflation rates stand at the same rate of 2 per cent after a significant hike during the 1991 Gulf War on Kuwait (see figure V). Owing to the downward trend in the overall inflation rates, inflationary pressures in the ESCWA region appeared to have been heading towards more containment before the recent rise in oil prices and revenues in 2003.

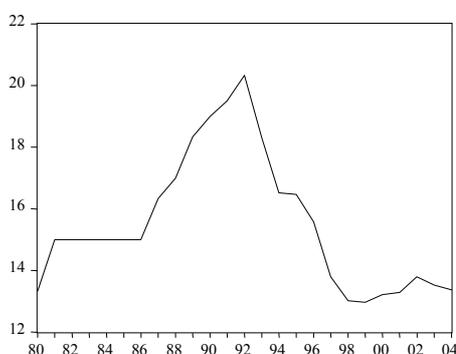
Over the past two decades, significant changes have been introduced in the design of monetary policies and in its instruments, intermediate targets and final goals. Targeting the inflation rate as opposed to the growth rate of GDP has been gaining significant popularity among policymakers in both developed countries and in many developing economies. This recent shift has been supported by robust empirical evidence pointing to the fact that high and uncontrolled inflation rates tend to distort private sector incentives to save, consume, invest and produce, which subsequently lead to slower growth rates in real GDP. Many ESCWA member countries were moving in that direction before 2003. In the MDEs, inflation rates appear to have been recently contained, and monetary policy appears to be gradually geared towards price stability. The same is true for the GCC countries where inflationary pressures of the 1980s appeared to have been contained by 2002. However, oil revenue increases since 2003 have rekindled inflation in Qatar, the United Arab Emirates and possibly in other countries of the Gulf sub-region.

Lower inflation rates in some MDEs have translated into significantly lower interest rates. In Egypt, interest rates were at some 20 per cent in 1992, but have since been on the decline, dropping to 11 per cent by end of 2004. The same scenario applies to Jordan where, after the 1998 hike, interest rates went down to below the 10 per cent level. Interest rates in the Syrian Arab Republic have been fixed for two decades. By contrast, the rates have been declining in Lebanon since 1995. After peaking in the late 1980s to some 40 per cent, the declining trend started in the early 1990s, dropping to approximately 10 per cent by the end of 2004. The declining interest rate trend is also present in the GCC countries, with rates typically lower than those observed in MDEs.

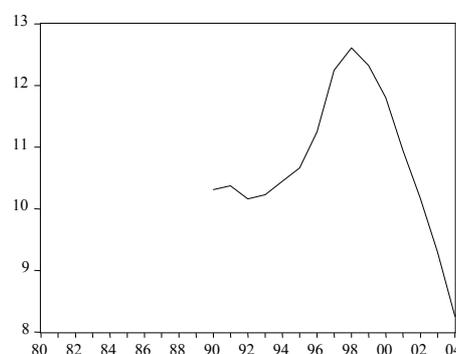
Figure VI. Nominal interest rates in ESCWA member countries, 1980-2004
(Lending rates in percentages)

A. More diversified economies

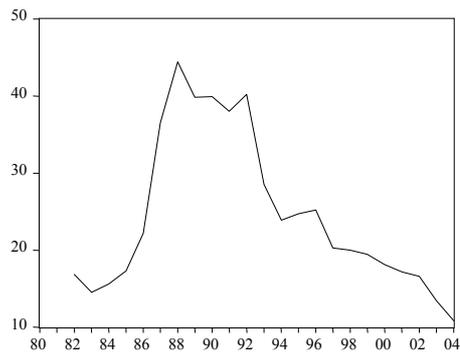
1. Egypt



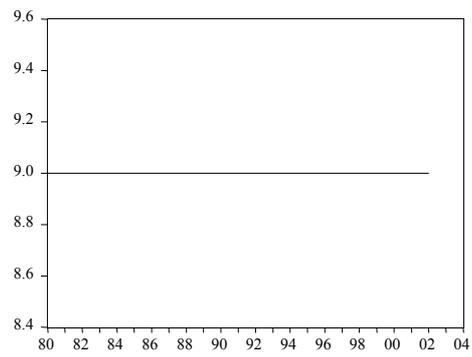
2. Jordan



3. Lebanon

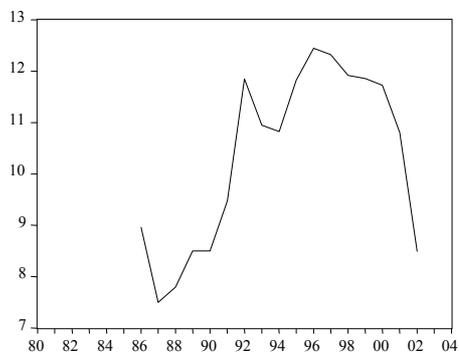


4. Syrian Arab Republic

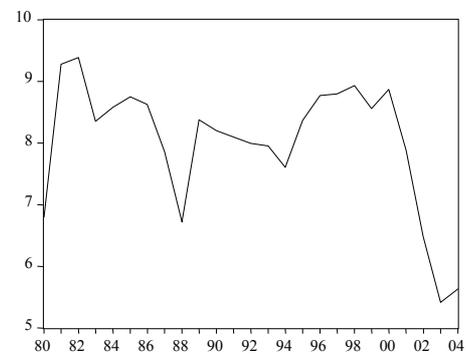


B. GCC countries

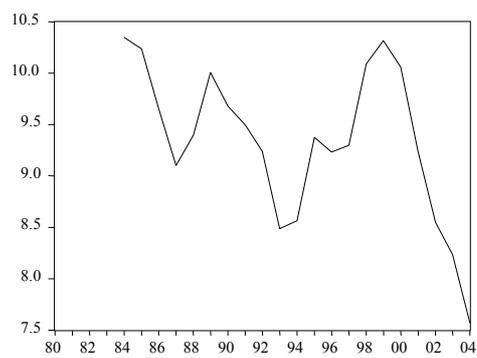
1. Bahrain



2. Kuwait



3. Oman



4. Saudi Arabia



Sources: International Monetary Fund (IMF), International Financial Statistics Database (IFS 2005); and the World Bank, World Development Indicators Database 2005.

II. TRADE PERFORMANCE IN THE ESCWA REGION: TRADE OPENNESS, REGIONAL TRADING PARTNERS AND INTRAREGIONAL TRADE

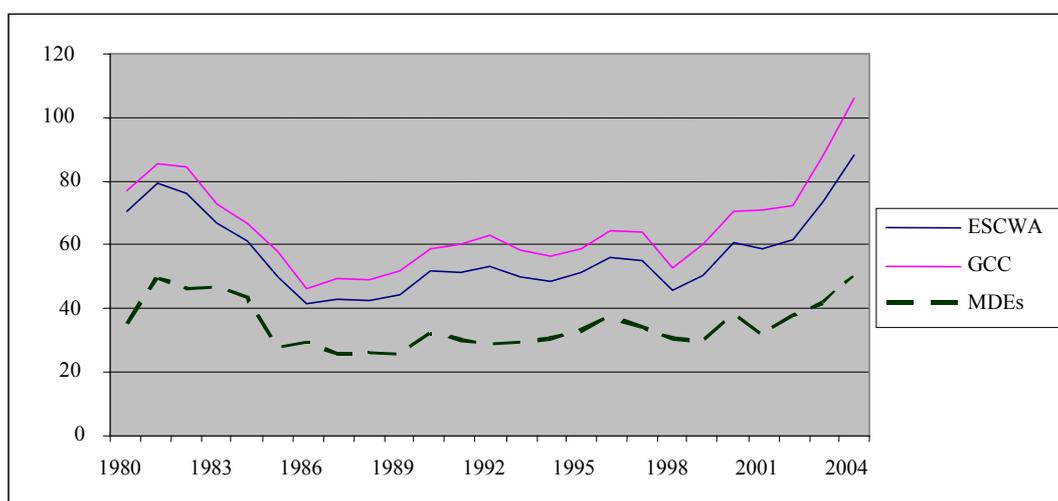
Despite the lifting of trade barriers as provided for within the frameworks of the GCC and GAFTA, intraregional trade activity relative to GDP remains low in the ESCWA region and has not improved during the past two decades. Trade improves economic performance in a sustainable way by contributing towards productivity growth through more efficient allocation of resources, technology transfers, access to a wider range of inputs and competitive pressures. Moreover, export driven economies ensure external sustainability and sufficient demand, which are both necessary in the ESCWA markets. Most of these markets are in need of economic diversification given that they are often dependent on either commodity or agricultural exports.¹⁸

Enhancing international trade in the ESCWA region is therefore expected to stimulate economic activity in the member countries and propel growth. This chapter reviews ESCWA's trade performance by referring to its degree of trade openness, which is measured by the trade to GDP ratio, to its trading partners by regions and to the level of its intra-trade activities relative to total trade.

A. TRADE OPENNESS

Total trade as a share of GDP in the ESCWA region was higher in the early 1980s than during the subsequent two decades. While total trade in the ESCWA region represented almost 80 per cent of GDP during the early 1980s, this ratio declined to 41 per cent and remained relatively low until 2000, when oil prices began to rise (see figure VII). In 2004, the ratio amounted to 88 per cent. Trade is mostly driven by trade activities of the GCC countries, which accounted for 82 per cent of total ESCWA trade in 2004. Given the dominance of oil in the GCC economies, it is clear that the ratio of total trade to GDP in the ESCWA region follows developments in the oil market. The high level of the trade to GDP ratio in the early 1980s and in recent years can therefore be attributed to the high level of oil prices during these periods.

Figure VII. Trade openness: ratio of total trade to GDP in the ESCWA region, 1980-2004
(Percentage)



Sources: International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004); ESCWA, *National Accounts Studies of the ESCWA Region* (over the period 1980-2002); and ESCWA, *Survey of Economic and Social Developments in the ESCWA Region 2004-2005* (E/ESCWA/EAD/2005/6).

¹⁸ L. Soderling, "Is the Middle East and North Africa region achieving its trade potential?", IMF Working Paper WP/05/90 (International Monetary Fund, Middle East and Central Asia Department, 2005).

Table 1 indicates the ratio of total trade to GDP in 11 ESCWA member countries and in the regions of East Asia and the Pacific, and Latin America and the Caribbean. With the exception of Bahrain, Kuwait and Lebanon, this ratio has increased during the past two decades in ESCWA member countries.

TABLE 1. RATIO OF TOTAL TRADE TO GDP IN THE ESCWA REGION, 1980 AND 2004

	1980	2004
Bahrain	223.93	194.84
Egypt	28.00	33.57
Jordan	68.04	119.36
Kuwait	98.92	95.36
Lebanon	128.61 ^{a/}	56.08
Oman	84.05	90.19
Qatar	69.69	117.09
Saudi Arabia	74.21	80.42
Syrian Arab Republic	59.55	76.72
United Arab Emirates	65.78	168.06
Yemen	70.27 ^{b/}	93.40
ESCWA ^{c/}	70.72	88.53
East Asia and the Pacific	29.23	87.64
Latin America and the Caribbean	28.09	49.92

Sources: International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004); the World Bank, World Development Indicators Database 2005; ESCWA, *National Accounts Studies of the ESCWA Region* (over the period 1980-2002); and ESCWA, *Survey of Economic and Social Developments in the ESCWA Region 2004-2005* (E/ESCWA/EAD/2005/6).

Notes: ^{a/} The figure for Lebanon corresponds to 1981 owing to the lack of data for 1980.

^{b/} The figure for Yemen corresponds to 1990 owing to the lack of data for 1980.

^{c/} Owing to the lack of reliable data, Iraq and Palestine are not included in the regional average.

B. MAIN TRADING PARTNERS OF THE ESCWA REGION

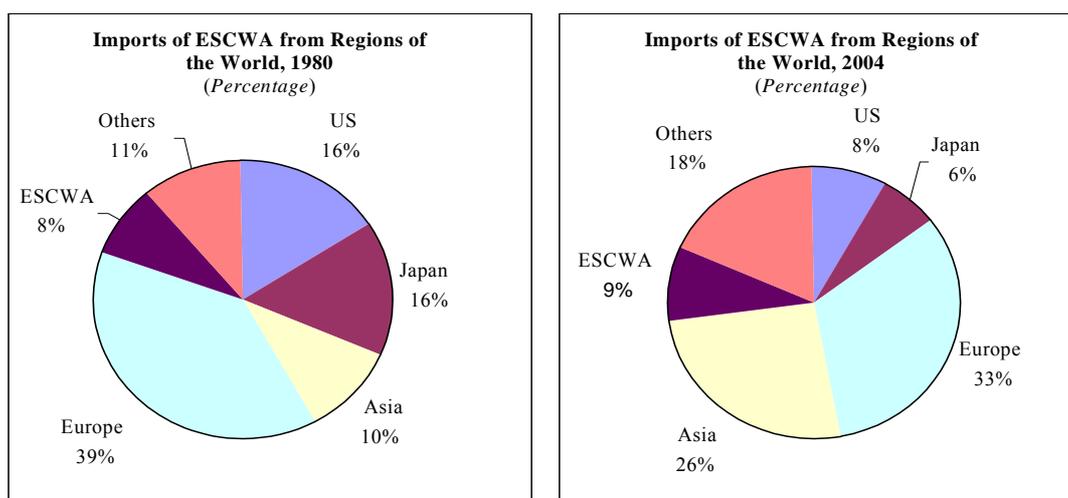
Figures VIII and IX show the major trading partners of the ESCWA region in 1980 and 2004. Most ESCWA trade flows are with industrialized and emerging regions, particularly Europe and Asia.¹⁹ Notwithstanding geographical proximity, ESCWA member countries trade significantly more with European and Asian countries than with other economies in the ESCWA region.

Figure VIII demonstrates that in 2004 the major import partners of the region were Europe and Asia. Imports of the ESCWA region from Europe and from Asia constitute 33 per cent and 26 per cent of total imports, respectively. In 1980, imports came mainly from Europe and the United States. At that time, the ESCWA region did not have very strong import linkages with Asia. However, during the past two decades, the share of imports from Asia has more than doubled.

The most important export destinations of the region in 2004 were Asia, Europe and Japan. At the beginning of the 1980s, the share of exports to Europe was the highest. However, it declined from 37 per cent of total exports in 1980 to a modest 14 per cent in 2004. By contrast, the ratio of exports to Asia to total exports increased from 15 per cent in 1980 to 32 per cent in 2004, and Asia became the main destination of ESCWA exports.

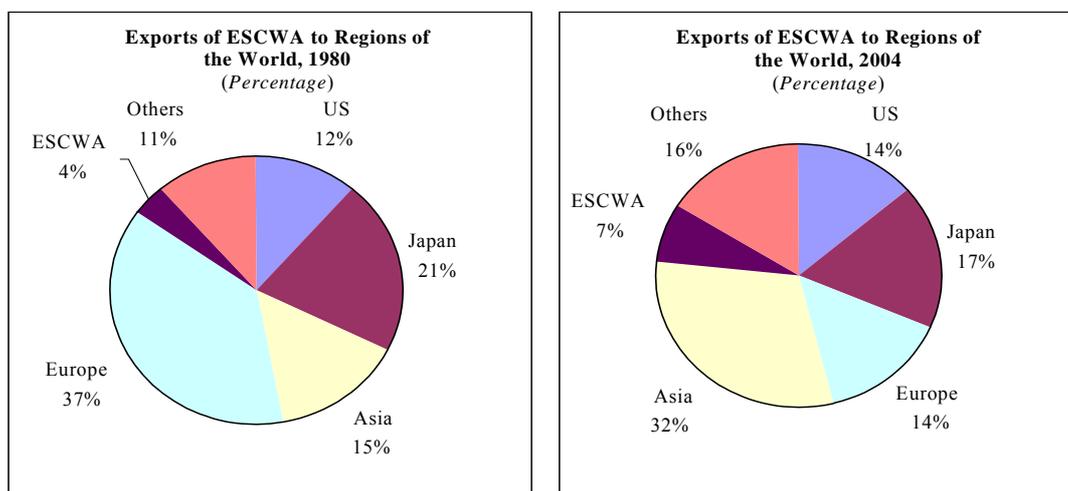
¹⁹ Within that context, Europe includes the 15 countries of the EU, in addition to Iceland, Norway and Switzerland; and Asia includes 30 countries in South and Southeast Asia.

Figure VIII. Major import partners of the ESCWA region, 1980 and 2004



Source: International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004).

Figure IX. Major export partners of the ESCWA region, 1980 and 2004



Source: International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004).

C. ESCWA INTRAREGIONAL TRADE

Figures VIII and IX reveal that in 2004 the shares of both intraregional imports and exports of the ESCWA region were relatively low and accounted for a modest 9 per cent and 7 per cent of total imports and exports, respectively. The pace of total intraregional trade did not increase markedly in the ESCWA region during the period under study. The ratio of intra-ESCWA trade to total trade increased very modestly from 4.9 per cent in 1980 to 8.5 per cent in 2004, thereby implying that intra-ESCWA trade still constitutes a small fraction of total trade flows.

In 1980, other regions of the world had already reached higher degrees of integration than that attained by the ESCWA region in 2004. For instance, in 1980 intraregional trade in the EU was seven times higher than the corresponding figure for ESCWA in 2004, and three times higher than in the North American Free Trade Agreement (NAFTA).²⁰ Moreover, in the Southern Cone Common Market (Mercosur), intraregional

²⁰ R. Longo and K. Sekkat, "Obstacles to expanding intra-African trade", Working Paper No. 169 (OECD Development Centre, 2001).

exports improved from 9 per cent of total exports in 1990 to 22 per cent in 1996, and intraregional imports increased from 14 per cent in 1990 to 21 per cent in 1996.²¹

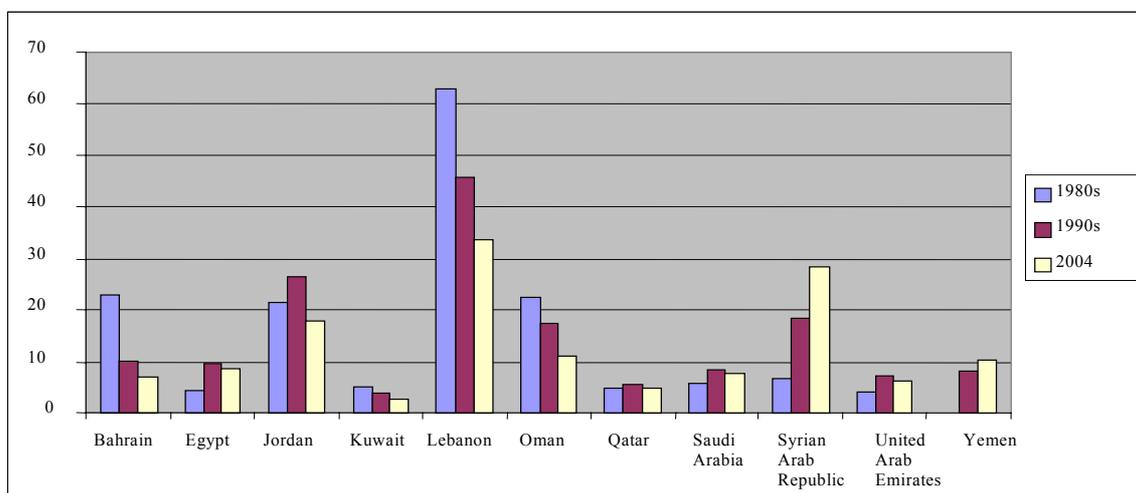
This indicates that regional integration is still lagging behind in the ESCWA region and needs to be enhanced. If intraregional trade is increased in the region, growth can be stimulated through the rise of competition and scale effects as separate national markets become more integrated. Additionally, a larger market permits economies of scale to be achieved, brings producers in member countries into closer contact with each other and eliminates monopolies, thereby promoting efficiency gains within firms. Apart from the economic arguments presented in favour of higher integration, if increased intra-ESCWA trade succeeds in fostering regional economic take-off, it could also contribute towards reducing political tensions.

As a result of weak intraregional trade, Arab countries have engaged in several free trade arrangement attempts. However, many of these attempts have failed, including, most prominently, the Arab Economic Unity Agreement of 1957 and the Arab Cooperation Council of 1989. The most recent attempt of Arab trade integration is GAFTA, whose executive programme on the facilitation and development of Arab trade entered into force on 1 January 1998. It is currently applied by 17 out of the 22 member countries of the League of Arab States. The key elements of the executive programme include, among others, the following: (a) the removal of non-tariff barriers and the reduction of tariff rates on all goods exchanged between the signatories by an annual rate of 10 per cent over a period of 10 years; (b) the participation of the private sector in monitoring the implementation process; (c) special treatment for the less developed Arab countries, based on the classification by the United Nations, in addition to Palestine; and (d) respect for international norms.

There are still many technical barriers to intra-Arab trade that have not been addressed by the agreement, including such issues as taxes and charges; the lists of exemptions and rules of origin; the strength of the dispute settlement mechanism; and non-tariff barriers. These outstanding issues hinder regional integration, particularly when a political will is lacking.

Currently, the intraregional trade activities in ESCWA member countries remain modest. In order to determine the extent of trade integration in the region, the ratio of intraregional exports to total exports has been calculated for 11 ESCWA member countries over the past two decades (see figure X).

Figure X. Ratio of intra-ESCWA exports to total exports, 1980-2004



Source: Compiled by ESCWA based on International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004).

Note: Figure X presents the average ratios for the periods 1980-1989 and 1990-1999, in addition to the most recent data, namely, 2004. Data for Yemen in the 1980s were unavailable.

²¹ A. Bevilaqua, "Macroeconomic coordination and commercial integration in Mercosur", Discussion Paper No. 378 (Department of Economics, Puc-Rio, October 1997).

The share of intraregional exports to total exports declined in Bahrain, Jordan, Kuwait, Lebanon and Oman during the past two decades. The apparent decrease in these countries, with the exception of Jordan, was gradual and significant, especially in Lebanon where the ratio declined by almost 47 per cent from 1980 to 2004. Lebanon's exports to the region amounted to 63 per cent in the 1980s, which represented a level considerably higher than in the other ESCWA member countries. However, that ratio decreased to 33.5 per cent in 2004. The high value of the 1980s can be largely attributed to the civil war in that country during which Lebanon was internationally isolated and its export relations with the world were very limited. Consequently, the relative importance of trade relations with Arab countries was very high during this period. Moreover, efforts by the Government aimed at encouraging trade with the rest of the world through the implementation of different trade agreements, including accession to the WTO and the Euro-Mediterranean Partnership, led to an increase in total exports and a shift in Lebanese trade from Arab countries to the rest of the world.

Similarly, the decreasing trend of intraregional export ratios in Bahrain and Oman can be explained by the increase in total trade that resulted from increased integration into the world economy. The two countries implemented openness policies during the period under study and both joined the WTO in 1995.

The case of Jordan is different from other ESCWA member countries. The ratio was 21 per cent in the 1980s, increased to 27 per cent in the 1990s, but then declined sharply to reach a modest 18 per cent in 2004. While Jordan signed several bilateral trade agreements with other Arab countries in the 1990s, the impact of the war in Iraq, which is one of Jordan's major trading partners, negatively affected Jordan's intraregional export activity. Moreover, a larger portion of national exports was channelled towards the United States after the signing of a free trade agreement between the two countries in 2000. This has resulted in a significant increase in Jordan's total exports, thereby leading to a decline in intra-ESCWA exports relative to total exports.

In Qatar, the ratio of intraregional exports to total exports remained stable at a very low level of some 5 per cent during the period under study. By contrast, the ratio increased in Egypt, Syrian Arab Republic, United Arab Emirates and Yemen.²² The increase in the relative importance of regional trade has been different for those five countries. For Egypt and Yemen, the increases in the ESCWA share in total trade were from approximately 4.4 per cent in the 1980s to 8.7 per cent in 2004, and from 8.2 per cent in the 1990s to 10.4 per cent in 2004, respectively.

In the Syrian Arab Republic, the level of total exports to ESCWA member countries more than doubled between the 1980s and 2004. This increasing intraregional export share in the Syrian Arab Republic is the result of a decrease in total trade, rather than a significant increase in intraregional exports. The international seclusion and the very low cooperation with the West owing to political tensions have led to a decrease in international trade and, consequently, to an increase in the computed ratio.

For Saudi Arabia and the United Arab Emirates, the ESCWA share in total exports increased from 6 per cent in the 1980s to 7.7 per cent in 2004, and from 4.2 per cent in the 1980s to 6.3 per cent in 2004, respectively. This positive trend indicates progress in the implementation of trade integration reforms in these countries. Nevertheless, these ratios are still significantly lower than in other regions of the world. In Mercosur, for example, the share of Argentina's intra-Mercosur exports to total exports was 15 per cent in 1990 and reached 33 per cent in 1996, which represents a higher level than in all ESCWA member countries in 2004.²³

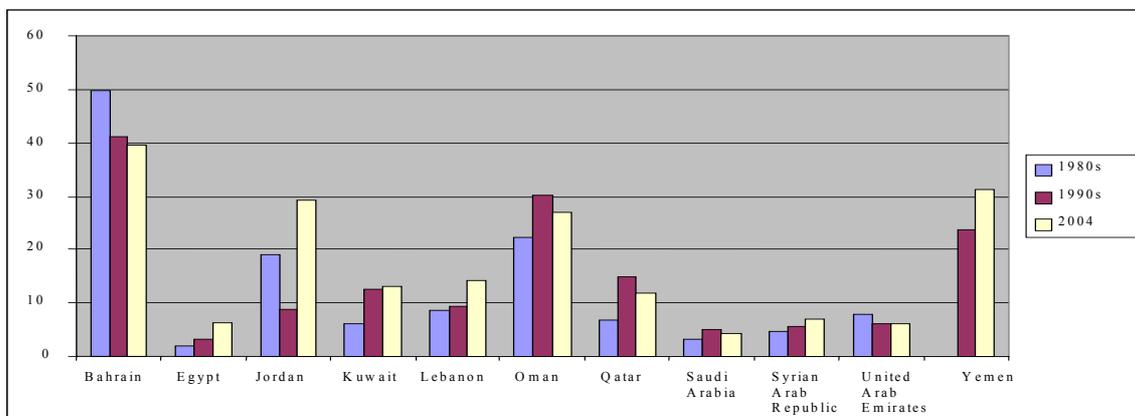
Another relevant proxy of trade cooperation in the region is the ratio of ESCWA's intraregional imports to total imports (see figure XI). The share of imports from the rest of ESCWA member countries relative to total imports declined in Bahrain and the United Arab Emirates during the past two decades. However, the ratio increased in Egypt, Kuwait, Lebanon, Oman, Qatar, Syrian Arab Republic and Yemen, thereby indicating an enhancement in trade integration. In 2004, the ratio amounted to 6.2 per cent in Egypt, 12.9 per cent in Kuwait, 14.2 per cent in Lebanon, 26.9 per cent in Oman, 11.8 per cent in Qatar and 7.0

²² In the case of Yemen, the period under study begins in 1990 and ends in 2004.

²³ A. Bevilaqua, "Macroeconomic coordination and commercial integration in Mercosur", Discussion Paper No. 378 (Department of Economics, Puc-Rio, October 1997).

per cent in the Syrian Arab Republic. In Jordan, after a significant decline during the 1990s, the ratio of intraregional imports to total imports increased to a level higher than that of the 1980s. The Gulf War as well as the signing of the Washington Declaration between Jordan and Israel in the 1990s is likely to have had a strong impact on Jordanian economic conditions and trade performance.

Figure XI. Ratio of intra-ESCWA imports to total imports, 1980-2004

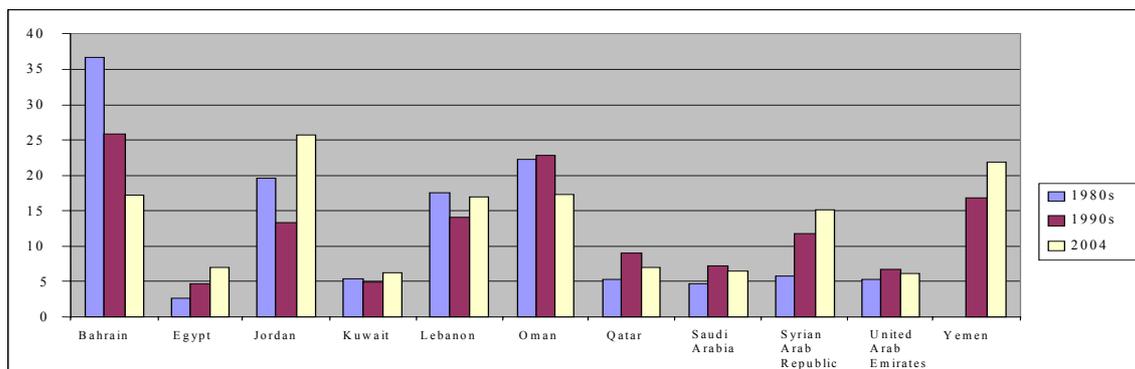


Source: Compiled by ESCWA based on International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004).

Note: Figure XI presents the average ratios for the periods 1980-1989 and 1990-1999, in addition to the most recent data, namely, 2004. Data for Yemen in the 1980s were unavailable.

Figure XII depicts the averages of the ratio of total intraregional trade (intra-exports + intra-imports) to total trade (total exports + total imports) during the period 1980-2004. Relative intraregional trade activity has significantly increased in Egypt, Jordan, Syrian Arab Republic and Yemen, while it increased only modestly in Kuwait, Qatar, Saudi Arabia and United Arab Emirates. Overall, intraregional trade activities are still lagging behind other developing regions in the world. However, a decreasing or stagnating ratio of intraregional to total trade can be explained by the fact that trade with the rest of the world has increased at a faster pace than intraregional trade. Over the past two decades, ESCWA member countries, with the exception of the Syrian Arab Republic, have increasingly undertaken multilateral and bilateral efforts to integrate in the world economy. Specifically, all ESCWA member countries are now members of the WTO, and the ESCWA member countries in the Mediterranean Basin are equally engaged in the Euro-Mediterranean Partnership. In general, while ESCWA member countries are not well integrated regionally as measured by intraregional trade ratios, they have become more open globally, especially during the past decade.

Figure XII. Ratio of intra-ESCWA trade to total trade, 1980-2004



Source: Compiled by ESCWA based on International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004).

Note: Figure XII presents the average ratios for the periods 1980-1989 and 1990-1999, in addition to the most recent data, namely, 2004. Data for Yemen in the 1980s were unavailable.

Table 2 illustrates total intraregional trade as a percentage of GDP in 11 ESCWA member countries. The ratios again illustrate that intraregional trade is far below the desired level that qualifies the region as an economically integrated and homogeneous area. Consequently, the ESCWA region is far from constituting an integrated trade region and does not fulfil one of the major criteria of an optimum currency area. This issue is further analysed below by looking at business cycles synchronization within the region.

TABLE 2. INTRA-ESCWA TRADE AS A PERCENTAGE OF GDP, 1980-2004

	Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syrian Arab Republic	United Arab Emirates	Yemen
1980	92.40	0.60	16.73	4.70	0.00	6.67	2.85	2.20	2.50	2.39	..
1981	113.16	0.67	18.88	5.01	33.80	8.72	2.29	3.12	5.52	3.45	..
1982	76.96	0.65	18.59	6.03	31.14	8.24	2.66	3.13	3.53	3.34	..
1983	58.01	1.07	16.98	4.95	29.84	5.47	2.18	2.77	1.31	3.02	..
1984	59.31	1.08	15.29	4.55	30.87	5.48	2.07	2.70	1.41	2.80	..
1985	54.62	0.39	11.51	4.24	18.97	6.68	1.74	2.79	1.64	2.67	..
1986	43.47	0.72	8.05	2.30	13.01	19.37	2.62	2.08	2.14	3.46	..
1987	47.15	0.55	9.74	2.65	11.28	20.83	2.88	2.42	1.57	3.39	..
1988	32.23	0.55	9.27	3.42	8.97	24.83	3.69	2.39	1.84	3.56	..
1989	36.83	0.43	7.35	2.95	10.89	29.37	4.03	2.88	4.92	3.89	..
1990	44.36	0.46	8.62	0.98	12.81	27.57	4.16	3.65	7.27	3.86	8.74
1991	42.34	0.74	7.39	1.33	10.28	7.76	4.74	3.59	6.42	4.25	8.16
1992	40.96	0.83	7.33	0.35	9.07	13.24	4.93	3.12	6.03	5.07	8.30
1993	31.37	0.80	8.02	2.26	6.51	13.91	5.31	2.96	5.91	6.40	9.33
1994	31.21	0.89	8.38	2.99	6.07	12.65	5.29	2.98	6.91	6.20	10.08
1995	33.14	0.86	9.50	3.61	4.55	12.91	5.40	3.37	6.28	6.26	9.50
1996	36.21	0.93	13.17	3.56	7.79	12.20	5.56	3.98	5.27	6.27	5.82
1997	35.67	1.04	11.29	3.78	5.71	13.50	4.53	4.11	4.89	5.96	6.12
1998	20.90	1.32	9.69	3.57	5.31	14.86	5.35	3.31	4.65	6.87	7.93
1999	19.45	1.25	9.08	3.85	4.61	14.00	4.64	3.59	4.58	7.94	8.82
2000	21.33	1.64	8.70	4.60	5.91	15.35	7.26	3.26	5.10	6.38	10.11
2001	22.42	1.34	9.98	4.63	6.28	15.42	5.36	3.44	8.66	7.74	10.74
2002	23.42	1.76	10.79	4.75	6.66	15.74	8.56	3.63	7.54	7.54	14.19
2003	26.69	1.78	18.23	5.06	7.62	14.08	7.32	4.10	8.97	8.95	16.07
2004	33.27	2.33	30.63	5.95	9.50	15.61	8.13	5.21	11.59	10.23	20.48

Source: International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004).

Note: Two dots (..) indicate that data were not available.

This implies that more efforts are still needed regarding the implementation of related policies. Arab countries have started the process adequately by signing different multilateral and bilateral accords. However, some major obstacles to trade cooperation and integration remain, including, most importantly, the similarities in economic structures and the differences in demand structures of member countries; the lack of commitment to regional agreements; and the heavy reliance on trade taxes in some countries, especially in those that are highly indebted.

Equally, the similar production structures of the Arab economies prevent major gains that can be made from comparative advantages and economies of scale. The GCC economies, for example, primarily produce and export oil and gas, petrochemicals and aluminium. By contrast, MDEs primarily export textiles, metal products and machinery. There is low regional demand for many of those products, which must also compete with one another in the limited Arab market. In addition, the low quality and ready availability of regional products in many ESCWA member countries has led to a dependence on imports from outside the Arab region. Moreover, the lack of a compensation mechanism to assist producers and consumers adversely affected by the transition from protectionism to liberalization has further discouraged intra-trade activity.

Furthermore, the economic and trade activities in the region are very vulnerable to political instabilities. Other factors hinder trade cooperation among ESCWA member countries, including the following: (a) lack of adequate transportation; (b) overprotection; (c) lack of market information; (d) weakness of marketing strategies; (e) poor competitiveness of products; and (f) bureaucracy.²⁴

In addition to removing trade barriers, a relatively free trade area among Arab countries requires, among others, improving transportation, separating political and economic issues, implementing relevant legal reforms, encouraging private sector initiatives, and promoting competitiveness.

In order to benefit fully from trade liberalization, ESCWA members need to complement the liberalization process with institutional reform and with appropriate industrial policies, particularly given that trade liberalization can be effective only when domestic industries are competitive. More attempts are needed to deepen intraregional trade relations, thereby enhancing growth and augmenting the degree of cooperation and integration among ESCWA member nations.

²⁴ I. Limam and A. Abdalla, "Inter-Arab trade and the potential success of AFTA", Working Paper API/WPS 9806 (Arab Planning Institute, 1998).

III. BUSINESS CYCLE CO-MOVEMENTS AMONG ESCWA MEMBER COUNTRIES

This chapter assesses the degree of business cycle synchronization between individual ESCWA member countries during the period 1980-2004. According to modern theory, business cycles are long-term fluctuations in economic activity. In other words, a business cycle can be defined as the pattern of expansion and contraction in economic activity relative to its long-term trend.

As highlighted in the introduction to this study, the degree of business cycle synchronization is an essential criterion for determining the costs and benefits associated with forming or joining a currency union. From the perspective of an individual country, the creation of a currency union is associated with the loss of domestic monetary policy as a possible stabilization instrument. A single monetary policy, which is conducted by a supra-national central bank, implies a common nominal interest rate in the currency union. Given that asymmetric macroeconomic shocks are likely to result in diverging inflation rates across member countries, national real interest rates can differ substantially. Countries with higher than average inflation rates experience lower real interest rates, which stimulates demand and therefore puts additional pressure on the national inflation rate. By contrast, countries with lower than average inflation rates have higher real interest rates, which is likely to weaken demand and lead to a further reduction of inflation rates. Consequently, a common monetary policy can result in higher and more persistent inflation and output growth differentials between member countries, which could eventually destabilize the currency union.

New empirical evidence, especially on the European Monetary Union (EMU), suggests that this simple mechanism neglects a number of important factors, including possible stabilizing channels in a monetary union that work towards a convergence of real interest rates.²⁵ Nevertheless, it is widely accepted that the prospects of creating a successful currency union depend substantially on the degree of business cycle synchronization among member countries.

A. MEASURING BUSINESS CYCLES: DATA AND METHODOLOGY

In order to determine the degree of business cycle synchronization in the ESCWA region, this section analyses country-pair correlation coefficients between the cyclical components of output. To that end, annual data on real GDP over the period 1980-2004 were collected from the ESCWA national accounts database for the following 11 countries:²⁶ Bahrain, Egypt, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen.²⁷

To obtain the cyclical component of total real output, the original time series was decomposed using the Hodrick-Prescott (HP) filter.²⁸ In addition to the HP filter, the Baxter-King band-pass filter was used to decompose the original GDP data.²⁹ In general, the resulting correlation coefficients are marginally lower than those obtained with the HP filter.³⁰

²⁵ For a recent discussion on this issue, see a speech by O. Issing, "One size fits all! A single monetary policy for the euro area", which was delivered at the third Conference of the International Research Forum on Monetary Policy (Frankfurt, Germany, 20 May 2005) and which is available at: www.ecb.int/press/key/date/2005/html/sp050520.en.html.

²⁶ ESCWA national accounts data are based on questionnaires completed by member countries.

²⁷ Given that quarterly data on GDP are not available for most ESCWA countries, business cycle analyses for the region have been based on annual data. Moreover, owing to the political instability prevailing in Lebanon and Yemen in the 1980s, data for those two countries over that period must be considered with a degree of caution; and Iraq and Palestine have been excluded from the analysis due to the lack of reliable data.

²⁸ R. Hodrick and E. Prescott, "Postwar U.S. business cycles: an empirical investigation", *Journal of Money, Credit, and Banking*, vol. 29, No. 1 (February 1997), pp. 1-16.

²⁹ M. Baxter and R. King, "Measuring business cycles: approximate band-pass filters for economic time series", Working Paper No. 5022 (National Bureau of Economic Research, February 1995).

³⁰ Given that the qualitative results using the Baxter-King band-pass filter remained basically unchanged, they are not reported in this study.

In macroeconomic time series analysis, the HP filter has become the most widely used method to decompose a time series into a long-term growth component and a cyclical component. Specifically, this filter minimizes the weighted sum of the following two components: (a) the squared deviations of the filtered series (the growth component) from the unfiltered series; and (b) the smoothness of the filtered series.

The relative weight between these two components is determined by the smoothing parameter, denoted as λ , whereby higher values of λ lead to a smoother trend series.³¹ In order to measure the degree of business cycle synchronization in the ESCWA region, 55 bilateral contemporaneous correlation coefficients were computed on the basis of the cyclical component of real GDP in the 11 ESCWA member countries under study.³²

Several recent studies on business cycle synchronization in various regions across the world have provided estimates for contemporaneous correlation coefficients, including as follows: (a) business cycle co-movements across the United States during the period 1961-2000, which revealed a mean contemporaneous correlation coefficient of 0.78,³³ (b) business cycle co-movements in three Mercosur countries, namely, Argentina, Brazil and Uruguay during the period 1980-2003, which yielded bilateral contemporaneous correlation coefficients in the range of 0.13-0.43,³⁴ and (c) business cycle fluctuations in 12 Mediterranean countries over the period 1950-1998, which revealed generally correlation coefficients in the range of -0.1-0.25.³⁵

These estimates serve as a standard of comparison for the results of this study.

B. BUSINESS CYCLE SYNCHRONIZATION AMONG ESCWA MEMBER COUNTRIES: CORRELATION RESULTS

Table 3 presents the contemporaneous business cycle correlation coefficients between ESCWA member countries over the entire sample period 1980-2004. Overall, the business cycle co-movement among ESCWA member states is relatively low and not homogeneous.

The results from table 3 reflect the importance of country-specific shocks and the low level of economic integration within the region that has limited the spillover effects of these shocks to other countries. Over the past two decades, several ESCWA member countries have suffered from a high degree of political and economic instability.

While the region experienced a number of common shocks, including the consequences of the terrorist attacks of 11 September 2001 on the United States of America, idiosyncratic shocks, which have basically affected one country or a specific set of countries in the region, appear to have dominated the business cycle movements. Examples of such country-specific shocks in the region include Jordan's financial crisis of the late 1980s and the reunification of Yemen in 1990. Owing to the low trade linkages between ESCWA member countries, which were analysed in chapter II, and a generally low degree of policy coordination, the propagation of these shocks to the other economies in the region was limited. In addition, even common

³¹ With λ at infinity, the filter collapses to a linear trend; whereas when λ is zero, the filtered series is identical with the original series. In this study, the smoothing parameter was set at 100, which is the value normally used for annual data.

³² The correlation coefficient can take on values between -1 and +1. A value of +1 signifies that the two business cycles are perfectly correlated, whereas a value of -1 indicates a perfectly negative correlation. If the correlation coefficient is around 0, the two time series are uncorrelated.

³³ M. Kouparitsas, "Understanding U.S. regional cyclical comovement: how important are spillovers and common shocks?", *Economic Perspectives*, Issue Q IV (Federal Reserve Bank of Chicago, 2002), pp. 30-41.

³⁴ J. Fanelli and M. González-Rozada, "Business cycles and macroeconomic policy coordination in Mercosur" (September 2003), which is available at: www.redmercosur.org.uy/espanol03/idrc_2/Business_Cycles_Macroec_%20Policy.pdf.

³⁵ Marco Gallegati, Mauro Gallegati and W. Polasek, "Business cycles' characteristics of the Mediterranean area countries", *Emerging Markets Finance and Trade* (2004), pp. 28-47. Within that context, the maximum value of bilateral business cycle coefficients of 0.41 were found in the case of two country pairs, namely, France and Spain, and Egypt and Greece.

shocks in the form of global macroeconomic developments, including, for example, the steep decline in real oil prices between 1981 and 1985, have had an asymmetric impact on ESCWA member countries.

TABLE 3. BILATERAL CORRELATION COEFFICIENTS OF BUSINESS CYCLES
IN THE ESCWA REGION, 1980-2004

	Syrian Arab									Saudi	United Arab
	Egypt	Jordan	Lebanon	Republic	Yemen	Bahrain	Kuwait	Oman	Qatar	Arabia	Emirates
Egypt	1.00	-0.47	-0.54	-0.45	0.21	-0.29	-0.38	-0.38	0.45	0.20	0.51
Jordan	-0.47	1.00	0.31	0.65	-0.35	0.17	0.47	0.37	-0.31	-0.51	-0.59
Lebanon	-0.54	0.31	1.00	0.60	0.01	0.22	0.38	0.05	-0.29	0.42	-0.11
Syrian Arab											
Republic	-0.45	0.65	0.60	1.00	-0.01	0.22	0.21	0.31	-0.27	-0.07	-0.18
Yemen	0.21	-0.35	0.01	-0.01	1.00	-0.12	-0.53	0.06	0.08	0.53	0.51
Bahrain	-0.29	0.17	0.22	0.22	-0.12	1.00	0.15	0.33	-0.34	-0.16	0.02
Kuwait	-0.38	0.47	0.38	0.21	-0.53	0.15	1.00	-0.01	0.02	-0.18	-0.50
Oman	-0.38	0.37	0.05	0.31	0.06	0.33	-0.01	1.00	-0.19	-0.33	0.06
Qatar	0.45	-0.31	-0.29	-0.27	0.08	-0.34	0.02	-0.19	1.00	0.19	0.27
Saudi Arabia	0.20	-0.51	0.42	-0.07	0.53	-0.16	-0.18	-0.33	0.19	1.00	0.57
United Arab											
Emirates	0.51	-0.59	-0.11	-0.18	0.51	0.02	-0.50	0.06	0.27	0.57	1.00

Source: Compiled by ESCWA based on ESCWA national accounts data.

Note: Business cycles were computed by decomposing annual GDP in constant 2000 United States dollars, using the HP filter.

However, when taking a closer look at the correlation table above, the results suggest the existence of several significant links among ESCWA member countries.

Specifically, within the group of MDEs, there is a strong co-movement of the business cycles in Jordan, Lebanon and the Syrian Arab Republic. The respective correlation coefficients are 0.31 between Jordan and Lebanon, 0.60 between Lebanon and the Syrian Arab Republic, and 0.65 between Jordan and the Syrian Arab Republic. The business cycle of Egypt, by contrast, is negatively correlated with the business cycles of these three MDEs, while it shows a significant positive correlation with the business cycles in three GCC countries, namely, Qatar, Saudi Arabia and the United Arab Emirates.

These results basically corroborate the results obtained by Gallegati, Gallegati and Polasek on the business cycles in Egypt, Jordan and the Syrian Arab Republic during the period 1950-1998.³⁶ That study revealed a significant degree of business cycle synchronization between Jordan and the Syrian Arab Republic, at 0.33, while Egypt's business cycle was found to be mainly linked to those in France, Greece, and Morocco.³⁷

Not surprisingly, the results show that the business cycle in Yemen has been strongly correlated with the cycles in neighbouring Saudi Arabia and the United Arab Emirates over the period under consideration.³⁸ During the 1980s, Yemen's economic growth was mainly fueled by worker remittances from much wealthier oil economies in the region, particularly Saudi Arabia. While the ratio of worker remittances to GDP in Yemen has decreased significantly since the early 1980s, the national economic performance still depends to a large extent on developments in neighbouring countries.

³⁶ Ibid.

³⁷ Ibid.

³⁸ In order to address the issue of the reunification of Yemen, this study has calculated bilateral business cycle correlation coefficients covering only the period after the reunification, namely, 1990-2004. The resulting correlation coefficients were fairly close to those for the entire sample period and are therefore not reported.

Among the countries of the GCC, the only significant positive co-movement of business cycles was found for Saudi Arabia and the United Arab Emirates with a correlation coefficient of 0.57. The business cycle in Qatar appears to be weakly correlated with the cycles in those two countries. By contrast, the business cycles in Bahrain, Kuwait and Oman were found to be uncorrelated or even negatively correlated with those in Qatar, Saudi Arabia and the United Arab Emirates. While this result can seem surprising at first, some country-specific factors could explain, at least partially, the missing links between the respective business cycles.

Over the past two decades, Bahrain has had a substantially more diversified economic structure than the other GCC countries, which implies a lower dependence on the developments in international oil markets. Even in 1980, which was a year marked by very high oil prices, the oil and gas sector in Bahrain contributed only some 35 per cent to GDP.³⁹ This contrasts starkly with other GCC countries where the oil and gas sector accounted for more than 65 per cent of GDP in 1980. Moreover, like Oman, Bahrain is not a member of the Organization of Petroleum Exporting Countries (OPEC). As a result, Bahrain's economic cycle in the past two decades has been significantly less prone to fluctuating international oil markets.

In the case of Oman, two factors have contributed to the idiosyncratic business cycle movement. First, as a non-member of OPEC, Oman's oil production and export revenues have followed a different pattern to those of Qatar, Saudi Arabia and the United Arab Emirates, particularly during the 1980s. Moreover, per-capita income in Oman at the beginning of the period was significantly lower than in other GCC countries. The "catching-up" experience during the 1980s with high economic growth rates until 1986 could have isolated the business cycle in Oman from its neighbours in the Gulf sub-region.

Finally, the results for the business cycle in Kuwait have to be taken with a degree of caution given that they reflect, to a large extent, the impact of the occupation by Iraq in 1990 and the subsequent economic recovery.

³⁹ Estimates are based on ESCWA National Accounts Studies data.

IV. BUSINESS CYCLE SYNCHRONIZATION AND TRADE LINKAGES

Chapter III studied the level of business cycle synchronization in the ESCWA region during the past two decades, and identified several important links between country groups despite the absence of a clear overall pattern. This chapter investigates the relation between bilateral co-movement of business cycles and trade intensities. Specifically, the analysis focuses on whether during the period 1980-2004 stronger trade linkages between two ESCWA member countries have been associated with a stronger co-movement of the respective business cycles. The answer to this question is of particular relevance in the context of the OCA approach.

As emphasized above, business cycle synchronization is one of the key criteria to assess the perspectives of creating a monetary union. At the same time, chapter II highlighted the need for ESCWA member countries to strengthen intraregional trade linkages in order to reduce dependence on global markets and reach a higher, less volatile growth path. If historical data suggest that higher trade intensities are positively associated with stronger business cycle synchronization, then increased intraregional trade can prepare the ground for future monetary integration in the ESCWA region. If, on the other hand, higher trade intensities are likely to result in lower degrees of business cycle synchronization across member countries, then monetary integration could be unsuitable. As a matter of course, a comprehensive evaluation of the costs and benefits of creating a monetary union in a specific region needs to go far beyond the topic addressed in this chapter. However, an analysis of the relation between trade linkages and business cycle co-movement provides a major first step in terms of assessing the prospects of further macroeconomic integration, with the ultimate aim of forming a monetary union.

A. TRADE AND ITS IMPLICATIONS FOR BUSINESS CYCLE SYNCHRONIZATION

From a theoretical perspective, it is unclear if increased trade linkages between countries leads to higher or lower synchronization of their business cycles. According to traditional models of international trade, including the Ricardo and Heckscher-Ohlin model, opening to trade results in diverging production structures across countries as the trading partners specialize in areas where they have a comparative advantage. In this case, most cross-border trade is expected to be inter-industry trade. If business cycle movements are mainly driven by industry-specific technology shocks, a negative relationship between international trade linkages and business cycle synchronization could be expected.

On the other hand, new trade theory has re-examined traditional trade models based on comparative advantages and has provided explanations for the escalating volume of intra-industry trade.⁴⁰ If intra-industry trade dominates inter-industry trade, increased trade linkages should result in greater business cycle synchronization given that industry-specific shocks affect trading partners in a similar way.

Moreover, if aggregate demand shocks rather than industry-specific technology shocks are the major driving force of business cycle fluctuations, higher trade intensities are expected to lead to stronger international spillover effects. Consequently, country pairs that trade more with each other should have more synchronized business cycles.

While theoretical trade and business cycle models provide ambiguous predictions concerning the relation between trade linkages and business cycle co-movement, recent empirical studies have mainly found a positive relation between the two variables in the case of industrialized countries.⁴¹ Using annual data for 147 countries over the period 1960-1999, Calderon, Chong and Stein found that the impact of trade intensity on business cycle synchronization was positive for developing country pairs, albeit significantly lower than

⁴⁰ P. Krugman, *Geography and Trade* (Leuven University Press and MIT Press, 1991).

⁴¹ See for example J. Frankel and A. Rose, "The endogeneity of the optimum currency area criteria" (National Bureau of Economic Research, August 1996); A. Rose and E. van Wincoop, "National money as a barrier to international trade: The real case for currency union", *The American Economic Review* (May 2001), pp. 386-390; and M. Baxter and M. Kouparitsas, "Determinants of business cycle comovement: a robust analysis", *Journal of Monetary Economics*, 52 (2004), pp. 113-157.

for industrialized country pairs.⁴² By contrast to most other studies, the business cycle co-movement in 11 Asian-Pacific economies revealed that stronger trade linkages between countries were likely to lead to more idiosyncratic business cycles and therefore to lower correlations of economic activity.⁴³

B. EMPIRICAL STRATEGY

This section provides empirical evidence on the relationship between bilateral trade intensities and bilateral business cycle correlations for 11 ESCWA member countries.⁴⁴

As outlined in chapter III, the bilateral correlation coefficients are based on the cyclical component of real GDP, which was obtained by applying the HP filter to the original real GDP time series. For the empirical analysis in this chapter, the sample is split into two sub-periods, namely, 1980-1991 and 1992-2004, such that a total of 110 country-pair correlation coefficients are calculated.

For each country pair, the bilateral trade intensity in period t is measured by the ratio of total bilateral trade flows in t to total exports and imports of the two countries in t :

$$TI_{ijt} = \frac{X_{ijt} + M_{ijt}}{X_{it} + X_{jt} + M_{it} + M_{jt}} \quad (1)$$

In equation (1), TI_{ijt} denotes the bilateral trade intensity between countries i and j in period t ; X_{ijt} denotes total nominal exports from country i to country j in t ; M_{ijt} denotes country i 's total nominal imports from country j in t ; X_{it} and X_{jt} denote total global exports of countries i and j in t ; and M_{it} and M_{jt} denote total global imports of countries i and j in t .

This measure, which corresponds to the third proxy used by Frankel and Rose, provides a more comprehensive assessment of bilateral trade than alternative indicators that use only export or import data.⁴⁵ Higher values of TI_{ijt} indicate greater trade intensity between the two countries in period t .

According to equation (1), 55 bilateral trade intensities were calculated for each sample year. Annual data on bilateral trade intensity were then averaged over the two sub-periods.⁴⁶

In order to assess the impact of trade intensity on business cycle co-movement, the following equation was estimated:

⁴² C. Calderon, A. Chong, and E. Stein, "Trade intensity and business cycle synchronization: Are developing countries any different?", Working Paper No. 478 (Inter-American Development Bank, January 2003).

⁴³ Consequently, the creation of an Asian-Pacific monetary union was not recommended for the near future. Y. Lee, "Trade, international business cycles, and the optimum currency area" (Department of Economics, Southern Illinois University, February 2004).

⁴⁴ As in preceding chapters, the analysis covers the period 1980-2004; and Iraq and Palestine are excluded from the analysis owing to the lack of reliable data.

⁴⁵ J. Frankel and A. Rose, "The endogeneity of the optimum currency area criteria" (National Bureau of Economic Research, August 1996).

⁴⁶ Data on bilateral and total trade flows for the period 1980-2004 are taken from International Monetary Fund (IMF), *Direction of Trade Statistics Yearbook 2004* (IMF, November 2004). Moreover, in the case of Yemen, data on trade flows is only available since 1990. The average values of bilateral trade intensities for the first sub-period 1980-1991 are therefore calculated by averaging over only two observations.

$$corr_{ij\tau} = \alpha_0 + \beta \ln TI_{ij\tau} + \varepsilon_{ij\tau} \quad (2)$$

In equation (2), $corr_{ij\tau}$ denotes the business cycle correlation coefficient between country i and country j over time period τ ; $\ln TI_{ij\tau}$ is the natural logarithm of the average bilateral trade intensity over time period τ ; and $\varepsilon_{ij\tau}$ is an error term that captures unobserved factors affecting the bilateral business cycle correlations.

The main interest lies in the sign and the size of the coefficient β , which determines the impact of trade intensity on business cycle co-movement among ESCWA member countries.

A simple ordinary least squares (OLS) regression of equation (2) is likely to lead to biased and inconsistent estimates for β given that trade intensity itself can be an endogenous variable.⁴⁷ During the period under study, the majority of ESCWA member countries have changed their exchange rate regimes, moving to a hard peg to the United States dollar. Currently, with the exception of Egypt and Yemen, all ESCWA member countries profiled in this study have pegged their national currencies to the dollar. Given partially liberalized capital accounts in these countries, except in the Syrian Arab Republic, monetary policy is not set independently by national central banks, rather it depends to a significant extent on monetary policy actions taken by the United States Federal Reserve Board. Consequently, over the past two decades, the exchange rate regime could have had a strong impact on both business cycle correlations and on bilateral trade linkages.

In order to solve the problem of endogeneity of the explanatory variable, equation (2) was estimated using the instrumental variable approach proposed by Frankel and Rose.⁴⁸ This two-stage least squares method provides a consistent estimator of the coefficient β . Accordingly, in the first step, adequate instruments for the explanatory variable “bilateral trade intensity” have to be identified. To that end, a variant of the bilateral gravity model of international trade was estimated using OLS. The second step of the approach uses the values for the bilateral trade intensities predicted by the gravity model to estimate equation (2) using OLS. Given that the predicted values of the trade intensities are used in place of the actual ones, the two-stage least squares estimates can differ substantially from standard OLS estimates of equation (2) that do not take into account the potential problem of endogeneity.

In its basic version, the gravity model of trade holds that trade between two countries is proportional to their combined economic mass, which is usually substituted by GDP, and inversely proportional to the distance between them. In this section, the following explanatory variables for bilateral trade intensity are considered when specifying the gravity model equation:

(a) *DIST*, which represents the geographical distance between the two countries and is measured in kilometres by the “greater circle” distance between the two respective capitals. Bilateral trade intensity is expected to be a negative function of geographical distance. The regression estimated here includes the distance variable in logarithmic form;⁴⁹

(b) *BORDER*, which is a dummy variable that takes the value 1 if the two countries share a common border and 0 otherwise. It is expected that country pairs with a common border have higher trade intensities;

(c) *GCC*, which is a dummy variable that takes the value 1 if both countries belong to the Gulf Cooperation Council and 0 otherwise. This variable is supposed to capture the effects of the free trade agreement among the countries of the GCC. Trade intensities are expected to be higher between two GCC member countries than between two MDEs or between one GCC member country and one MDE.

⁴⁷ J. Frankel and A. Rose, op. cit.

⁴⁸ Ibid.

⁴⁹ Within that context, relevant data are taken from the website of the United States Department of Agriculture (USDA), which is available at: www.wcrl.ars.usda.gov/cec/java/capitals.htm.

By contrast to most traditional gravity models where bilateral trade flows rather than bilateral trade intensities are used as the dependent variable, the specification presented here does not include combined income or GDP as an explanatory variable. While the economic size of the two countries certainly matters for the value of the trade flows between them, it is not expected to be a determinant of the associated trade intensity.⁵⁰

Consequently, the gravity equation estimated here takes the following form:

$$\ln TI_{ij\tau} = \alpha_1 + \gamma \ln DIST_{ij} + \delta BORDER_{ij} + \eta GCC_{ij} + \varepsilon_{ij\tau} \quad (3)$$

As noted above, this equation is estimated using OLS. After identifying the variables that are adequate instruments for the bilateral trade intensities in the ESCWA region, equation (2) was estimated using the predicted values of the trade intensities to explain the observed business cycle correlation coefficients.

Moreover, this study has examined similarities in production structures between countries as a possible determinant of business cycle co-movement.⁵¹ To that end, an absolute value index for each pair of countries was calculated, using the following formula:

$$\sum_{k=1}^N |S_{ki} - S_{kj}|$$

S_{ki} and S_{kj} denote the GDP shares for sector k in country i and country j, respectively.⁵² Sectoral data were obtained from the ESCWA National Accounts Studies database using a nine-sector classification from the 1-digit level ISIC code.

Equation (2) was then modified to include the structural similarity index in addition to bilateral trade intensities as an explanatory variable for business cycle correlation coefficients. The resulting equation was estimated using simple OLS. Surprisingly, the coefficient on the structural similarity index was highly insignificant, thereby implying that similarities in production structures do not appear to have played a role in business cycle co-movement. Using a large dataset of more than 100 countries, Baxter and Kouparitsas also found that sectoral similarity is not a robust determinant of business cycle co-movement.⁵³

C. IMPACT OF TRADE INTENSITY ON BUSINESS CYCLE SYNCHRONIZATION: EMPIRICAL RESULTS

Table 4 reports the OLS estimates of the determinants of bilateral trade intensities according to the gravity equation (3).

TABLE 4. ESTIMATES OF DETERMINANTS OF BILATERAL TRADE INTENSITIES

	DIST	BORDER	GCC
Trade	-0.59 (-4.86) ^{a/}	0.95 (4.32) ^{a/}	0.17 (0.84)

Source: Calculated by ESCWA.

Notes: t-statistics are in parentheses. Intercepts are not reported.

^{a/} Denotes significance at the 1 per cent level. R-squared is 0.46.

⁵⁰ When the product of GDP per capita was included as an additional explanatory variable of bilateral trade intensity in the gravity model, the respective coefficient turned out to be insignificant in all different specifications.

⁵¹ For more information on this determinant, see J. Imbs, "Trade, finance, specialization and synchronization" *The Review of Economics and Statistics* (MIT Press, 2004), pp. 723-734; and C. Calderon, A. Chong, and E. Stein, "Trade intensity and business cycle synchronization: Are developing countries any different?", Working Paper No. 478 (Inter-American Development Bank, January 2003).

⁵² P. Krugman, *Geography and Trade* (Leuven University Press and MIT Press, 1991).

⁵³ M. Baxter and M. Kouparitsas, "Determinants of business cycle comovement: a robust analysis", *Journal of Monetary Economics*, 52 (2004), pp. 113-157.

As expected, the geographical distance between the two countries is negatively associated with the trade intensity, and the respective coefficient is significant at the 1 per cent level. Consequently, geographical distance is a valid instrument for bilateral trade intensity in our sample.

The coefficient of the border dummy variable has also the expected positive sign, which implies that countries sharing a common border are trading more with each other. The associated coefficient is significant at the 1 per cent level. Consequently, the border variable was used as an instrument for bilateral trade intensity when estimating equation (2).

The coefficient of the GCC dummy variable is positive, albeit insignificant. The coefficient remained insignificant, even when the border dummy was excluded from the gravity model estimation. Consequently, membership in the GCC does not seem to have a significant stimulating impact on trade intensity. In the basic estimation of equation (2), the GCC dummy was therefore not included as an instrument for bilateral trade intensities.

The OLS regression line of the gravity equation appears to fit the data well. The R-squared value of 0.46 is higher than in most related studies.⁵⁴

Table 5 presents the two-stage least squares estimates of equation (2) for our sample. Owing to the results of the gravity model estimation, only geographical distance and the border dummy variable were used as instruments when determining the impact of bilateral trade intensities on business cycle co-movement in the ESCWA region.

TABLE 5. INSTRUMENTAL VARIABLE ESTIMATES OF THE EFFECT OF TRADE INTENSITY ON BUSINESS CYCLE CORRELATION

	Trade intensity
Business cycle correlation	8.9 (1.75) ^{a/}

Source: Calculated by ESCWA.

Notes: Instrumental variables for trade intensities are the natural logarithm of distance and a dummy variable for common border.

t-statistics are in parentheses. Intercepts are not reported.

a/ Denotes significance at the 10 per cent level.

As seen in table 5, the instrumental variable estimate of the coefficient β , which determines the impact of trade intensity on business cycle correlation, is positive and statistically significant at the 10 per cent level. The size of the coefficient lies in the range of the values reported by Frankel and Rose in their instrumental variable estimation on 20 industrialized countries.⁵⁵

This result indicates that in the ESCWA region higher bilateral trade intensities are associated with stronger co-movement of the business cycles.⁵⁶ The result is in line with the findings of most other recent studies on the relation between trade linkages and business cycle synchronization.⁵⁷

⁵⁴ Within that context, related studies include J. Frankel and A. Rose, op. cit.; and C. Calderon, A. Chong, and E. Stein, op. cit. Moreover, the estimation of the gravity model equation results in an unchanged value of R-squared when the GCC dummy variable is excluded.

⁵⁵ J. Frankel and A. Rose, op. cit.

⁵⁶ When the GCC dummy is included as an additional instrument in estimating the equation, the coefficient β is significant at the 12 per cent level.

⁵⁷ As noted above, an exception is the study on Asian-Pacific economies by Lee, who found a negative relation between the two variables and, therefore, did not recommend establishing a currency union in the region. Y. Lee, "Trade, international business cycles, and the optimum currency area" (Department of Economics, Southern Illinois University, February 2004).

Concerning further economic integration, particularly in the light of the OCA approach, this result has an important policy implication. Specifically, if ESCWA member countries are successful in strengthening intraregional trade linkages, it is likely that this can lead to higher degrees of business cycle synchronization in the future. Based on more synchronized business cycles in the region, ESCWA members could then consider closer macroeconomic policy cooperation. Certainly, the current low levels of intraregional trade and business cycle synchronization imply that the time for moving towards a common currency in the region has not yet arrived. However, the countries in the ESCWA region can certainly benefit from closer macroeconomic policy coordination. The different types of policy coordination that are suitable for the countries in the ESCWA region at this stage of the development process are presented in the concluding chapter.

V. SUMMARY, POLICY IMPLICATIONS AND CONCLUSIONS

A. SUMMARY

The average annual growth rate in the ESCWA region increased from 0.3 per cent in the 1980s to 4.5 per cent in the 1990s. Over the whole period, growth in the GCC countries has been significantly lower than in the MDEs. In the second half of the 1980s, the economic conditions in the ESCWA region improved and GDP growth rates were higher than those in middle-income countries. While GDP volatility in the region was very high in the early 1980s, it has since declined. However, these favourable trends of growth and volatility during the 1990s did not translate into a substantial increase in per capita income owing to the high rate of population growth.

Overall, macroeconomic stability has improved substantially during the past two decades. In the 1980s and early 1990s, some ESCWA members, particularly MDEs, experienced high and volatile inflation rates, in addition to high levels of nominal interest rates. Since then, inflation rates have been contained and nominal interest rates have been reduced to levels that are more conducive for investment in the region.

With respect to exchange rate policies, most countries of the region have pegged their national currencies to the United States dollar. While this strategy has certainly contributed to the observed stabilization of the macroeconomic environment in the region, some member countries have suffered from the negative effects of a persistent overvaluation of their currency.

While tariffs among Arab countries have been lifted according to the timetable set by GAFTA, intraregional trade in the ESCWA region has not increased considerably during the past two decades. Unlike other regions, including NAFTA, EU and MERCOSUR, the share of intraregional trade to total trade remains modest in the ESCWA region. Most of ESCWA's trade is with other regions, with Asia representing the most important trading partner for ESCWA in 2004, followed by Europe, Japan and the United States.

The analysis of trade patterns in the 11 ESCWA member countries has shown that the level of regional integration is low. Regional intra-trade performance improved marginally during 1980-2004. Only Egypt, Jordan, Syrian Arab Republic and Yemen experienced a significant increase in the ratio of intraregional trade to total trade. In the remaining member countries, the ratio has either stagnated or decreased. This can be partly attributed to the fact that the international trade of several members has been improving more rapidly than intraregional trade, following concerted efforts aimed at integrating in the global economy as evidenced by various bilateral and multilateral trade agreements.

Moreover, Arab countries face major obstacles to trade cooperation and integration, including, most importantly, similarities in the economic structures and differences in demand structures of member countries; the lack of commitment to regional agreements; and the heavy reliance on trade taxes in some countries, particularly those that are highly indebted. In addition, the economic and trade activities in the region are very vulnerable to political instabilities.

The level of business cycle synchronization in the ESCWA region has been assessed by decomposing the original real GDP time series into a long-term growth component and a cyclical component. The calculated bilateral correlation coefficients show that business cycle co-movement among ESCWA members is relatively low and not homogeneous. This result reflects both the importance of country-specific shocks and the low level of economic integration in the region, which has limited the spillover effects of these shocks to other countries in the region.

Despite the lack of a clear overall pattern, the computed business cycle correlation coefficients suggest the existence of several significant links between ESCWA member countries. First, there appears to be significant co-movement of the business cycles in Jordan, Lebanon and the Syrian Arab Republic. Additionally, the business cycle of Egypt has been negatively correlated with the cycles of these three MDEs, whereas it shows a significant positive correlation with the cycles in three GCC countries, namely, Qatar, Saudi Arabia and the United Arab Emirates. Moreover, the business cycles of Saudi Arabia, the

United Arab Emirates and Yemen seem to be positively correlated. By contrast, the business cycles of the remaining GCC countries do not show any significant positive correlation.

Currently, therefore, neither ESCWA's intra-trade intensity nor its degree of business cycle synchronization appears to make a compelling case for macro coordination within ESCWA member countries.

Macroeconomic volatility is a potential barrier for a country hoping to accumulate the full benefits of trade integration. Consequently, the lack of macroeconomic synchronization among ESCWA members raises new questions on the design of adequate macroeconomic policies to handle volatility. In particular, the major question is whether ESCWA member countries can gain from sharing a common monetary, fiscal or trade policy.

The GCC countries are expected to form a currency union by 2010. The observed dissimilarities of the business cycles among GCC countries could therefore represent a source of anxiety for policymakers. However, these concerns could be unfounded given that the OCA criteria are endogenous. That is, the business cycles of the GCC currency union are likely to converge after the countries adopt a common currency in 2010.⁵⁸ This is corroborated by the econometric results obtained in this study from analysing the effects of trade on business cycle correlations among ESCWA members.

The degree of business cycle synchronization seems to be related to trade intensity, and is not related to economic structure. As such, the gain in business cycle synchronization through future regional trade expansion seems to be reasonably high. These results appear to suggest that trade intensity does induce higher business cycle correlation in the ESCWA region. This finding provides important evidence for policymakers, particularly in the countries of the GCC. Given that the formation of a monetary union is likely to increase intra-trade for member countries, the general criteria of synchronic business cycles for joining a currency union could be fulfilled in the future and satisfied ex-post, if not ex-ante.

The evidence provided in this study shows that there remains a large amount of idiosyncratic fluctuations in MDEs. Moreover, owing to low levels of intraregional trade and the different stages of development between GCC countries and MDEs, the effectiveness of macroeconomic policies is expected to be different between these groups of countries. Consequently, further deepening of economic integration can open the door to extreme types of policy coordination in the very long run, including monetary union. In the near future, different monetary and fiscal policy responses in MDEs are required in order to manage macroeconomic volatility in these countries. The key challenge at the forefront is to improve the monetary and fiscal institutions, thereby enhancing the possibility and the scope for more effective counter-cyclical macroeconomic policy. However, this does not imply that MDEs cannot gain from some particular forms of macroeconomic policy coordination.

B. POLICY IMPLICATIONS

While the ESCWA region is not well integrated, it is interdependent. Consequently, the challenge of integration gives rise to issues that are very different from those raised in the integration processes in other regions. However, when investigating the issue of economic integration in the ESCWA region, the starting point needs to be from the proposition that integration is desirable. Subsequent to such resolve, the issue becomes one of how best to accomplish integration. Within that context, the OCA theory presents only a point of reference that needs to be taken into account when examining the issue.

As discussed in the introduction, the OCA theory explains a set of macroeconomic conditions that must be satisfied for a smooth conversion to a currency union. In a situation where wage-price flexibility is lacking, forming a monetary union or fixing the exchange rate can be costly if an alternative mechanism of macroeconomic adjustment does not exist. This is the case given that the role of the exchange rate policy is

⁵⁸ Various previous studies have shown that the implementation of a currency union can bring on structural changes that facilitate integration and intensify business cycle synchronization.

limited by the joint determination of the policy by the members of the union. It is therefore desirable to create a currency union among countries that have a similar pattern of economic dynamics with respect to the rest of the world. Countries with low levels of intraregional trade that move along parallel paths with respect to other regions of the world are as valid members of a currency union as strong trading partners.⁵⁹

For such countries, the issue in this case is to identify and analyse the sources of benefits and the specific conditions arising from a currency union. The literature on the topic proposes that a common currency could be a powerful tool of economic integration as a result of its impact on the convergence of trade and business cycles. That is, the existing evidence suggests that the adoption of a common currency has a significantly positive impact on trade. These results provide support to the hypothesis that important beneficial effects of currency unions come through the promotion of trade.

Every process of regional integration is founded on the decision of member countries to arrive at a number of common goals and objectives by applying common regional policies and instruments.⁶⁰ If countries chose not to coordinate their policies, they would be in a constant process of competition, particularly, for example, in terms of attracting foreign investment. Moreover, higher degrees of coordination of macroeconomic and institutional policies lead to larger markets that foster economies of scale, reduce transaction costs and enhance transparency of the economic system. This can result in an increase of investment rates, which positively affects growth. It is therefore crucial for members to cooperate in an attempt to reduce differences in some fields of policies and rules and regulations.

The literature identifies three different categories of policy cooperation, each involving a different level of commitment and interdependence among member countries.⁶¹ Policy coordination means choosing common objectives and policy rules by the members, including, for example, a common currency, fiscal redistribution agreements, and/or fiscal rules.⁶² Accordingly, national policies are determined and applied in the light of policies and objectives of other members of the union.

While a looser or less formal coordination to suit national interests is certainly possible, its appeal is not directly linked to the level of synchronicity of business cycles. More significantly, loose coordination without binding agreements to which the authorities can be held accountable and without institutions to enforce them is not likely to be credible or effective.⁶³ Looser forms of policy coordination include convergence and harmonization. Policy convergence implies fixing some criteria that each member country has to follow in an attempt to reduce the differences of national objectives in such areas as unemployment, inflation and economic development. Policy harmonization means adopting a common group of norms by the members in order to decrease the margin of adopting discretionary policies opposed to the interests of the union, thereby achieving higher degrees of similarity of economic decisions and policies.

1. Arguments for policy coordination

Policy coordination is based on two types of arguments, namely, economic and political. Within the context of the former, coordinated stabilization policy results in a higher level of welfare if cyclical fluctuations are transmitted across economies. Moreover, countries with a history of poor policy credibility can obtain the higher credibility of the anchor country in a union.

⁵⁹ K. Matsaseng and N. Viegi, "African economic integration: Is a common currency a necessary condition?" (University of Natal, South Africa, 2005).

⁶⁰ A. Hoste, "Macropolicy coordination within Mercosur: What role for international organizations?", which was presented to the Postgraduates in Latin American Studies (PILAS) Annual Conference (Hull, United Kingdom of Great Britain and Northern Ireland, 4-5 December 1999).

⁶¹ Ibid.

⁶² Within that context, the European Union's Stability Pact provides a valuable example of established fiscal rules.

⁶³ B. Eichengreen, "What macroeconomic measures are needed for free trade to flourish in the Western hemisphere?", which was presented to the Conference on Integrating the Americas (Washington, 21-22 November 2002).

Monetary unification between the countries involved is the extreme form of coordination. This can take the form of either a currency union as in the case of the EMU, or through unilateral adoption by one country of the currency of another country.

There are several advantages of a common currency. The gains from a currency union in terms of increases in efficiency arise primarily from three different sources. The first is based on the fact that the elimination of exchange rate uncertainty reduces transaction costs for those engaged in trade. On the one hand, exchange rate stability leads to lower costs of hedging against exchange rate risk. This gain is more important if the economy is more open (higher share of trade to GDP), even if the overall level of trade does not change. On the other hand, a common currency eliminates transaction costs usually incurred when trade and investment transactions need currency conversion.

The second advantage of a fixed exchange rate stems from the fact that it assists in stabilizing the price level. Again, the benefits are more significant when the economy is more open. The third advantage relates to the determination of a long-term growth path. Specifically, currency unions are likely to increase trade openness, which in turn can raise real income. The results of Frankel and Rose show that membership in a typical currency union raises the ratio of trade to GDP.⁶⁴

By contrast to these benefits, the loss of monetary independence entails costs. The extent of this loss is influenced by two main factors, namely: (a) the degree of synchronicity of the business cycles of member countries; and (b) the degree to which a country can adjust to idiosyncratic shocks in the absence of independent national monetary policy by means of such alternative mechanisms as wage and price flexibility, international labour mobility and redistributive fiscal policy agreements among potential member countries of a union. However, these disadvantages can be largely reduced if prices and wages are flexible. In addition, high degrees of labour market mobility enable member countries in a currency union to absorb shocks of an asymmetrical nature.⁶⁵

The second argument to support stronger policy coordination is political.⁶⁶ Tighter policy coordination further facilitates the cause of economic integration. Adopting common policies is more logical as part of a long-term process of intensifying economic integration, including, for example, the process currently being pursued by the EU. Within the framework of the Maastricht Treaty for Economic and Monetary Union, policy convergence among EU member countries was a logical step towards a monetary union, while simultaneously being another step in the political and institutional integration of Europe.⁶⁷ In addition, higher degrees of policy coordination increase the region's bargaining power in international negotiations, including those with the WTO.

2. Policy implications for the countries of the GCC

Empirical results on business cycle synchronization show that the countries of the GCC probably do not currently fulfil the criteria of optimum currency area. However, an argument for proceeding and forming a monetary union in 2010 is the endogeneity of the OCA criteria. By adopting a common currency, the GCC countries are eventually set to promote intraregional trade and, as a result, to increase the synchronization of their business cycles. Moreover, by way of more policy coordination, the increased intra-GCC trade will in turn further increase the advantages of a common currency, while the increased synchronization will

⁶⁴ J. Frankel and A. Rose, *op. cit.*

⁶⁵ T.K. Jayaraman, "Dollarisation of the South Pacific Island Countries: results of a preliminary study" (University of the South Pacific, February 2005), pp. 197-227.

⁶⁶ D. Lederman, W. Maloney and L. Serven, "Lessons from NAFTA for Latin America and the Caribbean countries: A summary of research findings" (the World Bank, 2003).

⁶⁷ For more information on the relationship between political and policy integration see B. Eichengreen, "On the links between monetary and political integration", Paper C96-077 (Institute of Business and Economic Research, Center for International and Development Economics Research, 1996).

minimize the disadvantages of a common currency.⁶⁸ The GCC countries could therefore eventually meet the criteria ex-post, even if they are not met ex-ante. This argument is particularly important for Bahrain and Oman, given that the business cycles of these two countries during the past two decades have shown a pattern that is entirely different from those observed in Saudi Arabia and the United Arab Emirates.

Currently, the GCC countries have extensive trade, financial and investment linkages. Given that these economies share common cyclical variations, fixed exchange rates and interest rates, the potential costs of surrendering policy autonomy appear to be low and are likely to be outweighed by the potential benefits derived from the imminent 2010 currency union arrangement. Moreover, given that a large share of GCC trade is with countries in Asia and Europe, the GCC countries need to consider a peg for the common currency to a basket of currencies, rather than purely to a dollar peg.

3. *Policy implications for MDEs*

Empirical results show that there is no clear pattern with regard to business cycle synchronization among MDEs, and between MDEs and GCC countries. With the exception of Jordan, Lebanon and the Syrian Arab Republic, the level of intra-trade is low and macroeconomic volatilities are mainly caused by idiosyncratic shocks.

In the light of the macroeconomic synchronization of some MDEs, the question is whether these countries can benefit from coordinating their policies and adopting the same economic policies as those of the GCC. While developments in the economies of the GCC can explain some of the variations in the macroeconomic variables of MDEs, the extent of asymmetric shocks and their role in national GDP growth variability is still significant. Overall, there appears to be little ground for policy coordination among these countries alone or with the forthcoming GCC monetary union.

While the extent of idiosyncratic shocks could eventually weaken with deeper economic integration, proposing a currency union for MDEs alone or with the eventual GCC monetary union is currently inopportune and unrealistic. Consequently, any potential gains in terms of economic stability or higher policy credibility are outweighed by the costs associated with the loss of policy autonomy in MDEs arising from more coordination. Furthermore, the lack of regulations and mechanisms for joint formulation and enforcement of policies, in addition to substantial disparities in endowment and economic size among ESCWA member countries provide little space for effective policy coordination at the present time.

Moreover, market adjustment mechanisms, including price-wage flexibility, is lacking in most ESCWA member countries. Within that context, GAFTA does not offer open and unrestricted labour mobility or the necessary schemes of fiscal transfers to assist these countries in terms of adjusting to asymmetric shocks and of compensation for the lack of sovereign national macroeconomic policies.

One more daunting factor is the significant differences in macroeconomic conditions and levels of institutional development in the ESCWA region. Within the context of current conditions, the question then is whether ESCWA member countries are suitable for more policy coordination.⁶⁹ The diversity in initial economic conditions in ESCWA member countries makes it more important to focus on specific challenges of individual countries. While a number of ESCWA members exhibit strong indicators of economic activity, some are still in the early stages of economic development and have to tackle such problems as poverty, poor social development and immature financial markets.⁷⁰ These facts suggest that MDEs do not currently meet the standard criteria for an OCA with countries of the GCC.

⁶⁸ J. Frankel, "Real convergence and Euro adoption in Central and Eastern Europe: trade and business cycle correlations as endogenous criteria for joining EMU" (2004), which was presented at the Conference on Euro Adoption in the Accession Countries – Opportunities and Challenges, (Prague, 2-3 February 2004).

⁶⁹ The same issue is raised from a Latin American perspective by D. Lederman, W. Maloney and L. Serven, "Lessons from NAFTA for Latin America and the Caribbean countries: A summary of research findings" (the World Bank, 2003).

⁷⁰ For more on the financial development in the ESCWA region, see ESCWA, "Economic trends and impacts, banking sector lending behavior and efficiency in selected ESCWA member countries (E/ESCWA/EAD/2005/7).

4. *Options for increased policy coordination in the ESCWA region*

Macroeconomic stabilization policies are expected to vary across the economies of the ESCWA region for several reasons. With respect to monetary policy, countries with underdeveloped financial markets and low levels of domestic credit to the private sector possess interest rate and credit transmission mechanisms that are less effective than their counterparts with more developed financial sectors.⁷¹

With regard to fiscal policy, the extent of implementing counter-cyclical fiscal policies is restricted by two factors, namely:

(a) The lack of policy credibility: The track record of MDEs in terms of large budget deficits, public debts and balance of payment problems has led participants in financial markets to be suspicious with regard to the use of automatic fiscal stabilizers during recessions. The reason is that these stabilizers can indicate continuously increasing budget deficits and the deterioration of public sector solvency, rather than merely counter-cyclical adjustments of a temporary nature;

(b) Insufficient tax collection: In most MDEs, unstable resource revenues dominate tax collection, especially if they are derived from such sectors as tourism or are dependent on volatile oil exports. This often results in a pro cyclical fiscal response that increases macroeconomic fluctuations rather than reduces them. Consequently, achieving a strong fiscal position requires these countries to implement sound macroeconomic policies, including the improvement of tax administration and the adoption of modern tax systems, thereby widening the revenue base and making up for lost income from deteriorating tariff revenues resulting from joining GAFTA.

While maintaining prudent fiscal policies could reinforce credibility over time, it could also be supported by explicitly adopting cyclically adjusted fiscal targets. This requires disciplinary fiscal behaviour during favourable times and building precautionary savings in order to provide room for budget deficits during recessions and in case of external shocks. Moreover, the control of public expenditures and budget deficits is essential to create room for further declines in interest rates, particularly in view of high public debt levels in such MDEs as Jordan and Lebanon.

However, this does not imply that MDEs cannot gain from particular forms of macroeconomic policy coordination. Specifically, there are six types of macroeconomic policies that need to be taken into account to improve policy coordination within the ESCWA region. These are reviewed below.

(a) *Trade policy coordination*

Historically, trade between ESCWA member countries and partners outside the region has been important and well integrated to the global setting. However, there is a need to intensify intraregional trade by proceeding further with trade liberalization anchored in free and open regionalism. ESCWA members need to abolish all the obstacles that have so far hindered the intensification of trade across the region.

While trade agreements within the frameworks of GAFTA and GCC constitute a step in the right direction, more efforts are still needed to enhance and stimulate trade flows within the region. In general, while tariffs between GAFTA members have been abolished, other non-tariff barriers still hinder the intensification of trade. Moreover, members must settle the issue of exemptions from tariff-abolition, which substantially obstructs regional trade integration.

External trade policy of the ESCWA region with regard to other regions is another area of trade policy that has to be considered at a regional level. A concerted effort allows ESCWA member countries to have more say and influence on the international arena, especially during future negotiation rounds with WTO and the EU.

⁷¹ D. Lederman, W. Maloney and L. Serven, op. cit.

(b) *Monetary and financial policy coordination*

Financial sectors in a large number of ESCWA member countries are underdeveloped and largely comprise traditional banking activities.⁷² Consequently, the financial sector can suffer from a heavy reliance on highly volatile and more expensive foreign debt, which in turn is more vulnerable to external shocks and risks of capital flight. Within that context, it is recommended to develop a regional bond market through the promotion of domestic markets, both for Government and corporate bonds. A regional bond market could potentially promote and facilitate the recycling of surplus domestic savings in the ESCWA region, which would otherwise be deposited outside the region. Moreover, a regional bond market could be instrumental in further reducing the need of countries to depend on the highly volatile short-term debt, thereby minimizing the risks of financial crises.

In addition, ESCWA member countries need to improve financial policy coordination in order to allow them to deal more effectively with financial and monetary imbalances. This can be achieved by enhancing regional financial integration. An integrated ESCWA capital market, for instance, could lower the region's interest rates, thereby benefiting those ESCWA member countries burdened with high levels of debt. Specifically, a larger, more integrated regional market can achieve the following: (a) reduce the substantial costs associated with servicing the accumulated public debt; (b) lower the cost of raising capital, thereby allowing companies in the region to rely increasingly on the local market for economic resources rather than on the world market; and (c) lower capital-raising costs, which translates into higher investment and GDP growth rates.⁷³

(c) *Exchange rate policy coordination*

It is generally accepted that the stability of monetary policy is essential for any country wishing to provide a stable environment for trade and confidence to investors. This requires monetary authorities to stabilize and, therefore, to harmonize exchange rates.⁷⁴

Despite the necessity of harmonizing exchange rates, coordinating such policies in the ESCWA region is set to be a lengthy process. Currently, member countries have different exchange rate policies, which hinder efforts to coordinate such policies. For example, while Egypt has a free-floating exchange rate, other MDEs have fixed exchange rate regimes pegged to the dollar. A peg to a basket of currencies could be more appropriate than a pure dollar peg, particularly for those ESCWA members engaged in a significant amount of trade with countries in Asia and Europe.

In all cases, those countries maintaining fixed exchange rate arrangements must implement crisis-prevention measures by exercising fiscal discipline, managing their debt levels and foreign reserves, and by avoiding strong real exchange rate appreciation. Countries in the ESCWA region could eventually adopt a common currency once they have improved their monetary and fiscal infrastructures and have become more integrated with global capital markets.

(d) *Fiscal policy coordination*

Fiscal coordination in the ESCWA region could take the form of learning from the fiscal experiences of neighbouring countries and adapting successful ones to improve efficiency. Furthermore, a stable and

⁷² See ESCWA, "Economic trends and impacts, banking sector lending behavior and efficiency in selected ESCWA member countries (E/ESCWA/EAD/2005/7).

⁷³ For an overview of stock markets in the ESCWA region and the challenges and opportunities of stock market networking the region, see ESCWA, "Responding to globalization: stock market networking for regional integration in the ESCWA region (E/ESCWA/GRID/2003/37).

⁷⁴ Within the context of the Mercosur region, this issue was underscored by A. Hoste, "Macropolicy coordination within Mercosur: What role for international organizations?", which was presented to the Postgraduates in Latin American Studies (PILAS) Annual Conference (Hull, United Kingdom of Great Britain and Northern Ireland, 4-5 December 1999).

balanced budget has a positive impact on national economic development. Coordination in this regard could reinforce the sense of a common market when applying similar fiscal laws across the region.⁷⁵

Another form of coordination lies in establishing a mechanism of fiscal redistribution, especially for countries with problems of public debt. This type of coordination could be necessary given that several MDEs are experiencing difficult fiscal positions, chronic fiscal deficits and balance of payments problems. Consequently, the creation of a regional fiscal institution that allows policymakers to implement these rules and abide by them could be a further step towards macroeconomic convergence.

(e) *Development policy coordination*

Several economic development projects have a regional dimension, particularly those connected with improving the infrastructures and transport networks. Policymakers must therefore focus on such projects given that these can intensify intraregional trade and promote regional integration.

Another aspect of regional development policy is the establishment of a development fund aimed at supporting the less developed countries of the ESCWA region, reducing poverty and promoting social development activities. This is expected to improve the standard of living in these countries and close the stark income disparities across the region.

(f) *Labour policy coordination*

ESCWA member countries need to coordinate their labour policies in order to progress to a free movement of national labour across the region. This can be achieved by removing all barriers to the free movement of national labour and by relaxing laws on immigration. This policy has a positive impact on macroeconomic indicators, including unemployment and poverty, and represents a step forward for GAFTA to become a common market.

C. CONCLUSIONS

The econometric results obtained in this study show that the degree of business cycle synchronization seems to be related to trade intensity. These results suggest that trade intensity does induce higher business cycle correlation. This finding can be important for policymakers, particularly in the GCC. Given that the establishment of a monetary union could increase intra-trade for the potential member countries, the general criteria of business cycles synchronization for joining a currency union could be fulfilled in the future and satisfied ex-post, if not ex-ante.

The risks of asymmetric shocks in the meantime are significant. ESCWA intra-trade can be expected to increase following the full implementation of GAFTA. Along with deeper trade links, business cycle synchronization can also be expected to rise further. However, the shift in trade patterns and synchronization will be extended over time. The reason is that the effects of the membership in a free trade agreement or a common market develop gradually.⁷⁶

As a result, the optimal strategy for MDEs could be to wait a few years after GCC countries form a monetary union before engaging in any further form of policy coordination with the GCC countries. It is expected that, with time, the integration process will proceed further. Subsequently, economic convergence will have proceeded far enough that shocks of an asymmetric nature and contagion pose less of a risk. There is another valid reason for waiting, namely, the lessons that can be learnt from the GCC countries once they have adopted their common currency in 2010.

⁷⁵ Ibid.

⁷⁶ J. Frankel, "Real convergence and Euro adoption in Central and Eastern Europe: trade and business cycle correlations as endogenous criteria for joining EMU" (2004), which was presented at the Conference on Euro Adoption in the Accession Countries – Opportunities and Challenges, (Prague, 2-3 February 2004).

Moreover, provided that monetary union is the ultimate objective for the ESCWA region, the overwhelming long-term challenge will be to ensure the achievement of a realistic degree of macroeconomic convergence in the regional economies. Consequently, the ESCWA region must still come up with a commitment and a mechanism of enforcement in order to further intensify economic integration. This will allow for future macroeconomic policy coordination, which is instrumental for future regional convergence. In other words, effective regional policy coordination necessitates first and foremost a political commitment from all ESCWA members for a set of common policy goals and objectives.

It is important to emphasize that there is no inconsistency between the long-term strategies that lead to strong national currencies or to monetary union.⁷⁷ To a great extent, the requirements are analogous. Both require a solid fiscal position, strong prudential regulations and supervision of the financial system, and flexible labour markets. Despite the final decision concerning the level of policy coordination, the policy agenda therefore needs to be identical.

⁷⁷ This was highlighted in the case of Latin America and the Caribbean by D. Lederman, W. Maloney and L. Servén, *op. cit.*; and E. Hochreiter, K. Schmidt-Hebbel and G. Winckler, “Monetary union: European lessons, Latin American prospects”, Working Paper No. 167 (Central Bank of Chile, July 2002).