MACROECONOMIC POLICY ANALYSIS FOR REGIONAL COOPERATION IN THE ESCWA REGION:

THE EFFECT OF REAL EXCHANGE RATE VARIABILITY ON INTRAREGIONAL TRADE

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Preface

Economic and Social Commission for Western Asia (ESCWA) member countries are opting for increased regional economic integration in the future, as provided for in the Greater Arab Free Trade Area agreement (GAFTA). However, macroeconomic instability in certain parts of the ESCWA region may prove an obstacle to reaching the goal of economic integration, and macroeconomic policy coordination may therefore prove indispensable for successful integration. This study analyses whether macroeconomic instability is a detriment to trade integration in the ESCWA region, as it is the case in other regionally integrating parts of the world, and finds that this is indeed likely to be the case given the high degree of macroeconomic instability, particularly in the more diversified economies of the region. Moreover, policy recommendations for macroeconomic policy coordination to increase macroeconomic stability are provided.

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CONTENTS

Page

Preface iii
Abbreviations and acronyms vii
Executive summary viii
Introduction 1

Chapter

I. EXPERIENCE WITH MACROECONOMIC POLICY COORDINATION AROUND THE WORLD 3

A. Macroeconomic instability as an obstacle to trade integration 3
B. EU: A fully fledged monetary union 5
C. GCC economic cooperation: Toward a single currency 6
D. MERCOSUR: Peer group reviews and a single currency envisaged 6
E. ASEAN free trade area: Macroeconomic surveillance and the revival of the idea of a regional monetary fund 7
F. NAFTA: Absence of macroeconomic policy coordination 8
G. Conclusions 9

II. TRADE INTEGRATION IN THE ESCWA REGION 10

A. Recent attempts at economic integration in the ESCWA region 10
B. How integrated is the ESCWA region? 11
C. Status of macroeconomic policy coordination in the ESCWA region 13

III. IS MACROECONOMIC INSTABILITY AN OBSTACLE FOR ECONOMIC INTEGRATION IN THE ESCWA REGION? 14

A. Macroeconomic conditions affecting real exchange rate developments in the ESCWA region 14
B. An assessment of intra-ESCWA effective exchange rate variability 19
C. Conclusion: Is real exchange rate variability an obstacle to trade in the ESCWA region? 24

IV. OPTIONS FOR MACROECONOMIC POLICY COORDINATION TO ENHANCE ECONOMIC INTEGRATION IN THE ESCWA REGION 29

A. Scale of options for regional macroeconomic policy coordination 29
B. Policy recommendations for the ESCWA region 31

V. CONCLUSION 33

LIST OF TABLES

1. Intraregional bilateral nominal exchange rate volatility, measured as the standard deviation of percentage changes in regional nominal exchange rates 16
2. Average yearly inflation rates of ESCWA member countries 18

CONTENTS (*continued*)

Page

3. Intraregional real exchange rate volatility, measured by the standard deviation of monthly percentage changes in the bilateral real exchange rate, 1990-2000 20
4. The Big Mac™ index, May 2002 22

LIST OF CHARTS

I. Intraregional trade share of region's aggregate GDP, selected years 12
II. Intraregional exports in percentage of total world exports, selected regions and years 12
III. Nominal exchange rates of GCC countries vis-à-vis the Saudi riyal (1995=100) 15
IV. Nominal exchange rates of more diversified economies vis-à-vis the Saudi riyal (1995=100) 15
V. Nominal exchange rates of Yemen vis-à-vis the Saudi riyal (1995=100) 15
VI. Inflation rates for GCC countries, 1980-2000 17
VII. Inflation rates for more diversified ESCWA member countries, 1980-2000 17
VIII. Inflation rate for Yemen, 1990-2000 18
IX. The real exchange rate of GCC countries vis-à-vis the Saudi riyal (1995=100) 19
X. The real exchange rate of more diversified ESCWA member countries vis-à-vis the Saudi riyal (1995=100) 20
XI. The real exchange rate of Yemen vis-à-vis the Saudi riyal (1995=100) 20
XII. Volatilities of bilateral real exchange rates for selected ESCWA member countries vis-à-vis the Saudi riyal, measured as a standard deviation of monthly percentage changes, 1990-2000 21
XIII. RERMIS misalignment measure of the real exchange rate for selected ESCWA member countries, 1980-2000 23
XIV. Egypt's trade with the ESCWA region and real exchange rate misalignment, 1980-1999 25

LIST OF BOXES

1. The link between macroeconomic policies, real exchange rates and economic integration 3
2. The Mexican devaluation of 1994 and protectionist backlashes in the United States 8
3. A timeline of intra-Arab trade agreements 10
4. The recent Egyptian devaluations and effects on trade with other ESCWA member countries 26

Annex 35
References 39

ABBREVIATIONS AND ACRONYMS

AMF	Arab Monetary Fund
AMS	Asian Monetary System
ASEAN	Association of Southeast Asian Nations
EMS	European Monetary System
EMU	European Monetary Union
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
GAFTA	Greater Arab Free Trade Area
GCC	Gulf Cooperation Council
GDP	gross domestic product
IMF	International Monetary Fund
MERCOSUR	Mercado Comun del Sur
NAFTA	North Atlantic Free Trade Agreement
OCA	Optimum Currency Areas
PICAB	Programa de Integracion y Coorperation Argentino-Brasileno
PPP	purchasing power parity
RERMIS	real exchange rate misalignment
RRER	regional real effective exchange rate

Executive summary

Economic and Social Commission for Western Asia (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 in the Greater Arab Free Trade Area (GAFTA) agreement. However, given the unstable macroeconomic environments in certain parts of the ESCWA region, it is doubtful whether pursued macroeconomic policies will provide the required stability for increasing economic integration on a regional scale. Moreover, as regional and global liberalization proceeds, policies formed under former macroeconomic conditions may come increasingly under pressure for not providing the stability needed for sound economic development in the new context of regional integration. Macroeconomic policy coordination, as an integral part of multilateral free-trade agreements in the ESCWA region, may therefore prove indispensable for successful economic integration in the region. This study analyses whether macroeconomic instability is a detriment to trade integration in the ESCWA region, and provides policy recommendations for policy coordination to increase stability. To this end, the relationship between macroeconomic policies and economic integration, as well as the experience of other regions in terms of macroeconomic policy coordination, are discussed. In turn, a comparative analysis of the degree of macroeconomic stability in the ESCWA region is carried out and the impact of real exchange rate variability on trade in this region is assessed. Finally, the options for macroeconomic policy coordination as a tool to limit the current and potential future adverse effects of real exchange rate variability in the region are discussed.

A. Experience with macroeconomic policy coordination around the world

Macroeconomic instability leads to real exchange rate volatility and misalignment (referred to as real exchange rate variability). As the real exchange rate is the relative price at which import and export transactions are conducted, such real exchange rate fluctuations affect trade through two overall channels. The first channel is the uncertainty channel, reflecting that volatile real exchange rate fluctuations result in increased uncertainty concerning the future price of imports and exports and hedging costs, hence increasing the cost and reducing the volume of trade. The second channel is the lobbying channel, reflecting that misaligned real exchange rates result in lopsided relative prices of import-substituting goods, in turn creating backlashes against trade integration and lobbying for increased protection from import competing industries.

These macroeconomic obstacles to trade integration have been realized for some time in many economically integrating regions in the world, and provisions for reducing their detrimental effects have been taken. The most prominent example of this is the European Union (EU), which after many decades of varying degrees of macroeconomic policy coordination has introduced a common currency and a common central bank. In the Gulf Cooperation Council (GCC) countries, the example of the EU is being emulated to some degree, and a timeline for entering into monetary union is set for 2010. In the *Mercado Comun del Sur* (MERCOSUR) region, macroeconomic instability has been severe and is currently threatening the existence of the MERCOSUR agreement. In spite of this, and in spite of numerous attempts at initiating macroeconomic policy coordination between the member countries, the degree of macroeconomic policy coordination has not reached levels which would mitigate the adverse impact on trade integration. The North Atlantic Free Trade Agreement (NAFTA), on the other hand, has not taken any steps toward macroeconomic policy coordination, leaving NAFTA unprepared for future potential macroeconomic instability as was the Association of Southeast Asian Nations (ASEAN) when the Asian financial crisis hit that region. This crisis subsequently triggered a strain of initiatives to increase macroeconomic policy coordination in the ASEAN region, including increased information exchange and proposals for an Asian Monetary Fund.

The experience of integrating regions around the world shows that macroeconomic policy coordination is important for the successful implementation of a free trade agreement in regions with high macroeconomic instability. Moreover, for macroeconomic policy coordination to be successful, political will to implement the policies as well as periods of relative macroeconomic calm for implementation are two important ingredients.

B. TRADE INTEGRATION IN THE ESCWA REGION

An analysis of bilateral trade flows in the ESCWA region shows that intraregional exports have in recent years been declining in percentage of both overall gross domestic product (GDP) and total exports for the ESCWA region, contrary to the experience of other regionally integrating areas of the world. Moreover, the level of intraregional exports is low to begin with compared to other regions, and most notably so when oil-exports are included in the ratios. One reason for the low level of intraregional trade in the ESCWA region is the low complementarity of production capabilities of the countries, but this does not explain the outright fall in intraregional trade over the last decade.

Initiatives to form regional trade agreements to boost intraregional trade in the ESCWA region have been plenty, but so far, none of these agreements have been fully implemented and all have failed for various reasons. The most recent attempt at regional economic integration is GAFTA, for which 12 ESCWA member countries have currently signed up. GAFTA has taken into account some of the problems which resulted in the abandonment of previous trade agreements, but other obstacles have not been addressed, such as macroeconomic instability in the region. No formal initiatives to establish macroeconomic policy coordination have been taken thus far, and there is currently no common vision for establishing such macroeconomic policy coordination in the future.

C. IS MACROECONOMIC INSTABILITY AN OBSTACLE FOR ECONOMIC INTEGRATION IN THE ESCWA REGION?

Most ESCWA member countries peg their nominal exchange rate to the United States of America dollar, generally with a great deal of success, and this is part of the reason why macroeconomic policy coordination is often considered unnecessary for trade integration in the ESCWA region. However, this perception proves wrong when indicators of macroeconomic stability are calculated and compared to other regions of the world.

The average macroeconomic environments of the ESCWA member countries have compared favourably to those of MERCOSUR, NAFTA and ASEAN, all of which have found macroeconomic policy coordination to be a necessary means for enhancing regional integration. However, this favourable picture is due to the relative economic weight of GCC countries in the ESCWA region. When the macroeconomic stability of the more diversified economies are compared internationally, macroeconomic instability turns out to be important. Moreover, real exchange rates have been more volatile for the ESCWA average than those of the EU countries, and macroeconomic instability in the EU has been considered important enough to provide an obstacle for the free movement of goods and services within the single market. Following this international comparison, real exchange rate volatility is very likely to be an obstacle to increasing trade integration in the ESCWA region. An empirical case study of Egypt also shows that Egypt's real exchange rate volatility and misalignment have been slowing the otherwise increasing trade with the ESCWA region.

In brief, real exchange rate volatility, particularly for the more diversified economies of the ESCWA region, is likely to have been a hindrance to trade in the region in the past, and is expected to increasingly provide an obstacle to trade integration in the region due to the ongoing process of globalization and an increasingly volatile macroeconomic environment. Options for macroeconomic policy coordination in the ESCWA region should be considered as a means to limit real exchange rate variability and improve regional integration.

D. OPTIONS FOR MACROECONOMIC POLICY COORDINATION TO ENHANCE ECONOMIC INTEGRATION IN THE ESCWA REGION

A scale of options for macroeconomic policy coordination can be derived from the experience of other regions. Such a scale includes arrangements for exchange of information; arrangements for macroeconomic surveillance and peer group pressure: pact-style arrangements, including enforcement mechanisms as inspired by the European Union's Stability Pact for South Eastern Europe; nominal exchange rate arrangements; and monetary unification. The arrangement that the ESCWA region would benefit from, and could realistically implement, depends on the economic and political particularities of the region.

Looking at specific recommendations for the ESCWA region, it is important that policy makers in the region understand that macroeconomic policy cooperation is a positive sum game, and that all countries in the region stand to lose potentially welfare-enhancing trade integration if such integration is further delayed. Adapting the scale of options above to the context of the ESCWA region, a gradual approach to cooperation is proposed. First, setting up guidelines for effective exchange of information on macroeconomic variables between member countries would be straightforward. Further, forming a consensus on common goals and targets for key macroeconomic variables and instituting a framework for macroeconomic surveillance and peer group pressure to see that member country policies conform to these targets would be desirable. A natural framework for this sort of policy cooperation would be within the GAFTA agreement, with the explicit aim of creating a fruitful environment for trade integration among the member countries. Finally, nominal exchange rate arrangements for sustaining pegged exchange rates in the region should be considered as a preemptive measure against future increases in financial volatility, as capital mobility and financial integration of the ESCWA region increase.

Introduction

ESCWA member countries are aiming for increased regional economic integration. A significant part of economic integration, which is much in focus due to the coming into force of the GAFTA agreement, is the expansion of intraregional trade, thereby allowing a higher degree of inter-Arab specialization and improved allocation and distribution of resources in the region. Moreover, dynamic effects of increased goods market competition, such as improved efficiency, consolidation, and greater opportunities for economies-of-scale, are expected to prepare the Arab economies for goods market competition in the global arena. Although Arab countries face numerous obstacles to increasing regional trade, from lack of mechanisms to commit to and enforce the free trade agreement to a highly troubled geopolitical situation, a consensus exists among ESCWA member countries that Arab economic integration is crucial for meeting the challenges of globalization from a regional stronghold, and is a strategy to boost growth and economic welfare.

Liberalizing trade through reductions in tariffs, as provided for in the GAFTA agreement, is a first and necessary step on the way to increasing trade integration. However, tariffs are far from being the only obstacles to trade. This study deals with the non-tariff obstacle to increasing trade of macroeconomic instability or lack of macroeconomic coordination. Unsustainable or uncoordinated macroeconomic policies often translate into excessive price or exchange rate volatility or misalignment, which in turn affect the real exchange rate and hence competitiveness and trade.

Volatility and misalignment of the real exchange rate are referred to under the common term of exchange rate variability in the following. The effect of real exchange rate variability on trade goes through two main channels: (a) the increased risk involved in engaging in cross-border contracts associated with a volatile real exchange rate and the lopsided competitiveness related to a misaligned real exchange rate, raises the cost of cross-border economic transactions and hence lowers trade, all else being equal; and (b) abrupt changes in the competitiveness of import competing industries stimulate lobbying for increased protection of import competing sectors, in turn affecting trade through political channels and challenging the attitude towards trade liberalization in general.

As the experience of regional economic integration efforts around the world illustrates, an integral part of deepening regional trade integration is some form and degree of macroeconomic policy coordination. The EU has come furthest in its efforts to eliminate macroeconomic instability by having irrevocably locked nominal exchange rates through the introduction of a single currency and a European Central Bank. Other regions, in response to recent macroeconomic instability, which has proved highly disruptive to regional trade, are following in the EU's footsteps, with the GCC countries planning for the introduction of a single currency by the year 2010, and MERCOSUR including a potential future monetary union among the options for increasing macroeconomic policy coordination in the future.

While generally low and stable inflation rates, coupled with the widespread commitment to fixed exchange rate regimes of ESCWA member countries, may lead to the conclusion that macroeconomic instability is not an obstacle to further economic integration in the region, this conclusion may prove wrong for two reasons.

First, economic integration—both regionally and on the global scale—may in itself lead to increasing macroeconomic instability. When capital becomes increasingly mobile across national borders, and nominal exchange rates are fixed, monetary policy becomes increasingly subordinated to defending the nominal exchange rate peg. In the extreme case, free capital movements and pegged exchange rates render the independence of monetary policy obsolete, as interest rates will have to shadow the interest rate of the anchor currency to which national currencies are pegged, irrespective of whether this foreign interest rate level suits the economic situation of the country. The relationship between fixed exchange rate, perfect capital mobility, and independence of monetary policy, usually referred to as the 'inconsistent trio' as the three cannot exist at the same point in time, is considered the main reason for the European Monetary System (EMS) crisis of 1992, as well as the breakdown of the Argentinean currency board, in addition to many other currency crises in recent history. Even though the macroeconomic environment of the ESCWA region in general seems relatively stable and fruitful for increasing economic integration, there is no insurance that this situation will be an everlasting constant in the future of economic cooperation. On the contrary, if not

anticipated and accommodated, the process of economic integration itself may lead to increased macroeconomic instability.

Second, while exchange rates and inflation have been rather stable in the ESCWA region in general, this is not the case for all the member countries, and certainly not for a few key players. Egypt has recently been downgraded by several of the leading sovereign risk rating agencies, after the Egyptian pound was devalued several times over the course of 2000 and 2001 and floated in early 2003, implying extensive real exchange rate volatility of the Egyptian pound and the currency of Egyptian trading partners. Another example is the sustained high interest rates on Lebanese pounds due to exchange market pressure as well as credit pressures from the high public debt, in a situation of economic crisis, which would otherwise require a lowering of interest rates. Coupled with the resulting low—at times negative—inflation rate, this situation has led to an overvalued currency and crowding out of private investments, with adverse effects for trading for Lebanon and its potential trading partners. Other member countries, including Yemen and Jordan, are also facing macroeconomic problems.

The EMS crisis and the Argentinean currency board breakdown led to very different policy responses. The EU allowed a higher degree of floating immediately after the crisis, and eventually introduced a common currency in order to permanently eliminate exchange rate variability. Argentina is now imposing currency controls in a quest to limit the damage, but will eventually find a more development- and growth-friendly solution, most likely within the framework of regional monetary cooperation already on the MERCOSUR drawing table, if the recent macroeconomic upheaval has not definitely shattered the future of MERCOSUR's regional trade integration.

ESCWA member countries can choose to wait for the aftermath of a potential future crisis situation for formulating macroeconomic policy coordination, just as the ASEAN countries realized the importance of macroeconomic policy coordination after the damage to regional trade inflicted by the Asian financial crisis. Or ESCWA can anticipate macroeconomic policy coordination as an integral part of regional economic integration, as was the case in the EU, where such coordination was one of the components of success of the European regional trade integration process. In light of these observations and the importance attached to increasing macroeconomic cooperation for enhancing regional economic integration, it is critical to assess whether macroeconomic instability presently is a significant obstacle to increasing economic integration in the ESCWA region and the extent to which it might become an impediment in the future. This study provides such an assessment and gives concrete recommendations concerning macroeconomic policy coordination to sustain regional economic integration that cater for the political and economic specificities of the ESCWA region.

The structure of the study is as follows: chapter I presents the links between macroeconomic policies and economic integration, and lays out diverse experiences from around the world concerning how macroeconomic policies have been coordinated to limit macroeconomic instability as an obstacle to regional trade; chapter II outlines past and current attempts to increase economic integration in the ESCWA region, and looks at how far the region has come in terms of regional trade integration; chapter III investigates how macroeconomic instability has been an impediment to economic integration in the past in the ESCWA region, and discusses whether it is likely to be the case in the future; specific proposals for macroeconomic cooperation to sustain the regional integration process are given in chapter IV; and chapter V summarizes the conclusions.

A clarification is important: Although trade between the Arab countries as a block and the rest of the world is also highly affected by lack of coordination of macroeconomic policies to limit real exchange rate fluctuations and misalignments vis-à-vis the major non-Arab trading partners such as the EU and the United States, studying the effects of macroeconomic policies on intra-Arab trade and trade between the Arab countries and the rest of the world requires two very different frameworks for analysis. This study is hence limited to investigating macroeconomic policy effects on intra-Arab trade integration alone. Another study on the effects of real exchange rate instability on trade of the Middle East and North Africa (MENA) region with the rest of the world is being prepared as this study is being written.[1]

[1] See Nabli and Veganzones-Varoudakis (2002).

I. EXPERIENCE WITH MACROECONOMIC POLICY COORDINATION AROUND THE WORLD

A. MACROECONOMIC INSTABILITY AS AN OBSTACLE TO TRADE INTEGRATION

Macroeconomic policies influence demand for imports as well as prices of imports and exports, and macroeconomic instability can have devastating effects on trade relations in an economically integrating region. This study focuses on this latter influence of macroeconomic policy through the price of trade: the real exchange rate. Box 1 lays out the main mechanisms of how policies and instability affect the real exchange rate, and in turn, trade. In brief, if the real exchange rate varies considerably, trade cost will be higher since importers and exporters need to insure themselves against losses resulting from real exchange rate changes. This trade-disrupting effect of macroeconomic instability is labelled the price uncertainty channel. Moreover, when the real exchange rate changes to the advantage of one country and to the detriment of this country's trading partner for a sustained period of time (misalignment), the import competing industry in the trading partner country may suffer substantial losses, which in turn may lead to backlashes against liberalization and integration. This indirect mechanism is called the lobbying channel, and is often found to be more important than the direct price uncertainty channel in empirical studies.[2]

Box 1. The link between macroeconomic policies, real exchange rates and economic integration

Macroeconomic policy affects trade through the real exchange rate. This box outlines, first, the link between macroeconomic policies and the real exchange rate, and in turn, the link between the real exchange rate and trade.

1. *The link between macroeconomic policies and the real exchange rate*

The real exchange rate is derived from domestic prices, foreign producer prices, and the nominal exchange rate using the following formula:

$$RER_{df} = NER_{df} \frac{pp_f}{p_d}$$

where RER_{df} (NER_{df}) is the real (nominal) exchange rate between country d (domestic) and country f (foreign) in terms of domestic currency per foreign currency unit, pp is producer price, and p is consumer price. The bilateral real exchange rate therefore fluctuates if domestic prices, foreign producer prices, or the nominal exchange rate between two countries fluctuate.

Macroeconomic policies affect the real exchange rate in numerous ways. The effects can be split into two overall categories: (a) the policy target link, which runs through macroeconomic policy targeting of other macroeconomic variables, which in turn affects the real exchange rate; and (b) the policy signal link, which runs through the indirect effects of the signals that macroeconomic policy sends to market participants, which in turn affects a market-determined nominal exchange rate. Obviously, the second effect is absent in cases where the nominal exchange rate is not market determined. These two links between macroeconomic policies and the real exchange rate are discussed in turn.

(a) *The policy target link*

Macroeconomic policies often target inflation or the nominal exchange rate directly, thus in turn directly impacting the real exchange rate between the country in question and its trading partners. Along the same lines, fiscal policy influences the real exchange rate through, among other channels, inflationary pressures of the budget, and high interest rates due to a high public debt burden. An example of this policy target link is Egypt's inflationary policies of the late 1990s, which lead to a gradual, but temporary, appreciation of Egypt's real exchange rate. However, examples of direct effects on real exchange rates of policies targeting the components of the real exchange rate are not plentiful in the ESCWA region, since inflation rates have in general been kept very low and nominal exchange rates have in general been firmly pegged to the United States dollar. The policies of low inflation rates and firm pegs to the dollar may, in themselves, have led to real exchange rate misalignments over time due to the lack of flexibility, since changes in productivity or small differences in the inflation rates however low might have led to a divergence of the real exchange rate from the equilibrium value over time. This point will be discussed in more detail in chapter III.

[2] See Eichengreen (1998) for a review of the empirical findings on this topic.

Box 1 (*continued*)

(b) *The policy signal link*

The signal linkage between macroeconomic policies and real exchange rates is manifested through the nominal exchange rate. Macroeconomic policies signal the commitment, or lack thereof, of a government to proceed in a certain manner consistent with pre-announced macroeconomic objectives, including objectives for the nominal exchange rate policy. If, for example, a government neglects to carry out scheduled reform or privatization which is part of a programmed fiscal consolidation allowing the government to maintain a pegged nominal exchange rate, the exchange markets may take this as a signal that the government is not committed to the announced policy. Fears concerning the nominal exchange rate peg may ensue, in turn leading to a self-fulfilling currency crisis. As a consequence, the nominal exchange rate may be forced off the peg, and, as a result, influence the real exchange rate.

An example of a change in the real exchange rate due to a market reaction to macroeconomic policies is the Jordanian devaluation of 1988. Jordan's high economic growth rates of the 1970s turned into a decade of poor economic conditions when external sources of finance which had sustained the high growth rates of the 1970s slowly dried up during the 1980s; Jordan's macroeconomic policies did not adapt to the new financial situation. The high government spending was debt financed instead of reduced, and twin balance of payments deficits and government budget deficits persisted throughout the 1980s as a consequence. In late 1988, a debt crisis and defaults on the Jordanian public debt lead to foreign currency shortage and triggered a devaluation of Jordan's nominal exchange rate vis-à-vis the dollar, which translated directly into a change in Jordan's real exchange rate. Another example is that of the Egyptian devaluations of 2000-2001 described in box 4.

2. *The link between the real exchange rate and trade*

The two main channels through which real exchange rate variability is usually argued to affect trade are the uncertainty channel and the lobbying channel.

(a) *The uncertainty channel*

Real exchange rate fluctuations give rise to additional risk related to cross-border transactions and to additional hedging cost; they complicate cross-border price comparisons; and increase long-term uncertainty about markets, thus reducing investment in longer term capacity for exporting. Exchange rate risk can be hedged against in the shorter to medium term using financial derivatives—such as forward contracts, options, and futures—but hedging the price of exports years into the future is not common and, hence, investments in long-term export capacity may suffer from exchange rate volatility. All in all, exchange rate risks are expected to reduce traded volumes. Eichengreen (1997) gives an overview of the theoretical underpinnings of the effect of real exchange rate volatility on trade.

(b) *The lobbying channel*

Exchange rate volatility and misalignment may trigger surges in imports in countries with temporarily overvalued currencies, which in turn may trigger protectionist backlashes and lobbying for protection by import-competing sectors in the countries affected by rises in imports. An example from outside the ESCWA region is the Mexican devaluation of 1994 and the reaction of public opinion toward freeing trade with Mexico described in box 2. Eichengreen (1997) investigates empirically the importance of the uncertainty channel and the lobby channel of how real exchange rate variability hampers trade integration for a sample of developing countries. He finds that both channels have a significantly negative impact on trade, and that the lobby channel might have major consequences, while the impact of the uncertainty channel seems to be small.

Various economically integrating regions around the world have been taking measures to reduce macroeconomic instability as a means to enhance regional trade integration. Such measures include the coordination of macroeconomic policies, and can take various forms and degrees. The present chapter reviews the very wide and different experiences of macroeconomic policy coordination in a sample of regional trading blocks around the world. The case of the EU, which is the regional integration arrangement to have come furthest in terms of macroeconomic policy coordination, is presented first, and the presentation ends with NAFTA which does not engage in or envisage future macroeconomic policy coordination at the present time. Between these two extreme cases are several economically integrating regions with varying levels of macroeconomic policy coordination, represented here by the cases of the GCC countries, MERCOSUR, and ASEAN.

B. EU: A FULLY FLEDGED MONETARY UNION

The EU is beyond doubt the most successful example of regional economic integration in terms of how far it has come and how deep it has gone, and has therefore been a front runner for increased regionalism. Many other integrating regions, notably the GCC countries, look toward the EU for inspiration and design of regional integration, and, in particular, for their model of monetary unification. Today, the EU comprises 15 industrialized and highly diversified European economies.[3] Moreover, ten additional European countries are lined up for accession in the very near future. Intraregional trade in percentage of both GDP and total trade have increased over the last few decades and reached 13 and 62 per cent respectively in the late 1990s.

The notion that macroeconomic stability was a prerequisite for further economic integration came very early in the integration process of the EU, and the first talk of a monetary union came in 1970 when the *Werner Report* spelled out the desirability of such a step. This Report, however, was never acted on due to the subsequent breakdown of the Bretton Woods system and the macroeconomic instability that followed. Instead, the currency 'snake' was enacted in 1972 as a response to the vacuum after the breakdown of the Bretton Woods system. The snake introduced a nominal exchange rate grid with margins of fluctuation for the European Community (EC) member countries, and was replaced by the EMS in 1979, allowing for more frequent adjustments of the exchange rate parities between the nominal exchange rates. However, with the increasing mobility of capital within EC countries, the nominal exchange rate pegs of EC countries in the EMS became increasingly hard to defend against volatile short-term capital flows, and in 1992, a currency crisis erupted within the EMS. The crisis led to several depreciations and the demise of the EMS. The EMS crisis of 1992 was a reminder to EU policy makers of the inconsistent trilogy: that free flows of capital and pegged exchange rates combined with individual monetary policies of the member countries are inconsistent in the long run. Either substantial exchange rate volatility or a return to capital controls would have to be accepted to the detriment of the efforts to create the European Single Market, or national exchange rates would have to be irrevocably locked into a single currency. The latter solution was already opted for a year earlier, as the Maastricht Treaty provided for the European Monetary Union (EMU) in 1991. The EU countries' currencies were finally locked in January 1999 after an eight-year adjustment period, during which the EU countries wishing to join the Single European Currency were to fulfill a set of criteria for their economic performance, the so-called Maastricht convergence criteria.[4] The euro was introduced as legal tender in January 2002. Since monetary policy would be determined in one place for all countries joining the single European currency, there was a concern that the less fiscally responsible member states would "free ride" on the credibility of the single currency and run large budget deficits, while sharing the bill with the rest of the EMU countries in terms of inflation or higher interest rates. To avoid this scenario, the German finance minister took the initiative to establish the Stability and Growth Pact (often referred to as the Stability Pact) between the countries joining the single currency, which was ratified in 1998. The Stability Pact restricts the allowed budget deficits of countries included in the EMU to a maximum of 3 per cent of GDP, and provides the additional feature of an enforcement mechanism allowing the member countries to impose a significant monetary fine on any member country breaching the Pact.

The persistent focus on macroeconomic policy coordination throughout the history of the EU reflects the strong political resolve to achieve European Integration. Macroeconomic policy coordination has been regarded as an essential part of the regional integration process in the EU since the Treaty of Rome. Trade facilitation as well as political aims have been revoked as motives for a smooth process to monetary unification. However, irrespective of the motive and aims of the process, it is very likely that trade internally in the EU will receive an additional boost once the effects of a Single Currency are realized.

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[3] Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom of Great Britain and Northern Ireland.

[4] The Maastricht criteria, although unpopular at the time, helped countries such as Greece and Italy reduce their long-term interest rates and inflation rates substantially, by in a sense tying the hands of the policy makers of these countries and proving for a scapegoat for these politicians' unpopular austerity measures necessary for compliance with the Maastricht criteria. See for example "A great lurch forward", *The Economist*, 10 Oct 2002.

C. GCC ECONOMIC COOPERATION: TOWARD A SINGLE CURRENCY

The six GCC countries[5] ratified a free trade agreement in 1982 as part of the more comprehensive "Unified Economic Agreement", with the ultimate aim of full economic unity. Internal tariff barriers were eliminated in 1983, and steps were taken in 1988 toward partially harmonizing customs duties vis-à-vis third countries. In November 1999, an agreement was signed to form a fully-fledged customs union by 2005.

Despite many attempts at diversifying their economies, the GCC countries remain heavily dependent on oil exports. Non-oil intra-GCC trade remains as low as 16 per cent, compared to 22 per cent for the ESCWA region as a whole, although the number is higher than the oil-inclusive percentage of 5 per cent. Moreover, intraregional trade between the GCC countries in percentage of total trade has fallen over the past decade, from 8 per cent in 1990 to 5 per cent in 2000, and intraregional exports in percentage of GDP of the GCC countries fell from 4 per cent to 3 per cent between 1990 and 1998.

With the exception of Kuwait, all GCC countries have been pegging to the U.S. dollar for many years. Inflation rates are very low and have been for a long time, and public debts and deficits have been modest, in large part due to steady incomes from oil exports. The macroeconomic situation of these countries can hence be characterized as rather stable and not a major factor hindering the increase in trade integration among GCC countries. Nevertheless, the GCC is a special case in which macroeconomic policy coordination was not brought about by problems of macroeconomic instability after trade barriers had been removed, but for which macroeconomic policy coordination along with trade integration was spelled out as an important part of economic integration per se in the first agreements proceeding toward economic unity. Moreover, not only do the GCC countries opt for some limited degree of macroeconomic policy coordination to limit macroeconomic fluctuations, they go to the extreme case of planning to irrevocably fix their exchange rates and introduce a common currency. In 2001, the decision was made that all currencies of the member countries should be pegged to the dollar before the end of 2002 as a step toward monetary unification, and that a common currency should be introduced before the year 2010.

If it does not seem justified on economic grounds, why do GCC countries want to give up their monetary sovereignty for the sake of a common currency? One answer could be that there is no current monetary sovereignty to give up anyway, given that a hard peg to the dollar is the only viable option for all GCC countries due to the oil factor. Another answer could be the strong political resolve to achieve economic integration. Introducing a common currency in itself may speed up the process on many fronts other than purely increased trade relations, and may be a guard against future potential instability.

D. MERCOSUR: PEER GROUP REVIEWS AND A SINGLE CURRENCY ENVISAGED

Argentina and Brazil embarked on a process of economic integration in the mid-1980s, with the establishment of the bilateral Programa de Integracion y Coorperation Argentino-Brasileno, or the PICAB, in 1985. MERCOSUR was established in 1991 when Paraguay and Uruguay opted to join the regional integration process, and the four constituent countries signed the Treaty of Asuncion. The purpose was to create a customs union and a common market with a common external tariff by 1994. Moreover, the medium-term goal of harmonization of macroeconomic policies, often interpreted as working toward the introduction of a single currency, was made explicit in the treaty. Since the inception of MERCOSUR, intraregional trade has increased from 0.7 per cent in 1990 to 1.8 per cent in 1998, but the ratio is still very low, mostly owing to the large economies of Brazil and Argentina. The growth of intraregional trade only halted in the late 1990s, coinciding with severe macroeconomic distress of Brazil and Argentina. Intraregional trade in percentage of total trade of the member countries reached 22.6 per cent in 1996, up from 8.8 per cent in 1990. By 2000, the ratio had fallen to 20.7 per cent, and since the macroeconomic turmoil of 1999-2002 of the region, it is very likely that intraregional trade has fallen even more.

The macroeconomic environment of the member countries has been very volatile since the inception of MERCOSUR. External shocks, such as the contagion effects of the tequila crisis of 1995, the 1997 Asian flu, the Russian debt crisis of 1998, the continued appreciation of the dollar after the introduction of the euro, and international slowdown in growth beginning in 2001 and exacerbated by the September 11 effect, have

[5] Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

taken their toll on the macroeconomic economic situation in the region. Moreover, the macroeconomic stabilization policies of the largest member countries of MERCOSUR—Argentina and Brazil—have differed substantially during this period.[6] The uncoordinated macroeconomic policies and responses to external shocks of Argentina and Brazil in the 1990s set the two countries on very different paths in terms of key macroeconomic variables and, in turn, the real exchange rate, with serious adverse implications for intraregional trade in recent years.

Options for macroeconomic policy coordination leading to a single currency have been proposed and discussed since the initial stages of MERCOSUR. However, none of the options have proven politically feasible as of yet. Not before 2000 did the first agreement on macroeconomic policy coordination occur, in the wake of the 1999 Brazilian devaluation. The agreement aimed at putting MERCOSUR back on track through macroeconomic policy convergence criteria, duped the "mini-Maastricht" in the spirit of the Maastricht criteria of the EU, but without the explicit intent to move toward a monetary union.[7] Targets and time frames for reaching these criteria were set for key macroeconomic variables such as budget deficits, debts, and inflation, and member countries were to monitor the other countries' performance in reaching the targets[8]—a form of macroeconomic policy coordination described in chapter IV as the macroeconomic surveillance and peer group pressure type of macroeconomic policy coordination. In the aftermath of the Argentinean suspension of currency convertibility and financial crisis of December 2001, the peer group pressures have lost all credibility, and the peer reviews were suspended.

The macroeconomic instability of the MERCOSUR countries, including the recent macroeconomic turmoil of Argentina and the effects on the functioning of MERCOSUR, is a strong indication of the potential devastating effects of macroeconomic instability on regional integration efforts.

E. ASEAN FREE TRADE AREA: MACROECONOMIC SURVEILLANCE AND THE REVIVAL OF THE IDEA OF A REGIONAL MONETARY FUND

ASEAN was established on 8 August 1967, and now comprises ten Southeast Asian countries.[9] Among other agendas, ASEAN aims to create a free trade area by 2003, including trade in services and a free investment zone. Tariffs are scheduled to be reduced to between 0 and 5 per cent on internal trade according to a pre-set schedule. ASEAN intraregional trade in percentage of GDP has increased from 7.8 to 9.8 per cent from 1990 to 1998. Moreover, intraregional trade's share of total trade of the region has gone from 19 per cent to 24.5 per cent from 1990 to 1996, but fell again in the aftermath of the Asian financial crisis to 22.9 per cent in 2000. ASEAN member countries have all been adhering to fixed exchange rate systems, with varying degrees of success. Inflation rates have differed substantially, and, in turn, real exchange rates within the region have been highly volatile. The Asian crisis of 1997 is the worst case of regional macroeconomic instability in recent years, and occurred as the devaluation of the Thai bat in the summer of 1997 spread economic shockwaves to most other South East Asian economies within the year. Since 1997, macroeconomic policy coordination has been on the agenda in ASEAN.

Three major agreements regarding information exchange and economic surveillance have been undertaken since 1997. First, the Manila Framework Group, comprising not only ASEAN and several of the major trading partners of ASEAN countries, was formed in November 1997 with the aim of strengthening macroeconomic management monitoring and information exchange.[10] Second, the ASEAN Surveillance

[6] Argentina introduced an effective currency board with the United States dollar in 1991 to bring down rampant inflation. The currency board lasted until late December 2001, when a protracted recession and a series of external shocks led to the suspension of convertibility of the Argentine peso. In contrast to the Argentine experience, Brazil's inflation rate remained high in the early 1990s, until the Brazilian real was fixed to the dollar in 1994 as part of a stabilization programme. Contagion effects of the Russian debt crisis hit Brazil strongly in 1998, leading to the devaluation of the real in 1999.

[7] See "Becalmed", *The Economist*, 9 December 1999.

[8] See Heymann (2001) for a more detailed presentation of this agreement.

[9] Indonesia, Malaysia, Philippines, Singapore and Thailand were the initial signatories. Brunei Darussalam joined in 1984, Vietnam in 1995, Laos and Myanmar in 1997, and Cambodia in 1999.

[10] The 14 member countries of Manila Framework Group are Australia, Brunei Darussalam, Canada, China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand and the United States.

Process was established in October 1998 and aimed at strengthening the coordinated policy-making capacity within the ASEAN member countries. The process consists of two components: an early warning system and peer reviews. The early warning system is to keep track of macroeconomic trends and provide early detection of any adverse developments. Under the peer reviewing part of the process, the ASEAN countries are to exchange views with one another on economic developments and measures being undertaken to address the crisis as well as jointly formulate policy responses to pending problems. Third, the ASEAN+3 Economic Review and Policy Dialogue, including Japan, China and Korea, was established in November 1999. The officials meet regularly within this framework to exchange information, discuss issues, and coordinate policies.

Moreover, numerous proposals to take macroeconomic policy coordination a step further in ASEAN have been put forth, but not implemented, since the Asian crisis. To a large extent, these proposals are inspired by a certain dissatisfaction with the handling of the crisis by the Bretton Woods institutions, and the need for alternatives. The Japanese Vice-Minister of Finance advanced a proposal for an Asian monetary fund in 1997, but the idea was strongly opposed by the United States and Bretton Woods institutions and subsequently abandoned. A later proposal, which remains on the drawing board, is the Asian Monetary System (AMS), reviving the Asian monetary fund idea. The main features of such an arrangement would be some variant of bilaterally fixed but adjustable exchange rates, with adjustments (realignments) decided on jointly, flexible arrangements with respect to convertibility and capital controls, and an Asian monetary fund to support the currency band system. Finally, ASEAN has set targets for future achievements in the field of macroeconomic policy coordination, incorporated in the "ASEAN Vision 2020".

F. NAFTA: ABSENCE OF MACROECONOMIC POLICY COORDINATION

NAFTA was established on 1 January 1994, and aims at creating an integrated and competitive region formed by the United States, Canada and Mexico. Most tariffs between the three members have been eliminated. Intraregional exports in percentage of total exports of the NAFTA region have increased from 41.4 per cent to 55.7 per cent from 1990 to 2000, and intraregional exports in percentage of GDP increased from 7.7 per cent to 9.8 per cent between 1990 and 1998, showing that trade integration in the NAFTA region started off at a very high level and continued to increase throughout the last decade.

The NAFTA agreements do not include provisions for macroeconomic policy coordination of any kind, in contrast to most other regional trade agreements of a similar magnitude. Debates about the advantages and disadvantages of fixed versus flexible exchange rates have taken place, however, but without clear conclusions.[11] There are two more probable reasons for the lack of macroeconomic policy coordination in the NAFTA region: (a) there is no political resolve to increase integration if any loss of sovereignty of the member countries would be needed; and (b) the fact that there have been no devaluations since the peso was devalued in 1995 (see box 2), and that the macroeconomic environment has been stable and very conducive to promoting trade during the span of the NAFTA agreement has led to a lack of urgency for policy coordination.

Box 2. The Mexican devaluation of 1994 and protectionist backlashes in the United States

For Mexico, membership in NAFTA is a strategy for improving international competitiveness as well as a strategy for development. Mexico faced political and economic instability during 1994 due to presidential elections and poorly managed monetary and fiscal policies. With external pressures adding to this, Mexico faced a devaluation of its currency on 20 December 1994, initiating the so-called 'Tequila Crisis'.

One direct consequence of this devaluation was that Mexican goods became more competitive overnight. Production and labour cost became cheaper compared to those of the two other NAFTA partners. Many United States firms reacted by moving production facilities to Mexico, with the aim of producing at lower cost and exporting the goods back to the United States and Canadian markets, which were by then open to Mexican exports due to the NAFTA agreements. Moreover, Mexican imports in the United States got a competitive edge over United States import-competing industries, and such industries, such as United States agriculture, steel, and textiles, suffered from the opening up of the United States market to Mexican products.

[11] See Eichengreen (1998) for an overview.

Box 2 (*continued*)

Although localized to certain sectors, the job losses, which followed the opening up of trade between Mexico and the United States and the Mexican currency devaluation, led to protectionist backlashes against NAFTA. As one presidential candidate put it at the time in order to play on the protectionist backlashes, there was a 'great sucking sound' coming from Mexico.[a/] The Mexican crisis rekindled a debate in the United States about its commitment to free trade, and also raised concerns about whether the United States Administration would be able to gather the necessary political support in Congress for NAFTA expansion.

However, despite the great loss of jobs to Mexico in certain industries, and the perception of failure that some people had about NAFTA, empirical evidence indicates that unemployment rates decreased and real wages increased in the United States with the opening up of the North American market.[b/]

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a/ Ross Perot ran against Bill Clinton as an independent in 1994 on a platform of isolationism and protectionism.

b/ "NAFTA: Setting the record straight". Brookings Institution, Policy Brief #20, June 1997. A rising wage trend appeared but only for the skilled labours. The wages of the less skilled labours on the contrary decreased.

G. CONCLUSIONS

Macroeconomic policy coordination can take many shapes and forms, and as the review of experience around the world shows, the type of policy coordination chosen usually depends on the economic and political specificities of the region in question. There are several conclusions to draw from the above discussion of regional trade integration around the world. First, regional trade integration has fallen in the two regions which have experienced macroeconomic instability in recent years, namely the MERCOSUR region and ASEAN. Macroeconomic instability is hence empirically connected to a slowdown in regional integration. Moreover, two points concerning the feasibility of establishing macroeconomic policy coordination can be derived from the five cases of regional integration. First, political resolve to integration is imperative for a successful macroeconomic policy coordination arrangement. Only when it is in the common interest to increase integration, be it for political or economic reasons, will attempts at establishing macroeconomic policy coordination be successful. Clearly, lack of political will to submit national macroeconomic policies to regional decision-making is the main reason for the lack of macroeconomic policy coordination in the NAFTA region, while political will solely paved the way to monetary union in the EU, and will be doing so for the GCC countries. Second, it is clear that some degree and period of macroeconomic stability in itself is a necessary condition for the political will to integrate to result in the actual establishment or enhancement of macroeconomic policy coordination. Hence, decisions to increase macroeconomic policy cooperation need to be taken during periods of stability; once crisis has erupted, it is too late. MERCOSUR did not have sustained periods of regional macroeconomic stability for implementation of macroeconomic policy coordination. The instability of the last three years has therefore not been dealt with in a coordinated manner, and this instability now threatens the existence of the free trade agreement. ASEAN did not have a coordinated regional response ready once the Asian crisis erupted, and given the urgency of the situation, the only economic medicine available on a short notice was that offered by the International Monetary Fund (IMF). The EU, on the other hand, had long periods of macroeconomic stability, and a common response to instability was hence ready from very early on. This common response, in the shape of a common defense of the bilateral exchange rate grid, was invoked many times during exchange market pressures on member countries' currencies.[12] Finally, the GCC countries, with a remarkable absence of macroeconomic instability, have been able to enhance the framework for macroeconomic policy coordination without interruptions, and have come far in macroeconomic coordination with a set timetable for monetary unification.

[12] For example, the common response to exchange market pressure was evident when speculative attacks hit EU country currencies in 1992 and, although the outcome was not entirely successful, a larger scale of devaluations could have been the outcome of non-coordinated response.

II. TRADE INTEGRATION IN THE ESCWA REGION

ESCWA member countries share a common language and a relatively homogenous culture, but further similarities are not evident. The GCC countries, rich in petroleum resources, are mainly energy producers, while Egypt, Jordan, Lebanon, the Syrian Arab Republic, and to some degree Yemen, have an emerging industrial base. Moreover, the GCC countries are rapidly integrating amongst themselves, and would be engaging further integration with the rest of the Arab world from a common platform, while most other ESCWA member countries are lagging behind in opening up their economies to foreign trade and investment. The focus here is on trade integration among ESCWA member countries as a whole. The GCC countries will therefore be treated as one entity integrating with the rest of the ESCWA region rather than as an example of ESCWA regional economic integration per se for the purposes of this study.

A. RECENT ATTEMPTS AT ECONOMIC INTEGRATION IN THE ESCWA REGION

1. *The recent history of Arab regional trade integration*

Arab economic integration has been on the agenda since the establishment of the League of Arab States in 1945 and the quest for Arab unity in the post-colonial era. Box 3 gives a timeline of recent multilateral trade agreements in the ESCWA region. These have included the Agreement to Facilitate Trade Exchange and Transit Trade of 1953, the Arab Common Market of 1964, and, more recently, the Agreement on the Facilitation and Development of Trade Exchange between the Arab Countries of 1981, all formed in the context of the League of Arab States. Initiatives to form regional trading blocks within the Arab world (with the exception of the GCC area) were never fully implemented and only enjoyed brief and limited success before being abandoned. This failure was largely due to short-term national interests overriding long-term common regional goals. In 1995, the League of Arab States formed a task force of experts to study ways of setting up GAFTA, to avoid suffering from the same drawbacks and obstacles that led to the abandonment of the former regional integration initiatives. However, the main obstacle—lack of political will to achieve the vision of an integrated Arab world—has still not been tackled.

Box 3. A timeline of intra-Arab trade agreements

1941: The Middle East Supply Center is established during the Second World War as a means to allocate and distribute required inputs and supplies while minimizing imports for that objective. The relative success of this arrangement showed the benefits of regional integration and openness. However, the agreement is abandoned after the war.

1945: The League of Arab States is established with the objective to strengthen relations among member States and promote cooperation in economic, financial, and transportation affairs.

1953: The Agreement to Facilitate Trade Exchange and Transit Trade (later referred to as the Arab Trade Agreement of 1953 (ATA(53)) and the Agreement on Settlements of Payments on Current Transactions and on Capital Movements among Arab League States (later referred to as the Arab Payments Agreement), are both established by the Economic Council of the League of Arab States. ATA(53) provides for tariff reductions on a variety of products, most notably agricultural products, but does not provide for the removal of administrative restrictions to trade. ATA(53) is amended many times during the 1950s and 1960s and is considered inadequate early on.

1957: As an alternative to the ATA(53), The Council for Arab Unity (CAU) and the Arab Economic Unity Agreement (AEUA) are established by a resolution of the Arab Economic Council of the League of Arab States.

1964: The first meeting is held by CAU in order to implement AEUA. As part of the Agreement, the Arab Common Market (ACM) is initiated, with gradual tariff reductions leading toward a free trade area. ACM remains largely unimplemented.

1981: The Agreement on the Facilitation and Development of Trade Exchange between the Arab Countries (ATA(81)) is established by a 1978 resolution of the League of Arab States. The free trade agreement includes tariff reductions on trade in some Arab products, full tariff elimination on trade in other Arab products, and a common minimum external tariff on imports of non-Arab products. The ATA(81) is not implemented by 1995.

Box 3 (*continued*)

1995: A task force with professionals from both private and public sectors is formed in order to study ways and means of activating and implementing ATA(81) and develop proposals leading to the establishment of GAFTA. This free trade area is to include all Arab States, to respond to the circumstances and needs of all members, and to observe consistency with the rules of the World Trade Organization.

1997: A resolution adopts the recommendations of the task force formed in 1995, and a work programme and time-table are approved for the implementation of ATA(81) as a means to create GAFTA by January 2008.

Source: ESCWA, "Arab economic integration efforts: A critical assessment" (E/ESCWA/ED/1999/11), and "Free trade areas in the Arab region: Where do we go from here?" (E/ESCWA/ED/2001/4).

2. *GAFTA*

GAFTA was established in 1997, and is to be fully implemented by 2005. It is designed to include all Arab countries, and currently has 14 members, including all ESCWA member countries except Palestine and Yemen. The date for eliminating duties on intra-Arab trade has been moved forward to 2005, and the 14 member countries have slashed by 50 per cent the tariffs on trade amongst themselves by spring 2002. There are still many technical barriers to intra-Arab trade that have not been addressed by the GAFTA agreement: issues such as taxes and charges, the lists of exemptions and rules of origin, the strength of the dispute settlement mechanism, and non-tariff barriers, all provide for loopholes that can be exploited for putting brakes on the integration process when the political will to integration is lacking. These important obstacles to enhancing trade integration in the Arab world are addressed in more depth in *Free Trade Areas in the Arab Region: Where Do We Go from Here?* (ESCWA, 2001). Moreover, macroeconomic instability in certain parts of the ESCWA region may ultimately deal a serious blow to the integration process.

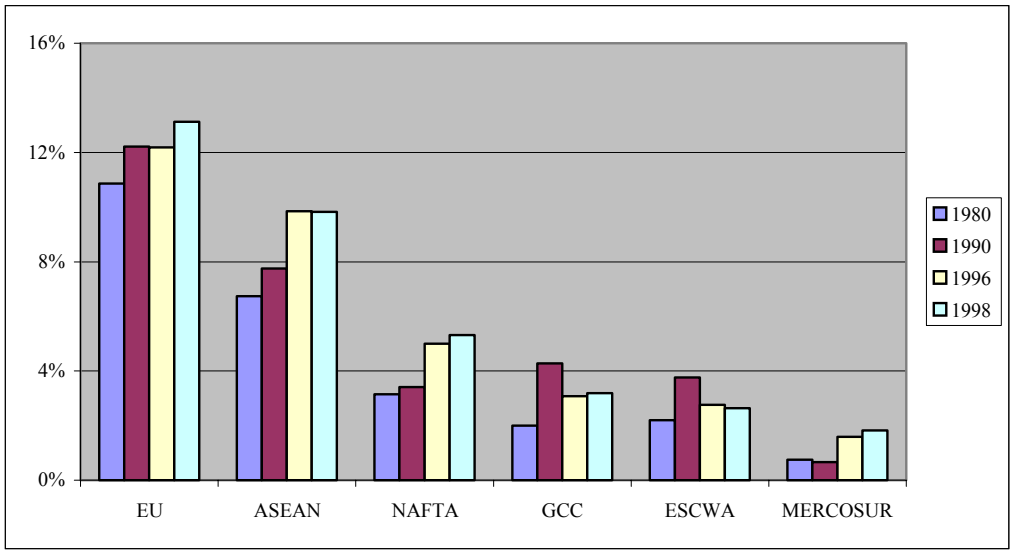
B. HOW INTEGRATED IS THE ESCWA REGION?

In spite of all the efforts of recent years to promote intra-Arab trade, intraregional trade as a percentage of GDP for the ESCWA member countries has been falling over the past decade, from 3.8 per cent in 1990 to 2.8 per cent in 1996 and 2.6 per cent in 1998 (see chart I). The GCC countries subregion also saw diminished intraregional trade rates over the last decade. This is in contrast to the evolvement of intraregional trade in all other regions discussed in chapter I, for which intraregional trade in percentage of GDP grew throughout the last two decades without exception. When comparing the ratio of intra-ESCWA exports to total ESCWA exports across years, ESCWA also fares very poorly. Chart II shows that for ESCWA this ratio increased from 1980 to 1990 by almost 2 percentage points, but declined from 14 per cent in 1990 to 6.8 per cent in 1998. If imports were used, the picture would be even grimmer. A similar pattern emerges for the intra-GCC countries trade, where the ratio increased from 3 to 8 per cent between 1980 and 1990, after which it declined to 5 per cent by 1998. This pattern was not reflected in any of the other regions discussed in chapter I. In order to identify whether the pattern mainly reflects changes in the substantial oil exports of the region to the rest of the world, the same ratios excluding oil trade are computed for ESCWA and the GCC region for the years 1990 and 1996 for which data was available. Chart II shows also that the non-oil intraregional trade ratio decreased from 1990 to 1996 for the ESCWA region as a whole, while the decline is less pronounced for the GCC countries.

Concerning the overall level of intraregional trade in the ESCWA region compared to other regionally integrating regions, only MERCOSUR has had a lower percentage of trade to GDP than ESCWA, mainly reflecting the large economies (notably Brazil) participating in the MERCOSUR agreement. When intraregional exports in percentage of total exports are concerned, ESCWA and the GCC countries have the lowest ratios of the depicted countries in chart II. More interestingly, the ESCWA region as a whole fares better than the GCC countries, and this conclusion is irrespective of whether oil-trade is included or not. Moreover, it is remarkable that when oil exports are not included, intraregional exports share of the ESCWA region was as high as 26 per cent in 1990, higher than for both ASEAN and MERCOSUR of that year.

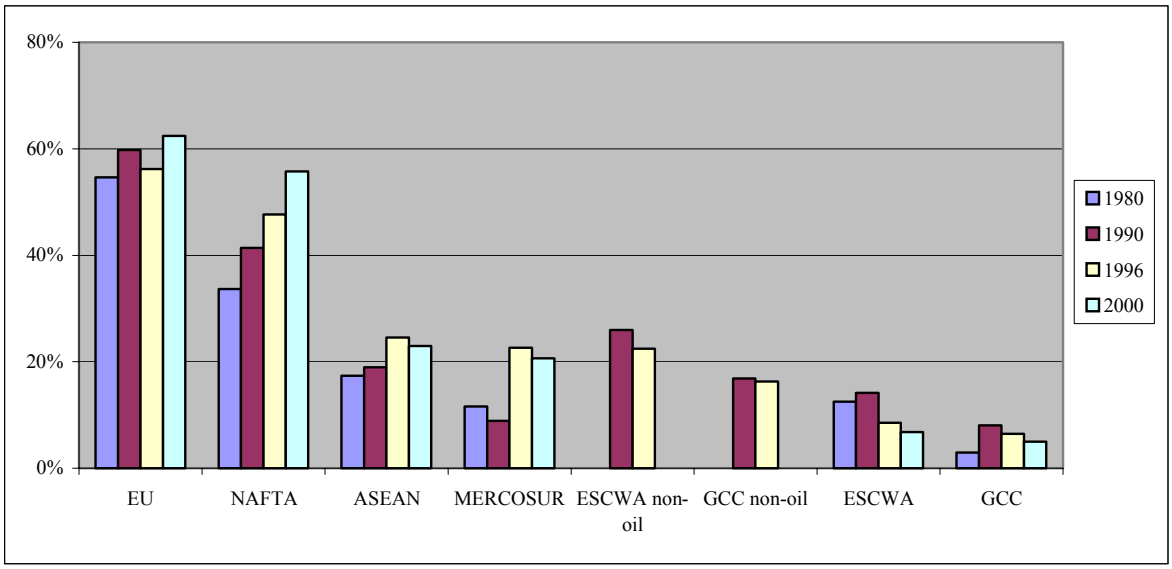
However, by 1996, ESCWA's intraregional non-oil exports share had fallen to 22.6 per cent, lower than all other regions depicted in chart II except for the GCC countries.

Chart I. Intraregional exports share of region's aggregate GDP, selected years



Note: Years selected according to availability and credibility of data.

Chart II. Intraregional exports in percentage of total world exports, selected regions and years



Note: Years selected according to availability and credibility of data.

In brief, intraregional exports have been declining in percentage of both overall GDP and that of total exports for the ESCWA region in recent years, contrary to the experience of other integrating regions of the world. Moreover, the level of intraregional exports is low compared to other regions to begin with, and most

notably so when oil-exports are included in the ratios. Finally, the ESCWA region as a whole seems to be more integrated in terms of trade than the subregion of the GCC countries.

C. STATUS OF MACROECONOMIC POLICY COORDINATION IN THE ESCWA REGION

While macroeconomic policy cooperation among the member countries of the GCC has been considerable, there have been few attempts at macroeconomic policy coordination embracing the larger part of ESCWA member countries. However, there are examples. Macroeconomic cooperation in the ESCWA region has resulted from the oil booms of the 1970s and the subsequent channelling of funds for development from the oil-rich countries to the less oil-rich countries through a network of regional or national funds, such as the Arab Fund for Economic and Social Development and the Islamic Development Bank. As part of this, and more in line with actual policy coordination, the Economic and Social Council of the League of Arab States established the Arab Monetary Fund (AMF) in 1976.[13] The mandates of AMF are very similar to those of IMF, which include (a) correcting disequilibria in the balances of payment of member countries; (b) striving for the removal of restrictions on current payments between member States; (c) establishing policies and modes of Arab monetary co-operation; (d) rendering advice on investment of resources of the region in foreign markets; (e) promoting the development of Arab financial markets; (f) promoting trade; and (g) paving the way toward the creation of a unified Arab currency. For many reasons, these aims are clearly far from being realized 35 years later. AMF has mainly become a valuable provider of research and a forum for discussion, but never gained ground in the field of providing for actual macroeconomic policy coordination.

No formal initiatives to establish macroeconomic policy coordination have been taken in the context of free-trade agreements, and there is currently no common or official vision for moving toward increased macroeconomic policy coordination in the ESCWA region. Most ESCWA member countries peg their nominal exchange rate to the U.S. dollar, in general with a great deal of success, and this is part of the reason why macroeconomic policy coordination is often considered to be unnecessary for trade integration in the ESCWA region. However, this may be a wrong argument against the need for macroeconomic policy coordination.

[13] The member countries of the Arab Monetary Fund are also the members of the League of Arab States: Algeria, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, the Libyan Arab Jamahiriya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, the Syrian Arab Republic, Tunisia, the United Arab Emirates and Yemen.

III. IS MACROECONOMIC INSTABILITY AN OBSTACLE FOR ECONOMIC INTEGRATION IN THE ESCWA REGION?

The macroeconomic environment of the ESCWA region is usually thought of as rather stable in comparison with other developing regions of the world. Exchange rates have been pegged to the United States dollar with relative success, inflation rates have been low on average, and, as a rule, public debts have been kept in check and have been considered less risky due to substantial discounted future oil revenues. However, this description is not valid for all ESCWA member countries. There has been substantial cross-country divergence in macroeconomic developments over the past two to three decades, particularly between countries relying heavily on oil exports (the GCC countries) and those which are more diversified. There hence seems to be a potential for real exchange rates to have been misaligned or volatile in the past in the ESCWA region. Section A below looks at the macroeconomic environment of ESCWA member countries in terms of inflation and nominal exchange rate developments. An evaluation of whether and how these developments have translated into real exchange rate volatility or misalignment in the ESCWA region is subsequently undertaken. Data availability often only allows looking 10 years back in time to the 1990s, but, when possible, the analysis has been taken further back.

A. MACROECONOMIC CONDITIONS AFFECTING REAL EXCHANGE RATE DEVELOPMENTS IN THE ESCWA REGION

ESCWA member countries can be divided into two groups according to their macroeconomic environment in the last couple of decades. The first group includes the relatively homogenous GCC countries, which rely heavily on oil exports. The GCC countries have had access to financial resources for financing Government and public sector activities through oil revenues and have consequently suffered less from public debt buildups, inflationary pressures, and exchange market pressures. The second group is less homogenous and consists of the more diversified economies, which have less or no oil reserves. In this group, Lebanon and Yemen have both emerged from wars in the early 1990s and have since had their macroeconomic policies designed—in very different manners and with very different outcomes—with the aim of post-war reconstruction. Egypt, Jordan, and the Syrian Arab Republic have had other development challenges and have dealt with these in very different fashions. While the Syrian Arab Republic has continued policies of regulation and central planning, Jordan and Egypt have gone down the path of structural adjustment, with steps toward deregulation and liberalization.

Macroeconomic instability in Egypt, Jordan, Lebanon and Yemen have led to devaluations against the United States dollar at some point in time during the past few decades in all four countries. The Jordanian dinar and the Egyptian pound were both devalued in 1988 after years of poor macroeconomic conditions in both countries. Jordan's currency has stabilized since then, but the Egyptian pound was devalued again in 2000 and 2001, and was allowed to float in early 2003. The Lebanese pound depreciated substantially in the early 1990s after the end of the civil war, and subsequently appreciated slightly before being stabilized in the mid-1990s at the currently still prevailing level. Yemen devalued its currency in 1994 and again in 1996 to merge the black market rate of the Yemeni currency with the official rate, and has since been depreciating the currency slightly each year in accordance with the managed float of the currency. The Syrian Arab Republic has had a multi-tier exchange-rate system since the early 1980s, in addition to a well-developed black market for foreign exchange since the 1970s. The value of the Syrian pound as given by neighbouring countries depreciated significantly in 1988, following the pattern of the Jordanian and Egyptian currencies, and has continued to fluctuate since then. This path of the Syrian exchange rate as quoted by neighbouring countries' banks is in contrast to that of the principal official rate, which has been constant since it was devalued in 1988. Extensive price controls, rationing of subsidized products, and extensive black market prevalence in many subsidized products has contributed to limiting invisible macroeconomic instability in the Syrian Arab Republic, however.

In sum, nominal exchange rates have been relatively more unstable in the diversified economies of the ESCWA region than in the GCC countries as reflected in charts III, IV and V which depict ESCWA member countries' exchange rates vis-à-vis the Saudi riyal (Saudi Arabia is chosen as the base country due to its being the main trading partner in the region of the majority of ESCWA member countries).

Chart III. Nominal exchange rates of GCC countries vis-à-vis the Saudi riyal (1995=100)

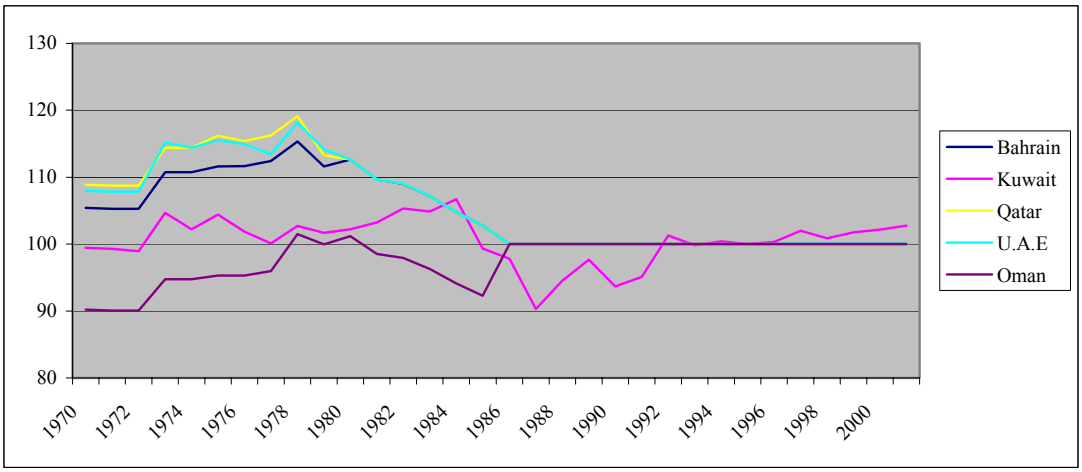


Chart IV. Nominal exchange rates of more diversified economies vis-à-vis the Saudi riyal (1995=100)

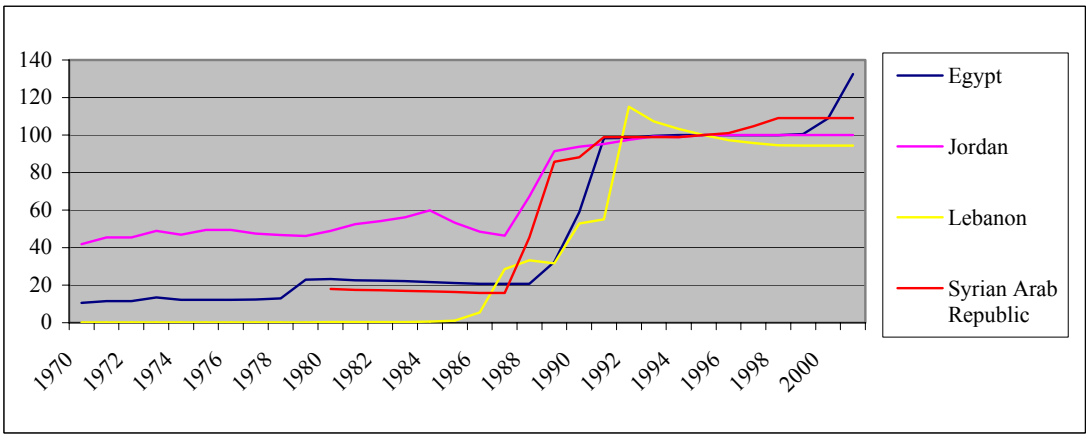
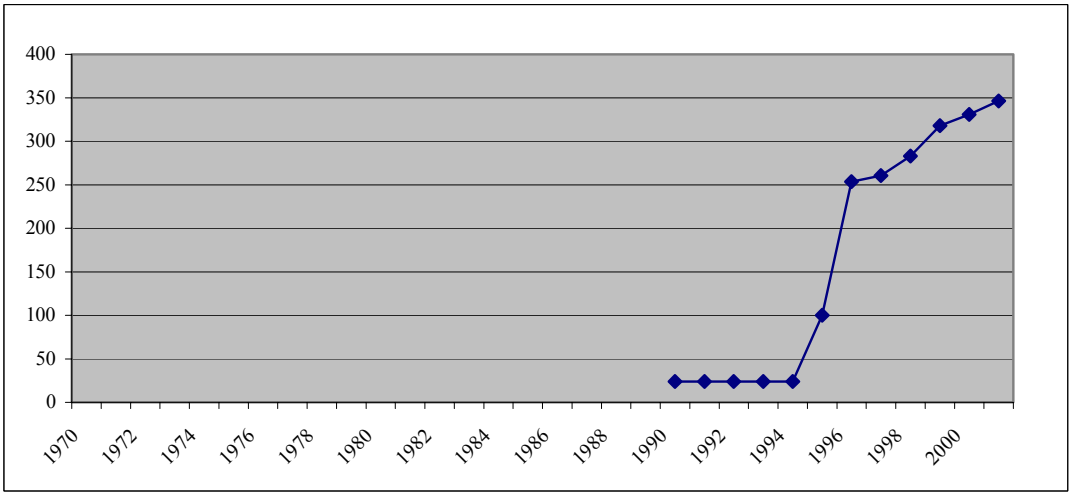


Chart V. Nominal exchange rates of Yemen vis-à-vis the Saudi riyal (1995=100)



In order to compare the developments in nominal exchange rates in the region with the experience in other parts of the world, table 1 tabulates a measure of volatility of bilateral nominal exchange rate for ESCWA member countries and for the regional trading blocks evaluated in chapter I. Volatility is measured as the standard deviation of monthly percentage changes in the bilateral exchange rates (see annex for the definition and computation of this measure). Yemen and Lebanon, and Egypt to a lesser extent, have had what can be characterized as volatile nominal exchange rates in the 1990s relative to the rest of the ESCWA member countries. On average, however, the volatility of regional bilateral nominal exchange rates of the ESCWA region is low compared to those of NAFTA, MERCOSUR and ASEAN. Only the nominal exchange rate volatility of the EU and the GCC countries isolated are lower than those of the ESCWA regional average.

TABLE 1. INTRAREGIONAL BILATERAL NOMINAL EXCHANGE RATE VOLATILITY, MEASURED AS THE STANDARD DEVIATION OF PERCENTAGE CHANGES IN REGIONAL NOMINAL EXCHANGE RATES[a/]

	1980-1990	1990-2000
Bahrain	0.32	0
Egypt	3.37	5.16
Iraq	0.44	0
Jordan	2.38	0.68
Kuwait	1.56	1.15
Lebanon	8.50	6.81
Oman	0.80	0
Qatar	0.32	0
Saudi Arabia	..	..
Syrian Arab Republic	6.0	0
United Arab Emirates	0.32	0
Yemen	..	8.59
GCC average	0.66	0.23
MDE[b/] average	4.11	4.24
ESCWA average	2.18	1.87
EU average	1.09	1.05
NAFTA average	4.19	2.45
ASEAN average	7.65	4.55
MERCOSUR average	..	15.17

Sources: Own calculations based on IMF, *International Financial Statistics* data, except for the Syrian Arab Republic, for which the exchange rate is the official exchange rate used for trade transactions (using the exchange rate quoted in neighbouring countries would lead to higher volatility); ESCWA *Statistical Abstract*; and the Economist Intelligence Unit.

a/ The bilateral exchange rates are measured vis-à-vis the Saudi riyal for ESCWA and GCC member countries. The German mark is the base currency for the EU, the United States dollar is the base currency for the NAFTA countries, the Thai bat is the base currency for the ASEAN countries, and the Argentine peso is used as the base currency for the MERCOSUR countries.

b/ More diversified economies of the ESCWA region, including Egypt, Jordan, Lebanon and the Syrian Arab Republic.

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

The same pattern emerges when inflation is concerned. Stable macroeconomic conditions of the GCC countries have contributed to keeping the evolution in domestic prices in this part of the ESCWA region under control (see chart VI), while this has not been the case in Egypt, Lebanon, the Syrian Arab Republic and Yemen. Table 2 shows average inflation rates in ESCWA member countries for the 1990s. Nine out of 12 ESCWA member countries had single-digit average inflation rates in the 1990s while seven of these were below 5 per cent (the GCC countries and Jordan). Lebanon and Yemen stand out as having experienced average double-digit inflation rates during the 1990s, while Egypt also had a relatively high average inflation rate of 9.28 per cent over the ten years in question. Chart VII shows that inflation for these countries was highest during the late 1980s and early 1990s, coinciding with the time period of extensive depreciations of

these countries' currencies, and hence counteracting the depreciation of the real exchange rate. Chart VIII depicts the inflation rate for Yemen, which increased at a rapid rate during the 1990s. Table 2 also compares the average inflation rate of the ESCWA region in the 1990s with those of other regional trading blocks. As was the case for nominal bilateral exchange rates, inflation rates have been low on the average for the ESCWA region compared to those of MERCOSUR, NAFTA and ASEAN, mainly due to the low inflation rates of the GCC countries. The average for the more diversified countries for the 1990s does not compare favourably.

Chart VI. Inflation rates for GCC countries, 1980-2000

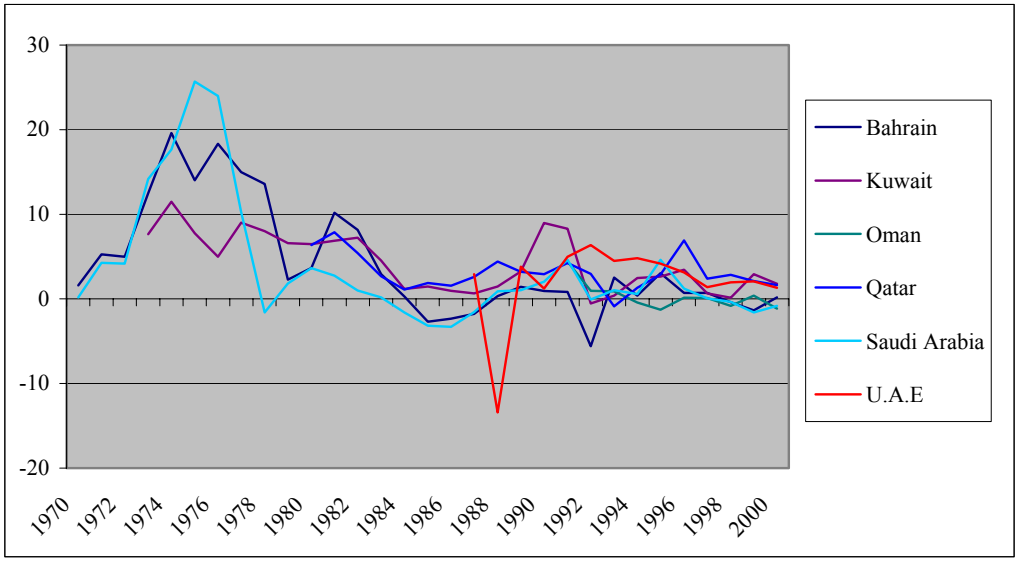


Chart VII. Inflation rates for more diversified ESCWA member countries, 1980-2000

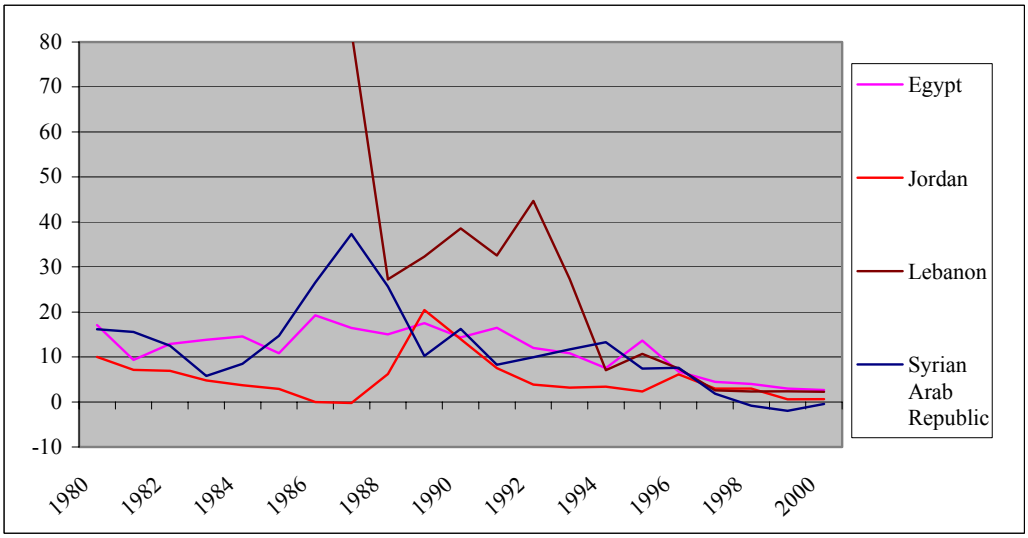


TABLE 2. AVERAGE YEARLY INFLATION RATES OF ESCWA MEMBER COUNTRIES

	Average consumer price index (CPI) based inflation rate 1990-2000	Standard deviation of the inflation rate 1990-2000
Bahrain	0.18	2.38
Egypt	9.28	4.79
Iraq	..	..
Jordan	4.68	3.78
Kuwait	2.83	3.29
Lebanon[a/]	17.55	16.50
Oman[b/]	0.32	1.65
Qatar	2.76	1.99
Saudi Arabia	1.22	2.05
Syrian Arab Republic	7.35	6.00
United Arab Emirates	3.36	1.75
Yemen[b/]	22.77	13.24
	Country average inflation rate 1990-2000	Standard deviation of the country average inflation rate 1990-2000
GCC average	1.81	2.18
MDE[c/] average	12.33	8.86
ESCWA average	6.59	5.21
EU average	1.72	1.37
NAFTA average	7.18	8.08
ASEAN average	9.81	12.44
MERCOSUR average	26.63	13.18

Sources: Inflation data based on CPI data from IMF, *International Financial Statistics*, except for Bahrain, Lebanon, the United Arab Emirates and Yemen, which is from the ESCWA *Statistical Abstract*. Own calculations based on data from IMF, *International Financial Statistics*, ESCWA *Statistical Abstract*, and the Economist Intelligence Unit.

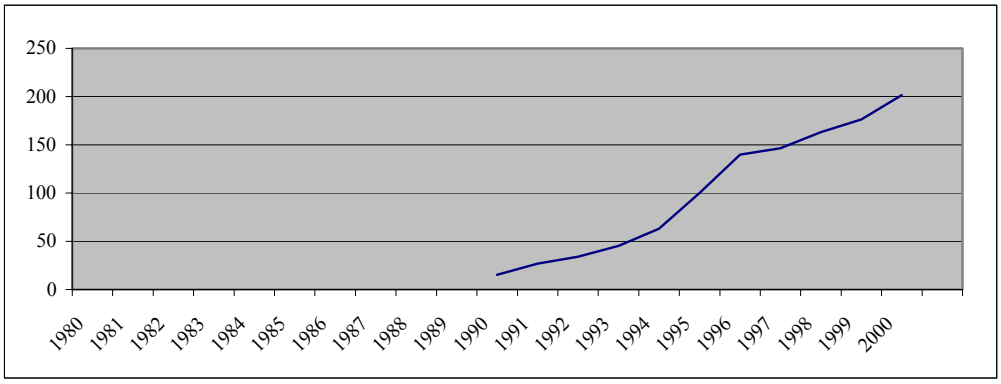
a/ Price index is for Beirut only.

b/ Average does not include the observation for the year 1990.

c/ More diversified economies of the ESCWA region, including Egypt, Jordan, Lebanon, the Syrian Arab Republic and Yemen.

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

Chart VIII. Inflation rate for Yemen, 1990-2000



In sum, inflation rates and nominal exchange rate volatility have compared favourably to those of other trading blocks such as ASEAN, NAFTA and MERCOSUR. However, this pattern of stability has not been uniform for all ESCWA member countries. Some countries stand out as having experienced macroeconomic instability, high inflation rates, and unstable nominal exchange rates. This group of countries

includes Egypt, Lebanon, the Syrian Arab Republic and Yemen. Real exchange rates may hence have been volatile or misaligned for these latter countries, or between these countries and the rest of the ESCWA member countries. The next section looks at whether real exchange rates have been variable in the ESCWA region.

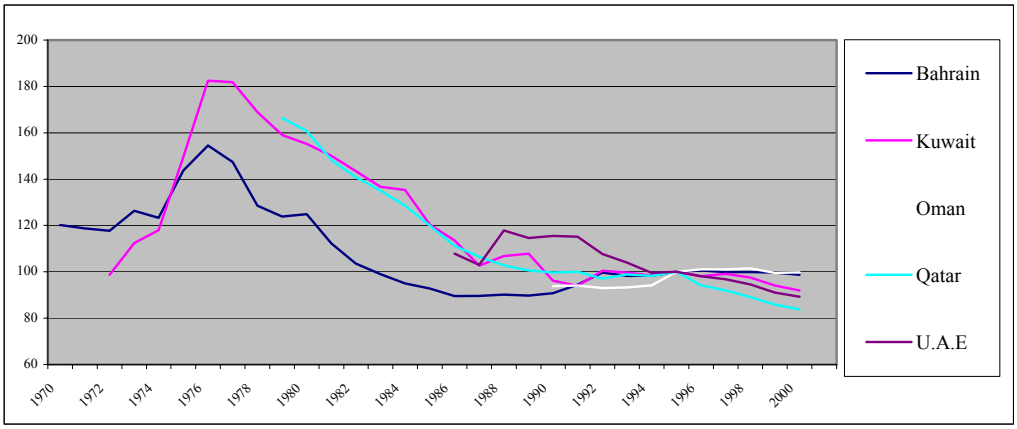
B. An assessment of intra-ESCWA effective exchange rate variability

As explained in box 1, the term "exchange rate variability" covers exchange rate volatility and exchange rate misalignment. An analysis of each type of real exchange rate variability for the ESCWA member countries is provided below.

1. *Are intra-ESCWA region real exchange rates volatile?*

The last decades of diverging macroeconomic conditions and policies led to intra-ESCWA divergence in inflation and nominal exchange rates, which are key to the determination of bilateral real exchange rates in the ESCWA region. Charts IX, X and XI depict recent developments in the real exchange rate of ESCWA member countries vis-à-vis the Saudi Arabia riyal. To no surprise, the same pattern emerges as that found for inflation and nominal exchange rate developments described earlier. The GCC countries have had very stable real exchange rates vis-à-vis Saudi Arabia, while this is not the case for more diversified economies. Chart XII depicts a measure of the volatility of real bilateral exchange rates for those ESCWA member countries with sufficient available data for computing the measure—the standard deviation of monthly changes in the real exchange rates (see annex for the formula). Table 3 adds the volatility of bilateral real exchange rates for the regional trading blocks evaluated in chapter I. On the average, real exchange rate volatility of ESCWA member countries was low compared to that of MERCOSUR and ASEAN but higher than that of NAFTA, the EU, and the subset of GCC countries in the 1990s. The stable macroeconomic environment of the GCC countries has kept the average volatility low, however. If only the more diversified economies of the ESCWA region are considered, the average real exchange rate volatility is higher, but still does not reach the levels of MERCOSUR and ASEAN.[14]

Chart IX. The real exchange rate of GCC countries vis-à-vis the Saudi riyal (1995=100)



[14] There is an important caveat here. The bilateral exchange rate vis-à-vis Saudi Arabia will automatically identify the more diversified economies as having volatile exchange rates, since all GCC countries have followed the same nominal exchange rate paths in recent times. But the bilateral exchange rate of, for example, Qatar vis-à-vis Egypt has not been stable, meaning that if Egypt had been chosen as the base country, Qatar's real exchange rate would have been deemed volatile. Therefore, as an alternative to using the bilateral exchange rate, an index of the regional real effective exchange rate (RRER) for ESCWA member countries is constructed and calculated (see annex for the formula). The regional real exchange rate is defined as a weighted average of the real bilateral exchange rate vis-à-vis other ESCWA member countries, weighted by the relative trade that the country in question has with the other ESCWA member countries. Adding the RRER index only underlines the conclusions arrived at above. This is because trade between GCC countries and more diversified economies has stayed low, hence providing low weights in the effective exchange rate index.

Chart X. The real exchange rate of more diversified ESCWA member countries vis-à-vis the Saudi riyal (1995=100)

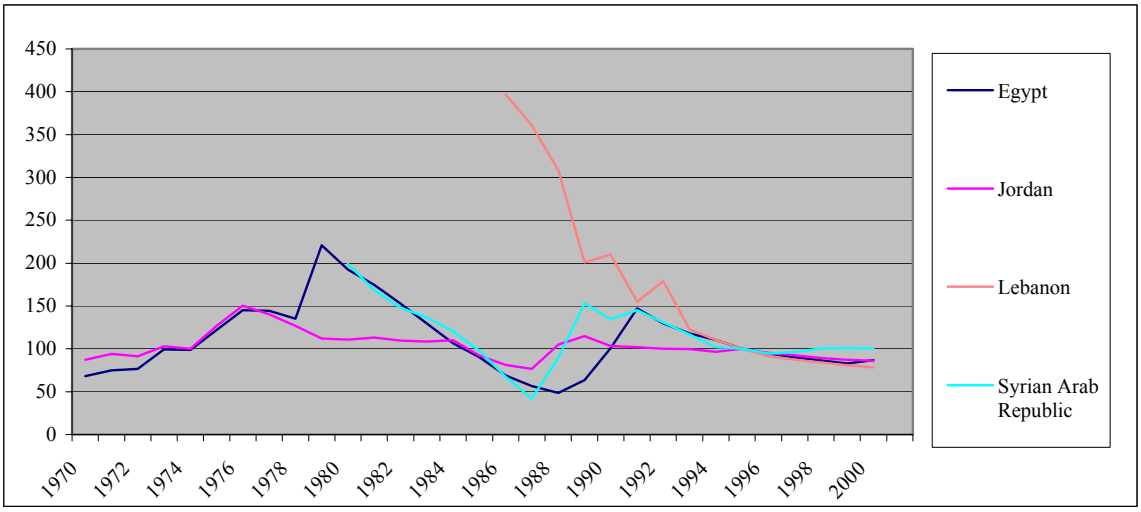


Chart XI. The real exchange rate of Yemen vis-à-vis the Saudi riyal (1995=100)

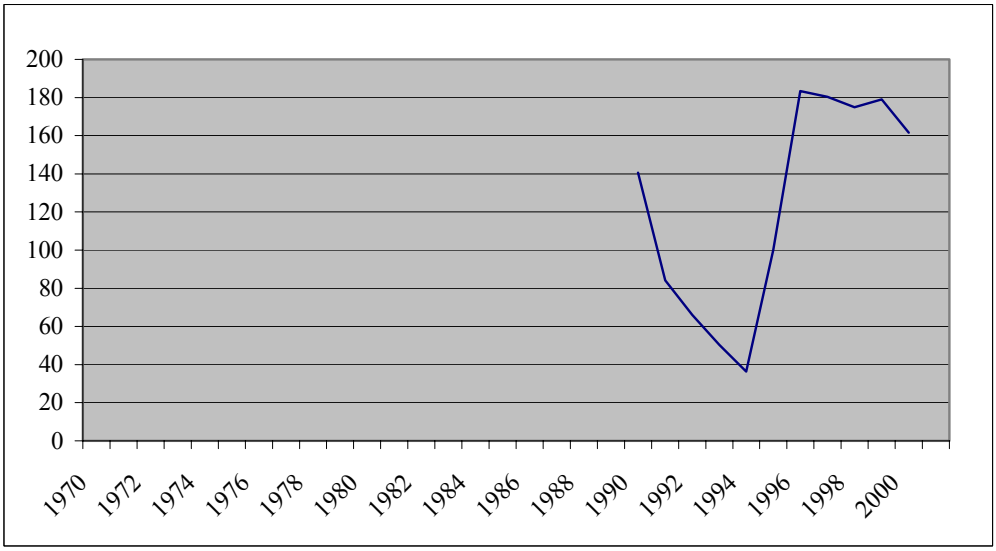


TABLE 3. INTRAREGIONAL REAL EXCHANGE RATE VOLATILITY, MEASURED BY THE STANDARD DEVIATION OF MONTHLY PERCENTAGE CHANGES IN THE BILATERAL REAL EXCHANGE RATE,[a/] 1990-2000

Country or region	Volatility
Bahrain	0.79
Egypt	5.32
Jordan	1.41
Kuwait	1.90
Lebanon	..
Oman	0.92
Qatar	..
Saudi Arabia	

TABLE 3 (*continued*)

Country or region	Volatility
Syrian Arab Republic	2.37
United Arab Emirates	..
Yemen	5.10
GCC average	1.20
MDE[b/] average	3.54
ESCWA average	2.54
EU average	1.31
NAFTA average	2.51
ASEAN average	5.43
MERCOSUR average	6.95

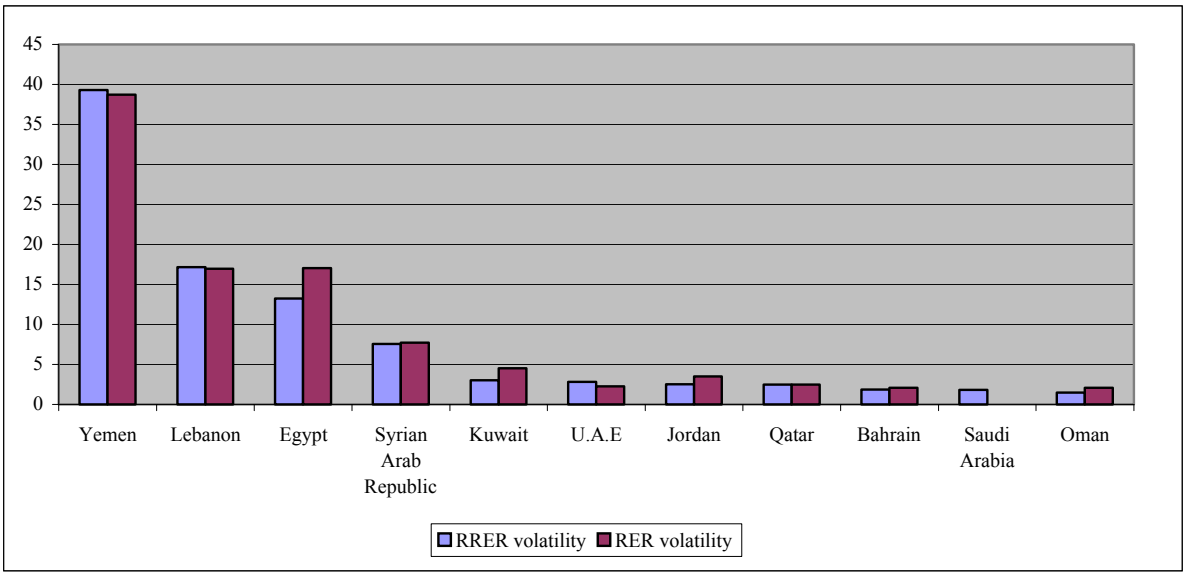
Sources: Own calculations based on data from IMF, *International Financial Statistics*, ESCWA *Statistical Abstract,* and the Economist Intelligence Unit. Definition: Real exchange rates are calculated as the nominal exchange rate multiplied by the Consumer Price Index (CPI) differential of the country in question vis-à-vis the base country. The formula for the volatility is given in the annex.

a/ The real exchange rate is measured vis-à-vis the Saudi riyal for ESCWA and GCC member countries. The German mark is the base currency for the EU, the United States dollar is the base currency for the NAFTA countries, the Thai bat is the base currency for the ASEAN countries, and the Argentine peso is used as the base currency for the MERCOSUR countries.

b/ More diversified economies of the ESCWA region, including Egypt, Jordan, Lebanon, the Syrian Arab Republic and Yemen.

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

Chart XII. Volatilities of bilateral real exchange rates for selected ESCWA member countries vis-à-vis the Saudi riyal, measured as a standard deviation of monthly percentage changes, 1990-2000



In conclusion, the real exchange rate volatility of the ESCWA region has as a whole been modest, but not insignificant, in comparison with other regional trading blocks. The stability is mainly due to the stable macroeconomic environments of the GCC countries. Real exchange rate volatility has been higher for the more diversified ESCWA member countries, approaching levels of regions considered having volatile real exchange rates.

2. *Are Intra-ESCWA region real exchange rates misaligned?*

The generally stable prices and exchange rates cum diverging inflation rates in the ESCWA region point to the fact that rather than having volatile real exchange rates, real exchange rates are likely to be misaligned. In order to identify exchange rate misalignments within the ESCWA region, a definition of misalignment is needed. Exchange rate misalignment is not straightforward to define and even harder to measure. Several ways of defining and estimating the equilibrium real exchange rate have been proposed, however, and the most popular of these are outlined and discussed in the annex. One procedure is selected for the purposes of the present study, namely that of purchasing power parity (PPP)-based equilibrium exchange rates. PPP is based on the law of one price and asserts, in its most strict form, that given two identical products in different countries, the nominal exchange rate between the two countries should be such that the price of the two products is equal when quoted in the same currency. This strict form of PPP can be tested and used for evaluation of misalignment in the ESCWA region by selecting some standard traded products and comparing their domestic prices quoted in the same currency.

The Big Mac™ index conceived by *The Economist* magazine attempts to test PPP-based equilibrium exchange rates using the rationale that the price of a Big Mac™ is easily accessible, and the product is supposed to be identical across countries. Table 4 lists the Big Mac™ index in April 2002 for ESCWA member countries for which the price information was available.

TABLE 4. THE BIG MAC™ INDEX, MAY 2002

Country	Local Big Mac™ price in local currency	Local Big Mac™ price in Saudi riyals	Implied PPP of the Saudi riyal[a/]	Actual Saudi riyal exchange rate	Under (-) or over (+) valuation against the Saudi riyal
Bahrain	0.90 BD	8.96	0.10	0.10	-0.40
Egypt	6.5 EGP	5.41	0.72	1.20	-39.90
Jordan	1.80 JD	9.51	0.20	0.19	+5.64
Kuwait	0.65 KD	7.98	0.07	0.08	-11.32
Lebanon	4 300 LL	10.68	477.78	402.54	+18.69
Oman	1.0 OR	9.73	0.11	0.10	+8.08
Qatar	9.0 QR	9.26	1.00	0.97	+2.88
Saudi Arabia	9.0 SR	9.00	1.00	1.00	0.00
United Arab Emirates	9.0 DH	9.18	1.00	0.98	+1.96

*Source*s: Own calculations based on data from *Jordinvest Weekly Review and Analysis*, Issue No. 18, Vol. II, 26 May 2002; McDonald's Corporation regional sales office in Qatar; and *International Financial Statistics*, IMF.

a/ Implied PPP of the local currency is defined as the local price of a Big Mac™ divided by the Saudi riyal price of a Big Mac™ in Saudi Arabia.

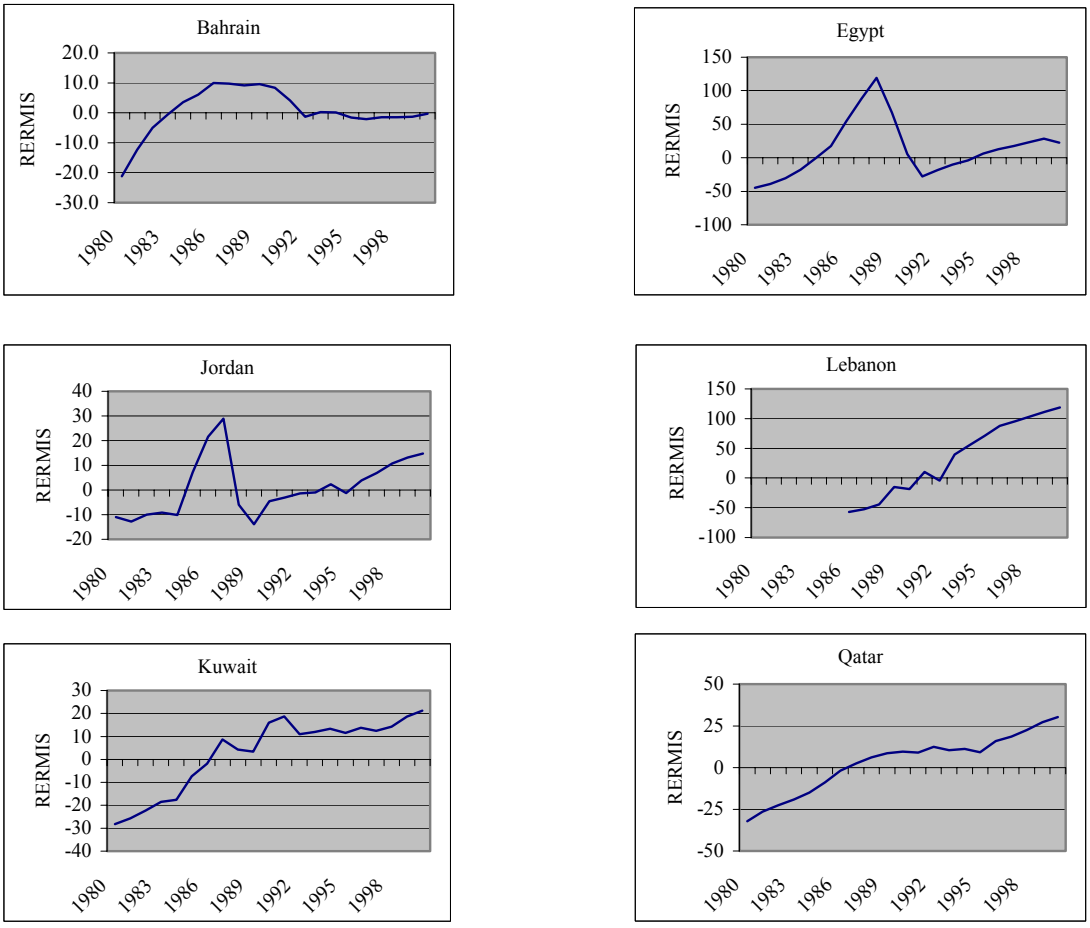
The Big Mac™ index implies that a few currencies of the region are substantially misaligned. Egypt, with an almost 40 per cent undervalued currency vis-à-vis the Saudi riyal, has the most undervalued currency, while the Lebanese pound is overvalued by 18.69 per cent vis-à-vis the Saudi riyal according to the Big Mac™ index. PPP calculations using the Big Mac™ price imply that the Lebanese pound is 97 per cent overvalued against the Egyptian pound.[15] Table 4 also shows that there is some degree of misalignment within the GCC subset of ESCWA member countries. The Omani rial is overvalued by 8.08 per cent while Kuwait's currency is undervalued by 11.32 per cent against the Saudi riyal according to the Big Mac™ index.

While the Big Mac™ index does provide some indication of which countries have misaligned currencies and by how much they are misaligned, there are many problems in using the price of a Big Mac™ as a proxy for the price level of tradable goods in each country. Most importantly, the index does not take into account productivity levels, in which the finding of a significantly undervalued Egyptian pound should be viewed. Moreover, a Big Mac™ is not a tradable good, and it is one of many goods and might not be representative, even though it is highly comparable across countries.

[15] Calculated by substituting the Saudi riyal with the Egyptian pound.

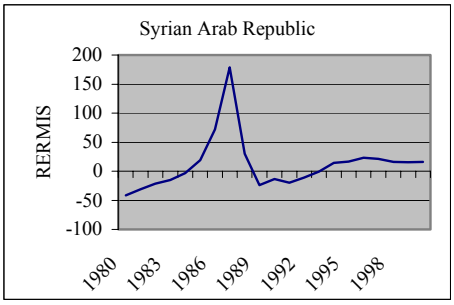
A more realistic version of PPP roughly states that over time, the relationship between the nominal exchange rate and the overall price differential between two countries should be one-to-one, and that this long-run relationship is an estimate of the equilibrium real exchange rate. If this long-run PPP-implied equilibrium real exchange rate is estimated, it can be used to calculate the misalignment of a currency over time. An empirical estimation of long-run PPP-implied equilibrium exchange rates for a subset of ESCWA member countries vis-à-vis the Saudi riyal has been carried out and the results are shown in the annex. The real exchange rates of the ESCWA member countries included in the analysis do not revert to a long-run equilibrium exchange rate during 1972-2000 (the period for which data was available).[16] PPP is hence not fulfilled for the four-country panel and cannot be used for the purposes of measuring real exchange rate misalignment. A third way of measuring misalignment is an approach somewhat similar to the PPP approach attempted above, but without testing for PPP. The PPP value of the currency is estimated as the average value of the real exchange rate over the period under study. The degree of real exchange rate misalignment (RERMIS) is then calculated as the divergence of the real exchange rate from this equilibrium real exchange according to the formula given in the annex. The resulting RERMIS measure misalignment is calculated for selected ESCWA member countries for which long enough time series are available (see chart XIII).

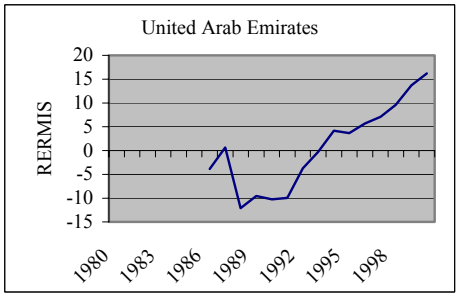
Chart XIII. RERMIS misalignment measure of the real exchange rate for selected ESCWA member countries, 1980-2000



[16] Long-run mean levels of the real exchange rate given by PPP have been estimated for many countries and regions of the world, and often with the conclusion that the real exchange rate did not exhibit such "mean reverting" behaviour, thus not supporting the presence of a PPP relationship. But for some countries, "mean reverting" behaviour of the real exchange rate has been found, and has been used to evaluate misalignment.

Chart XIII (*continued*)





The plots show that the most overvalued currency according to the RERMIS measure of misalignment is the Lebanese pound, with nearly 100 per cent overvaluation vis-à-vis the Saudi riyal in 2000. Egypt's real exchange rate is also found to be overvalued in 2000, but less than the Lebanese pound.[17] The rest of the countries are found to have overvalued currencies of between 10 and 20 per cent, except Bahrain, which is found to be more or less in equilibrium with the Saudi riyal. Compared to the conclusions of the Big Mac™ index, and taking into account that the latest observation of the RERMIS is from 2000, the two methods give largely consistent conclusions with regard to misalignment in the region, although the degree of misalignment found when using the RERMIS measure is quantitatively more extreme. Misalignments of the real exchange rate are likely to have prevailed or be prevailing for Lebanon and Egypt, and it is likely to be the case for Yemen as well, although lack of data prevents a quantitative analysis of this. Moreover, for countries such as Egypt, Jordan and the Syrian Arab Republic, the degree of overvaluation was high and comparable to the current degree overvaluation of the Lebanese pound, in the late 1980s, before these countries devalued their currencies substantially in 1988.

To sum up, the GCC countries' real exchange rate variability with its low inflation and high commitment to fixed exchange rates has mainly been due to differential inflation rates, and hence has mainly been an issue of real exchange rate misalignment in the medium- to long-term, rather than short-term volatility. On the other hand, more diversified ESCWA member countries such as Egypt, Lebanon, the Syrian Arab Republic and Yemen have experienced significant amounts of nominal exchange rate volatility as well as misalignments, in the last ten years. Moreover, in the future, increasing globalization of financial flows and trade, and regional economic integration in itself, may provide an additional challenge to the macroeconomic environments of the region. As flows of capital and goods become increasingly mobile across the region, ESCWA member countries will have to accept increasing volatility and will have to choose between surrendering their monetary policies to the defence of their currency pegs, or surrendering their currency pegs, with adverse consequences for real exchange rate stability.

C. Conclusion: Is real exchange rate variability an obstacle to trade in the ESCWA region?

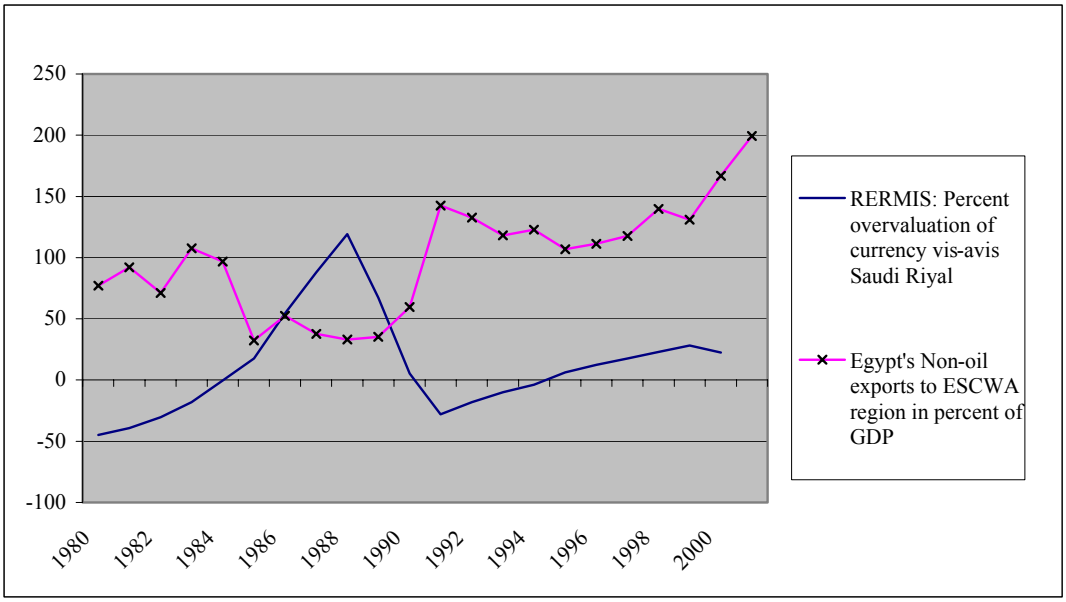
Taking a bird's eye view, the macroeconomic environments of the ESCWA member countries have compared favourably to that of other regions, such as MERCOSUR, NAFTA, and ASEAN, all of which have found macroeconomic policy coordination to be a necessary means for enhancing regional integration. However, not surprisingly, real exchange rates have been more volatile than those of the EU countries, and macroeconomic instability in the EU has been considered important enough for providing an obstacle for the free movement of goods and services within the single market. On the grounds of international comparison, it could therefore be argued that macroeconomic instability is an obstacle to increasing trade integration in the ESCWA region, which should be counteracted. However, the degree of macroeconomic instability is not uniform across ESCWA member countries. While the GCC countries have particularly stable macroeconomic environments, the more diversified economies suffer from substantial amounts of real

[17] The calculations do not include data for 2001 and 2002 and hence not the recent devaluations and depreciations of the Egyptian pound, but it does provide partial explanation of these devaluations.

exchange rate volatility and misalignments significantly curtailing competitiveness and exports. The effects of macroeconomic instability on intraregional trade in more diversified economies are therefore likely to be of greater magnitude.

Looking at the data, the volatility of the Egyptian pound and Yemeni rial, and the overvaluation of the Lebanese pound are likely to have had negative consequences for these countries' trade with the rest of the ESCWA region, as well as the rest of the world. In Lebanon's case, the dollar value of Lebanon's total exports fell by a yearly average of 4.5 per cent over the last five years, amounting to a compounded fall in the value of total exports between 1996 and 2001 of 30 per cent. During the same period, the dollar value of Lebanon's exports to the ESCWA region fell by 3 per cent yearly.[18] The Lebanese pound has become increasingly overvalued, implying that currency misalignment is very likely to have added to the fall in Lebanese exports to the region. The case of Egypt is investigated in more depth in chart XIV, which carries out a regression analysis of Egypt's total trade with the ESCWA region on the one hand, and the misalignment and volatility of Egypt's real exchange rate on the other hand. The conclusion is that there have been negative effects of real exchange rate volatility as well as real exchange rate misalignment during the last two decades. More specifically, the investigation finds that Egypt's trade with the ESCWA region was an estimated 20 per cent lower due to currency misalignment in 2000, and that trade could be increased by 14.5 per cent if real exchange rate volatility were reduced by 50 per cent (see box 4). Given the evidence that macroeconomic instability has been lowering Egypt's trade with the ESCWA region, it is very likely to have also been the case for other ESCWA member countries, particularly those which are more diversified, and in turn for the region as a whole.

Chart XIV. Egypt's trade with the ESCWA region and real exchange rate misalignment, 1980-2002



It is thus striking that macroeconomic policy coordination is going ahead with full speed between the GCC countries, while macroeconomic policy coordination is entirely absent between more diversified ESCWA member countries for which the high degree of macroeconomic instability seems to be a genuine hindrance to trade integration. The two points derived from the overview of experiences with macroeconomic policy coordination around the world seem to explain this paradox perfectly. The macroeconomic policy coordination of the GCC countries is being pulled by a strong political resolve to deeper integration, and the stable macroeconomic environment of the GCC region is conducive to implementing the necessary agreements. On the other hand, the will to form regional integration seems to be

[18] IMF, *Direction of Trade Statistics*, and ESCWA, *External Trade Statistics.*

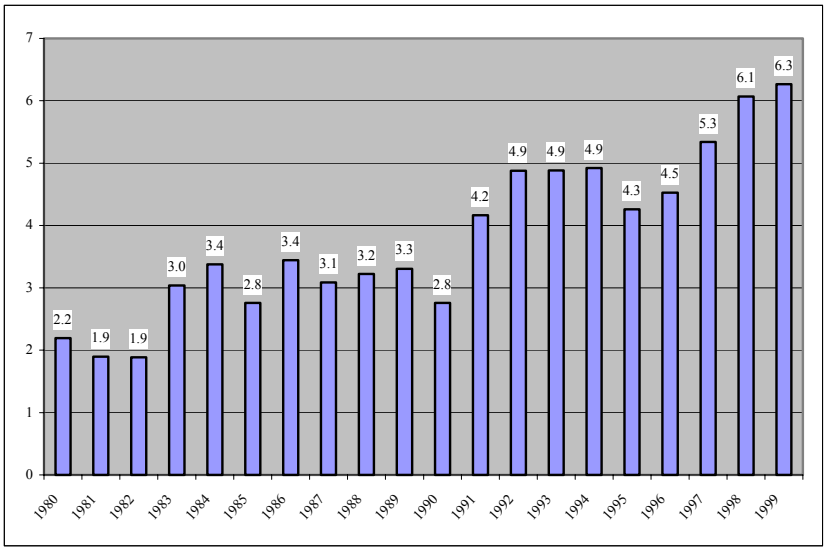
less pronounced for the more diversified economies, and, moreover, periods of relative stability during which macroeconomic policy agreements could be implemented have not been frequent in recent years. The overall situation of the macroeconomic environment, political will to integrate, and the effects of macroeconomic instability on intraregional trade of the ESCWA region can be characterized as bipolar, and this point is important to take into account in drawing policy recommendations for future macroeconomic policy coordination in the region.

Finally, with economic and financial liberalization increasingly on the global policy agenda, and regional economic integration increasingly becoming a requirement for economic development, capital flows are likely to become more mobile within ESCWA member countries as well as in the rest of the world. In this light, using the exchange rates as a nominal anchor for monetary policy, as is done throughout the ESCWA region, might become increasingly difficult to sustain. The Asian crisis is a good example of how macroeconomic stability can turn to regional crisis in the wake of increasing volatility of capital flows, when the institutional framework of the financial sector is not ready for integration into the global financial markets. The fact that several countries in the ESCWA region are characterized by unstable macroeconomic environments, such as high public debt burdens that were not present in South East Asian countries before their crisis, adds to the concern that real exchange rates of ESCWA member countries may become increasingly volatile in future. Macroeconomic instability may hence become a more important obstacle to intraregional trade in the ESCWA region in the future.

Box 4. The recent Egyptian devaluations and effects on trade with other ESCWA member countries

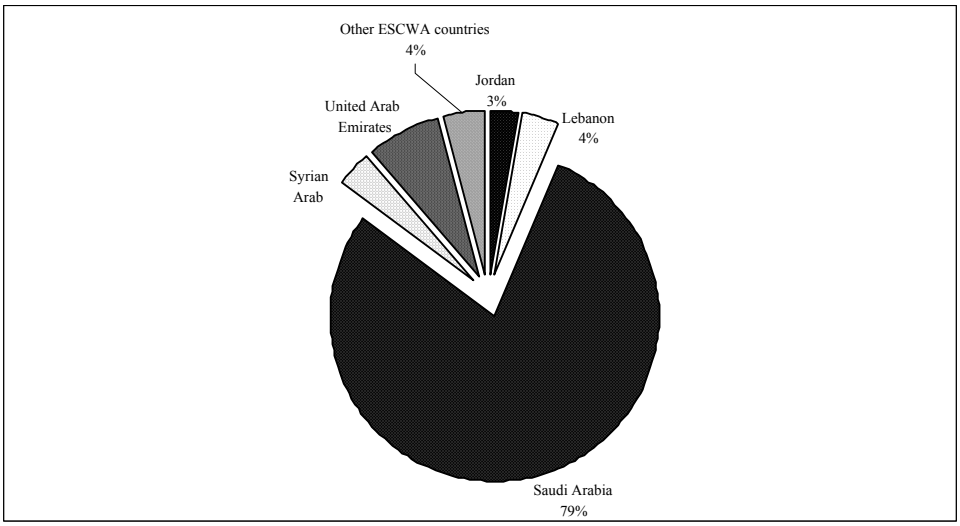
Egypt's trade with the ESCWA region is a rather small part of Egypt's total trade, but contrary to what has happened to overall trade integration in the ESCWA region in the 1990s, the ratio more than doubled during the 1990s, from 2.8 per cent in the beginning of the 1990s (see chart I below). In this sense, Egypt can be seen as a front-runner in the process of trade integration in the ESCWA region. Egypt's regional trade as a percentage of GDP has also been increasing during the 1990s, mainly due to increasing regional imports. The lion's share of these imports comes from Saudi Arabia, as illustrated in chart II below, while the Syrian Arab Republic, the United Arab Emirates and Lebanon are also important regional trade partners (see chart III below). Moreover, in recent years, Iraq has also joined the group in becoming a significant export destination for Egyptian goods through the oil for food programme. The main categories of goods traded between Egypt and other ESCWA member countries are textiles and other manufactures, beverages and tobacco, and chemicals and related products.

Chart I. Egypt's trade with the ESCWA region as a share of Egypt's total trade, 1980-1999



Box 4 (*continued*)

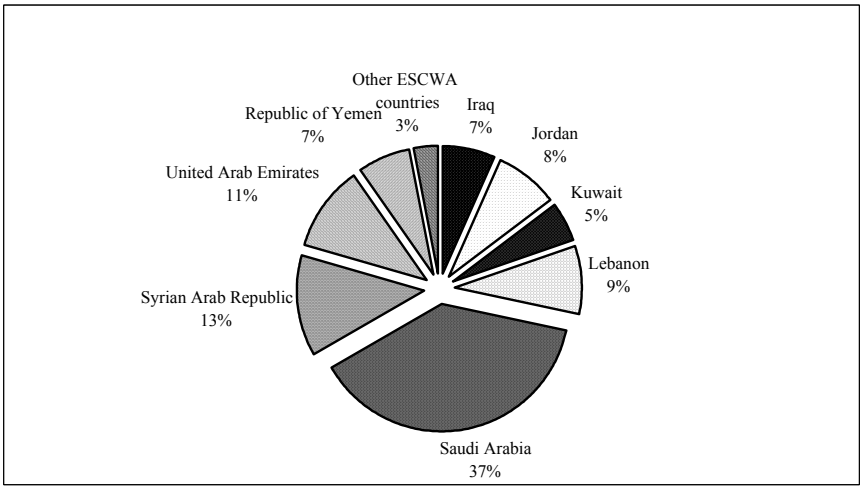
Chart II. Percentage distribution of Egypt's imports from other ESCWA member countries between 1995 and 1999, by country of origin



Egypt's macroeconomic environment has not been conducive to expanding trade during the last few decades, however, and the recent increases in intraregional trade hence must be explained by other factors (which will not be looked into here). The question posed here is, could Egypt's trade with the ESCWA region have increased even further in the event of a higher degree of macroeconomic stability?

As described above, inflation averaged almost 10 per cent in the 1990s (falling below 5 per cent in the latter part of the decade), and since the exchange rate was pegged again after the 1988 devaluation, continued high inflation rates implied that a real appreciation occurred during the 1990s as well. In late 1999, the exchange rate peg of the Egyptian pound was abandoned, and in January 2001, a new managed peg regime was introduced. The new regime allowed the pound to trade in a narrow band, initially set at 1 per cent, but the central rate was devalued several times, and the band widened since then, leading to a total devaluation of about 30 per cent of the initial 1999 rate in early 2002. However, pressures on the exchange rate peg continued to mount. In early 2003, the Egyptian pound was allowed to float, with the immediate effect of a depreciation of about 15 per cent.

Chart III. Percentage distribution of Egypt's exports to the ESCWA region between 1995 and 1999, by country of destination



Box 4 (*continued*)

The high inflation rates of the 1980s and early 1990s resulted in a substantial real exchange rate misalignment. Given the argumentation laid out in box 1 of the present study, we should hence expect that the real exchange rate misalignment of the last two decades in Egypt had an adverse effect on Egypt's overall as well as regional trade. A visual inspection of chart XIV above lends initial support to this claim by showing that the real exchange rate and total trade with the ESCWA region have moved closely together. Periods of real appreciation (indicated by a fall in the real exchange rate) have largely been associated with periods of falling total trade with the ESCWA region as a ratio of GDP. The notable exception is the period of the late 1990s, before the 1999 devaluation. There are many possible reasons for this increase in the late 1990s, one of which may be that Egypt's exports to Iraq increased substantially in this period. This increase in exports to Iraq was mainly due to the oil for food programme, and hence less respondent to the real exchange rate and the terms of trade. Another reason could be the falling real exchange rate volatility in the late 1990s, which brings us to the relationship between Egypt's real exchange rate volatility and trade with the ESCWA region.

The high inflation and devaluation of the late 1980s in particular, and to some extent the devaluations taking place between late 1999 and early 2002, led to real exchange rate volatility and possibly a negative effect on trade during these periods. However, disregarding the two periods of high real exchange volatility, the average level of real exchange rate volatility has been declining since 1980 in Egypt, mainly due to falling inflation rates during this period. This longer-term trend of a falling volatility is expected to have had a positive effect on trade. The chart also indicates that there is an inverse relationship between trade and volatility, if the periods of high real exchange rate volatility are disregarded. It is harder to identify a fall in trade flows due to the two peaks of high volatility of the late 1980s and late 1990s, which among other things may be due to the associated fall in the real exchange rate of these two periods.

Keeping in mind that a correlation in time of the movement of two variables says nothing about the causal relationship between these variables, and that changes in imports and exports could potentially just as well have caused changes in the real exchange rate than vise-versa, a simple regression of the relationship between Egypt's trade with the ESCWA region on the other hand and real exchange rate misalignment and volatility on the one hand, as shown in equation 1, is carried out. The technical details of the investigation are referred to in the annex.

Equation 1 $\log(Trade_t) = \alpha + \beta_1 \bullet \log(RERMIS_{t-1} + 100) + \beta_2 \bullet \log(vol_{-1}) + \varepsilon$

The results of the regression are shown in the table below. The regression analysis confirms that the real exchange rate misalignment has a significantly negative effect on Egypt's trade to the ESCWA region in percentage of GDP. The elasticity of trade to real exchange rate misalignment is estimated to be -0.92. This implies that trade with the ESCWA region was an estimated 20 per cent lower due to currency misalignment in 2000. In contrast, just after the nominal devaluation and implied re-alignment of the real exchange rate in 1990, the effect was a mere 4.8 per cent.

TABLE. ESTIMATION RESULTS FOR EQUATION 1

Dependent variable / Explanatory variable	Total trade in percentage of GDP	Exports to other ESCWA member countries in percentage of GDP	Imports from other ESCWA member countries in percentage of GDP
Log(RERMIS$_{-1}$+100)	**-0.92** (0.02)	**-0.89** (0.03)	-0.9 (0.07)
Log (vol$_{-1}$)	**-0.29** (0.05)	-0.16 (0.32)	**-0.4** (0.02)
p-value	0.02	0.03	0.07
R^2	0.39	0.22	0.42

Note: Numbers in parentheses are p-values for the t-test of the parameter being equal to zero. Numbers in bold are significant on a 5 per cent significance level.

Similarly, the regression analysis confirms that real exchange rate volatility has a significantly negative effect on the ratio of overall trade to GDP and, in particular, on Egypt's imports from the ESCWA region in percentage of GDP. The elasticity of ESCWA trade to real exchange rate volatility is estimated at -0.29. This implies that Egypt's trade with ESCWA would increase by 14.5 per cent in any given year, if real exchange rate volatility were reduced by 50 per cent.

In conclusion, macroeconomic instability in the shape of real exchange rate misalignment and real exchange rate volatility do seem to have had negative implications for Egypt's trade with the ESCWA region during the past two decades. It is also very likely to have been the case for other ESCWA member countries, and for the ESCWA region as a whole.

IV. OPTIONS FOR MACROECONOMIC POLICY COORDINATION TO ENHANCE ECONOMIC INTEGRATION IN THE ESCWA REGION

The previous chapter has shown that there is a case for increasing macroeconomic policy coordination in the ESCWA region in order to boost intraregional trade. This chapter provides a scale of options for macroeconomic policy coordination as derived from the experience of other regions, and a discussion of desirable and feasible options for the ESCWA region on this scale.

A. SCALE OF OPTIONS FOR REGIONAL MACROECONOMIC POLICY COORDINATION

As international experiences in macroeconomic policy coordination shows, there are numerous experiences to draw on for policy options. This section will draw on the multitude of literature on options for macroeconomic policy coordination in setting up a scale of options for regional macroeconomic policy coordination arrangements. The scale begins with a simple exchange of information on national macroeconomic conditions and policies, and ends with a description of monetary unification.

1. *Exchange of information*

The exchange of information on national macroeconomic variables is a first step in macroeconomic policy cooperation, which may lead to further coordination. Arrangements for exchange of information can take many forms, from statistical agencies providing statistical information to each other before this information is publicly released, to high-scale regular meetings between economic or finance ministers or other high-level officials to discuss macroeconomic issues, and how best to achieve common goals through cooperation. Information exchange on macroeconomic issues exist as the minimum macroeconomic policy cooperation in most integration regions as well as on the international level, as exemplified by the Group of 8 summits.

2. *Macroeconomic surveillance and peer group pressure*

In addition to exchanging information on macroeconomic issues, such meetings may be complimented with a more institutionalized framework for macroeconomic policy coordination by agreements on common targets for macroeconomic policy variables or goals. Such targets could include stabilization of nominal exchange rates or setting upper limits for the budget deficit or the public debt level, inflation, or interest rates. The adherence to such goals is, in turn, ensured by mutual surveillance in the form of peer reviews of the macroeconomic situation in the countries which are parties to the agreement, and peer group pressure to comply in cases of non-compliance. The Macroeconomic Surveillance Process of ASEAN is a prominent example of this type of macroeconomic policy coordination. The main drawback of such arrangements is the lack of commitment mechanisms. Adherence to the provisions of an agreement hinges on the perceived trade-off between the benefits of reneging to achieve short-term improvement of economic conditions or domestic political goodwill and the costs of reneging in terms of loss of reputation for living up to agreements, international goodwill, and triggering other countries to renege as well. In times of economic or political strain or crisis, the benefits often seem to outweigh the costs. However, macroeconomic surveillance and peer group pressure schemes may serve as precursors for more binding forms of macroeconomic policy coordination.

3. *Pact-style arrangements, including enforcement mechanisms*

These types of schemes, here termed pact-style arrangements after the example of the Stability and Growth Pact of the EU, consist of agreements on macroeconomic policy goals or targets and macroeconomic surveillance of the progress toward achieving these targets, in addition to an enforcement mechanism to ensure compliance by the parties to the agreement. In the case of the EU's Stability Pact, the enforcement mechanism consists of a non insignificant fine to be imposed on EU member countries which breach the upper limit of the budget deficit of 3 per cent of GDP without taking the measures recommended by the EU to reduce the deficit. The drawback of such types of arrangements is that its credibility still hinges on the member countries' recognition of the authority of the agreement. Countries, who at one point in time opt into a pact-style agreement, might later in time have Governments which do not feel ownership of the agreement

and therefore seek to undermine its provisions or opt out. The currently increasing budget deficits of EU member countries and the questioning of the appropriateness of the design of the Stability Pact currently may become an example of how a process of undermining a pact-style agreement may take place.

4. *Nominal exchange rate arrangements*

This type of macroeconomic policy coordination involves setting a common monetary policy (fixed but adjustable exchange rates), which is to be defended against market pressures by common means. A nominal anchor for the exchange rate of all parties to the agreement is identified, in terms of an either external or internal anchor currency or basket of currencies, and agreements are made on who should step in to defend which currency and by how much when under exchange market pressure. The exchange rate parities will usually be adjustable, in order to allow for cases in which inflation differentials have created real exchange rate misalignments, and adjustments would be subject to the agreement of all parties along the lines of a predetermined procedure for approval.

Several examples of such nominal exchange rate arrangements have existed around the world. The Bretton Woods system before its breakdown in 1973 was a nominal exchange rate arrangement with fixed parities to the United States dollar, which was in turn pegged to the price of gold. The Asian Monetary System proposed for ASEAN is an example of an envisaged nominal exchange rate arrangement. Moreover, the two such systems in place in the then EC during the 1970s and 1980s (the "snake" and the EMS) made provisions for mutual assistance in cases of exchange market pressure on the bilateral parities of the exchange rate grid. There are many prerequisites for an agreement like this to be implementable. Most notably, exchange rates should be market determined in all countries party to the agreement. Furthermore, a certain degree of independence of central banks from central Government makes these types of agreements run smoother, since independent central banks are found to breed more fiscal restraint and hence less inflationary pressures. However, history shows that this is not a necessary condition, since most of the European central banks were far from being independent in the 1970s and even the1980s, and few of the central banks of countries adhering to the Bretton Woods system before 1973 were independent.

Challenges to nominal exchange rate arrangements are the same as the challenges to unilateral pegs to an anchor currency. If markets believe that an adjustment of an exchange rate parity is imminent due to misalignment, this belief in itself may lead to capital flight and, in turn, to the collapse of a currency—a self fulfilling prophecy. The pooled forces of the parties of the agreement may mitigate this challenge, however. In this sense, a nominal exchange rate arrangement can be compared to an agreement of mutual defence. It diversifies risk and provides deterrence of speculative attacks. Given a situation where all countries have unilaterally chosen a fixed exchange rate policy, there are no real drawbacks to a nominal exchange rate arrangement.

5. *Monetary unification*

As the term implies, monetary unification requires an irrevocable locking of nominal exchange rates and the establishment of a common central bank. Monetary policy is to be determined centrally. The only theoretical difference between a monetary union and a nominal exchange rate arrangement is that in a monetary union, there is no option for adjusting the exchange rate parities to misalignment caused by differential inflation rates or supply or demand shocks hitting the region in an asymmetric manner. These other variables will have to adjust to the locked exchange rates, and not vise-versa. Of course, there are many other practical, and, more importantly, political, differences. One such difference is that under monetary unification, the national governments have to be ready to delegate monetary policy entirely to the politically independent supranational and central monetary authority. Monetary unification hence implies independence of the monetary policy from the influence of national fiscal authorities.

"Monetary Union" has become a buzzword after the rather successful implementation, to date, of the EMU. The GCC countries have a timetable for the establishment of a common currency by 2010, the MERCOSUR has been discussing a potential future monetary unification, and several African regional economic areas are discussing the way forward to a common currency.

Disregarding whether monetary unification is politically feasible or desirable,[19] introducing a common currency bears with it economic costs as well as benefits, which can be weighed against each other to determine the economic rationale for aiming for monetary unification for a given region. These costs and benefits are given by the theory of Optimum Currency Areas (OCA) and relate to the loss of devaluations as an adjustment mechanism. OCA theory identifies certain criteria that a region should fulfill for it to be economically optimal to let go of the adjustment tool of a national currency. These criteria include whether the countries have similar production and trade patterns, whether economic supply and demand shocks are likely to be asymmetric across the countries, whether economic cycles are symmetric across borders. The set of OCA criteria is very restrictive. The EU countries were not found to fulfill the criteria before monetary unification. However, it has often been argued that once a common currency is introduced, the synchronization of economic cycles will follow due to the derived boost of trade integration. OCA criteria are met ex post rather than ex ante, and that political resolve to economic integration remains the driving force behind monetary unification, not uncertain economic benefits.

B. Policy recommendations for the ESCWA region

The going attempt at macroeconomic policy coordination in the ESCWA region embodied in AMF is having difficulties delivering on its mandate primarily due to a lack of regional as well as international political support. However, as this study has shown, failing or postponing macroeconomic policy coordination is not costless. In addition to many other adverse economic effects, macroeconomic instability sets back trade integration, and in turn slows growth in the region, all else being equal.

Setting up policy coordination to reduce macroeconomic instability does not have to entail political or financial sacrifices in any sense. Setting up successful, welfare-enhancing macroeconomic policy coordination in the ESCWA region hence requires a change of mind-set of policy makers to realize this point. It is hoped that this study will provide an initial contribution to such change.

On a more concrete note, macroeconomic policy cooperation in the ESCWA region should be gradual. A first step is to set up, at a very minimum, guidelines for the exchange of information on macroeconomic developments between Governments or other relevant authorities. Better yet, consensus targets for macroeconomic variables, such as deficits and public debt ratios, and further, exchange rate policies, should be identified and guidelines should be provided for macroeconomic policy surveillance and peer group pressure to follow the provided guidelines. Such cooperation may be the initial first step that paves the way for future and farther-reaching agreements. Moreover, this step is straightforward to implement, and the natural framework for institutionalizing such initiatives would be within the GAFTA treaty, with a specific reference to the aim of enhancing trade integration among GAFTA member countries.

A second step is to start envisaging an Arab nominal exchange rate arrangement sustaining GAFTA. Examples of de facto cooperation to support and sustain nominal pegs in the region have already taken place in the region, such as the financial help extended by certain GCC countries to the Lebanese Central Bank in the summer of 2002 during pressure on the Lebanese pound. Institutionalizing such cooperation would strengthen and increase transparency and credibility of the prevalent fixed exchange rate policies of the countries of the region. Preparing to move towards explicit cooperation on sustaining nominal pegs of exchange rates raises several preliminary questions concerning the design of such an arrangement. For example, most countries that are parties to the GAFTA agreement are currently pegging to the United States dollar, for the main reason that oil prices are quoted in dollars. While a regional anchor, such as the Saudi riyal, is not realistic due to the high degree of trade with third countries, the increasing international importance of the euro, and the fact that Europe is a much more important trading partner than the United States for Arab countries justify some consideration as to whether a nominal anchor for an Arab nominal exchange rate mechanism should be the euro rather than the dollar. The sooner a policy debate addressing this issue and others regarding explicit design of the mechanism is commenced, the sooner macroeconomic

[19] Monetary unification fortifies central bank independence. Although this is a political issue, committing to long term central bank independence through monetary unifications has the potential to bring many economic benefits, as demonstrated by the seminal work of Kydland and Prescott (1977).

policy cooperation on sustaining a grid of bilateral nominal exchange rates to enhance regional integration can take root and contribute to development growth in the ESCWA region.

Finally, the experience of the EU shows that, as capital mobility increases and globalization expands, currency pegs become unstable even with strong backing of several central banks. Monetary unification was seen as the solution to this problem in the EU. Against this background, it could be suspected that a gradual build up of macroeconomic policy coordination in the ESCWA region would lead to monetary unification, as globalization and financial liberalization expand. However, many factors, and not just pace, distinguish the regional integration process in the Arab world from that of the EU. First, political will to give up monetary sovereignty would be hard to garner. Moreover, some degree of freedom to adjust nominal exchange rates in the ESCWA region will be needed for some time to come due to the high degree of asymmetry of economic shocks, not least between the more diversified economies and the oil-exporting countries. However, what is probably most important, ESCWA member countries currently conduct most of their trade and have more financial transactions with a third group of countries, and the stability of the exchange vis-à-vis that group is therefore of higher importance, as well as harder to maintain. At least initially, financial liberalization in the ESCWA region is likely to result in higher volatility of financial flows between the ESCWA region and the rest of the world, in turn straining exchange rates vis-à-vis the third group of countries rather than regional bilateral exchange rates. A unification of currencies within the ESCWA region would not address this issue.

However, the ESCWA member countries are aiming at increased regional integration, and increasing intraregional volatility of financial flows in the future cannot be ruled out. Monetary unification should therefore not be excluded as a future evolution in the monetary systems of ESCWA member countries.

V. CONCLUSION

Macroeconomic instability in terms of high and variable inflation rates and volatile nominal exchange rates lead to real exchange rate volatility and misalignments, or in brief, real exchange rate variability. Moreover, real exchange rate variability affects trade through two overall channels: (a) the cost-uncertainty channel, stating that uncertainty about the future real exchange rate leads to higher hedging cost and increased risk-taking related to international trade, in turn limiting international trade; and (b) the lobbying channel, describing how lopsided competitiveness related to a misaligned currency may lead to lobbying for increased protection from the import-competing industry, which policy makers can exploit for personal political gains.

Looking at the experience of regional integration and macroeconomic instability around the world shows that macroeconomic stability is an essential component of successful regional economic integration. However, the experience of other regional trading blocks also shows that implementing regional coordinated macroeconomic policies to limit macroeconomic instability for this very purpose is not straightforward. Two components seem to be required for macroeconomic policy coordination to be implementable and successful: (a) sufficient political will to override national short-term interest and sovereignty for the sake of the common good of regional macroeconomic stability; and (b) the existence of prolonged periods of macroeconomic stability, during which policy makers do not have to conduct day-to-day macroeconomic crisis management and instead can focus on longer-term priorities.

The ESCWA region as a whole has not been very successful in increasing intraregional trade despite its attempts to create regional trade agreements in recent history. ESCWA's intraregional trade compares poorly to that of other regions, irrespective of how it is measured. Moreover, attempts at implementing multilateral trade agreements in the ESCWA region have been abandoned one after another since the League of Arab States was created in 1945 and started initiating such policies in the 1950s. There are many reasons for this poor performance.

This study has analysed the potential role of macroeconomic instability in slowing down the trade integration process in the ESCWA region. The ESCWA region is usually argued not to suffer from the scale of macroeconomic instability of most developing regions of the world, due to the low inflation rates and widespread commitment to fixed exchange rates vis-à-vis the United States dollar. However, this perception is derived from a generalization and a focus on the main oil-producers of the region. The perception thus does not hold when a more detailed analysis is conducted. This study has shown that the macroeconomic instability among the more diversified economies of the ESCWA region reaches levels comparable to those of ASEAN and MERCOSUR, both of which have been plagued by macroeconomic instability with adverse consequences for intraregional trade. In particular, Egypt, Lebanon and Yemen are found to have substantial degrees of exchange rate volatility and persistent real exchange rate misalignment over the last few decades. In addition, regression analysis for Egypt shows that there is an empirical negative relationship between Egypt's trade with other ESCWA member countries on the one hand, and Egypt's real exchange rate volatility and misalignment on the other hand. Hence, in addition to other obstacles to trade, macroeconomic instability is found to be slowing down trade integration in the ESCWA region. Postponing macroeconomic policy cooperation is therefore costly in terms of a delay of regional trade integration and, in turn, growth and economic welfare.

Further, the increasing integration of ESCWA member countries into the world economy as well as within the region may in itself provide for increasing macroeconomic instability. Based on the experience of other regions of the world, greater reliance on international capital flows and the increasing mobility of intraregional capital flows should be expected to increasingly impede the defence of pegged exchange rates in the region. Without adequately preparing financial and other institutions for higher amounts of volatility, crisis situations may become more frequent in the ESCWA region in the future. To date, no studies have established the preparedness of financial institutions and capital markets of the ESCWA region for coping with increasing integration into the world financial markets. Given the importance of this question, such a study should be a priority.

So what are the options for cooperating on lowering macroeconomic instability, given the lack of success of previous attempts? First, it is important that policy makers in the region understand that macroeconomic policy cooperation is a positive sum game, and that all countries in the region stand to miss out in terms of potential welfare-enhancing trade integration if further delayed. Only from such an understanding does macroeconomic policy cooperation become feasible in the ESCWA region. Second, studying other trading blocks around the world allows setting up a scale of options for macroeconomic policy coordination, starting with arrangements for exchange of information on macroeconomic policy variables to fully-fledged monetary unification. Using these examples and adapting them to the context of the ESCWA region, a gradual approach to cooperation is proposed. First, setting up guidelines for the effective exchange of information on macroeconomic variables between member countries would be straightforward. Further, forming a consensus on common goals and targets for key macroeconomic variables and instituting a framework for macroeconomic surveillance and peer group pressure to see that member country policies conform to these targets would be desirable. A natural framework for this sort of policy cooperation would be within the GAFTA agreement, with the explicit aim of creating a fruitful environment for trade integration among the member countries. Finally, nominal exchange rate arrangements for sustaining pegged exchange rates in the region should be considered at this stage, as a preemptive measure against future increases in financial volatility, as capital mobility and financial integration of the ESCWA region increase.

Annex

A. MEASURES OF EXCHANGE RATE VOLATLITY

When measuring the volatility of an exchange rate, frequency and degree of variation of changes in the exchange rate should be taken into account. There are several ways of doing so, three of which are described in Dell'Ariccia (1998). A popular and straightforward measure is to compute the standard deviation of the percentage change of the exchange rate, which has been applied in chapter III. The formula for this measure is

Equation 1

$$Vol_i = \sqrt{\frac{m \cdot \sum_{t=1}^{m} \left[\frac{(NER_{i,t} - NER_{i,t-1}) \cdot 100}{NER_{i,t}} \right]^2 - \left[\sum_{t=1}^{m} \frac{(NER_{i,t} - NER_{i,t-1}) \cdot 100}{NER_{i,t}} \right]^2}{m(m-1)}}$$

where *m* is the number of years for which the measure is being calculated.

B. DERIVATION OF THE REGIONAL AND BILATERAL REAL EFFECTIVE EXCHANGE RATE

The real exchange rate definition used in this study is derived from the basic traded-non traded goods model of Dornbusch, which is as follows for country j:

Equation 2

$$RER_{jt} = NER_{jit} \cdot \frac{WPI_{it}}{CPI_{jt}}$$

where *NER* is domestic currency of country *j* per country *i*'s currency, $P^{traded}{}_i$ is the price of tradables in country I while $P^{non\text{-}traded}{}_j$ is the price of nontradables in country j. WPI, the wholesale price index, is usually used as a proxy for the price of tradables (exports) and the consumer price index is usually used as a proxy for non-tradables. In the context of ESCWA member countries, however, only the CPI is used as a proxy for both prices due to the lack of sufficient WPI data for most of these countries. But the real bilateral exchange rate does not take into account fluctuations in other trading partner countries' exchange rate. To account for this, the concept of a "regional real exchange rate" is developed here. RRER is calculated using the traditional formula for effective exchange rates, but only taking into account the trading partners of the region. The trade weights for the RRER are shown below. The trade weights for a given country (country *j*) are calculated as the sum of imports from and exports to the trading partner (country *i*):

$$\varpi_{ji} = \frac{im_{ji} + ex_{ji}}{\sum_k im_{jk} + ex_{jk}}$$

where im_{ji} is imports to country *j* from country *i,* ex_{ji} is exports from country *j* to country *i* in a base year (to be chosen), and *k* is the list of trading partners of which partner *i* is included. Exceptionally, Saudi Arabia export data is taken from partner countries importing from Saudi Arabia, as Saudi Arabia does not make this data available. The RRER is calculated as the regional trade weighted arithmetic average of the bilateral real exchange rates of the regional trading partners according to Edwards (1994):

$$RRER_j = \sum_k \omega_{ji} \cdot NER_{ji} \cdot \frac{WPI_i}{CPI_j}$$

1995 has been chosen as base year for calculating the trade weights.

C. PPP REGRESSION ANALYSIS OF BILATERAL REAL EXCHANGE RATES

In order to test for PPP (mean reversion of the real exchange rate), with the aim of computing the PPP implied equilibrium real exchange rate, equation 3 is estimated for each of four ESCWA member countries

for which sufficient data was available (Bahrain, Egypt, Jordan and Kuwait) vis-à-vis the Saudi Arabian riyal. Subsequently, equation 4 is estimated for the pooled data of the four countries in order to increase the degrees of freedom. The panel cointegration test is carried out using panel dynamic ordinary least squares (DOLS) as devised in Mark and Sul (1999), and cointegration is tested using Kao (1999). But before the cointegration tests are carried out, all series are tested for unit roots using simple augmented Dickey-Fuller tests in the country-by-country case, and using the panel unit root tests devised in Im, Peseran and Shin (1999). All results are given in the tables below. As is clear from the results, cointegration is only found in a few cases in the country-by-country approach, but the PPP hypothesis is rejected in all cases. Consequently, the PPP approach to estimating equilibrium real exchange rates cannot be used.

Equation 3

$$\log NER_{t,ij} = \alpha_{ij} + \beta_1 \cdot (\log P_{t,i} - \log P_{t,j}) + \varepsilon_{t,ij}$$

Equation 4

$$\log NERSA_{t,i} = \alpha_i + \beta_1 \cdot (\log CPI_{t,i} - \log CPISA_t) + \sum_{s=-n}^{n} \beta_{s+n+2,i} \cdot \Delta(\log CPI_{t+s,i} - \log CPISA_{t+s}) + \varepsilon_{t,i}$$

where $\alpha_{ij} = \log(\mu_{ij}) \bullet \mu_{ij}$ is the PPP implied constant mean of the real exchange rate, and ε_t proxies the variation around the mean in addition to measurement and other errors. PPP is fulfilled if estimating equation 3 and equation 4 generate residuals that are stationary and β_1 is statistically accepted to be equal to one.

ANNEX TABLE 1. AUGMENTED DICKY-FULLER UNIT ROOT TESTS FOR THE LEVELS OF NOMINAL EXCHANGE RATES AND PRICE DIFFERENTIALS VIS-À-VIS SAUDI ARABIA

Variable	Country	t-statistic	5 per cent critical value	Hypothesis of a unit root
Nominal exchange rate vis-à-vis Saudi Arabia	Bahrain	-2.26	-3.54	Accepted
	Egypt	-2.46	-3.52	Accepted
	Jordan	-1.59	-2.93	Accepted
	Kuwait	-2.39	-3.52	Accepted
Price differential vis-à-vis Saudi Arabia	Bahrain	-0.78	-2.95	Accepted
	Egypt	-2.05	-2.94	Accepted
	Jordan	-0.87	-2.96	Accepted
	Kuwait	-0.95	-2.97	Accepted

ANNEX TABLE 2. COINTEGRATION TESTS FOR THE REGRESSIONS OF EQUATION 3 FOR THE INDIVIDUAL COUNTRIES USING JOHANSENS' PROCEDURE

Country	Likelihood ratio statistic	5 per cent critical value	Hypothesis of no cointegration
Bahrain	10.39	15.41	Rejected
Egypt	21.52	15.41	Accepted
Jordan	7.17	15.41	Rejected
Kuwait	6.57	15.41	Rejected

ANNEX TABLE 3. ESTIMATED PARAMETERS FOR THE COINTEGRATING RELATIONSHIP OF EQUATION 3 FOR THE INDIVIDUAL COUNTRIES FOR WHICH COINTEGRATION WAS ACCEPTED, AND TEST OF PPP

Country	log(CPI)-log(CPI_{saudi})	Constant	Wald statistic for slope = 1	p-value
Bahrain	0.47	3.33	198.5	0.000
Jordan	0.18	2.75	522.9	0.000
Kuwait	0.49	3.61	159.1	0.000

ANNEX TABLE 4. IPS UNIT ROOT TEST STATISTICS
SAMPLE: 1972-1999 (T = 28)
COUNTRIES: BAHRAIN, EGYPT, JORDAN, KUWAIT (N = 4)

Series	Average t-stat of levels	IPS critical value 5%[a/]	Unit root levels	Average t-stat of logs	IPS critical value 5%[a/]	Unit root logs of levels
CPI-CPISA	-1.50	-2.8	Accepted	-3.15	-2.8	Rejected
NERSA	-1.96	-2.8	Accepted	-1.97	-2.8	Accepted

a/ IPS critical values are tabulated in Im, Peseran and Shin (1997).

Notes: One lagged differenced term, constant and time trend, and no dummy for 1988.

ANNEX TABLE 5. COINTEGRATION TESTS (BASED ON KAO 1999) FOR THE FIXED EFFECTS PANEL DATA REGRESSION OF NERSA ON CPIWPISA

	Test statistic	5 per cent critical value (standard normal distribution)	Null hypothesis of no co-integration
$DF_{\grave{a}\rho}$	-2.26	-1.64	Rejected
DF_t	-1.58	-1.64	Accepted

ANNEX TABLE 6. PANEL DOLS REGRESSION RESULTS FOR BAHRAIN (BH), EGYPT (EG), JORDAN (JO), AND KUWAIT (KW), 1972-1999
(*Three lags and leads*)

Explanatory variable	Parameter estimate	Wald test stat parameter=1	p-value
β_1	0.37	380.8	0.000
α *-BH*	-3.15		
α *-EG*	-1.91		
α *-JO*	-3.00		
α *-KW*	-3.51		

ANNEX TABLE 7. PANEL DOLS REGRESSION RESULTS FOR BAHRAIN (BH), JORDAN (JO) AND KUWAIT (KW), 1972-1999
(*Three lags and leads*)

Explanatory variable	Parameter estimate	Wald test stat parameter = 1	p-value
β_1	0.42	340.9	0.000
α *-BH*	-3.23		
α *-JO*	-3.05		
α *-KW*	-3.57		

D. THE RERMIS MEASURE OF MISALIGNMENT

Since the PPP approach to estimating the equilibrium exchange rate does not work with the data of ESCWA member countries, another measure of the equilibrium real exchange rate is used. Domac and Shabsigh (1999) calculate several different measures of misalignment of the Egyptian, Jordanian, Moroccan, and Tunisian currencies vis-à-vis the United States dollar, including a model-based approach and using black market premiums. They also use a PPP-based approach, which is somewhat similar to what has been attempted above, but without testing for PPP. More specifically, they assume that PPP holds, and estimate the PPP value of the currency as the average value of the three lowest points of the currency exchange rate over a certain period vis-à-vis the dollar, arguing that developing countries will tend to have overvalued currencies vis-à-vis a developed country, and that the exchange rate is closest to its equilibrium value just after a devaluation or substantial depreciations.

A similar approach is taken here, but with the main difference that in the present context exchange rates are vis-à-vis another developing country, namely Saudi Arabia. Hence, instead of taking the average of the three lowest points, the average of the entire time period is assumed to be the equilibrium real exchange rate. The degree of misalignment is therefore calculated according to the formula:

$$RERMIS_{it} = \frac{\frac{1}{n}\sum_{s=1}^{n} RERSA_{is}}{RERSA_{it}} - 1$$

where n is the number of years of the time series considered, i is the country in question, and *RERSA* is the real exchange rate in terms of local currency per Saudi Arabian riyal. Hence, the higher the value of RERMIS, the more overvalued the currency is against the Saudi Arabian riyal. The real exchange rate vis-à-vis the Saudi Arabian riyal is calculated as described above. The RERMIS is calculated for all ESCWA member countries except Iraq, Oman, Palestine and Yemen due to the lack of data availability for the years 1980-2000. For the United Arab Emirates and Lebanon, however, the series is only calculated from 1986 to 2000 due to the lack of data prior to 1986.

E. The case of Egypt: Real exchange rate variability and trade with the ESCWA region

Regarding data issues, total trade is aggregated from the bilateral data for the value of trade of 11 ESCWA member countries, taken from the *Direction of Trade Statistics* (DTS) database of IMF. This data is based on customs data on a cash basis. Trade, which is exempt from customs, hence does not figure in these statistics, such as the trade of the free-trade zones with the rest of the world and trade financed by grants. These statistics do, however, include trade between the free-trade zones and Egypt as foreign trade. The DTS statistics may be downward-biased by the incentive to write lower prices that the actual transaction price on the customs declarations, in order to reduce the customs bill. However, this bias should not be systematically related to changes in the exchange rate, and hence should not be a problem for estimating the effect of changes in the exchange on trade. Another source of bilateral trade statistics is the Central Bank of Egypt (CBE), which relies on the flow of foreign currency funds for financing imports and exports, and hence is on an accrual basis. The CBE statistics include trade between the free-trade zone and the rest of the world, as well as trade financed by grants. However, the CBE statistics may be influenced by the delay or lack of repatriation of export proceeds. When export proceeds are kept entirely outside the country, the trade related to these proceeds does not figure in the CBE statistics. Therefore, the CBE statistics may also be downward-biased, and this bias may be correlated with the real exchange rate insofar as the exchange rate is correlated with a potential black market premium.[20] The DTS statistics are therefore chosen for this analysis. The measure of real exchange rate misalignment is the one defined and calculated in the present annex. A value of 100 is added to RERMIS before the log is taken so as to make all values of the explanatory variable non-negative for taking the logarithm. The measure of exchange volatility is also defined, and calculated for monthly data in order to have yearly observations. All variables are entered into the equation in logs, so as to estimate elasticities rather than nominal impact, which makes more intuitive sense.

Regarding simultaneity issues, there is a potential inverse causality problem in looking for the effect of the real exchange rate on trade, in that changes in trade which are independent of changes in the real exchange rate may, in turn, affect the real exchange rate through the changes in demand for foreign currency to finance trade. Lagging the real exchange rate measure by 1 year reduces this problem. The regressions are carried out using weighted least squares to take into account serial correlations, and White heteroskedasticity-consistent standard errors are used.

[20] Since the devaluations of 1999-2002, a black market has evolved for foreign currency in Egypt, which did not exist before the devaluation of 1999 (when disregarding the period before 1991 and the beginning of Egypt's structural adjustment programme). The black market premium on foreign currency is not available for Egyptian exporters when they repatriate their foreign currency earnings, and this black market premium might hence have increased the incentive to keep foreign currency earnings abroad instead of repatriating them. If this is the case, then CBE official statistics on trade flows have underestimated exports since 1999, and this would in turn underestimate the effect of the devaluations on Egypt's exports to other ESCWA member countries.

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