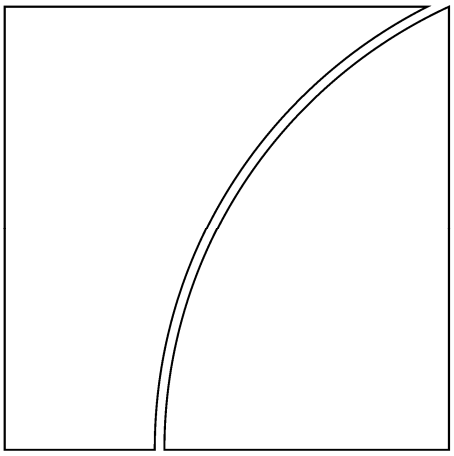
Irving Fisher Committee on Central Bank Statistics

IFC Bulletin

No 32



Economic and financial convergence en route to regional economic integration: experience, prospects and statistical issues amidst global financial turmoil

Proceedings of the South African Reserve Bank (SARB)/IFC seminar, Durban, 14 August 2009

January 2010

BANK FOR INTERNATIONAL SETTLEMENTS

Copies of publications are available from:

Bank for International Settlements
Communications
CH-4002 Basel, Switzerland

E-mail: publications@bis.org

Fax: +41 61 280 9100 and +41 61 280 8100

This publication is available on the BIS website (www.bis.org).

ISSN 1991-7279 (print)
ISBN 92-9131-812-4 (print)

ISSN 1991-7511 (online)
ISBN 92-9197-812-4 (online)

Foreword

This publication covers the papers presented at the SARB/IFC seminar titled “Economic and financial convergence en route to regional economic integration: experience, prospects and statistical issues amidst global financial turmoil” hosted in Durban, South Africa on 14 August 2009.

The process of economic integration is not a new one. Over the past few decades global economic integration – through trade, factor movements, and exchange of useful knowledge and technology – has generally exhibited a rising trend. This process of economic integration has not always proceeded smoothly, nor has it always benefited all whom it has affected. But, despite occasional interruptions and setbacks such as the current international financial turmoil, the firm commitment and drive towards regional economic integration throughout the world is undisputable. For a variety of reasons it makes sense for nations to coordinate their economic policies because economic coordination can generate benefits that are not possible otherwise.

Various economic integration initiatives are currently in progress in the world. Irrespective of which integration proposals or models are pursued, some form of convergence with regards to the harmonisation of statistical standards and economic indicators usually precedes integration. From a statistical point of view the process of economic integration poses many challenges indeed. This process not only raises issues pertaining to the most appropriate monetary and fiscal dispensation in such integration but also raises important questions regarding the structuring and execution of a sound statistical strategy to accurately measure, report and interpret integrated economic data.

In this regard the ability of central banks together with national and regional statistical offices to expand and structure their statistical measurement activities accordingly is of utmost importance. The establishment and growth of the Irving Fisher Committee on Central Bank Statistics (IFC) has played a major role in facilitating a platform for central bank statisticians to discuss and share their experiences on various issues and challenges posed to central banks.

Bearing this in mind the aim of this seminar is to provide an analysis of international experience which is vital for the assessment of progress and obstacles towards achieving economically integrated states. This is done in three sessions structured to (1) provide an overview of initiatives to promote convergence in the context of regional integration, (2) delve into the prospects and statistical issues relating to convergence in the Southern African Development Community (SADC) and the broader African economic integration process, and (3) address the three key variables namely definition, measurement and statistical improvement.

SARB ISI2009 Organising Committee

Contents

Session 1

Overview of initiatives to promote convergence in the context of regional integration

Chair:	Monde Mnyande, Vice-Chairman of the Irving Fisher Committee
Papers:	Overview of initiatives to promote convergence in the context of regional integration: an African perspective Kealeboga S Masalila, Bank of Botswana
	GCC monetary union Ahmed AlKholifey and Ali Alreshan, Saudi Arabian Monetary Agency
	Regional integration: the ASEAN vision in 2020 Rosabel B Guerrero, Central Bank of the Philippines
	Harmonization of MERCOSUR statistics Ivana Termansen, Central Bank of Argentina
Discussants:	Logan Rangasamy, South African Reserve Bank
	Michal Gradzewicz, National Bank of Poland

Overview of initiatives to promote convergence in the context of regional integration: an African perspective

Kealeboga S Masalila[1]

1. Introduction

1.1 The imperative for regional integration stems from a desire to minimise the cost of trade between nations and facilitate market access and growth for the region's industries, as well as to strengthen the economic power of the combined member states vis-à-vis third parties. For Africa, integration is also a developmental necessity in relation to trade, economic performance and strengthening of policy credibility and effectiveness. With organisational and institutional initiatives towards regional integration, there is scope to increase intra-regional trade, develop regional infrastructure, improve administrative efficiency, facilitate higher levels of investment and industrialisation and reduce political contamination of macroeconomic policies.

1.2 Specific to macroeconomic policy convergence, it is argued that it provides efficiency and growth through the elimination of exchange rate uncertainty and transaction costs; ensures monetary stability (price stability and lower interest rates); and member countries would cultivate discipline to avoid excessive deficits. This paper outlines specific initiatives towards regional integration in Africa and efforts towards attaining macroeconomic convergence. The following Section outlines the institutional steps towards regional integration in the African context. Section 3 discusses some elements of convergence and the expected benefits, while Section 4 assesses the region's performance with respect to convergence criteria and other expectations arising from regional integration initiatives. Section 5 covers concluding observations.

2. Regional integration in the African context

2.1 Regional integration initiatives in Africa are undertaken under the auspices of the African Union's (AU) programme of transition to an African Economic Community (AEC) established in terms of the Abuja Treaty (signed in June 1991) and the Constitutive Act of the AU adopted in 2000. The African Union has designated regional economic communities (RECs) as the building blocks towards achieving an African Economic Community. The process envisages the gradual integration of African economies through a transition process from establishing free trade areas, customs unions, common markets, monetary unions, culminating in one continental central bank (African Central Bank) and single currency.

2.2 In a free trade area, the group of countries eliminate tariffs and non-tariff barriers on substantially all trade between them with each country maintaining tariffs on non-members. For a customs union, the group of countries constitutes a single customs territory in which duties and other restrictive trade regulations are eliminated for substantially all trade between the parties and, in addition, there is a common

[1] Bank of Botswana. The views expressed in this paper are those of the author and do not necessarily represent those of the Bank of Botswana.

external tariff applied to trade with non-members. In a common market, restrictions on the movement of capital and labour are removed, allowing for free movement of goods, services and factors of production. A monetary union establishes a single monetary authority which conducts monetary policy for the union, resulting in introduction of a single currency (SADC FTA Brochure, 2009).

2.3 Integration is undertaken in consideration of features/characteristics of an optimal currency area (OCA) which for the region include:

(a) price and wage flexibility
(b) financial market integration
(c) factor market integration
(d) goods market integration
(e) political integration

2.4 The major drawback is loss of monetary policy independence for the individual countries. In moving ahead with integration, it is considered that the benefits in terms of trade, optimal policy formulation, welfare and increase in living standards outweigh the loss of policy independence for the individual countries. Moreover, it is considered that over time the desire to work towards economic integration brings its own benefits, for example, through complementing monetary union with free regional trade and pursuit of accompanying economic and institutional integration steps, (Ghosh, Guide and Wolf, 2008, p176). While, initially, poor transaction links and a lack of complementarity in output provide structural reasons for low integration, aggravated by uneven progress in implementing trade liberalisation agreements, targeting a customs union, which would include the elimination of intra-union tariffs and the harmonisation of indirect taxes leads to progress in economic integration. On process and administrative issues, it has also been noted that a regional approach in key structural areas, such as tariff reduction and harmonization, legal and regulatory reform, payment systems rationalization, financial sector reorganization, investment incentive and tax system harmonization, and labor market reform – enables participating countries to pool their resources and avail themselves of regional institutional and human resources, in order to attain a level of technical and administrative competence that would not be possible on an individual basis. The regional approach also allows countries to assert their interests from a stronger and more confident position in the international arena (Outtarra, 1999).

2.5 In addition, the focus on common and optimal macroeconomic policies ultimately leads to better outcomes with respect to important economic indicators. There is, as well, the desire to foster interregional trade and capital flows, to insulate monetary policy from national politics, and to bolster defenses against the vagaries of global capital flows by pooling reserves (Ghosh, Guide and Wolf, 2008). It is noted, for example, that,

> "The European experience suggests two possible benefits, policy credibility and trade and financial integration. Indeed, while the original motivation for European monetary integration in the 1970 Werner Report was fostering greater integration of goods and capital market in Europe, in the event the impetus for maintaining fixed exchange rates (and eventually adopting a single currency) was to import the Bundesbank's policy credibility to aid disinflation efforts in the early 1980s" (Ghosh, Guide and Wolf, 2008, p186)

2.6 In line with this integration and transition process, the African Union recognises eight RECs, namely, Arab Maghreb Union (UMA); Community of Sahel-Saharan States (CEN-SAD); Common Market for Eastern and Southern Africa (COMESA); East African Community (EAC); Economic Community of West African States (ECOWAS); Economic Community of Central African States (ECCAS); Inter-Governmental Authority on Development (IGAD); and Southern African Development Community (SADC). In addition there are six other inter-governmental organisations working on

the integration agenda: the Central African Monetary and Economic Community (CEMAC); Economic Community of the Great Lakes States (CEPGL); Indian Ocean Commission (IOC); Mano River Union (MRU); Southern African Customs Union (SACU); and West African Economic and Monetary Union (WAEMU). Figure 1 illustrates the timeline and developments on transition to the AEC.

Figure 1

Regional integration efforts from OAU to AU

Timeline		
Formation: Organisation of African Unity	**1963**	
Established: Economic Community of West African States	**1975**	
Formalised: Southern African Development Coordinating Conference (SADCC)	**1980**	Lagos Plan of Action
Established: Preferential Trade Area	**1981**	
	1983	Established: Economic Community of Central African States
Western Sahara admitted into the OAU	**1985**	Morocco withdraws membership from OAU
Established: Intergovernmental Authority on Drought and Development	**1986**	
Established: Arab Maghreb Union	**1989**	
	1991	Abuja Treaty establishes African Economic Community
SADCC transformed into Southern African Development Community	**1992**	
Established: Common Market for East and Southern Africa replaces PTA	**1994**	OAU referred to as AU/AEC
Established: Intergovernmental Authority on Development (IGAD) replaces IGADD	**1996**	
	1998	Established: Community of Sahel-Saharan States (CEN-SAD)
Call to Establish the African Union	**1999**	Established: East African Community (EAC)
	2000	Constitutive Act of the AU adopted
Adoption of the New Partnership for Africa's Development (NEPAD)	**2001**	
NEPAD: African Peer Review Mechanism (APRM) approved	**2002**	Inaugural Summit and Formation of the AU replaces OAU/AEC
		MoU: Conference on Security, Stability, Cooperation and Development in Africa (CSSDA)
Inauguration of Pan African Parliament	**2004**	
	2008	Historic: Joint EAC – COMESA – SADC Summit to develop a combined Free Trade Area (FTA)

2.7 A feature of these regional inter-governmental organisations, which potentially slows progress, is the significant overlapping of membership motivated by strategic and political considerations, as well as economic benefits and geographical contiguity. The disadvantages of multiple memberships include difficulties and tardiness in relation to: meeting financial obligations to the RECs; focusing on numerous agenda of each REC; low ratification and implementation of agreed treaties and programmes; incompatibility of some programmes; duplication of effort; and little support for, and understanding of RECs in member countries. The other concern with overlapping and uncoordinated membership is with respect to countries belonging to broader regional groupings pursuing economic integration, which also include countries that do not belong the monetary unions, which raises operational issues, as well as the issue of possible future enlargement (Ghosh, Guide and Wolf, 2008). These concerns and impediments to progress led the AU Summit held in Banjul in 2006 to put a moratorium on the recognition of new RECs.

2.8 Work is, therefore ongoing on the regional integration agenda to promote policies and programmes that would speed up formation of the AEC; promote intra-African trade; harmonise and coordinate policies and programmes in RECs; and promote and develop infrastructure policies and programmes (Mouyelo-Katoula and Nshimyumuremyi, 2007). In essence, it is considered imperative to widen the region's economic space so as to generate economies of scale for production and trade and to maximise the welfare functions (United Nations Economic Commission for Africa, 2008). In summary, the envisaged phases for transition to AEC are as follows:[2]

(a) Creation of regional blocs to be completed by 1999

(b) Strengthening of intra-REC integration and inter-REC harmonisation to be completed in 2007

(c) Establishment of free trade area and customs union in each regional bloc to be completed in 2017

(d) Establishment of continent-wide customs union and thus also a free trade area to be completed in 2019

(e) Establishment of a continent-wide African Common Market to be completed in 2023

(f) Establishment of a continent-wide economic and monetary union and, thus, also currency union and pan-African Parliament to be completed in 2028

(g) End of all transition periods by 2034 at the latest.

3. Convergence in the context of regional integration in Africa

3.1 Convergence in the context of regional integration is essential to establish commonality in an economic region, in particular relating to economic performance, institutions, regulation, access to infrastructure, as well as policy-making and administrative processes. Given that economic integration entails a common approach to policy formulation or a central policy-making authority, it is important that this is not constrained by considerations of asymmetry or disparate

[2] This programme may, however, become redundant as the AU pushes for the fast tracking of the African financial institutions.

performance with respect to economic indicators and national institutions. Moreover, to have a common effect across the region, centralised policy has to reflect symmetrical developments and need to be transmitted through similar institutions and administrative processes. Symmetry for the region can be assessed in terms of whether: shocks to GDP are in the same direction; the shocks are of comparable magnitude; and whether the union's aggregate GDP is dominated by movements of one or two idiosyncratic members?

3.2 In addition to issues of symmetry in economic performance and policy formulation, it is also important to have similar standards and a coordinated approach to regulation of (systematically) important institutions such as the financial sector and economic activities, for example relating to control of monopolies and competition. Beyond regulation, other considerations relate to harmonisation of legislation, institutions, statistics and administrative processes, for example relating to tax and trade incentive structures, tariffs, business and labour laws, as well as payment systems.

3.3 The focus on convergence can also improve general governance, adherence/monitoring and, in turn, performance with respect to both economic and social development. Convergence almost implies the adoption of the highest standard or optimal policy over which there are monitoring mechanisms and sanctions for non-performance. There is, therefore, self-imposed policy and regulatory discipline that motivates adherence and which engenders policy credibility, helping to promote investment and market opportunities. In essence, regional surveillance and the dialogue between the various partners help reduce the risks of macroeconomic slippage, resulting in a more stable, predictable environment, which is an essential factor for the private sector to flourish. Furthermore, the conditions and obligations associated with participation in an ambitious reform program within a regional organization also facilitate the work of the domestic authorities in implementing politically difficult measures, such as lowering tariffs or instituting wide-ranging reforms of the regulatory and judicial systems (Ouattara, 1999).

3.4 Specific Initiatives in the African Context are, therefore, in the policy areas, infrastructure development, trade integration and administrative processes/legal reforms.

(a) Macroeconomic convergence

3.5 Convergence criteria normally centre around economic indicators that are related to macroeconomic policy formulation and performance. These include the level of inflation, interest rates, exchange rate performance, and budget deficit and government debt to GDP ratios. The African Monetary Cooperation Programme provides a blueprint for macroeconomic convergence in the African context and was formulated with the objective of ensuring the adoption of collective policy measures that foster a harmonised monetary system and common management of institutions. The programme has a long-term perspective and involves (a) the adjustment of member countries exchange rate to equilibrium levels, (b) eventual current and capital account convertibility, and (c) the pursuit of market-oriented monetary policy. The ultimate aim is to evolve (through the regional central banks) towards a single monetary zone by 2021, with a common currency and continental central bank (Table 1).

Table 1

Stages for implementation of the African Monetary Cooperation Programme (AMCP)[1]

Stage I: 2002–2003	TableText Adoption by sub-regions of monetary integration programmes
Stage II: 2004–2008	1. Harmonisation and coordination of macroeconomic and monetary policies 2. Gradual interconnection of payments and clearing systems (a) Promotion of African banking networks (b) Promotion of sub-regional and regional stock exchanges (c) Strengthening and harmonisation of banking and financial supervision 3. Observance of the following macroeconomic indicators by 2008 (a) Budget deficit/GDP ratio not exceeding 5 percent (b) Central bank credit to government not exceeding 10 percent of previous year's tax revenue (c) Single digit inflation rate (d) External reserves/import cover of at least 3 months
Stage III: 2009–2012	Observance of the following macroeconomic indicators by 2012 (a) Budget deficit/GDP ratio not exceeding 3 percent by 2012 (b) Elimination of central bank credit to the government (c) Inflation rate of less than 5 percent (d) External reserves/import cover equal or greater than 6 months
Stage IV: 2013–2015	Assessment of macroeconomic performance and negotiation for the establishment of a common central bank (2015); consolidation of third stage achievements (a) Inflation rate of less than 3 percent (b) Continuous assessment of macroeconomic indicators against convergence criteria; comparative analysis referred to a Convergence Council (c) Commissioning of a study on the establishment of an African Exchange Rate Mechanism
Stage V: 2016–2020	Finalisation of arrangements for launching the African Monetary Union (a) Preparation of institutional, administrative and legal framework for setting up the common central bank and currency of the African Monetary Union (b) Review of commissioned study on the African Exchange Rate Mechanism; operationalisation of the mechanism (c) Appointment of key officers of the common central bank (d) Preparation for the introduction of a common currency (e) Recruitment of staff of the Bank (f) Mid-term assessment of country performance (g) Final assessment of countries' performance against convergence criteria

Table 1 (cont)

Stages for implementation of the African Monetary Cooperation Programme (AMCP)[1]

Stage VI: 2021	1. Introduction and circulation of the common African currency 2. A transitional period during which sub-regional monetary institutions would operate alongside the African Central Bank

[1] The AMCP was adopted by the Association of African Central Banks (AACB) in Algiers in September 2002.

Source: www.aacb.org.

3.6 Broadly, macroeconomic convergence is in the two areas of monetary policy and fiscal policy. Among the initiatives in this respect is the transition towards an African Central Bank. However, this is preceded by creation of regional central banks (in the context of regional economic communities) and within this framework, there are efforts to ensure effective policy-making by these institutions.[3] In particular, central bank legislation is being reviewed to achieve independence and proper allocation of institutional responsibilities. For example, within SADC, a model central bank law has been completed to guide country legislation that would conform to the ideals and policy perspective of a regional central bank. Table 2 outlines the objectives of monetary cooperation in selected RECs and Table 3 shows the macroeconomic convergence criteria.

Table 2

Main Objectives of REC Monetary Cooperation

REC	Main Objectives of REC Monetary Cooperation
CEMAC	1. To create the conditions for harmonious economic and social development 2. To create a single currency for all member states 3. Ensure internal and external stability of the common currency
COMESA	1. Macroeconomic stability 2. Reduction of transaction costs 3. Free movement of persons
EAC	1. Attainment of monetary union 2. Application of element of EAC Treaty that defines integration strategies
ECOWAS	1. Creation of monetary union through the observance of a set of macroeconomic convergence criteria and implementation of a set of structural reforms all aimed at ensuring and sustaining macroeconomic stability of member states

[3] There is, nevertheless a challenge in that some of the RECs programmes do not conform to that of the AU in the sense that some of the regional central banks are planned to be established after the African Central Bank and so are some of the regional currencies.

Table 2 (cont)

Main Objectives of REC Monetary Cooperation

SADC	1. Attainment of macroeconomic convergence in the region 2. Harmonisation of taxation policies and related matters 3. Harmonisation of monetary policies 4. Convertibility of the regional currencies and elimination of exchange controls for the establishment of a single currency in the region 5. Establishment of SADC Monetary Union
WAEMU	1. Manage monetary policy of member States; the policy is aimed at promoting economic growth 2. Strengthen the monetary union and economic integration of the Union's member States by increasing the competitiveness of their economies 3. Develop monetary discipline and solidarity 4. Promote commercial transactions and capital investments 5. Create macroeconomic stability

Source: UNECA.

Table 3

Macroeconomic Convergence Criteria

RECs	Primary Criteria	Secondary Criteria
CEMAC	1. Budgetary balance must be non-negative 2. Annual inflation has to be less than 3 percent 3. Rate of public debt has to be no more than 70 percent 4. Non-accumulation by the state of internal and external debt in the current period	1. Investment rate versus GDP 2. Ratio of payroll to total budgetary revenues 3. Current account on GDP
COMESA	1. Ratio of fiscal deficit to GDP, excluding grants 2. Inflation rate 3. Reserve accumulation	1. Use of indirect monetary policy instruments 2. Interest rate policy 3. Achievement of market determined exchange rates 4. Growth 5. Savings 6. Investment 7. External current account, excluding grants 8. External debt

Table 3 (cont)

Macroeconomic Convergence Criteria

EAC	(No difference between primary and secondary criteria) 1. GDP growth rate: A high a sustainable rate of growth of real GDP, with 7 percent as the minimal annual rate (by the year 2000) 2. Inflation: Maintenance of low and stable underlying inflation to single digit rates of less than 5 percent (by the year 2000) 3. Current account deficit excluding grants/GDP; reduction of the current as a percentage of GDP to sustainable levels 4. Budget deficit (excluding grants)/GDP: Reduction of budget deficit to less than 5 percent (by the year 2000) 5. National savings/GDP: raising national savings-to-GDP ratio to at least 5 percent (by the year 2000) 6. Gross foreign exchange reserves in months of import of goods and services: Build gross foreign reserves to a level equivalent to six months of imports in the medium term 7. Maintenance of low and stable market-determined exchange rates 8. Maintenance of low market-determined interest rates 9. Pursuit of debt reduction initiatives to reduce both domestic and foreign debt, including statutory borrowing limits 10. Maintenance of prudential norms of banking regulation, effective supervision, improved corporate governance and transparency of all financial transactions	
ECOWAS	1. Inflation rate = 5 percent 2. Ratio of budget deficit (excluding grants) to GDP (commitment basis) 4 percent 3. Ceiling on central bank financing of budget deficit to 10 percent of previous year's tax revenue 4. Gross reserves not less than 6 months of imports	1. Prohibition of all domestic arrears and liquidation of all existing arrears 2. Tax revenues/GDP ratio ≥ 20 percent 3. Salary mass/tax revenue ≤ 35 percent 4. Capital expenditure/tax revenue ≥ 20 percent 5. Real exchange rat stability 6. Positive real interest rate
SADC	1. Inflation 2. Budget deficit/GDP 3. Debt/GDP 4. Current account/GDP	1. Economic growth 2. External reserves/imports 3. Central bank credits/government 4. Domestic investment/GDP 5. Domestic savings/GDP

Table 3 (cont)

Macroeconomic Convergence Criteria

WAEMU	1. Budget deficit/GDP ≥ 20 percent 2. Average annual inflation rate maintained at a maximum of 3 percent 3. Ceiling on total public debt/GDP 4. Non-accumulation of internal and external arrears	1. Wage bill/tax revenue ≤ 35 percent 2. Public investment/tax revenue ≥ 20 percent 3. Tax revenue/GDP ≥ 17 percent 4. Current account deficit/GDP ≤ 5 percent

Source: UNECA.

(b) Trade and market integration

3.7 In the main, trade and market integration is intended to be achieved through transition to customs union arrangements and harmonisation of tariffs, such that the flow of goods and services between the countries (constituting the REC) is on the same terms and conditions as within countries. Market and trade integration within the RECs is, therefore, being promoted through measures such as the removal of tariff barriers to intra-REC trade, removal of non-tariff barriers and the development and enactment of common trade policies (United Nations Economic Commission for Africa, 2008). The creation of and/or accession to customs unions would result in a reduction in the number of RECs, as countries belonging to more than one REC have to choose which customs union to join. In terms of progress, the East African Community became a customs union in 2005, while for SADC, there is a programme to establish a customs union by 2010; by 2008 twelve (of the 14) SADC countries had established a Free Trade Area envisaging no payment of tariffs for 85 percent of all trade in Community goods for the 12 countries.

(c) Financial integration

3.8 The regional cooperation agenda recognises the need for effective financial markets to mobilise resources in support of development objectives, by increasing both the quantity and productivity of investments, as well as enhancing competition in the financial sector and improving corporate governance. The range of instruments availed by developed financial markets facilitate policy transmission as well as serving as a platform for regional integration and for Africa to integrate into the global economy. Integrated financial and capital markets also potentially address the thinness and lack of liquidity. There is also scope for reducing costs, enhancing capacity building, maximizing resource mobilization and allocation.

3.9 Therefore, there are efforts being made towards the establishment of regional institutions, adoption of common policies and regulatory frameworks and harmonisation of standards. It is suggested that the EAC could serve as a model for the integration of financial markets in Africa where there are specific areas of cooperation as follows: policy formulation; regulatory and legal issues; and structural and institutional matters. A Capital Markets Development Committee initiates common policies and is made up of representatives of member states from central banks, securities markets regulators, ministries of finance/treasury, stock exchanges, and insurance and pension fund regulators (United Nations Economic Commission for Africa, 2008). In the SADC region, the SADC Committee of Stock Exchanges provides leadership and oversight for the harmonisation of listing

requirements and operating systems for exchanges of member states, as well as the qualification of the region's stockbrokers. In addition it encourages cross-listing. WAEMU countries are served by a regional stock exchange, the Bourse Regionale des Valeurs Mobiliéres/West African Stock Exchange (BRVM), which was established in 1998 with eight regional branches interconnected to the headquarters under the supervision of the Regional Savings and Capital Market Board. In the context of the ECOWAS region, the BRVM also cooperates with the Nigerian Stock Exchange and the Ghana Stock Exchange to achieve convergence of rules, surveillance procedures and training. Other examples are the Central African Exchange and cooperation agreements in the AMU region.

3.10 The SADC payments system project is also notable. The project aims to assist individual countries in SADC to define a payment system strategy and development plan, and to define a coordinated regional approach to cross-border payments. A sound and robust domestic payment system within each country is a prerequisite for defining a cross-border payment strategy.

(d) Convergence measurement and statistical harmonisation

3.11 Yet another important initiative relates to enhancing the comparability of convergence and other economic and social indicators. This will facilitate a better assessment of the economic and social integration process. Some unions and RECs have, therefore, created statistical units/institutions aimed at strengthening the harmonisation of national statistics and building capacity. This effort is supported by the African Development Bank, which has set up a capacity building programme through the provision of financial and technical support under the framework of International Comparison Programme for Africa (ICP-Africa), (Mouyelo-Katoula and Nshimyumuremyi, 2007). The ICP is a global statistical initiative established to produce internationally comparable price and expenditure levels to facilitate cross-country comparisons of GDP and its sub-aggregates in real terms and free of price and exchange rate distortions (Mouyelo-Katoula and Nshimyumuremyi, 2007, p10).

3.12 The authors highlight the fact that GDP and inflation related indicators require relevant statistical systems to be harmonised at sub-regional and regional levels in terms of: (a) common definitions of indicators to be used to monitor convergence criteria; (b) the scope of the indicators in terms of their main components or the indicators they are derived from, status, as well as desired frequency; (c) determining the statistical framework which would ensure data comparability; and (d) providing guidelines for future activities in order to set up a harmonised statistical system for Africa.

(e) Overview and monitoring mechanism for convergence

3.13 The regional integration effort also incorporates frameworks for monitoring progress on macroeconomic convergence and implementation of the regional integration agenda. The AMCP, for example, requires that periodic (quarterly reports) be submitted to the Association of African Central Banks (AACB) Secretariat and the AEC/AU Secretariat in order to facilitate the monitoring and evaluation of performance of countries and RECs. The permanent institutional framework for monitoring performance at the level of member states and at the sub-regional level is a follows:

(a) ***Convergence Council***, comprising Ministers of Finance and Central Bank Governors, which will report to the Authority of the Heads of State and Government of the AU;

(b) ***Coordinating Committee***, made up of Bureau of the AACB, i.e., Chairman, Vice Chairman and Chairmen of the Regional Committees. The Committee evaluates

proposals of the Technical Committee and makes recommendations for the consideration of the Convergence Council;

(c) ***Technical Committee***, comprising officials of Central Banks and Ministry of Finance evaluates and analyses information from the various sub-Regions and makes proposals to the Coordinating Committee, relating to macroeconomic convergence criteria.

3.14 Below this level, RECs also have organs in charge of carrying out and monitoring the macroeconomic convergence activities within the RECs.

4. Performance and assessment of integration and convergence initiatives

4.1 The United Nations Economic Commission for Africa report *Assessing Regional Integration in Africa III (ARIA III): Towards Monetary and Financial Integration in Africa* provides a comprehensive analysis of progress towards economic integration and convergence in monetary and fiscal policies.[4] Although the RECs have made some progress, Africa still faces a number of ongoing challenges. First, there are no enforcement mechanisms to deal with African States that decide not to adhere to protocols and treaties they are signatories to. Second, there is no compensation mechanism for the losers of the integration process, which also acts as a constraint for the full implementation of integration schemes. Third, compared to world standards, Africa's infrastructure network is generally very weak, constraining the physical integration of the continent. Fourth, the multiple memberships of countries in various RECs, and the resulting overlap and duplication of functions of the RECs also act as stumbling blocks to the integration agenda. Fifth, Africa's macroeconomic and financial environment is very weak. What is observed in most RECs are significant differences in tariffs, inflation, exchange rates, debt-to-GDP ratios, rate of money growth and other vital macroeconomic variables between member countries. In addition, it is suggested that, being reliant on agriculture and, for a subset, commodity exports, the intra-block trade shares – the traditional gauge of potential benefits from reduced exchange rate volatility following monetary union – are comparatively small. For the same reason member states are subject to potentially large asymmetric shocks to their terms of trade, the traditional gauge the potential cost of monetary union (Ghosh, Guide and Wolf, 2008). Nevertheless, there is persistence and endurance of the economic integration effort, possibly reflecting other (potential) benefits, such as policy credibility and macroeconomic stability. A notable example is the endurance of CEMAC and WAEMU, which have lasted for approximately sixty years.

4.2 In the ARIA II analysis the *a priori* assumption is that macroeconomic convergence could be a sign that policy initiatives and coordination in the RECs is achieving the desired outcome. Inflation is used to analyse convergence in monetary policy with the following results and conclusions:

(a) The variability of inflation among SADC countries has generally declined over time, signifying a tendency among the member countries to have convergence in macroeconomic policy, particularly monetary policy;

[4] The analysis focuses on selected RECs in Africa namely: SADC, COMESA, ECOWAS, CEMAC and WAEMU.

(b) A tendency of convergence of inflation values within COMESA indicating some convergence in monetary policies;

(c) Similar to SADC and COMESA, a generally decreasing variation in inflation is observed over time for the ECOWAS region;

(d) In the CEMAC region, the dispersion in inflation is relatively low and stable compared with the other RECs, reflecting a high level of inflation convergence among the member countries and strong convergence in monetary policy;

(e) The variability of inflation within WAEMU has decreased markedly since the late 1990s, showing clear evidence of monetary policy convergence among the member countries

4.3 Fiscal balance is used as the key indicator to capture progress made towards harmonizing fiscal policies within the various RECs. The reported results show that the "overall variability in fiscal balance within each REC was not too wide, thus indicating much faster convergence in fiscal policy within the regions".

4.4 There has been only very modest success in stimulating intra-regional trade because of, among others:

(a) lack of strong industrial capacity in the member States to produce diversified goods for trade within the region

(b) the multiple national currencies in Africa lack convertibility

(c) efforts towards monetary, financial and physical integration have not yielded significant results

(d) the cost of doing business in Africa is generally high due to infrastructure and service gaps, as well as duplicative and cumbersome trade procedures

(e) the free movement of people objective remains largely unrealised

4.5 Ghosh, Guide and Wolf (2008), provide a broader analysis of macroeconomic indicators in three REC, namely, CEMAC, WAEMU and WAMZ, with a comparison made with the Gulf Cooperation Council (GCC). It is concluded that while the average growth performance has been respectable since the turn of the millennium in all the three unions, the difference between the best and worst performers continues to be pronounced. Similar divergences are also apparent for terms of trade shocks. Overall, the differences in terms of trade changes and GDP growth are reflected in large divergences in the current account and fiscal balances. With the increase in oil prices in the recent years, the CEMAC and WAMZ experienced a doubling of growth rates from the levels for the 1980s, while GDP growth in WAEMU has increased by a much lower rate (and decreased in per capita terms). Moreover, the increase in growth rates in CEMAC and WAMZ as in the GCC was not accompanied by an increase in growth volatility, pointing to the increased importance of shared external shock. It is also indicated that while there has been improvements in fiscal balances due to the fiscal benefits of growing oil exports, the improvement in the current account has been muted; in contrast to the GCC all the three regions continue to run significant deficits.

4.5 Overall, it is considered that, while the slow speed of convergence partly reflects exogenous shocks, substantial improvement in overall adherence will require significant policy actions, notably on the fiscal side, including continued determined efforts at broadening and diversifying the tax base (Ghosh, Guide and Wolf, 2008, p181). It is also noted that the slow pace of economic convergence results in pushing back of target dates, for example, the 1987 ECOWAS Monetary Cooperation Programme envisaged the creation of a single monetary zone, but the target date was missed due to macroeconomic divergences; also the target date for

completion of the West African Monetary Zone was, due to slow pace of economic convergence, pushed back, first to July 2005, and subsequently to December 2009, with the second stage union tentatively scheduled to follow in 2011.

5. Conclusion

It appears that there is some political ambition to achieve regional integration in Africa and this is matched by setting up of plans and organisational processes towards the ultimate goal of monetary union, with respect to economic institutions and arrangements. In this respect the plans and implementation monitoring within the RECs afford some reasonable degree of institutional and cross-country cooperation towards the common goals of enhanced intra-regional trade, policy coordination and convergence of important macroeconomic indicators, leading to strengthening of policy credibility that would support higher levels of investment in the region. It is, nevertheless, clear that both economic/trade performance and the development of regional institutions do not match the aspirations of the AU programmes. In particular, slow progress in enhancing factor mobility and harmonisation of tariff structures and administrative performance, as well as infrastructure constraints limits intra-regional trade.

Moreover, while there is a tendency for macroeconomic indicators to converge, there is slow progress in actually meeting the convergence criteria for several African countries. In addition, macroeconomic indicators in Africa are particularly vulnerable to external developments, for example, the performance of export markets for major commodities. In the circumstances, implementation programmes are often pushed back. Positively, the agenda for integration inherently focuses attention on higher performance standards with respect to both institutions and policy, while there is continuing market expansion and opportunities for collaborative infrastructure development.

References

Association of African Central Banks (2002). *African Monetary Cooperation Programme of the Association of African Central Banks*.

Ghosh, A., Guide, A. and Wolf, H. (2008). Monetary Union in Central and Western Africa, Journal of Financial Transformation", CAPCO Institute, Vol. 20.

Katoula, M. and Nshimyumuremyi, A. (2007). International Comparison Programme for Africa – Towards Economic Convergence Measurement, The African Statistical Journal, Vol 4, May.

Qobo M. (2007). "The Challenges of Regional Integration in Africa in the Context of Globalisation and the Prospects for a United States of Africa", The Institute for Security Studies.

Southern African Development Community (2008), Committee of Central Bank Governors Payment System Project.

Southern African Development Community (2008), *Free Trade Area Brochure*, www.adc.org.

United Nations Economic Commission for Africa (2008). Assessing Regional Integration in Africa.

GCC monetary union

Ahmed AlKholifey and Ali Alreshan[1]

1.1 Introduction

The last three decades have witnessed a growing interest in monetary integration and currency unification. The notion of currency areas can be dated back to Mundell's Optimum Currency Areas (OCA) of 1961. Mundell states that "*If the world can be divided into regions within each of which there is factor mobility and between which there is factor immobility, then each of these regions should have a separate currency that fluctuates relative to all other currencies (Mundell, 1961)*". Hence, should any asymmetric shock hit the region, the mobility of factors of production should be the adjusting mechanism, but not the exchange rate flexibility. In the absence of factors of production mobility, foreign exchange rate flexibility *cannot be expected to perform the stabilization function attributed to it* and varying rates of unemployment or inflation in different regions would prevail[2] (Mundell, 1961).

The upshot of the above premise is the search for means that facilitate the adjustment process during market imbalance situations (Leefthink, 1995). In view of this line of thought, some economists argue that currency unions would be sensible if there is a high degree of openness among union members and a low degree of openness between the members as a group and the rest of the world. For the use of exchange rate as a means of adjustment to external shocks is less efficient in a relatively open economy than in a relatively closed economy.

On January 1999 the exchange rates of eleven European currencies were locked to each other at fixed exchange rates. The successful move by the Europeans has revitalized the efforts of the Gulf Cooperation Council (GCC) countries to push forward the long awaited Gulf Monetary Union (GMU). Since the endorsement of the GCC Unified Economic Agreement (UEA) in 1981, which calls for a joint currency, the efforts toward a single currency in the Gulf have been slow. However, in the Bahrain Summit, December 2000, leaders of the GCC ratified the agreement among GCC countries to multilaterally adopt the US dollar as their common peg. This initiative was taken to minimize exchange rates risk and stabilize exchange rates among GCC countries.

The objective of this paper is to examine the feasibility of the Gulf monetary union and uncover some of the operational issues that are likely to arise in such type of arrangements. Before that however it sheds some lights on the meaning of a monetary union, costs and benefits as well as some empirical studies about GCC monetary union.

1.2 Definition of a monetary union

Before defining the term "monetary union", it might be informative to consult the experience of the European Monetary Union (EMU) for guidance to elements that should characterize a

---

[1] The views expressed in this paper are those of the authors and do not necessarily represent those of Saudi Arabian Monetary Agency (SAMA).

[2] Melitz (1991) asserts that Mundell's criterion of labour mobility loses its appeal once the belief in the long-run trade off between unemployment and inflation under the Phillips curve framework is abandoned.

monetary union. The 1970 Werner Report on economic and monetary union in the European community states "*A monetary union implies inside its boundaries the total and irreversible convertibility of currencies, the elimination of margins of fluctuation in exchange rates, the irrevocable fixing of parity rates and the complete liberation of movements of capital*" (The Werner Report of 1970).

Based on this line of thought, monetary unions could be defined as geographic areas whose exchange rates are irrevocably fixed to each other. Masson and Taylor (1992) emphasize that: "*The very nature of a monetary union precludes separate monetary policies, and so, essentially a monetary union has the characteristics of a common currency area, but no single circulating currency*". They define a currency union as *an area throughout which a single currency is accepted as a primary medium of exchange*. Hagen (1993) uses the terms monetary union and currency union alternately. He defines monetary union as a *group of countries using the same currency or linked by irrevocably fixed exchange rates*. It has been contended that the adoption of a common currency represents the narrow version of a currency area arrangement, while the situation in which exchange rates of two or more countries follow predetermined pattern represents the broad version (Mancera, 1991).

Three aspects should characterize a monetary union or a currency union. These are: (1) a single currency or several currencies that are fully convertible at an irrevocably fixed exchange rate; (2) union-wide monetary policy that is determined by a single central bank or a system of central banks; (3) a sole external exchange rate policy (Masson and Pattillo, 2001). This paper follows the line of thought that uses the single currency and a monetary union interchangeably, given that exchange rates are irrevocably fixed.

1.3 Costs and benefits of a monetary union

Adoption of a single currency brings in benefits and inflicts costs on member countries. In general benefits emanate from the following:

1. The elimination of transactions costs and accounting costs. Most of these costs are associated with bid-ask spreads and commissions on foreign exchange transactions. For small and open economies with unsophisticated financial markets, direct savings in transactions after adopting a single currency are probably larger. Lowering transactions costs might lead to higher output and consumption gains.
2. A removal of foreign exchange risk, which is considered a major obstacle to trade and cross border lending. It is argued that trade in goods and services especially among small firms will be enhanced, which would tend to intensify competition and increase allocative efficiency (Kenen, 1996). Rose (2000) contends that there is a large positive effect of a common currency on trade and that effect is much larger than the effect of reducing exchange rate volatility to zero, through an irrevocably fixed exchange rate arrangement (P.18).
3. Creation of more transparent pricing system, which makes international price comparison easier.
4. Gaining more credible monetary policy by adopting the strongest exchange rate commitment (Frankel, 1999).
5. Monetary union arrangements are less susceptible to speculative attacks (Frankel, 1999).

On the other hand the costs of adopting a single currency, besides the costs of forming the union, are mainly relinquishing monetary autonomy. These costs are more likely to increase the more dissimilar shocks to member economies are. By the same token, costs tend to increase the lower the flexibility of factor markets, as this implies a difficulty of adjustment to shocks.

2. Previous Empirical Studies on GCC Monetary Union

A number of studies have tried to determine whether the GCC countries are ready to establish a monetary union based on economic similarities, common social and cultural backgrounds. Some studies reached the conclusion that the GCC members are not ready to establish a monetary union and that the progress towards a monetary union is very slow compared to what it should be. While others found some support to the GCC monetary union.

Laabas and Limam (2002) provided an evaluation of the readiness of GCC countries to establish a monetary union. They used a formal test based on the generalized purchasing power parity. What they found is that the GCC countries have not yet met the pre-requirements to establish a monetary union due to the fact that the GCC economies are oil-dependent, have little intra-trade, lack convergence in macroeconomic fundamentals, and lack synchronization in business cycles[3]. In contrast, the authors mentioned that the GCC countries are more likely to satisfy the monetary union criteria ex-post rather than ex-ante. Establishing a monetary union may align the business cycles to increase intra-trade among the GCC countries. The authors claimed that in order to accelerate the progress towards the monetary union, restrictions on factors mobility have to be eliminated in addition to more political unification.

Jadresic (2002) concluded that launching a common currency for the GCC countries will carry out many benefits, yet it is not enough to have a successful economic integration. Removal of domestic and cross-border distortions that hinder trade and investments, coordinating policies, and increasing the political unification are steps that should be taken in order to achieve a successful integration.

Shotar and Shams (2005) examined the economic structure of the GCC countries to find whether or not the GCC members can adopt similar policies when launching the common currency in 2010. They found that the GCC countries follow different economic policies, and significant differences exist that may limit the expected benefits of the monetary union.

By testing for co-integration among the GCC countries' GDPs, inflation rates, exchange rates, and monetary bases, Darrat and Al-Shamsi (2005) reached the conclusion that the GCC countries are compatible to establish a monetary union. Nonetheless, the failure in doing so is due to socio-political factors that have hampered the process towards the monetary union.

Hebous (2006) concluded that the reduction of the costs of forming a monetary union in the GCC case is due to the similarities among the GCC economies. He also called attention to the notable degree of convergence that the GCC countries have achieved in terms of the convergence criteria.

A study by Abu-Bader and Abu-Qarn (2006) concluded that the GCC countries are not yet ready to establish a monetary union. The authors used three different methods to test the GCC economies. The first method was the Structural VAR to identify both demand and supply shocks and to find whether these shocks are symmetric or not. The second method was the co-integration tests to find whether long-term relationships of real GDP among all the possible paired countries exist. The last method was to find whether there are common business cycles among the GCC countries. All three methods provide no support for establishing a monetary union.

---

[3] The authors do not agree that there is lack of convergence in macroeconomic fundamentals and lack of synchronization in business cycles. The data show the opposite.

A recent study by Louis, Rosmy, and Mohammad (2008) tested whether the GCC countries are subject to symmetric aggregate demand (AD) and non-oil aggregate supply (AS) shocks. The authors also tested the suitability of the Euro as a common anchor on the basis of shocks asymmetry between three major European countries (France, Germany, and Italy) and the GCC countries. They concluded that AD shocks are clearly symmetrical but non-oil AS shocks are weakly symmetrical across the GCC countries, which supports the monetary union. Authors found that neither AD nor AS shocks are symmetrical between the GCC countries and the selected European countries. One more result was found is that GCC's AD shocks are symmetrical with the US but non-oil AS shocks are not. This finding supports using the US dollar as a common anchor for the GCC countries since US monetary policy can help smooth demand shocks in the GCC countries.

3. The Gulf Cooperation Council

3.1 Introduction

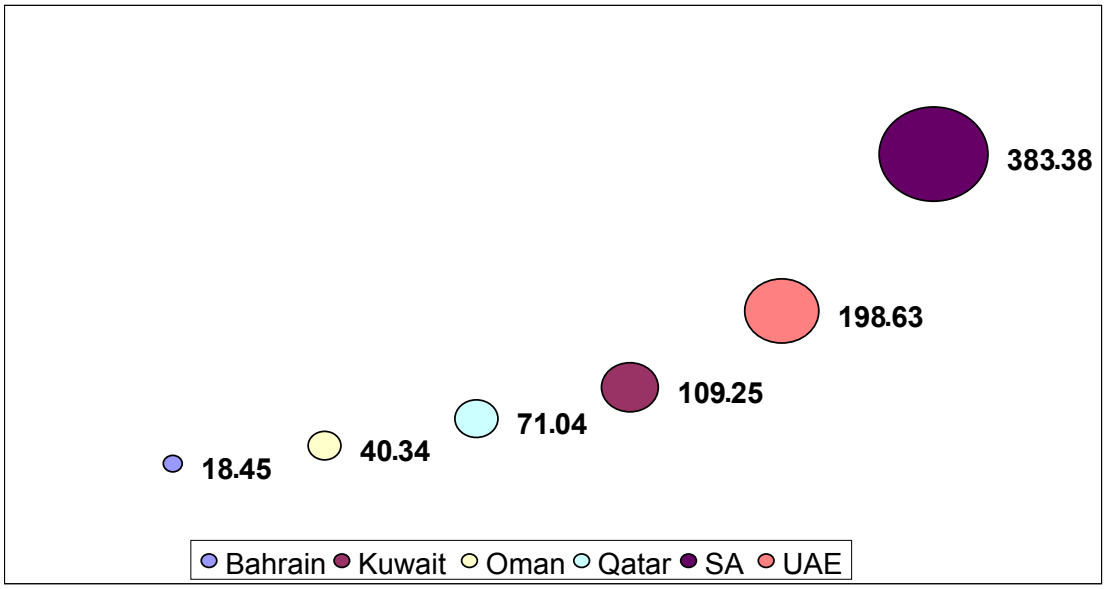
In the period 1975–78 four of the current GCC members (i.e. Bahrain, Kuwait, Qatar and the United Arab Emirate) attempted to reach a monetary coordination, as a step toward issuing a common Gulf currency, a Gulf dinar. The attempt however was futile and the issuance of the common currency was put off (El Kuwaiz, 1988).

Not until May 1981 when the four Gulf countries, along with Saudi Arabia and Oman, signed the Charter of the GCC. The six members have a combined population of about 37 million, in 2007, and had a combined GDP of US dollar 821 billion. The GCC objectives include coordination, integration and inter-connection between member states in all fields, formulation of similar regulations in the fields of economic and financial affairs, commerce, customs and communications. To achieve these objectives the GCC countries erected three main entities. These are: 1) The Supreme Council; 2) The Ministerial Council; 3) The Secretariat General. Each of these organizations may establish sub-agencies as may be necessary (GCC Charter).

Graph 1

GCC countries GDP in 2007

Billion US$



Source: National Central Banks.

In accordance with the Charter and as a step toward strengthening their economic ties, the GCC members signed the Unified Economic Agreement in 25 May 1981 in Abu Dhabi. The UEA articulated the principles of coordination and integration of economic activities. The agreement calls for the following:

1. Dismantling tariffs on regional products and implementing a common tariff on non-GCC products;
2. Coordinating member states commercial policies and relations with other states and regional economic blocks with a view to creating balanced trade relations;
3. Granting all GCC citizens the same treatment with regard to freedom of movement, work and residence; freedom of exercising economic activities and movement of capital;
4. Coordinating and harmonizing members development plans;
5. Formulating united oil policies;
6. Adopting a common legal framework for trade and investment;
7. Cooperation in the financial and monetary sphere. Article 22 of the agreement reads "Member states shall seek to coordinate their financial, monetary and banking policies and enhance cooperation between monetary agencies and central banks, *including the endeavour to establish a joint currency in order to further their desired economic integration* (GCC web-site).

3.2 Economies of the GCC

The Gulf countries share several homogeneous aspects. They have same language, culture and history. The GCC countries face similar set of economic challenges, a fact that necessitates development of stronger economic integration.

Statistics show that the GCC countries collectively account for 40.2 percent of world proven oil reserves, and this potential oil wealth makes them leading oil producers by supplying 21.9 percent of world crude oil production. Similarly, the GCC countries have at their disposal up to 23.4 percent of the world natural gas reserve and account for 7.9 percent of the world natural gas production[4]. The GCC countries enjoy relatively cheaper extraction of oil and gas resources, which puts them in an advantageous position relative to other oil and gas producers. The ample wealth generated by the Gulf States from oil and gas exports allows their economies to surpass unprecedented development, with higher standards of living and modern physical infrastructure.

The total GCC countries GDP has leapt from a mere US dollar 11 billion in 1971 to US dollar 821 billion in 2007. Nonetheless, the total number of GCC population has increased from 8.5 million in 1971 to 37 million in 2007.

[4] Source: British Petroleum Statistical Review of World Energy, June 2008. The data are for 2007.

Table 1

Average Growth Rates of Nominal GDP

Period	Bahrain	Kuwait	Oman	Qatar	SA	UAE	GCC average
1970s	25.1	30.6	46.4	31.3	47.7	51.1	38.7
1980s	3.0	–3.3	7.1	0.1	–2.5	2.1	1.1
1990s	6.6	11.3	5.9	10.3	5.2	8.0	7.9
2001–2007	13.9	17.3	10.9	20.8	10.8	15.7	14.9

Sources: United Nation Statistics Database.

A number of factors characterizing the GCC economies or have arisen recently led these countries to give serious concern to the urgent need for developing their manufacturing sectors. Among such factors are; 1) the fact that oil resources are finite and there is a global tireless search for energy alternatives that might soon compete oil; 2) the unanimous realization of GCC countries that oil will not continue to boost economic growth at the same pace as it did in the 1970s and the first half of the 1980s, and in recent years (2003–2008), given the persistent demographic changes in the GCC countries and the increasing oil supply from other regions of the world. These factors along with other economic and political challenges brought about by the move to more globalised economy demand more diversified economies in the Gulf.

Thus far the industrial development in the Gulf is limited to industries such as basic petrochemicals, fertilisers, and steel as well as aluminium and non-durable consumer goods, most of which are targeting consumers outside the region. Broadly speaking, an individual GCC country cannot carry out its independent industrial development and at the same time enjoys economies of scale, given the relative small size of most GCC economies if considered separately. Collective integration of industrial development schemes, will allow the whole block to gain greater economies of scale and hopefully have more diversified economic bases.

3.3 Costs and benefits of a Gulf Monetary Union

In general, it is hard to quantify economic benefits and costs of having a single currency for a group of countries. This would be harder in case of the GCC, given data limitation. Theoretically speaking, there are some promising benefits of the GMU, which include the followings:

- Bargaining power: After realization of the single currency, the GCC members will have an additional incentive (i.e. intrinsic incentive) to widen the scope of their collective bargaining power that allows them to pursue their negotiation with other economic blocks and form a stronger bargaining position. Therefore, monetary union is more likely to pave the way towards more access to industrial country markets in less discriminatory way.
- More intra-trade: Given that all GCC countries have firm plans to diversify their revenues by developing their industrial sectors and the fact that trade would be cheaper between countries that use the same currency, there seems to be a brighter future of more intra-trade (home bias effect) as a result of the new Gulf currency. This in turn will bring in more synchronization of business cycles, which will deepen the benefits of the single currency and facilitate the formulation and adoption of union-wide monetary policy.

- Economies of scale and ease of comparison: To the extent that more trade is created by the new GMU, producers are likely to gain economies of scale when border barriers are dismantled and the whole region becomes their market. Along with the ease of price comparison brought about by the single currency and in the absence of any form of monopolistic practices, theoretically speaking, and the increase in competition is more likely to bring up benefits to customers in the form of lower prices. In addition, there would be more flexible prices since suppliers of goods and services will no longer have the power to set prices, as it would be the situation when markets are fragmented. Launching a common currency promotes the regional competition in the banking and financial services and the quality of services introduced, which will reflect positively on customers in the GCC countries, reduce costs, and lead to the diversification of services, which could lead to further integration between their institutions at the regional level to take advantage of the economies' size.
- Partial release of foreign exchange reserves: The monetary union will allow GCC firms to pay for their regional imports in the new currency so that national central banks will no longer need to keep aside some of their foreign exchange reserves for the purpose of settling intra-trade transactions.
- Using a single currency eliminates the risks related to currencies exchange rates between the GCC countries. Additionally, the common currency will contribute effectively to the development and integration of financial markets, especially the bond market and the stock market.
- More potential investments: The GMU will make GCC economic prospects more promising for both domestic and foreign investors, by lowering search costs, administrative procedures and offering a bigger market. A more crucially factor, is the prospects for repatriation of GCC national funds held abroad.
- The integration of financial markets in the GCC countries, coupled with its positive effect at the level of monetary and fiscal policies will enhance transparency and financial discipline at the regional level, a necessary condition for financial stability in the region. These are all factors that help attract more investment from national, regional, and international levels to the GCC countries.
- More disciplined economic policy: It also promises to offer more disciplined economic policy management (e.g. prudent fiscal policies) by having members adopt appropriate policy measures that take the whole union into considerations.

Costs: But what are the foreseeable costs?

- Surrender of exchange rate and monetary policy instruments: The costs of a monetary union are derived from the fact that when a member country relinquishes its national currency, it also relinquishes its ability to conduct a monetary policy. Under monetary union national central banks are no longer allowed to unilaterally take the initiative of altering exchange rate of the single currency or change the interest rate. Decisions of this type should be the responsibility of the newly established union-wide central bank. Such a cost however would not be high in the case of GCC since monetary policy already has a narrow room for manoeuvring under the current pegged exchange rate system. Besides relinquishing exchange rate instrument involves little loss for very open economies like the GCC. Since opting to devaluation in very open economies will only raise domestic price level without producing long-term effects (De Grauwe. 1994).

3.4 Assessment of the proposed GMU

Is it beneficial for the GCC to abolish their existing currencies and adopt a common one? In order to assess the viability of the GCC countries for a monetary union one should look at relevant features of these economies that make them eligible for forming a monetary union. Traditionally, researchers revert to the OCA theory whose feasibility barometer for a common currency is the reduction in transaction costs. In this regard, the issue is whether savings of members of the common currency area from transaction costs reduction would outweigh costs of adjustment, where the latter would be correlated positively to the asymmetry of disturbances and negatively to inter-regional mobility of labour (Bayoumi and Eichengreen 1996).

There is an extensive application of the OCA criteria in the literature, which we will follow in examining the feasibility of the GMU, despite the fact that some analysts argue that the OCA criteria may be less crucial than often believed (Wypolsz, 2001). Recent literature has focused on the *desirability* but not the *necessity* of having higher degree of openness and intra-trade, labour mobility and symmetric business cycles. The EMU provides a case in which its member countries have not all met the criteria put forth by the OCA.

Bayoumi and Eichengreen (1997) attempted to operationalize the theory of OCA by constructing a suitability index based on empirical specification that indicates countries readiness for EMU. Their findings show European countries dividing into three groups: some countries exhibit high level of readiness, some with a tendency to converge and others show little or no signs of convergence[5].

The hypothesis is that failing to fulfil all or some of the OCA criteria might raise costs of forming the union or prevent members from reaping the desired full benefits, but not prevent the monetary union scheme from taking place. Put differently, the issue of suitability is not *either or*. Although, no single set of criteria is agreed upon in the literature, it is worthwhile to apply some of the widely discussed criteria on the GCC countries. Among such criteria are the correlations of business cycles, the intensity of intra-trade, and the extent of free movement of factors of production.

3.4.1 Business cycle synchronization

The synchronization of member countries business cycles is probably one of the least controversial criteria in literature. Countries with highly correlated business cycles tend to have higher propensity to join in a monetary union for their response to shocks tend to be symmetric too. If shocks hit member countries asymmetrically, policy responses will differ across countries. And if those countries are members of a monetary union then the common monetary policy can't serve stabilization in all member countries simultaneously.

The GCC economies are characterized by being highly oil-based and hence are subject to similar shocks originating from oil market developments. The correlation coefficients of GDP growth rates in the GCC are unsurprisingly high (Table 2). It is unlikely that demand shocks would concentrate on one GCC country causing a shift away from its products (i.e. oil and gas) in favour of another or other GCC members, given high substitutability of these products.

---

[5] McCallum (1999) argues that "...true operationality of the OCA concept has not been achieved" p. 6.

Table 2

Correlation coefficients of output growth[6] (1970–2007)

Country	Bahrain	Kuwait	Oman	Qatar	SA	UAE
Bahrain	1.00					
Kuwait	0.66	1.00				
Oman	0.95	0.52	1.00			
Qatar	0.97	0.74	0.91	1.00		
SA	0.95	0.47	0.91	0.88	1.00	
UAE	0.98	0.57	0.95	0.95	0.97	1.00

Sources: United Nation Statistics Database (GDP at constant 1990 prices).

However, correlation coefficients decrease when we calculate them for different sample periods (i.e. the 1980s and the 1990s), probably for two reasons: 1) the strong influence of the sharp increase of oil prices in the 1970s relative to the 80s and 90s; 2) to some extent the more diversified GCC economies in recent years.

3.4.2 Intra-regional Trade

Since one of the main benefits generated from the single currency is the reduction in transaction costs, the larger is the bilateral trade among the GCC members, the larger is their cost savings from a monetary union. The GCC countries are all known for their liberal trade policies with the rest of the world with whom trade greatly dominates that of the intra-regional trade. Table 3 illustrates the openness degree of the GCC countries. On the other hand, the average intra trade, which is very important for this analysis regarding the GCC economic integration, among the GCC countries for the period of five years (2003–2007) is relatively small (less than 10 percent) due to the fact that all the GCC countries are mainly oil producers and have similar economic structures. Table 4 shows the intra-trade among the GCC countries as a percent to total trade, most of which are re-exported goods and agricultural products.

[6] The mainstream in the literature uses the movements of GDPs. Bayoumi and Eichengreen (1996) however argue that output movements reflect the influence of both disturbances and responses and therefore it is important to know whether a high correlation of output movements reflects symmetric shocks or rapid, symmetric responses (p. 2).

Table 3

Degree of openness in GCC countries* (%)

Country	2003	2004	2005	2006	2007
Bahrain	128.5	133.0	145.9	150.7	136.2
Kuwait	66.1	69.4	75.1	70.5	76.6
Oman	85.5	89.4	89.5	91.3	101
Qatar	76.9	77.1	83.4	88.9	90.1
Saudi Arabia	62.9	69.3	76.1	78.8	84.3
UAE	134.0	152.0	145.2	149.7	164.3

* Openness = {(exports + imports of goods)/GDP}*100.

Source: National Central Banks.

The fact that members of the GCC produce competitive products rather than complementary ones is one important reason explains their search for markets outside the GCC rather than trade among themselves. In spite of the modest volume of intra-regional trade, GCC members are determined to give an impetus to the GMU. As a matter of fact, having modest intra-regional trade by itself is one reason to push for the adoption of a single currency in the GCC. The formation of a single currency may provide a substantial impetus for trade expansion. In the words of the former GCC Secretary General "... the single currency became a basic requirement for the common market and the customs union..." (Alsharaq Alawsat, Thursday 28 March 2002).

Table 4

The intra-trade ratios among the GCC members

Country	Bahrain	Kuwait	Oman	Qatar	SA	UAE	Average
2003	15.4	4.8	17.3	7.5	4.8	5.5	9.2
2004	16.6	4.6	16.3	8.4	4.9	4.4	9.2
2005	18.5	4.4	16.4	10.0	4.6	4.5	9.7
2006	18.6	4.6	15.2	10.0	4.8	4.7	9.7
2007	19.2	4.7	15.0	8.6	5.1	4.7	9.6

Source: Directions of Trade Statistics, IMF.

3.4.3 Stable exchange rates

Since early the GCC countries have realized the significant importance of the US dollar for their foreign trade whose transactions are settled mainly in US dollar. In particular the GCC oil revenue, which consist a lion share of the GCC revenues (Table 5). It is also worth mentioning that petroleum activities are accounted for a large proportion as a percentage to GDP. In 2007, on average petroleum activities are 45.7 percent to GDP among the GCC countries (Table 6).

Table 5

GCC oil revenues to total revenues (%)

Country	2003	2004	2005	2006	2007
Bahrain	73.0	72.6	75.7	77.1	80.1
Kuwait	88.7	91.2	94.4	93.6	93.1
Oman	70.1	71.9	70.1	64.8	62.1
Qatar	64.1	66.0	67.1	64.6	60.7
SA	78.8	84.1	89.4	89.7	87.5
UAE	73.7	77.4	69.4	81.9	77.1

Source: National Central Banks.

They therefore pegged their national currencies to the US dollar. As a result, the GCC currencies demonstrated a history of synchronized exchange rate movements against the US dollar and stable cross exchange rates. In the 1970s all were revalued by as high as 14 to 18 percent, with the exception of the Omani riyal (OR) that took a reverse trend and was devalued by 9 percent. Although to a lesser extent in the 1980s the Bahraini dinar (BD), Qatar riyal (QR) and Emirate dirham (ED) were revalued again, and the other three were devalued by as high as 11 percent for both the Saudi riyal (SR) and the OR and by about 7 % for the Kuwaiti dinar (KD). In the 1990s, BD, QR, SR, and ED were virtually fixed, neither devalued nor revalued. Unlikely, the KD and the OR ended the decade with a devaluation of 6 percent and a revaluation of 8 percent, respectively.

Table 6

GCC petroleum activities to GDP* (%)

Country	2003	2004	2005	2006	2007
Bahrain	24.5	22.8	25.0	26.0	24.6
Kuwait	40.6	44.7	51.8	55.7	54.5
Oman	40.9	42.2	48.7	47.8	45.3
Qatar	57.6	54.5	59.6	57.2	56.5
SA	41.5	45.6	52.7	54.4	54.9
UAE	28.4	31.9	35.7	38.1	38.6
Average	*38.9*	*40.3*	*45.6*	*46.5*	*45.7*

* Including gas sector.

Source: National Central Banks.

In general, all the six currencies have surpassed a period of large adjustments particularly in the 1970s, which was considered a new phase of development following the unexpected changes in international oil market. However, oscillation has been restrained in the second half of the 1980s and the 1990s.

Policy makers in the GCC are aware of the risk of devaluation, particularly the issue of its provocation of detrimental expectations. They also are aware that if devaluation is used

once, it will be more difficult to use it in the future. Similarly, when devaluations are used systematically, they will lead to more inflation with no gains in output (De Grauwe, 1994). Nevertheless the preceding should not give an impression that exchange rate instrument should be thrown away, when it can be used effectively.

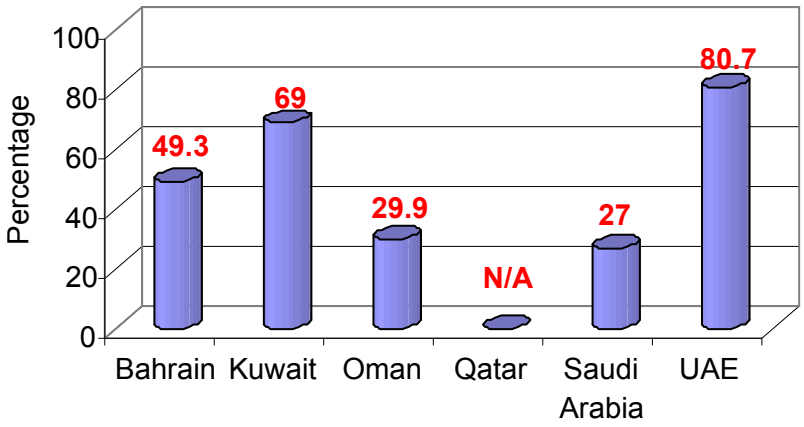
The upshot of this analysis is that as long as exchange rate risk is virtually nonexistent, what is the motive behind the adoption of a single currency. One argument is that the single currency may promote trade if the effects of exchange rate risk are significant. It seems that all GCC currencies have managed to maintain credibility of their fixed exchange arrangements by avoiding the devaluation option even in periods of very real depressed oil prices (e.g. 1998).

3.4.4 Labour and capital movement

Article 8 of the UEA calls for freedom of GCC citizens to move and work in any GCC country without any discrimination. By the same token, it calls for free movement of capital. Thus far, movement of labour among GCC countries has been limited, despite the fact that GCC countries share same language. Statistics show that the bulk of labourers in GCC are foreign expatriates, who are claimed to be less costly and demanding. Conservative estimates put the number of foreign workers in the Gulf at about 13.9 million in 2007[7]. Given the ease of recruiting less paid foreign labours, the private sector in the Gulf has not been willing to employ nationals. The number of nationals employed by the private sector is still modest.

Graph 2

Foreigners as percent to total population in GCC countries in 2007*



* Qatar data are not available.

Source: National Central Banks;

GCC governments have been the main employer of nationals, but due to the fiscal constraints since the mid 1980s governmental job opportunities have been squeezed to a minimum. At the same time the rapid increase in educational attainment of GCC nationals has caused an increase in the number of GCC nationals entering the labour market.

[7] Without Qatar's data whose foreign labour estimated to be 800 thousands in 2008.

The economic rationale behind the adherence of labour movement among the Gulf countries could be based on two grounds, the first of which is of particular importance to GCC. First, free movement of labour would contribute in reducing the high degree of reliance on foreign expatriates in the Gulf, who drain great amounts of hard currencies out of the GCC economies. The problem of substituting nationals for expatriates seems to be of a structural nature.

The second reason, though to a lesser extent, is that free movement of labour would operate as an adjusting mechanism whenever demands for one country's products decreased, causing a rise in that country's unemployment. Nevertheless, the fact that GCC labour markets are still besieged by such structural problems, it is unlikely that the movement of labour will be enhanced soon. As a result going through structural reforms in the labour markets, could be viewed as a prerequisite which would bring in the sought after market-driven adjustment mechanism.

On the other hand, capital movement[8] among the GCC countries is relatively free. Technology adoption by GCC markets has eased mobility of capital among members and hence dismantled the old barriers. Yet, further steps such as mutual listing of shares are needed.

3.4.5 The political will

Overall experience from the past indicates the extreme importance of political determination and commitment as a crucial factor for successful monetary union. Recent literature has emphasized political will to overcome any obstacles and facilitate the move toward monetary union. A shaky political commitment imposes limits to the speed and depth of integration. Wyplosz (2001) states *Europe's lesson number 1 is that what matters is a political will to seek closer economic and financial integration, but not tied to any precisely defined plan and schedule.*

In the Gulf there seems to be a strong political will supporting the notion of the Gulf monetary union. This is manifested by the multilateral initiatives taken by the GCC leaders in the Manamah summit of December 2000 including the adoption of the US dollar as a common anchor of all GCC currencies and the delegation of a power to establish a working agenda toward the ultimate goal of a single currency to the Committee of Financial and Economic Cooperation. It is also manifested by the creation of the high ranking technical committee in May of 2001 whose job is to study the requirements of the GMU and come up with a blueprint of the transition to the single currency. Lately, the summit approved the monetary union agreement and the Law of Monetary Council.

In conclusion, the argument in favour of a Gulf monetary union is supported by some factors including the synchronized business cycles characterizing the GCC economies and the strong political will. In contrast, these arguments are weighed down by a number of factors such as low level of intra-trade, less developed capital markets (especially bond market), immobility of labour and already stable cross exchange rates.

Given these factors, should we conclude against the feasibility of the GMU? Then we would hastily confine ourselves to the static point of view in a real dynamic world. One should always consider the fact that there are lots of positive externalities, albeit intangible and sometimes un-quantifiable, to be gained by further integration. In the GCC, the monetary union is viewed as part of a larger integration process. When the single currency comes to fruity it will bring with it greater integration in financial and non-financial markets (McCallum, 1999). Jacobsen and Tomann (2001) put it succinctly that *the introduction of a common*

[8] It refers to the movement of capital for investment purposes, not movement of wealth per se.

currency has to be regarded as an institutional innovation which has implications for the functioning of other policy areas and which changes the assignment of objectives to policy areas.

4. Key Issues Pertaining to Monetary Unions

Before complete monetary union takes place, a number of significant issues arise that need to be clarified so that the movement to monetary integration can safely be carried out. These issues include agreements regarding the economic convergence criteria, the issue of integrated monetary policy and coordinated fiscal policy, and the need to create a unified central bank, related to that are the issues of seigniorage distribution, and the conversion rate of substituting several currencies with a single currency. We address these issues in turns.

4.1 The issue of economic convergence

The convergence terminology has recently become part of economic and monetary unions' literature. Nominal economic convergence became central part of any discussion about the formation of monetary unions. The idea that European member countries should satisfy standards of good macroeconomic behaviour before joining the EMU has gone through lively debate. The crucial question of the debate was whether nominal convergence criteria are necessary for monetary union and if so "how much convergence could be achieved before monetary union can occur?" On the contrary, it is less clear whether real convergence is a prerequisite or a consequence of closer integration.

Proponents of the convergence approach stress the need of nominal convergence to reduce the costs of losing monetary policy independence. Although failing to achieve convergence may not hinder reaching the ultimate goal of a monetary union, it would definitely make the way to the union harder (Crockett, 1994). The debate went through between two groups, known as the "economists" and the "monetarists". The economists group argues that national economies of member countries should converge before launching a single currency and proceeding to deeper economic integration. They argue that even if nominal exchange rates are fixed real exchange rates will not be permanently fixed unless member countries achieve common rates of inflation. The economic rationale behind it is that if members of the block are at different levels of economic performance, fixing exchange rates would force high inflation countries to carry out deflationary measures, which would aggravate regional disparities within the union. They therefore view the coordination and harmonization of macroeconomic policies, through a high degree of economic performance convergence, prior to a monetary union as an essential step (Pilbeam, 1992).

The monetarists group, on the other hand, asserts that the union itself would produce convergence. In their point of view convergence will be achieved through exchange rate commitments, which could be implemented without *ex ante* convergence. They doubt the notion that countries will make the efforts to coordinate their monetary policies without fixing exchange rates (Pilbeam, 1992).

The above discussion is important in so far as it briefly depicts issues addressed by the literature prior to the start of the EMU. Some analysts argue that it is hard to describe how convergence should be attained. On one hand, irrevocably fixing exchange rates before full convergence is realized involves costs. On the other hand, waiting for full convergence to occur might lengthen the process until fixing exchange rates take place (Emerson, 1992). The Europeans' experience with the EMS suggested that neither of the two extremes is a panacea. The EMS was established to enforce convergence through the ERM without necessary pre-conditions. Convergence to low inflation was considered the main

achievement of the EMS. Conversely, the difficulties the EMS experienced in the beginning of its existence was believed to result from insufficient convergence (Emerson, 1992). This experience provides evidence that exchange rate targets might be useful at forcing the convergence of monetary policies but not the convergence of fiscal policies (Giavazzi and Giovannini, 1989)[9].

Box 1

Convergence Criteria of the EMU

The Maastricht Treaty (1991) contains four convergence numerical criteria involving targets on the convergence of inflation, interest rates, exchange rates and government debt and deficits (Bayoumi and Mauro, 1999). According to the Treaty member countries are obliged to attain a rate of consumer price inflation within 1.5 percent of the average of the three best performing countries during the year prior to entry to the EMU. By developing an inflation convergence criterion, the union would be more prone to become a low-inflation zone. The second criterion of long-term interest rates is strongly connected to expected inflation. The long-term interest rates in a national currency reflect both the global real interest rate and a currency-specific premium or discount, on which expected inflation differentials are the most affecting factor. For a EMU member to be ready to enter stage three its long-term interest rates should be confined within two percentage points of the average rates prevailing in the three countries with best inflation record (Crockett, 1994). The primary aim of requiring a convergence of inflation rates and interest rates was to avoid a large real exchange rate changes once nominal rates were locked (Bayoumi and Mauro, 1999).

The third criterion obliges member countries to abide by the normal ERM fluctuation margins. Accordingly, members have to maintain their exchange rates within the ERM bands for at least two years before participating in the common currency. The last convergence criterion pertains to fiscal deficit and government debt, which meant to ensure that member countries' public finances were sustainable. The fear of the Treaty engineers was that lack of formal fiscal constraints would cause monetary and financial instability as a result of excessive deficits and lead to pressure being exerted on the ECB to inflate away countries' debts. Restrictions on deficits are said to limit the *beggar thy neighbour* type inflation that could destabilize the monetary union (Cooper and Kempf, 2000). In addition, other member governments would face a pressure to bail out the errant members. Moreover, realizing the potent effect of fiscal policy under fixed exchange rates, national policy makers might be tempted to use it actively, which may well lead to negative externalities for other members (Barry, 2001). Therefore, the Treaty imposed limits on both government debt and fiscal deficits, which should not exceed 60 percent of GDP and 3 percent of GDP, respectively. Failure to adhere to these limits would disqualify a member country from joining the union. Despite the fact that fiscal restrictions make sense, they are criticised of making no distinction between public consumption and investment. The restrictions might have adverse long-term effects specifically if they reduce expenditure on infrastructure and education (Barry, 2001).

A couple of points are worth mentioning about the fiscal convergence criteria. A country that has a deficit above 3 percent of GDP might be allowed to join in if that deficit *is only exceptional and temporary and the ratio remains close to the reference value.* In addition, a deficit might not be considered excessive if it *has declined substantially and continuously and reached a level that comes close to the reference value* (Buiter, 1993). The two reference values are said to be compatible with a stationary long-run equilibrium based on the average historical numbers of the 12 EC members. With regard to the deficit-GDP ratio, the Treaty seems to apply the "Golden Rule" of public finance. The rule says: balance the current budget while borrowing should not exceed the amount of capital formation.

[9] Policy coordination in the EMS has never extended to monetary policy targets (Giavazzi and Giovannini, 1989).

Learning from the aforementioned experience the Europeans almost unanimously adhered to the Maastricht Treaty, which provided a quantified set of convergence criteria for the final stage of the process to monetary union and a detailed timetable for achieving such nominal convergence (Box 1). These precondition convergence could be viewed as a screening device aimed at keeping out members that might be reluctant to adopt prudent macroeconomic policies once they are full members of the union. The introduction of convergence was intended to create a monetary union with a future of low inflation environment and move the focus of macroeconomic policies implemented by member countries from domestic level to union monetary level (Bayoumi and Mauro, 1999). At the same time, agreement on having fiscal criteria is more prone to reducing pressures on the monetary authority (Cooper and Kempf, 2000).

The strongest refutation however against the Maastricht convergence strategy is that it may make convergence of countries with weak currencies more difficult to achieve. In addition, the criteria are interrelated in some way. A country that fails to undertake a credible disinflationary strategy, because of its infamous record of inflation, is more likely to experience an increase in its real interest rate, as the decline in the observed inflation is not matched by a decline in market expectation of inflation. This in turn will increase the debt burden, which might force the authorities to increase taxes in order to meet the debt GDP criterion (De Grauwe, 1995).

4.2 Is convergence a relevant issue in the Gulf?

According to the traditional OCA, prior convergence criteria are neither necessary nor sufficient to form a successful monetary union. It is not surprising therefore that the theory of OCA is silent on the need for prior convergence on macroeconomic aggregates. Instead, it tackles the issue of the need for real wage flexibility and mobility of labor, as prerequisite for a sound monetary union. However, if one strongly abides by the OCA, the viability of some existing monetary unions around the world, e.g. EU-15 members, would be questioned.

The significance of prerequisite nominal criteria stems from the fact that they have an inherent likelihood of making a smoother ride towards monetary union, but not trouble-free one. They also have the advantage of making national policy makers more disciplined by the time they come under one monetary authority. It is important therefore that the GCC members agree on a number of nominal criteria that better suit their economies and address the very specificity of the GCC economies. Convergence would lead to a reduction of differences between national goals, such as reduction of differences between national debt ratios. Convergence in fiscal deficits and debts, both of which are necessary for stable monetary unions, are of paramount importance for the Gulf.

But convergence of some macroeconomic indicators would not solve every problem of the GCC economies. We argue therefore that launching structural changes that address particular economic conditions of the GCC would be indispensable, too. Economies of the GCC are at different stage of development from that of the EMU and therefore have different challenges. Problems manifested in the GCC economies include the unemployment rates, and lack of diversified economies. But “how much nominal convergence needs to be established before launching the single currency?” is a hard question to answer. This is a policy matter demanding a multilateral agreement since it involves sacrifices that member countries have to go through[10].

[10] The governors of GCC central banks and monetary agencies formed a technical committee with official representatives of all member countries and the GCC General Secretariat. The task of the committee is to explore various feasible options for implementing article 22 of the Unified Economic Agreement, including the

Based on the findings of the technical committee, the GCC countries have adopted the following convergence criteria: inflation rate, interest rate, foreign exchange reserve, annual government deficit, and government public debt. The following section sheds light on each criterion and uncovers the current situation.

4.2.1 Inflation rate

A general rise in the price level will cause a reduction in the purchasing power of the member country's currency. Therefore, in order to maintain a union-wide monetary stability, it is important to think about a criterion that would bring close inflation rates among members. Price stability is an important element in facilitating the task of the new central bank. Historically, all GCC countries have been maintaining good records of price stability as a result of their flexible trading system and the strength of their anchor, the US dollar, especially in the past. An important factor that one should not forego is an establishment of harmonized and comparable price indices. The harmonized indices will serve as base for comparison among the GCC members record of price stability. It will also be important for the conduct of the future single monetary policy. To achieve convergence in inflation rates among the GCC members, the inflation rate must not be more than 2 percent points higher than the weighted average, based on GDP size, of inflation rate in all GCC countries. Table 7 illustrates inflation rates in all GCC members in the five year period (2003–2007). The two countries that deviated from the target were Qatar and UAE for the years 2004–2007. Clearly, the inflation rates of the two countries came as a result of the high spending that the two economies, capacity could not absorb easily. It is possible through the high inflation rate will diminish after years of spending on expanding economic base. Table 7 illustrates which countries have satisfied this criterion.

Table 7

Inflation rate in GCC

Year	Bahrain	Kuwait	Oman	Qatar	SA	UAE	Weighted Average	Convergence Threshold
2003	1.6	1.0	0.2	2.3	0.6	3.1	1.3	3.3
2004	2.2	1.3	0.7	6.8	0.3	5.0	1.9	3.9
2005	2.6	4.1	1.9	8.8	0.7	6.2	3.0	5.0
2006	2.0	3.0	3.4	11.9	2.2	9.3	4.8	6.8
2007	3.3	5.5	5.9	13.8	4.1	11.1	6.9	8.9

Source: Secretariat General of GCC countries, Statistics Database.

4.2.2 Interest rate

The interest rate should be calculated by using the average short-term interest rate (on three months), which is used between banks. The GCC interest rates are positively correlated to and closely follow the US interest rate due to the fixed peg to the US dollar in 2002. To achieve the convergence in interest rates between the GCC countries, the short-term interest

establishment of convergence criteria if any. The technical committee began its series of meetings on June 2000.

rates must not be more than 2 percent points higher than the average of the lowest three short-term interest rates among the GCC members. Apparently all the GCC countries satisfy this criterion (Table 8).

Table 8

Interest rate in GCC countries

Country	Bahrain	Kuwait	Oman	Qatar	SA	UAE	Convergence Threshold
2003	1.09	2.12	0.90	1.07	1.63	1.16	3.02
2004	1.50	2.02	1.16	1.45	1.73	1.56	3.37
2005	3.41	3.26	3.09	3.34	3.75	3.52	5.23
2006	4.84	5.43	4.44	4.92	5.02	5.11	6.73
2007	4.68	4.59	4.20	4.70	4.79	4.79	6.49

Source: Saudi Arabian Monetary Agency, Quarterly Statistical Bulletin, 4th Quarter 2008.

It is worth mentioning that the use of long term interest rate is more suitable. Long term interest rates underline long term risk premiums in the area.

4.2.3 Foreign exchange reserve

Members of the GCC agreed to adopt a criterion of ER sufficiency that should be met by all members before the launch of the single currency. Therefore, each country's monetary authority should hold a sufficient amount of foreign reserves of no less than four months worth of imports. Table 9 shows the status of each country for the period 2003–2007. The importance of this criterion stems from the fact that GCC countries are highly import dependent and a shortage of ER cover could mean more debt.

Table 9

Number of months covered by foreign exchange reserves of commodity imports

Country	Bahrain	Kuwait	Oman	Qatar	SA	UAE	Convergence Threshold
2003	3.2	8.4	6.3	7.0	7.4	3.5	4
2004	2.8	7.9	5.0	6.7	7.4	3.1	4
2005	2.5	6.8	5.8	5.5	5.4	3.7	4
2006	3.2	9.5	5.5	4.0	4.8	4.2	4
2007	4.4	8.5	7.2	5.1	4.8	3.8	4

Source: Secretariat General of GCC, and Oman central bank annual report.

4.2.4 Annual government deficit and debt

The total public debt represents the total volume of government bonds, bills and other securities outstanding at a particular date. It is generated mainly from annual accumulation of

successive fiscal deficits. It is argued that unwarranted increases of the public debt volume create heavy burden on the debtor country for it might deplete its financial resources and lead to indefinite postponement and cancellation of some development, both social and economic, vital projects. In addition, the increasing trend of the debt might lead to a number of negative consequences including the intergenerational transfer of the debt burden, the pressure on the risk premium factor corresponding to the debtor country and the opportunity costs involved because these savings could otherwise be used in more productive uses.

Also, there are externalities attached to unsustainable debt phenomenon, whereby the unsustainable increase in the debt of one country might force the others to follow more deflationary policies. If a member country lets its debt increase continuously, it will continue to rely on the capital markets of the union, thereby driving the union interest rate upwards. The interest rates rise will affect other member countries as well, by affecting their burden of the debt. Any attempt by those members to stabilize their debt/GDP ratios will be through more restrictive fiscal policies (Grauwe, 1994). Moreover, should a member that issues too much government debt got defaulted, the other members would face vast pressure to bail out the defaulted one. In general, high budget deficits and high public debts represent a threat to price stability and so that the monetary union will have an inflationary bias. The central bank will face a lot of pressure to inflate should these two aggregates go unrestrained.

To achieve convergence in fiscal situation, GCC countries agreed to on a criterion that annual fiscal deficit and government debt should not be more than 3 percent of GDP for[11] central government and 60 percent of GDP, respectively. Table 10 depicts the fiscal situation in the period 2003–2007.

Table 10

Budget surplus/ deficit for the GCC countries

% to GDP

Country	Bahrain	Kuwait	Oman	Qatar	SA	UAE	Convergence Threshold
2003	1.8	10.0	1.4	3.9	4.5	–4.5	–3.0
2004	1.4	15.1	2.4	16.4	11.4	–0.4	–3.0
2005	5.1	29.1	2.5	9.2	18.4	8.1	–3.0
2006	2.3	17.6	0.3	9.0	21.7	12.0	–3.0
2007	0.6	29.7	0.3	14.7	14.6	9.5	–3.0

Source: Secretariat General of GCC, and Oman central bank annual report.

Given the recent economic boom, all countries have enjoyed comfortable fiscal position. One reservation might arise when it comes to evaluating fiscal sustainability of GCC budgets. GCC incomes are strongly influenced by exogenous volatile oil prices, hence the deficit to GDP indicator might not provide a satisfactory gauge. GDPs in oil producing countries

[11] Additional measure of public debt criterion is the amount of general government debt should not exceed 70 percent of GDP.

fluctuate widely from year to year, which makes a country's deficit closer to sustainability in favourable oil price conditions even if there is no change of policy stance (Chalk, 2001)[12].

Table 11 depicts the debt situation for the period 2003-2007. Another challenging factor is the accumulated stocks of external debt that member countries or their national entities owe. Countries that accumulate short-term external debt might find it hard to persuade lenders to roll over maturing loans and be forced to pay debt in full. The ratio of a country's short-term debt to foreign exchange reserves is an important factor monitored carefully by international investors and credit rating agencies as well. Continuation of external borrowing by members of the GCC might lead to indirect costs on the entire union, be it higher interest rates or balance of payments deficits.

Table 11

Central government debt ratio to GDP

Country	Bahrain	Kuwait	Oman	Qatar	SA	UAE	Convergence Threshold
2003	36.9	23.0	15.6	50.4	82.0	0.0	70
2004	34.4	17.3	13.8	34.1	65.0	0.0	70
2005	28.7	11.8	8.6	23.2	38.9	0.0	70
2006	23.4	8.6	8.2	18.0	27.3	0.0	70
2007	19.8	7.2	6.5	9.7	18.6	0.0	70

Source: Secretariat General of GCC, and Oman central bank annual report.

4.2.5 Monetary and fiscal policy issues

Coordination of monetary policies in a monetary union is a crucial subject. The probability of having perfect coordination in practice is very low. This stems from the fact that the prerequisites of perfect coordination are hard to accomplish. Coordination of monetary policies requires the collection, processing and evaluation of the information needed for the conduct of monetary policy. Equally important is the willingness of members to work toward a consensus, which might be sometimes impossible to get. And if a consensus over a specific monetary policy occurs, a problem might arise is that how to ensure continuous compliance with the agreed upon policy. Convincing market participants of a going harmonized coordination might also be a harder task. A workable monetary union must create a mechanism ensuring explicit procedures to reach the final objectives of a monetary policy and making sure that national monetary authorities comply with unanimously taken decisions (Ciampi, 1989).

Fiscal policy is no less demanding than monetary policy. Both of which are closely linked. In a monetary union, the existence of a single monetary policy and different fiscal policies might sometimes be an issue. The main concern of fiscal policy in a monetary union is coordination among unilaterally conducted fiscal policies. Given the fact that the possibility of using monetary tools to tackle a country-specific shock is ruled out, the more asynchronous business cycles member countries have, the more demanding fiscal policy coordination becomes.

[12] Chalk (2001) introduces what he calls the core deficit for oil producing countries. This defined as the overall deficit less net transfers and oil and investment income, where a higher core deficit leads a country further away from long-run sustainability.

Any unsustainable fiscal deficit in one member country would pressure other members of the union to assist that country, through fiscal transfers from members, and or loan guarantees as subsidy through monetary expansion is no longer an option. Discretionary fiscal coordination may not come to existence smoothly, be hard to implement and monitor (Masson and Taylor, 1992). In the EMU, it is argued that in order to discipline fiscal policies and reduce unfavourable spillover effects, mechanisms for achieving fiscal policy coordination are helpful. However, to the extent that a procedure that enables fiscal policies to be coordinated would rely on discretion rather than rules, such procedures may produce sub optimal behaviour.

Unless carefully designed agreements are in place, conflicts between the union-wide central bank and member governments about the mix of macro-economic policy would also be inevitable. Beetsma et al (2001) differentiate between two types of fiscal coordination, ex ante and ex post. The ex ante coordination could be made possible through formal agreement which constitutes an international obligation (e.g. the Maastricht Treaty). The ex post on the other hand is rather an ad hoc which depends more on the current state of affairs (e.g. Euro area finance ministers meetings to discuss fiscal policies). To avoid the issue of having fiscal policy conceal stability risk, the Maastricht Treaty contains some regulations. In this regard, the Treaty bans national central banks from granting loans to governments, rules out the possibility of having EU members responsible for the liabilities of other members with excessive budget deficits and imposes sanctions, as well as fines, on countries infringing budget deficits and public debt limits (Becker and Dallmeyer, 1996).

One area of fiscal policy deserves coordination is a need of closely coordinated decisions on overall fiscal stance at national levels (Beetsma and et al. 2001). If a fiscal policy stimulus produces an appreciation of the common currency, the other members' net exports tend to decrease (Masson and Taylor, 1992).

In the EMU the Treaty sets some guidelines for coordinating national economic policies. Given the fact that the ECB chief objective is price stability, national fiscal policies would have a multitude of objectives including the stabilization of output and maintaining a sustainable balance of payments (Goodhart, 1992).

4.2.6 Monetary and fiscal policies in the Gulf

Monetary policy: The main objective of monetary policy is to maintain domestic financial stability and preserve the pegged exchange rate system. Monetary policy in the Gulf could be perceived as less effective than in economies with floating ER arrangements, coupled with the absence of well-developed secondary capital market. The efficacy of monetary instruments on economic activities remained limited. Oil and natural gas, as the main exports of the Gulf, continue to be the principal source of foreign exchange reserves. Broadly speaking, fiscal policy is the main determinant of monetary policy. The role of monetary policy in the Gulf is to control monetary development ensuing from external factors influencing domestic economic activities through fiscal expansions (Al Hamar, 1988).

In view of that, one would expect the newly created Gulf Central Bank and the existing national central banks (and monetary agencies) to share the same monetary policy objective of price stability. As a result, the expectation is that GCB would be viewed as a centralized entity in charge of the union-wide monetary policy, where harmonized formation of monetary policy would take place. However, since day-to-day exchange rate policy falls into the responsibility of the GCB, conflicting situations between the domestic price stability and external stability of the single currency (exchange rate) may arise.

Fiscal policy: Government expenditure is the most potent instrument behind economic activities in the GCC economies and is the mainstay of fiscal policy in the Gulf. Current expenditures, mainly the government wage bill, represent large portion of the GCC members' budgets. The average current expenditures of the GCC members are usually in the neighbourhood of 71 percent of total expenditures as in 2007.

On the revenue side, with the narrow tax base, GCC members continue their continuous reliance on oil revenues, which represents 70 percent of total revenues, on average. This renders fiscal position of the GCC countries subject to oil market developments, despite the increasing role of investment income from wealth accumulated in the past.

Coordination of fiscal policies in the GCC would help the GCB achieve its objective of maintaining price stability. Absence of fiscal policy coordination might produce unsound fiscal stances, which could undermine monetary policy. As far as the GMU concerned, the current fixed exchange rate arrangement needs sufficient international exchange reserves to support the single currency. In the absence of centralizing fiscal activities or at least closely harmonizing national budgets, the risk that one country's fiscal deficit can create a balance of payments deficit for the entire union is still a possibility (Allen, 1976). There are a number of fiscal issues need to be addressed by GCC countries:

1. With the efforts being made by some GCC countries to ameliorate their overall tax systems, issues of tax coordination might arise.
2. To maintain harmony over various expenditure policies especially the rising current spending (e.g. direct and indirect subsidies) and avoid unbalanced economic growth among GCC economies, ex ante coordination is considered necessary.
3. To bring stability to GCC revenues and suppress GDP volatility, an issue of creating a multilateral oil stabilization fund could be viable.

Box 2

Monetary policy in the EMU

Before the establishment of the ECB, the European national central banks have adopted different monetary strategies. For instance, the Banque de France followed an exchange rate stabilization policy while the German Bundesbank followed a policy of money supply targeting aimed at stabilizing some monetary aggregates. Nowadays, the ECB strategy follows the mandates set by the Maastricht Treaty that price stability should be the primary objective of monetary policy. The earlier success of the Bundesbank in achieving price stability and the argument that a Philips-type trade off in the medium and long run between employment and inflation does not exist anymore provide enough justification for that strategy (Goodhart, 1992).

Many analysts have conceded that given the economic heterogeneity of the euro zone, there might be different inflationary pressures as member countries experience different shocks. It is natural that members of the Council of Governors, who happen to be governors of central banks of participating countries, will have differing views about what is to be done (Kempf, 2001).

One consideration has to do with monetary policy is whether national governments of the union, depending on the size and wealth, might be tempted to constrain the unified central bank or influence it in some way. Some members could employ their fiscal policy to force the central bank to adopt their views. Others however select officials who adhere to the price stability objective in order to help minimize the temptation to further monetary expansion. The central bank should, in order to shape and maintain its credibility, counteract such an argument by increasing its ability to operate without influence from members (Kempf, 2001)

4.2.7 A Regional Central Bank

Stabilization function is viewed as an international public good where no national central bank has the incentive to internalise all of the international spillovers. For obtaining an efficient stabilization function, centralized control of monetary policy is required (Eichengreen, 1991). Creation of a union-wide central bank would be a minimal requirement for credible commitment to the monetary union. But should the creation of the new central bank totally abolish the pre-union multiple national central banks? Or should they coexist and have different levels of responsibilities? An argument might arise is that if members of the

union have a preference of keeping their national central banks operating, leaving the union would be easier should future political pressure on a member government to exit the union takes place. This situation might undermine commitment and hence endurance of the union.

There are some advantages however in retaining national banks along with the new regional central bank. Decentralization of monetary operation might be more efficient than having a single central bank doing the whole job. After all national central banks have long experience in dealing with issues related to their economies. It could be more advantageous and probably less costly to utilize the already established national banks than to rely totally on the newly created central bank.

In addition, to have them willingly cooperate with the new central bank, national central banks should not feel that their being is in jeopardy. It is highly recommended that they are granted independence of national governments and be responsible only to the supranational central bank. The role of the national central banks should be limited to carrying out instructions of the new union-wide central bank. In case national monetary interests of member countries differ, the central bank authority that includes national representations should have the power to settle these differences and have the final say. The goal is to preserve as much a harmony as possible in the system of central banks (Allen 1976). This means that decisions involving a change in the price of a currency or the quantity of money supply should be a sole responsibility of the regional central bank.

Independence of the regional central bank: An important characteristic of the newly created central bank is its independence particularly from national governments and legislative bodies. Central bank independence implies that monetary policy can be executed, even if it is against government wish, without government interference. There is ample evidence suggesting that the greater is a central bank independence from fiscal authority, the more successful it is in achieving low inflation objective. Empirical evidence shows that long-run inflation rates are lower in countries with independent central banks. It is also argued that a central bank ability to commit itself to long run price stability is improved with independence from political interests (Fratianni et al., 1992).

It has been argued that politicians would rather stimulate the economy and engineer a temporary boom, as election time comes closer, even at the expense of inflation and expected inflation. This argument has spurred the advocacy of a politically independent central bank as a necessary condition to achieve monetary stability. Under such arrangement member governments would be banned from using money supply to finance public spending or transfer payments in exchange for votes. One way to maintain immunity of a central bank is to prevent a central bank from buying “too much” government debt or overextending credit to government. It has been further contended that an independent central bank would provide faster decision-making process. In addition, independence along with the ex ante fiscal pact minimizes the pressures on the union-wide central bank (Cooper and Kempf, 2000).

In EMU the ECB and national central banks are banned since 1994 from granting loans to government institutions for budget financing (Becker and Dallmeyer, 1995). They also must not purchase debt instruments directly. Yet, the ECB may conduct open market operations since there are no restrictions on the purchase of government debt in secondary markets. The ECB retains financial independence, as well. It acts as a private entity where each national central bank will contribute to its capital and earn income according to their shares[13] (Fratianni et al., 1992). The ECB has been granted full independence and its executive board members are immune from political pressure because of their long non-renewable mandates (Box 3).

[13] Subscription to the ECB’s capital is based on a country’s size of population and GDP as a proportion of the EU total (Becker and Dallmeyer, 1996).

Box 3

Structure of the ESCB

The European System of Central banks comprises of the ECB and the national central banks. The ECB is the entity in charge of monetary policy in the EMU. There are two councils involved with monetary policy, the Executive Board (EB) and the Council of Governors (COG). The European Council appoints the EB of six members who serve in office for eight years with overlapping mandates and cannot be re-elected. Members of the EB cannot be dismissed except for misconduct or incapacity. On the other hand, the COG is composed of the six members of the EB and all EMU national central banks' governors. The two councils have different responsibilities. The EB is in charge of the centralized control and assessment of the daily implementation of decisions taken by the COG. The COG defines the orientation of monetary policy and makes strategic decisions about intervention instruments. It is the task of the national central banks to implement the decisions taken by the COG (Kemp, 2001). The COG operates on a one man-one vote principle where decisions are made on a simple majority and the president vote would be a deciding one in case of a deadlock. However, decisions on profit allocations are to be made by two-thirds majority of the weighted votes. The votes are weighted according to the national central banks shares in capital of the ECB. The EB members have no right to vote on these decisions. The ECB was granted three forms of independence from political authorities. These are institutional independence, operational independence and personal independence (Becker and Dallmeyer, 1996).

4.2.8 Setting up a system of central banks in the Gulf

The GMU would be established based on an agreement among a group of sovereign countries. It is likely that some members may attempt to decentralize monetary control at national level, which perhaps undermines stabilization tasks of central banks. It is important that member countries resolve in advance the issue of autonomy and monetary control and draw lines of responsibilities between the GCB and the national central banks (and monetary agencies). Therefore the need for a Gulf System of Central Banks (GSCB) is apparent.

Member countries of the GMU should establish the GSCB that would resemble the ESCB. This GSCB includes the newly established Gulf Central Bank (GCB) and the existing national central banks (and monetary agencies) where power over monetary policy is distributed. The national central banks (and monetary agencies) should be closely associated with the design and implementation of monetary policy. The GCC nonetheless could make an effort to arrive at more harmonized monetary policies and interest rate policies, before having these policies under one roof. The significance of prior coordination is to help reduce the possibility of having excessive interest rates differentials put pressures on exchange rates.

Independence of Gulf Central Bank: An important characteristic of the new central bank is its independence from national governments. The purpose of independence is to enable the central bank to fulfil its objectives. It is argued that removing monetary policy from the political field would improve the central bank ability to commit itself to its long-run objectives. This is true for central banks under same jurisdiction and should be more pressing for a central bank representing different sovereign countries, since it could be exposed to more divergent political pressures. There should be a reasonable degree of freedom to decide on the objectives of monetary policy, "goal independence" and the tools by which it could implement these objectives "instrument independence". The GCB should be vested with the power to extend its independence beyond the implementation phase alone.

An essential element of independence also is financial independence. The GCB should generate its own revenues and does not rely on national governments for its operations. Personal independence is another important element and therefore the executive board members should not be put under pressure or fear of being denied the continuation of their term in office. Moreover, the GCB should be independent from any obligation to finance government deficits. One must be aware however that independence does not imply

absence of accountability in the part of central bank officials. The GCB officials will still be subject to the statute of the GCB. Besides they should have limited terms in office.

4.2.9 Pooling Foreign Exchange Reserves

Before the GCB begin its operation, each member country should contribute its share of foreign exchange reserves according to the overall weight given to each member (e.g. Table 12). This will enable the GCB to defend the fixed exchange rate of the national currencies. The requirement of 100 percent currency cover in the GCC helped in preserving the fixity of their currencies exchange rates. Given that some ex ante arrangements (i.e. convergence criteria) will be made, which assure more harmonization of fiscal policies, the hope is that they will ease the task of the GCB.

Table 12

Overall weights of GCC members (%)

Country	Share of GDP	Share of Population	Degree of Openness	Share of COB	Overall weight
Bahrain	0.56	0.70	5.22	0.53	7.01
Kuwait	3.33	2.27	2.93	1.77	10.30
Oman	1.23	1.72	3.87	1.15	7.97
Qatar	2.16	1.03	3.45	0.96	7.61
SA	11.67	16.19	3.23	15.06	46.15
UAE	6.05	3.09	6.30	5.53	20.96

Source: Central Banks.

4.2.10 Seigniorage

A good currency will be demanded as a medium of exchange and a store of value. The wider the currency usage will be, the more seigniorage revenue will the issuing authority generate. Seignorage is the revenue the government collects from both currency issuance that bear no interest and required reserves that either pay below market interest rate or no interest at all (Gros, 1989). Unlike dollarization arrangement, where a foreign currency will be used and seigniorage is forgone, the issue of seigniorage distribution often arises in monetary unions. The freedom to use seigniorage as a revenue source would be eliminated under a currency union. The concept of seigniorage mostly focuses on the command over resources that the government obtained over a period of time by creating high-powered money (Fischer, 1982). In this case, seigniorage would be equivalent to the change in reserve money.

Rules of distributing seigniorage among monetary union members should not be based exclusively on the increase in monetary base. Otherwise, each member would have an incentive to increase its monetary base in order to secure as large as possible share of seigniorage revenues after becoming a member of the union. In the EU the Maastriht Treaty dealt with that issue by distributing seigniorage to national central banks according to their paid up share in the capital of the ECB, which will be determined by population and the shares in community GDP (Fratianni et al 1992).

4.2.11 Gulf Seigniorage revenue

For members of the GCC the distribution of seigniorage will be an important issue to agree on. If seigniorage distribution would consider the monetary base growth only, member countries would find it advantageous to increase growth of their monetary base to get a larger share of seigniorage. It is expected that GCC members will put a reasonable sharing rule in place to distribute seigniorage among members. The overall weight formula calculated (Table 12) as a base for dividing revenue among members one suggestion that could be considered. It might also be plausible to deter further expansion in monetary base by assigning a decreasing weight for most recent data of monetary base or relying on the average numbers of the 10 years prior to launching the single currency.

But has seigniorage been used heavily in GCC countries? Fischer (1982) differentiates between two situations, high versus low use of seigniorage,[14] and labels them active and passive seigniorage use. Seigniorage use is active in high inflation countries. In contrast, it is passive in rapidly growing countries, such as many members of the OPEC, where high-powered money is provided to meet the rapidly growing demand.

5. Transitional and operational issues

The GCC countries are committed, under the Council's Unified Economic Agreement of 1981, to adopt a single currency. There are a number of important issues need to be settled before the complete unification of the currency takes place. These issues vary in scope and nature from the establishment of the Gulf System of Central Banks to the choice of the new currency name. Some of the technical matters that might arise in the way to unification include the announcement of the conversion rates between the national currencies and the new single currency.

Reaching a prior precise agreement about weights of member economies in the union is vital for the sake of the endurance of the union. The purpose of this section is to propose a formula and have it as a guideline for sharing costs and benefits in the union. The intention is to come up with a comprehensive formula that covers as many economic aspects of members as possible and apply it whenever issues that reap benefits or inflict costs, due to participation in the union, arise. Since benefits of a monetary union membership should balance the costs of relinquishing macroeconomic independence, which will be greatest for large economies, it is likely that the formula reflects fair weight of members.

One alternative for calculating weights is to consider certain economic factors corresponding to each country. The ***first*** of these factors is the share of a country's GDP to the total GCC GDP, which reflects the magnitude of economic activity a certain member possesses relative to the total GCC countries. The ***second*** factor is the size of each country's population relative to total GCC population, which mirrors the relative consumption power of the member country and the size of circulating money. The ***third*** factor is the relative degree of openness of a member country to the rest of the world, measured by total external trade (imports plus exports) relative to that of total GCC. Statistics show that the higher the degree of openness a GCC economy will have, the more vulnerable its economy will be to fluctuations of international oil market and to possible speculative currency attacks. Henceforth, members of the GCC who hold bigger shares of the block total trade should get more say about union-wide policies. The ***fourth*** factor is the currency outside banks (COB)[15],

[14] Seigniorage use refers to [Δ in high powered money/Δ in high powered money + government revenue].

[15] We used currency outside banks (M1- demand deposits) due to the fact that monetary base statistics is not available for all countries, which is a better proxy of the size of seigniorage revenues.

which is a proxy of the size of seigniorage revenues each country forgoes after being committed to a single currency. But since the required reserve constitutes the seigniorage tax base whose revenue is positively related to currency creation, this might require members to agree *ex ante* about the required reserve ratios placed on commercial banks within their jurisdiction. Each of these four factors will be given an equal portion of 25 percent in deciding the weight of a corresponding country in the monetary union (Table 12).

5.1 Transitional stage to the single currency

On their December 2000 Summit in Bahrain, the GCC head of states authorized the use of the US dollar as a common anchor (numeraire) of the six national currencies. This is an important step toward more stable cross exchange rates, which will facilitate the move to the next step (i.e. an irrevocably fixed rate of exchange vis a vis the US dollar)[16]. After that, GCC countries need to agree about the rate at which they should irrevocably fix their bilateral exchange rate vis a vis the US dollar and declare it unanimously.

A question might arise is "how should they proceed to that step?" The answer much relies on the current system of pegged exchange rates, which brought about an inherent stability to these currencies. Members can take that step by enhancing more exchange rate coordination among themselves rather than going through drastic moves of exchange rate depreciation or appreciation, which is the least thing expected from the block for it might negate one of the purposes of the single currency (i.e. encouragement of more foreign direct investment). Therefore, all GCC members need is to ratify their official rate of their corresponding currency vis a vis the US dollar at which they irrevocably fix their cross rates. After permanently locking in their bilateral exchange rates relative to the US dollar, any exchange adjustment should be done through the union-wide central bank and therefore be subject to multilateral agreement, based on votes.

5.2 Introduction of the single currency

There are two issues that we need to think of and address about the introduction of the new currency. Theses are the conversion rate vis a vis the existing national currencies and the speed of introduction of the currency as a legal tender.

5.2.1 Conversion Rate of the new Gulf currency

Conversion rates will serve as the base for converting all money-related and cash balances as well as exchange old banknotes with the new banknote. Several methods could be suggested for converting the existing currencies into the new currency, but not all of which would be germane enough to win a unanimous approval. In the following we explore two proposals.

***Method 1*:** is to use the current common peg, the US dollar, as a valuation currency base for the new currency and set the new conversion rate equal to the prevalent bilateral exchange rates of the US dollar. The new currency could equal 1 dollar, multiple of a dollar or a fraction of it. Using the exchange rates of the US dollar relative the six currencies as of December 2007, the value of the new Gulf currency would be as follows:

1$ = 0.3670 BD = 0.2830 KD = 0.3845 OR = 3.64 QR = 3.75 SR = 3.6725 ED = New currency

[16] As the Kuwait dinar is the only currency pegged to a selected basket of currencies, this requires a further step by Kuwait to put the decision of adopting the US $ in operation. The other members have all pegged their currencies to the US dollar.

Advantages and disadvantages of that approach

The advantage of this approach is that it converts the national currencies with an already familiar exchange rate (the US dollar), albeit relative familiarity. This familiarity is limited to the exchange rate of one's own country's currency. A Saudi citizen is not expected to necessarily know the US dollar exchange rate of a Kuwaiti dinar and vice versa.

This fact might make it hard to co-circulate the six national currencies and the new one and could cause the authorities to withdraw the national currencies and introduce the new single currency pretty fast. In addition, the complexity of calculating the conversion rates by the general public, might lead to a wide array of movement toward carrying US dollar as a safe haven before the introduction of the new currency[17]. Needless to say that if such a thing happens the official foreign reserves of the six countries might face the danger of being drained away.

Moreover, there are some psychological effects involved in this method. Since none of the existing currencies is in par with the US dollar, this method might cause illusions in public minds of having gone through losses and gains of purchasing power. For currencies whose current US dollar exchange rates are multiples of local currencies (QR, SR and ED), this method would give false impression to residents that they lost some purchasing power. In contrast, currencies whose current US dollar exchange rates are fractions (BD, KD and OR) this method would make different impressions. By the same token, should the new currency set equal to multiples or fractions of a dollar conversion rates would deviate in a wider extent and be biased to either group.

***Method 2*:** This approach requires a division of the six currencies into two groups based on their current official exchange rates denominated in US dollar. Group one includes the currencies whose current exchange values are multiple of dollars (BD, KD and OR) and group two includes the currencies whose current values are fractions of the US dollar (QR, SR, ED).

Method 2 conversion rates

Currency		US $	Median	New currency*	Difference from New currency	
					Value	%
Group 1	BD	2.6596	2.6596	0.2691	–0.0031	–1.2
	KD	3.5336			0.0843	23.8
	OR	2.6008			–0.0090	–3.5
Group 2	QR	0.2747	0.2723		0.0056	2.0
	SR	0.2667			–0.0024	–0.9
	ED	0.2723			0.0032	1.2

* New currency = (one tenth of group 1 median + group 2 median)/2.

[17] A wide range of movement to the US$ might be self-fulfilling so that it counteracts the efforts to prop up confidence in the new currency.

Then we use the calculated median of each group as a base for the new currency conversion rate. The aim is to bring the value the two groups of currencies as close as possible to the new currency, by setting the new currency equal to (1/x) of group one currencies (e.g. one-tenth[18]) and at par with group two currencies. The following table shows these calculations.

As shown in the last column of the table, all the six currencies require certain official actions, revaluation or devaluation, to bring them in par with the new currency, which equals $ 0.26. With the exception of the KD, none of the currencies calls for a value change of more than 3.5 percent in absolute value. According to this method, BD, OR and the SR require revaluations by 1.2, 3.5 and 0.9 percent, respectively. On the other hand, KD, QR and the ED require devaluations of 23.8, 2.0 and 1.2 percent, respectively. Since the KD is the only currency whose difference from the new currency exceeds a margin of 7.25 percent, it could be dealt with as a special case. In this situation, we could use the cross exchange rate of the KD and the new currency relative to the US dollar. For instance, if the KD = US $3.5336 and the new currency = US $ 0.2691, the cross exchange rate of new currency/KD should be 13.13.

Broadly speaking, method 2 has the advantage of bringing easier conversion rates that facilitate the transition to the new currency. However, it entails trade off between ease of calculation and the requirement of abruptly changing the official exchange rates (revaluation or devaluation). Revaluation would increase the real value of public debts and decrease relative price of traded to non-traded goods, hence adding more stimulant for increasing imports.

Therefore, one could modify this method to avoid the revaluation measure. This could be done by choosing the exchange rate of the OR vis a vis the US dollar as a reference value, instead of taking the average of the two medians. Outcomes of the modified method would necessitate devaluating all the currencies, at different degrees, except the OR, as shown in table below.

Devaluation might disrupt the process towards attaining converging criteria, especially inflation, given the high degree of GCC dependence on imports. It is hard to get convergence of inflation rates and devaluations, simultaneously. But since none of the GCC economies has a history of high inflation except the lost 4 to 5 years (2004-2008) which could be viewed as exceptional period (see Table 7) and with the absence of flexible wages, going through devaluation is not likely to create unmanageable problems.[19] Nonetheless, it would be more suitable if exchange rates devaluations are executed at the very last step, right before the old national currencies are replaced by the single currency, when credibility of national currencies is no longer an issue (Giovannini, 1991). The following table shows results of the modified version of method 2:

[18] One-tenth is straightforward and easy to understand for the public.

[19] An argument might arise is that devaluation might have negative effects on the efforts of the GCC countries to attract FDI. The counter-argument is that all depends on how much credibility the new monetary union entails and whether the new currency is fundamentally sound.

Method 2 modified conversion rates

Currency		US $	New currency	Difference from central parity	
				Value	%
Group 1	1 BD	2.6596	0.2601	0.0059	2.2
	1 KD	3.5336		0.0933	26.4
	1 OR	2.6008		0.0000	0.0
Group 2	1 QR	0.2747		0.0146	5.3
	1 SR	0.2667		0.0066	2.5
	1 ED	0.2723		0.0122	4.5

Three points are worth mentioning regarding the search for new conversion rates methods. Firstly, it is important to introduce as much conversion rates simplicity as possible, especially if both old currencies and the new single currency would co-circulate for a period of time. Simplicity is a very important element for both consumers, who view the transition to a single currency as a radical move that might shake confidence in the national currencies and businesses as well, that need to tag their products in different currencies. For consumers, lack of simplicity might cause them to stick to their own national currencies as a medium of exchange out of fear of fraud. For the same reason, it might cause them err to the US dollar as a store of value. Similarly, businesses, especially small ones who own no electronic methods of accounting (e.g. manual cashier) might abstain from pricing at different currencies and accept only their own old national currencies.

Secondly, prior unilateral but coordinated moves similar to the adoption of the US dollar as a common anchor should facilitate agreement about the irreversible grid of fixed exchange rates that might, depending on method chosen, involve some drastic measures of devaluations or revaluations, by some or all countries. Thirdly, choice of the right conversion rate is important in determining the value of government debts denominated in the new single currency.

5.2.2 Speed of introduction

1. Fast track**:** Introduction of the single currency could be fast where the GCC countries collectively announce that in a particular day the six national currencies will be abolished and be replaced by the new Gulf currency, whose value is already agreed. Under this approach the coexistence of the old currencies and the new one should not last long, may be as long as the process of withdrawing old currencies and injecting the new currency lasts. As a result the Gulf citizens will have to convert their holdings of the national currencies into the new currency at the pre-announced and irrevocably fixed bilateral exchange rates with the US dollar as fast as they can.

The advantage of the fast track is that it might contribute to credibility of the exchange rate by demonstrating the authorities' full commitment to the single currency. It will also minimize the interlude of instability that might be caused along the process of integration of all aspects of the economy such as full capital mobility and multiple central banks, union-wide and domestic (Frenkel and Goldstein, 1991). Nevertheless, the fast track approach is more likely to upset the payment system. Besides fast introduction of the new currency might expose the general public to a wide range of swindles from some shopkeepers or moneychangers.

2. Gradual introduction**:** alternatively, the GCC countries could opt for a gradual introduction of the currency so that both the old and the new currencies will coexist for a

longer period of time. Under this approach, member countries issue new national currencies with new conversion rates relative to their common anchor currency (US dollar) so that all the six new national currencies are at par (i.e. one Bahrain dinar = one Kuwait dinar = one Omani riyal = one Qatar riyal = one Saudi riyal = one UAE dirham). Then all the six countries declare unanimously that the new national currencies are legal tender in the six countries with an equal value, common currencies. The introduction of the new currencies will not abolish the old ones, but they will both be used for an agreed upon period of time, obviously not at equivalent values with the old corresponding currencies.

The advantage of this method is that it puts the new national currencies and the new single currency at par, which makes transition later on to the single currency easier. It also carries less interruption to the payment system and allows for gradual siphoning of the psychological fear of the new currency, since it allows for an adjustment period[20]. However, it might cause confusion to the general public since both versions of currencies, 12 of them, will concurrently circulate. Similarly, it will inflict on accounting costs for businesses that will be required to price their products in several currencies. Moreover, it carries the cost of introducing new versions of ATMs that can disperse both old and new currencies, which will be readapted or changed after issuing the single currency. Furthermore, with this approach the switchover to the ultimate single currency might be deferred indefinitely.

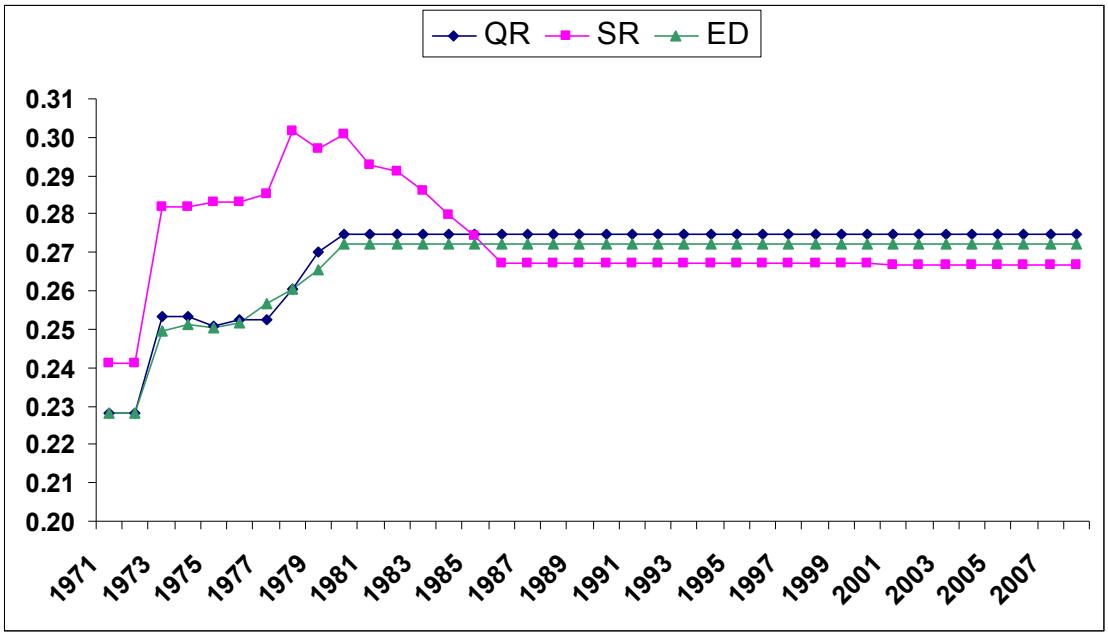
6. Conclusion

To conclude, it is possible that a number of economic arguments might not explicitly support the notion of the GMU, an example would be the modest level of intra-trade. Yet, these factors are expected to support the project in the long term. In this paper, we argue in favor of the union since we believe that mutual benefits are of long term nature and would be reaped as time goes. Though unifying the monetary policy is a necessary condition for the union to take place, it will not be sufficient to bring a successful union. Close coordination of all policies especially fiscal policy is of paramount importance for the union to flourish and ultimately bring about a strong single currency.

[20] Allen 1976 argues that the premature substitution of a union currency for the national currencies could produce widespread confusion and suspicion, causing the entire financial system of the union to suffer a serious loss of efficiency (p.13).

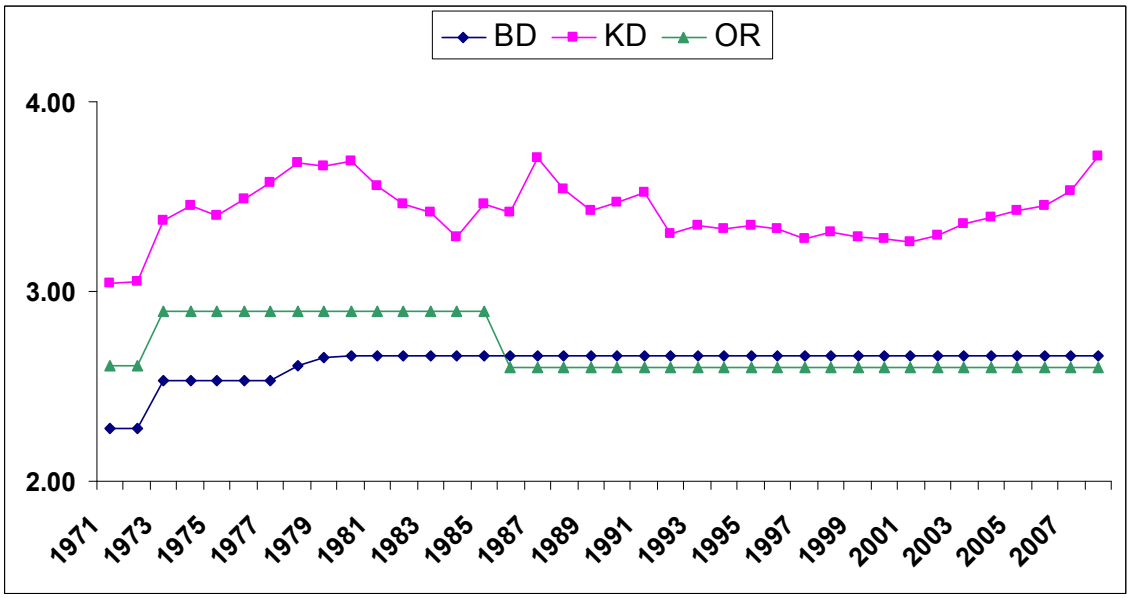
Graph 3:

US$ per a national currency



Graph 4

US$ per a national currency



References

Abed, Erbas, and Guerami (2003), "The GCC Monetary Union: Some Considerations for the Exchange Rate Regime", IMF Working Paper.

Abu-Bader, Suleiman and Abu-Qarn, Aamer (2006), "On the Optimality of a GCC Monetary Union: Structural VRA, Common Trends and Common Cycles Evidence" (Ben-Gurion University of the Negev).

Al hamar, Abdul Malik (1988) "Monetary Policy in the Gulf 1980–1985" in Henry Azzam "Gulf Financial Markets" published by the Gulf International Bank, Bahrain, 1988.

Al-Jasser, Muhammad and Ahmed Banafe, (1999), "Monetary policy instruments and procedures in Saudi Arabia" BIS Policy Paper No. 5, Basel, Switzerland.

Allen, Polly Reynolds, (1976), "Organization and Administration of a Monetary Union" Princeton Study in International Finance No. 38, Princeton University, June.

Asante, R.D. and Paul Robert Masson, (2001) "The Pros and Cons of Expanded Monetary Union in West Africa" *Finance and Development*, 38 (March).

Barry, Frank (2001), "Fiscal Policy in EMU" in Eric Pentecost and Andre Van Poeck "European Monetary Integration: past, present and future" Edward Elgar, Cheltenham, UK.

Bayoumi and Eichengreen (1997), "Ever closer to heaven? An optimum-currency-area index for European countries" *European Economic Review*, 41: pp.761–770.

Becker, Werner and Jens Dallmeyer (1996), "A stable currency for Europe: Special report" deutsche Bank Research.

Beetsma, Roel et al. (2001), "Is Fiscal Policy Coordination In EMU Desirable?" *CEPR Discussion Paper* No. 3035.

Bordo, Michael and Lars Jonung (1999), "The Future of EMU: What Does The History of Monetary Unions Tell Us?" *NBER Working Paper No. 7365*.

Boughton J. (1991), "The CFA Franc Zone: Currency Union and Monetary Standard" *IMF Working Paper*.

Boughton J. (1993), "The economics of the CFA franc zone" in *Policy Issues in the Operation of Currency Unions* by Mason and Taylor (1993), Cambridge University Press, Cambridge.

Buiter, Willem et al. (1993), "Maastricht's Fiscal Rules", *Economic Policy 16.*

Ciampi, C.A. (1989) "An operational framework for an integrated monetary policy in Europe" *in Report on economic and monetary union in the European Community,* Committee For The Study of Economic and Monetary Union.

Cooper and Kempf (2000), "Designing Stablization Policy In A Monetary Union" *NBER Working Paper 7607*.

Crockett, Andrew (1994), "The role of convergence in the process of EMU" in Alfred Steinherr "30 Years of European Monetary Integration From the Werner Plan to EMU" (1994) Longman, New York.

Darrat, Ali; Al-Shamsi, Fatima (2003), "On the Path to Integration in the Gulf Region: Are the Gulf Economies Sufficiently Compatible?"

Dehesa, G. and Paul Krugman (1993), "Monetary Union, Regional Cohesion and Regional Shocks", *The Monetary Future in Europe, CEPR*.

Devarajan, Shantayanan (1991), "Do The Benefits of Fixed Exchange Rates Outweigh Their Costs? The Franc Zone in Africa", *NBER Workin Paper 3727*.

Direction of Trade, International Monetary Fund.

Economic Intelligence Unit (March, 2002) “Country Report: Kuwait”, *The Economist*.

El Kuwaiz, Abdulla Ibrahim (1988), “Monetary Integration in the GCC Countries” in Henry Azzam “Gulf Financial Markets” published by the Gulf International Bank, Bahrain 1988.

Emerson, Michael et al (1992) “One Market One Money” Oxford University Press, New York.

ESCWA (2001) “Free Trade Areas in the Arab Region” United Nations, New York.

Fischer, Stanley (1982) “Seigniorage and the Case for a National Money” *Journal of Political Economy*, 90, no. 2: pp. 295–313.

Frankel, Jeffrey (1999), No Single Currency Regime Is Right For All Countries Or At All Times, *Essays In International Finance*, No. 215, August 1999, Princeton University, New Jersey.

Fratianni, Michele et al. (1992) The Maastricht Way To EMU, Essays in International Finance No. 187, Princeton University, New Jersey.

Frenkel, J. and Morris Goldstein (1991), Macroeconomic Implications of Trade and Currency Zones, in the “Policy Implications of Trade and Currency Zones” A Symposium Sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August.

Giavazzi, Francesco and Alberto Giovannini (1989) Limiting Exchange Rate Flexibility: The European Monetary System, The MIT Press, Cambridge, Massachusetts.

Goodhart, Charles (1992) “The European System of Central Banks after the Maastricht” in Policy Issues in the Operations of Currency Unions Cambridge University Press.

Gros, Daniel (1989) “Seigniorage in the EC: The Implications of the EMS and Financial Market Integration” *IMF Working Paper*.

Hagen, Jurgen “Monetary union and fiscal union: a perspective from fiscal federalism” in Masson, Paul R. and Mark Taylor (1993), Policy Issues in the Operation of Currency Unions, Cambridge University Press, Cambridge.

Hebous, Shafik (2006), “On the Monetary Union of the Gulf States”, (The Kiel Institute for the World Economy).

Hernandez-Cata E. et al (1998), “The West African Economic and Monetary Union: Recent Developments and Policy Issues” *IMF Occasional Paper*.

International Financial Statistics (IFS), International Monetary Fund, May 2002.

Jacobsen, Anke and Horst Tomann (2001) “The Theory of Monetary Union and EMU” in Eric Pentecost and Andre van Poeck, “European Monetary Integration: Past, Present and Future” EdwarElgar, Cheltenham, UK.

Jadresic, Esteban (2002), “On a Common Currency for the GCC Countries”, IMF Policy Discussion Paper.

Kempf, Hubert (2001), “Monetary Policy in EMU” in Eric Pentecost and Andre Van Poeck “European Monetary Integration: past, present and future” Edward Elgar, Cheltenham, UK.

Kenen, Peter B. (1995), “Economic and Monetary Union in Europe: Moving Beyond Maastricht” Cambridge University Press.

Kenen, Peter B. (1996), “Making EMU Happen Problems and Proposals: A Symposium” Princeton University, August 1996 Princeton, New Jersey.

Laabas, Belkacem and Imed Limam (2002), “Are GCC Countries Ready for Currency Union?” (Arab Planning Institute- Kuwait)

Leeftink, Bertholt (1995), “The Desirability of Currency Unification: Theory and Some Evidence” Thesis Publishers Amsterdam.

Louis, Balli, and Osman (2008), “Monetary Union Among Arab Gulf Cooperation Council (AGCC) Countries: Does the symmetry of shocks extend to the non-oil sector?”, Munich Personal RePEc Archive.

Mancera, Miguel (1991), “Characteristics and Implications of Different Types of Currency Areas” in *Policy Implications of Trade and Currency Zones* A Symposium Sponsored by the Federal Reserve Bank of Kansas City, Wyoming August, 1991.

Masson, Paul (1992), “Exchange Rate Policy in a Monetary Union” edited in Richard Barth and Chorng-Huey Wong “Approaches to Exchange Rate Policy Choices for developing and Transition Economies” IMF Institute.

Masson, Paul and Catherine Pattillo (2001), “Monetary Union in West Africa (ECOWAS): Is It Desirable and How Could It Be Achieved?” *IMF Occasional Paper*.

Masson, Paul R. and Mark Taylor (1992), “Common Currency Areas and Currency Unions: An Analysis of the Issues” *CEPR Discussion Paper No. 617*.

McCallum, Bennett T. (1999), “Theoretical Issues Pertaining to Monetary Unions” *NBER Working Paper 7393*.

Melitz, Jacques (1991), “A suggested reformulation of the theory of optimal currency areas” *CEPR Discussion Paper No. 590*.

Mundel, Robert A. (1961), “ A Theory of Optimum Currency Areas” reprinted in Blejer, Mario et. al. (1997) “Optimum Currency Areas: New Analytical and Policy Developments” IMF.

Obstfeld, Maurice (1998), “EMU: Ready or Not? *NBER Working Paper 6682.*

Pentecost, Eric (2001), “The political economy of transition to monetary union in Western Europe” in Eric Pentecost and Andre van Poeck “European Monetary Integration: Past, Present and Future” Edward Elgar, Cheltenham, UK.

Pilbeam, Keith (1992), “International Finance” Macmillan, London.

Report on economic and monetary union in the European Community (1989), Committee for the Study of Economic and Monetary Union, Luxembourg.

Rose, Anrew (2000), “One money, one market: the effect of common currencies on trade” *Economic Policy,* No 30: pp. 9–45, April 2000.

Shotar, Manhal and K haild Shams (2005) “Economic Policies and the Possibilities of Unified GCC Currency” (in Arabic) (University of Qatar).

The Werner Report of 1970 in Alfred Steinherr “30 Years of European Monetary Integration From the Werner Plan to EMU” (1994) Longman, New York.

United Nation Database.

Wyplosz, Charles (2001), “A Monetary Union in Asia? Some European Lessons” published in Future Directions for Monetary Policies in East Asia, Reserve Bank of Australia, pp. 124–155.

Wyplosz, Charles (2001), “Regional Arrangements: Some Lessons From Postwar Europe” a paper prepared for presentation at the conference on “The Role of Regional Financial Arrangements in Crisis Prevention and Management: The Experiences of Europe, Asia, Africa and Latin America, Prague 21–22 June 2001.

Regional integration: the ASEAN vision in 2020

Rosabel B Guerrero[1]

I. Introduction

Regionalism has become a prominent feature of the global trading system for several years now, partly because of the relatively slower pace by which multilateral trade negotiations have been conducted under the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO). The recent proliferation of regional trade agreements (RTAs) and other forms of regional cooperation, triggered by the European Union (EU) market integration which has so far been the most successful example of regional economic integration, has drawn attention to the need of countries to strengthen their ties with other countries given the economic benefits that regional integration brings.

This paper looks into initiatives and the challenges faced by the Association of South East Asian Nations (ASEAN)[2] to pursue comprehensive integration towards the realization of an open, dynamic and resilient ASEAN Community by 2020. Focus is on the creation of an ASEAN Economic Community where there is a free flow of goods, services, investment, and freer flow of capital, equitable economic development, and reduced poverty and socio-economic disparities in year 2020.

The paper is organized as follows. Section II briefly reviews the economic implications of regional integration. Section III presents the evolution of ASEAN economic integration in a regional context. Section IV discusses the monitoring system introduced to measure the progress towards realizing the ASEAN Community objective. Finally, Section V outlines the challenges of integration in the ASEAN context.

II. Economic implications of regional integration

The most widely recognized argument in favor of regional integration is the benefit of expanding markets and promoting competition by eliminating barriers to trade among member-countries. Economic welfare increases as resources previously engaged in costly domestic production are efficiently reallocated to the direction of a country's comparative advantage and to that which generates greater productivity ("trade creation effect"). An expanded regional market may also be seen by countries outside the region as an increase in trade opportunity.

However, regional integration also has potential risks. First, it may give rise to welfare losses if the "trade creation effect" is overshadowed by a "trade diversion effect", i.e., if the elimination of barriers to trade among member-countries causes trade with more efficient non-member countries to be diverted to the less efficient member-country. Second, it may lead to an "investment diversion effect" where limited investment resources are diverted to

---

[1] Director, Department of Economic Statistics, Bangko Sentral ng Pilipinas, Manila, Philippines.

[2] Includes the original ASEAN-5, namely, Indonesia, Malaysia, Philippines, Singapore and Thailand, as well as Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Vietnam.

the larger-scale integrated market. Third, there are concerns on the "noodle bowl effect", referring to the potential problems that may arise as a result of lack of coherence among different overlapping agreements. Tumbarello (2007) cites bilateral agreements being negotiated by some individual member-countries of the ASEAN with non-ASEAN countries even as ASEAN itself is negotiating with the same country. Since there is little effort to achieve consistency and harmonization in the agreements being negotiated, there arises restrictive and inconsistent rules of origin that complicates the trading system. An example given on differences on rules of origin is that of the New Zealand-Singapore and the ASEAN Free Trade Area (AFTA) which uses the 40 percent value-added criteria, while ASEAN-India, Singapore-India and Japan-Singapore include multiple-change-of-tariff-heading criteria or other more complex provisions.

III. The evolution of ASEAN economic integration in a regional context

ASEAN was established on 8 August 1967 by the five original member countries (ASEAN-5), namely, Indonesia, Malaysia, Philippines, Singapore and Thailand. Brunei Darussalam joined on 8 January 1984, Vietnam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia on 30 April 1999. Its purposes, as stated in the ASEAN Declaration, are: (i) to accelerate economic growth, social progress and cultural development in the region, and (ii) to promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries in the region and adherence to the principles of the United nations Charter.

AFTA: the first major step

Prompted by the rise of regionalism globally with its potential inherent benefits and the generally pessimistic outlook on the multilateral trade initiatives under the WTO, ASEAN embarked on several initiatives towards regional economic convergence. The ASEAN Free Trade Agreement (AFTA) put in place in 1992 was the first major move. AFTA aims to promote the region's competitive advantage as a single production unit. It commits members to free trade within a 15-year timeframe through the elimination of tariff and non-tariff barriers with the end in view of promoting greater economic efficiency, productivity and competitiveness. Free trade, in this respect, was not strictly defined, as it allows tariffs within the range of 0–5 percent and excludes certain sensitive products. At the start of 2004, AFTA was technically in full effect for the ASEAN-5 and Brunei Darussalam, although some country-specific implementation concerns in certain areas have yet to be addressed. The original target for full implementation was 2006 for Vietnam, 2008 for Lao PDR and Myanmar, and 2010 for Cambodia. In addition, ASEAN agreed to accelerate industrial cooperation through such endeavors as the ASEAN "one-stop investment centers" and the ASEAN Investment Area (AIA) which also offers tariff (0–5 percent) and non-tariff incentives.

ASEAN economic community: the ultimate goal in 2020

In November 2002, the ASEAN Heads of Government recommended the creation of an ASEAN Economic Community (AEC) by 2020. This proposal was underpinned by various considerations, including: (i) the desire to create a post-AFTA agenda, (ii) the need to deepen economic integration within the region in light of the increasing dominance of free trade areas (FTAs), (iii) the possibility that bilateral FTAs, which members are free to engage in, would jeopardize ASEAN integration, and (iv) post-1997 Asian financial crisis lessons that recognized the importance of cooperation in both real and financial sectors, and the free flow of skilled labor to be able to achieve this cooperative endeavor (Plummer, 2006).

The following year, in 2003, ASEAN resolved to pursue comprehensive integration towards the establishment of an ASEAN Community by 2020, founded on the three pillars of political and security community, economic integration, and socio-cultural cooperation, to form the ASEAN Security Community (ASC), the ASEAN Economic Community (AEC) and the ASEAN Socio-Cultural Community (ASCC). The ASC aims to ensure that countries in the region live at peace with one another and with the world at large in a just, democratic and harmonious environment. The AEC is the realization of the ultimate goal of economic integration to create a stable, prosperous and highly competitive ASEAN economic region in which there is a free flow of goods, services, investment and freer flow of capital, equitable economic development and reduced poverty and socio-economic disparities in year 2020. The ASCC is envisioned to create a region bonded together in partnership as a community of caring societies. The Vientiane Action Programme (November 2004) describes how these three pillars are closely intertwined:

> "Since economic growth could be threatened by social inequities that could in turn undermine political stability, the ASEAN socio-cultural action programme is linked inextricably with the economic and security pillars of the ASEAN Community. The establishment of the ASCC stems from the premise that economic integration and security alone will not be sufficient to realize the vision of an ASEAN Community."

A fourth dimension can be added to the three pillars en route to the attainment of the goal of realizing the ASEAN Community in 2020. While recognizing that regional economic integration can enhance the convergence of incomes across countries in the region, ASEAN is concerned about its potential risk given the existing wide disparities in income and other human development dimensions among its member countries. The narrowing the development gap (NDG) concern was, in fact, introduced in July 2001 when ASEAN issued the Hanoi Declaration on Narrowing Development Gap for Closer ASEAN Integration, and was reaffirmed in the Bali Concord II in 2003.

The AEC shall establish ASEAN as a single market and production base, turning the diversity that characterizes the region into opportunities for business complementation and making the ASEAN a more dynamic and stronger segment of the global supply chain. ASEAN has agreed on the following: (i) institute new mechanisms and measures to strengthen the implementation of its existing economic initiatives such as the AFTA, ASEAN Framework Agreement on Services (AFAS) and AIA; (ii) accelerate regional integration by 2010 in priority sectors, namely, air travel, agro-based products, automotives, e-commerce, electronics, fisheries, healthcare, rubber-based products, textiles and apparels, tourism, and wood-based products; (iii) facilitate movement of business persons, skilled labor and talents; and (iv) strengthen the institutional mechanisms of ASEAN, including the improvement of the existing ASEAN Dispute Settlement Mechanism to ensure expeditious and legally-binding resolution of any economic disputes.

It is still not clear, however, what form the AEC will take. One form could be an "FTA-plus" arrangement, which includes some elements of a common market, e.g., free flow of capital, free flow of skilled labor, zero tariffs on intraregional trade, but does not include a common external tariff. The other form is that of a "common market minus" arrangement that aims to create a fully integrated market but has areas where members of ASEAN will reserve deeper integration for a later stage.

What is clear is the fact that unlike European economic integration which started as an inward-looking approach to regionalism, ASEAN economic integration has been mainly geared toward "open regionalism" given that its important economic partners are outside the region. This is evident in the recent proliferation of FTAs in the region, particularly with China, Japan and the Republic of Korea, which collectively has been called ASEAN+3.

Monetary and financial integration

Following the Asian financial crisis, ASEAN has sought to promote closer monetary and financial cooperation by way of the conduct of an economic review and policy dialogue as well as the establishment of regional financing arrangements.

The ASEAN Surveillance Process was established in October 1998 to strengthen the policy-making capacity in the region. ASEAN and the ASEAN+3 Finance Ministers, their deputies and central bank deputies meet on separate occasions to review global, regional and individual country developments and monitor exchange rate and macroeconomic aggregates, as well as sectoral and social policies. This review has included the monitoring of short-term capital flows and development of early warning systems of currency and banking crises.

In May 2000 at Chiang Mai, Thailand, the ASEAN+3 Finance Ministers agreed on the Chiang Mai Initiative (CMI) to expand the ASEAN Swap Arrangement (ASA) to all ASEAN members and to set up a network of bilateral swap arrangements. In February this year, ASEAN+3 approved the multilateralization of the CMI in response to a decision in 2006 that "all swap providing countries can simultaneously and promptly provide liquidity support to any parties involved in bilateral swap arrangements at times of emergency". By turning the CMI into a multilateral facility, ASEAN hopes to send a strong signal of regional cooperation and policy coordination; play a complementary role vis-à-vis international financial institutions in providing liquidity support to crisis economies and conduct surveillance; and facilitate the evolution of the CMI into higher forms of regional monetary and financial cooperation. An independent surveillance unit will monitor and analyze regional economies and support decision-making within the CMI framework.

Other types of financial cooperation that have so far been introduced were, among others, the Asian Bond Fund (ABF) and the Asian Bond Markets Initiative. The ABF consists of ABF1 which are invested in US dollar-denominated bonds issued by Asian sovereign and quasi-sovereign issuers, and the ABF2 which are invested in bonds denominated in regional currencies.

IV. Monitoring progress towards realizing the ASEAN community goal

Rana (2006) presents two measures of trade integration using Direction of Trade Statistics of the International Monetary Fund. Table 1 shows intraregional trade among ASEAN countries increasing from 17.9 percent in 1980 to 24.0 percent in 2005. By member country, Brunei Darussalam had the highest intra-ASEAN trade ratio, followed by the new member countries, such as Myanmar and Lao PDR. A higher share indicates a higher degree of dependency on regional trade.

Table 1

Intraregional trade

As percent of total world trade[1]

	1980	1985	1990	1995	2000	2005
Brunei Darussalam	80.1	77.3	81.7	79.5	74.2	75.0
Cambodia		67.4	68.6	81.5	35.8	46.8
Indonesia	58.3	53.3	51.7	49.5	50.6	54.6
Lao PDR		82.6	85.7	65.3	72.8	74.0
Malaysia	46.7	54.1	49.6	48.2	49.4	54.7
Myanmar	50.6	42.9	58.7	72.5	62.2	74.9
Philippines	33.8	36.0	32.8	37.5	39.7	52.7
Singapore	36.8	40.6	39.5	47.2	46.5	45.4
Thailand	38.1	42.7	42.6	43.7	44.9	49.5
Vietnam		10.5	27.8	57.6	56.4	52.7
ASEAN	**17.9**	**20.3**	**18.8**	**23.9**	**24.5**	**24.0**
Memo items:						
ASEAN+3	30.2	30.2	29.3	37.3	37.0	38.2
ASEAN+3+						
HongKong + Taiwan	34.6	37.1	43.0	51.7	51.9	54.5

[1] For regional grouping, intraregional trade share is calculated using the formula: Xii /{(Xiw + Xwi)/2}, where Xii is export of region i to region i, Xiw is export of region i to the world, and Xwi is export of world to region i.

Meanwhile, Table 2 shows data on trade intensity indices which gives a better measure of economic interdependence. An index of more than one indicates that trade flow within the region is larger than expected given the region's importance in world trade. The data show that the total trade intensity index has been broadly steady at about 4.

Table 2

Intraregional trade intensity index[1]

	1980	1985	1990	1995	2000	2005
Brunei Darussalam	6.7	5.4	5.3	4.0	3.7	3.5
Cambodia		4.7	4.4	4.1	1.8	2.2
Indonesia	4.9	3.7	3.4	2.5	2.5	2.5
Lao PDR		5.8	5.6	3.3	3.7	3.4
Malaysia	3.9	3.8	3.2	2.4	2.5	2.5
Myanmar	4.2	3.0	3.8	3.6	3.1	3.5
Philippines	2.8	2.5	2.1	1.9	2.0	2.4
Singapore	3.1	2.8	2.6	2.4	2.3	2.1
Thailand	3.2	3.0	2.8	2.2	2.3	2.3

Table 2 (cont)

Intraregional trade intensity index[1]

	1980	1985	1990	1995	2000	2005
Vietnam		0.7	1.8	2.9	2.8	2.4
ASEAN	**4.8**	**5.7**	**4.4**	**3.7**	**4.0**	**4.2**
Memo items:						
ASEAN+3	2.4	2.1	1.9	2.0	2.0	1.9
ASEAN+3+ HongKong + Taiwan	2.5	2.3	2.2	2.1	2.2	2.2

[1] Intraregional trade intensity index is the ratio of intraregional trade share to the share of world's trade with the region. Fore regional groupings, trade intensity index is calculated using the formula: [Xii /{(Xiw + Xwi)/2}] / [{(Xiw + Xwi)/2}/Xww], where Xii is export of region i to region i, Xiw is export of region i to the world, Xwi is export of world to region I, and Xww is total world export.

ASEAN itself, through the Vientiane Action Programme, had endeavored to develop a system to monitor the progress towards the realization of the vision of an ASEAN Community by 2020. The first step done was the preparation of the ASEAN Baseline Report which included the identification of an initial set of indicators and collection of available data to generate a preliminary analysis of the baseline situations as outlined in the VAP in 2005. In the selection of indicators, the ASEAN project team was guided by the following selection criteria: policy relevance, simplicity, statistical consistency, validity, data availability, and indicator coverage. The indicators were grouped into three, namely: (i) process indicators, which are intended to capture various stages involved in policy/program formulation and implementation; (ii) output indicators or those that result from certain measures being adopted; and (iii) outcome indicators which go beyond output indicators and are usually influenced by many factors. Indices are constructed for each of the identified indicators. Composite indices are also constructed for some indices and for each of the four dimensions of the ASEAN Community.

The ASEAN Socio-Cultural Community has four major thrusts. These include (i) building a community of caring societies, (ii) managing the social impact of economic integration, (iii) promoting environmental sustainability, and (iv)promoting an ASEAN identity. On the other hand, the ASEAN Security Community is focused on the following strategic thrusts: (i) political development, (ii) shaping and sharing norms, (iii) conflict prevention, (iv) conflict resolution, and (v) post-conflict peace building.

In the case of the ASEAN Economic Community, the overall strategy involves deepening and broadening economic integration in the product and factor markets and accelerating the integration process towards a single market and production base. The acceleration of economic integration begins with the 11 priority sectors. The indicator system follows three major areas of integration, as follows: trade in goods and services, investment and skilled labor. Trade in goods and services are facilitated by the removal of barriers to trade, both tariff and non-tariff barriers, and through harmonization of procedures and classifications. In the area of investment, it is limited to direct investment. Finally, with respect to the labor market, integration will focus on skilled labor. Indicators include wage rates and employment of ASEAN workers. Indicators relating to financial services, such as credit markets, bond markets, stock markets and the banking sector, as well as other support sectors including the transport sector, are also taken into consideration.

Taking a cue from the analysis provided by the baseline report, the ASEAN Community Progress Monitoring System (ACPMS) was introduced in 2007. It aims to come up with a

system that will produce periodic reports to monitor the outputs and impact of measures taken by the ASEAN member countries, individually or collectively, towards the attainment of the ASEAN Community vision. It shall establish a system using indicators that are concise, reliable and pointed, and data that are cost-effective to collect, accurate, timely and consistent across jurisdictions. However, the ACPMS is not intended to monitor compliance of specific agreement/activities. The monitoring of the implementation of agreed activities and of compliance to agreed systems/mechanisms/principles will be taken cared of by the AEC Scorecard. The Scorecard will assess the completion and/or implementation of processes – negotiations for agreements, capacity building activities, or mechanism setting; production/delivery of immediate outputs of programs; and completion of measures relative to pre-agreed, time-bound targets.

V. Challenges

This paper has presented the initiatives that ASEAN has undertaken towards regional integration. The multi-track system consisting of the trade track and the monetary and finance track appears to be working well. Significant progress has been made with the creation of AFTA, the first major step of ASEAN en route to economic integration. The remaining challenges would be to determine the exact form that the ASEAN Economic Community will take and to address the "noodle bowl" effects associated with the increasing number of FTAs negotiated. Since FTAs impose strict rules of origin and other conditions that increase administrative costs, it is important that FTAs should be carefully reviewed to ensure compatibility with other FTAs. The monetary and finance track requires stronger regional surveillance. ASEAN has identified two tools – the ACPMS and AEC Scorecard – to measure how far or how close it is towards the ASEAN 2020 vision. These tools have so far not been finalized. However, the biggest challenge is not in completing these monitoring tools but in ensuring the commitment of the member countries to move the process forward. This requires the openness and willingness of ASEAN and the political will of its leaders to see through the attainment of its objectives.

References

Lamberte, M., H. Arboleda and C. Reyes, Proposed System of Indicators for the ASEAN Benchmark Report, Paper for discussion at the ASEAN Regional Workshop on 14 July 2005.

Ministry of Economy, Trade and Industry, Japan, 1999 Report on the WTO Consistency of Trade Policies by Major Trading Partners.

Plummer, Michael, "The ASEAN Economic Community and the European Experience", *ADB Working Paper Series on Regional Economic Integration No.1*, July 2006, Asian Development Bank.

Rana, Pradumna, "Economic Integration in East Asia: Trends, prospects, and a Possible Roadmap", *ADB Working Paper Series on Regional Economic Integration No.2*, July 2006, Asian Development Bank.

Tumbarello, Patrizia, "Are Regional Trade Agreeements in Asia Stumbling or Building Blocks? Implications for the Mekong-3 Countries", IMF Working Paper WP/07/53, March 2007, International Monetary Fund.

Harmonization of MERCOSUR statistics

Ivana Termansen[1]

Summary

In 1991 Argentina, Brazil, Paraguay and Uruguay signed the Asuncion Treaty with the purpose of building a common market. The common market meant the progressive elimination of customs duties and non-tariff barriers to allow the free flow of goods, services and productive factors, the establishment of a common external tariff and the coordination of macroeconomic policies.

The integration process proceeded on several fronts like setting up a dispute resolution system, defining the organizational structure of the bloc and consolidating the intrinsical MERCOSUR institutions.

Nowadays MERCOSUR is a major world bloc, with an estimated population of 240 million inhabitants in 2007 and a GDP of about US$1.3 trillion (at the end of 2006). Foreign trade data show that it accounts for over 50% of all South American imports and exports.

In 2000 the member states decided to proceed with a macroeconomic convergence process, setting common targets in fiscal and inflation policy. This decision implied the need to have comparable indicators among the MERCOSUR countries. Although there was some progress in defining the harmonized statistics, the increasing degree of cooperation between MERCOSUR and the European Community strengthened the harmonization process through the Statistical Cooperation Agreement with the MERCOSUR countries, signed in 1997 and the more recent Macroeconomic Monitoring Support Project with the MERCOSUR countries agreed in 2007 and still underway.

MERCOSUR framework implies a kind of regional cooperation that means going well beyond goods and services market's integration. Regional integration is fundamental for the development of its member countries, so that common long term policies are necessary to deepen the path that started almost a decade ago.

This convergence process calls for statistics based on common methodologies according with international standards, in order to have comparable statistics not only among MERCOSUR members but also between the bloc and the rest of the world. Improving and consolidating the statistical harmonization development is a corner stone to promote and deepen the regional integration route.

I. MERCOSUR

I.1 Brief history

The Southern Common Market (MERCOSUR), whose members are Argentina, Brazil, Paraguay and Uruguay, was established in 1991 by the Asunción Treaty.[2] This Treaty

---

[1] Monetary Statistics Department, Central Bank of Argentina. The views expressed in this document are those of the author and do not necessarily represent those of the Central Bank of Argentina.

[2] Treaty of Asunción, March 26, 1991.

includes the basic guidelines which were to rule during the transition period to setting up the common market by December 31, 1994 as stipulated by the member states.

The basis of the Treaty was:

- Expanding the scale of their respective national markets through integration would lead to accelerating their economic development processes based on social justice.
- Understanding that this purpose had to be achieved based on five pillars:
  - an optimal use of the resources available,
  - preserving the environment,
  - improving physical interconnections,
  - coordination of macroeconomic policies,
  - complementarities between the different economic sectors,

  all ruled by principles of being gradual, flexible and balanced.
- Considering this integration process as an adequate response to the international experiences in setting up and consolidating economic environments and the importance of achieving the due insertion of each member country into the international scenario.
- Representing a step forward towards the progressive integration of Latin America, according to the aims of the 1980 Treaty of Montevideo.
- Acknowledging the need to promote scientific and technological development in order to modernize the economies of each contracting party, improving the supply and quality of goods and services which impact as better standards of living for their inhabitants.
- Laying the foundations for an ever closer union between their peoples, reaffirming the political commitment to achieve the purposes of the Treaty.

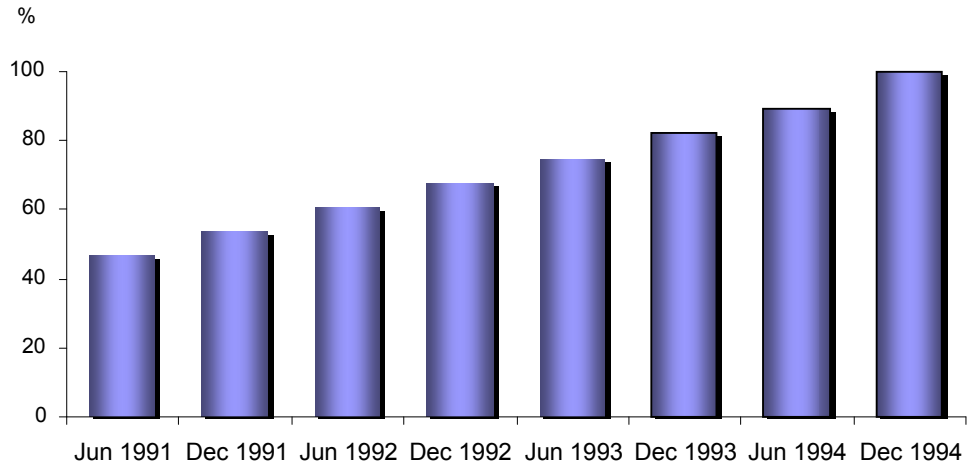
As stipulated in a document signed by the presidents of the four founding countries of MERCOSUR, setting up a common market involved the following:

- The free circulation of goods, services and productive factors between the countries, by eliminating customs duties and non-tariff barriers.
- Establishing a common external tariff that stimulates the external competitiveness of the member countries and a common trade policy on relations with other non MERCOSUR counterparties as well as designing coordinating positions in international trade forums.
- Coordination of macroeconomic and sector policies among the member countries (i.e.: foreign trade, agriculture, industry, fiscal, monetary, foreign exchange and capital, services, customs, transportation and communications) in order to ensure adequate competition terms among the member countries.
- A commitment by the partners to harmonize the pertinent legislations to strengthen the integration process.

Trade liberalization, as stipulated by the Treaty was ruled by progressive, linear and automatic tariff rebates, accompanied by the elimination of non-tariff barriers or equivalent measures, as well as other restrictions on trade between the member states. The target for these rebates was to reach a zero tariff on December 31, 1994 with no non-tariff barriers in the entire nomenclature.

The stipulated tariff liberation schedule was as follows:

Tariff liberation schedule stipulated by Asuncion Treaty



As regards taxes, rates and other kinds of domestic levies, the products originated in any country would be treated in the same way as in the rest of the contracting parties.

The tariff liberation and elimination of non-tariff barriers[3] was to be accompanied by a gradual and converging coordination of macroeconomic policies. Adopting sector agreements was also foreseen in order to optimize the movement and use of productive factors, taking into account the scope of efficient scales of operations.

For third party countries, in the Treaty of Asunción the four founding members of MERCOSUR agreed to ensure fair trade terms, restricting imports of goods or services affected by subsidies, dumping or any other practice regarded as unfair. Likewise, there was an agreement to coordinate the respective national policies in order to prepare common rules about competition in trade.

The contracting parties pledged to preserve the commitments undertaken prior to signing the Treaty and to coordinate positions in external trade negotiations taking place during the transition period. This meant avoiding to affect the interests of the member countries in the trade negotiations that they carried out between themselves until December 31, 1994, avoiding to affect the interests of the other member states or the aims of the common market in the agreements to be signed with other countries that are members of the Latin American Integration Association (ALADI) during the transition period, consultations between themselves whenever broad tariff liberation schemes were celebrated with other members countries of ALADI, and automatically extending to the other contracting parties any advantage, favor, franchise, immunity or privilege they might grant to a product originating in or destined for third party countries that are not members of ALADI.

---

[3] Tariffs are considered to be: customs duties and any other surcharge with an equivalent effect, whether it be of a fiscal, monetary, foreign exchange or of any other nature, that impacts on foreign trade. Not included in this idea are rates and analogous surcharges when they cover the approximate cost of the services provided.

Barriers are considered to be: any measure of an administrative, financial, foreign exchange or any other nature, by which a contracting party blocks or impedes reciprocal trade as a result of an unilateral decision. Not included in this idea are the measures adopted in the light of the situations foreseen by article of the 1980 Treaty of Montevideo.

Joining the Treaty of Asunción remained open to other ALADI member countries by negotiation, with membership applications having to be approved by a unanimous decision of the contracting parties.

I. 2. Organizational structure

The structure of the organization during the transition period towards the common market was made up by the Common Market Council (CMC) and the Common Market Group (CMG). These organs were in charge of the administration and execution of the Treaty and the specific agreements and decisions to be adopted in the legal framework stipulated by the Treaty during the transition period. During this period the member countries agreed that the decisions by both the Council and the Group would be made by consensus and with all the contracting parties being present. The member countries were required to call an extraordinary meeting by December 31, 1994 to establish the definite institutional structure that the common market administrative organs would adopt, and also the functions and attributes of each of those organs.[4]

The Council is the highest Common Market organ. It is responsible for its political leadership and for making decisions to ensure compliance with the objectives and terms established to definitely set up the Common Market. Made up by the Foreign and Economy ministers of the member states, it was stipulated that the Council would meet whenever it was considered timely, but at least once a year with the presence of the presidents of the member countries. Coordination of the Council meetings was entrusted to the foreign ministers, who could invite other ministers or authorities at a ministerial level; while the Council presidency would last six months, rotating between the contracting parties by alphabetical order.

On the other hand, the Common Market Group, the executive organ of MERCOSUR, was made up by four full members and four alternate members from each country representing the Foreign Ministry, the Economy Ministry or its equivalent and the Central Bank, with coordination of the group entrusted to the Foreign ministers. In addition to having powers to initiate, the Common Market Group tasks include:

- Overseeing Asunción Treaty compliance.
- Enforcing the decisions adopted by the Council.
- Proposing specific measures to apply the Trade Liberation Program, for coordination of macroeconomic policies and for negotiations of agreements with third parties.
- Defining the working schedule that ensures progress towards setting up the Common Market.

The Common Market Group had to define its internal bylaws within 60 days of it being set up. Until December 31, 1994 whenever it felt it was convenient it could call on representatives of other public sector organizations and the private sector in order to prepare and propose specific measures according to their functions.

Setting up 10 working subgroups (to be created within 30 days from the Common Market Group being installed) was also agreed with the purpose of complying with the functions allocated to the Group, which could create other working subgroups it felt necessary. The initial 10 sub-groups were:

- Subgroup 1: Trade matters
- Subgroup 2: Customs affairs

[4] The definite Mercosur institutional structure was defined by the Ouro Preto Protocol on December 17, 1994.

- Subgroup 3: Technical standards
- Subgroup 4: Trade-related fiscal and monetary policies
- Subgroup 5: Land transport
- Subgroup 6: Ocean transport
- Subgroup 7: Industrial and technology policy
- Subgroup 8: Agricultural policy
- Subgroup 9: Energy policy
- Subgroup 10: Macroeconomic policy coordination

In 1991 the Common Market Group decided to create a new working subgroup named Labor Relations, Employment and Social Security. As the integration process went ahead, the structure of the working subgroups changed, adding new groups and restating their tasks according to requirements. Nowadays 14 working groups exist.

Within the Common Market Group, an Administrative Secretariat was also set up, with the task of preserving documentation and communicating activities, with Montevideo defined as the city for its location.

To comply with the Asunción Treaty the member countries had to define the definitive institutional structure of MERCOSUR. This was carried out on December 17, 1994 in a document called the Ouro Preto Protocol. The MERCOSUR structure was thus made up by the following organs:

- The Common Market Council (CMC)
- The Common Market Group (CMG)
- The MERCOSUR Trade Commission (CCM)
- The Joint Parliamentary Commission (CPC)
- The Economic and Social Consultation Forum (FCES)
- The MERCOSUR Administrative Secretariat (SAM)

The Appendix includes a table that has a brief description of the characteristics of each of the organs (tasks, members, frequency of their meetings).

In 1998 the contracting parties, acknowledging that regional integration must cover aspects beyond the commercial and economic, signed the MERCOSUR Social and Labor Declaration which recommended setting up a Social and Labor Commission auxiliary to the Common Market Group. This commission would be in charge of stimulating and accompanying compliance of the commitments undertaken in the Declaration.

In 1996 MERCOSUR and Chile signed an economic complementation agreement which established a free trade zone between both parties.[5] Later, in December 1997, Chile was included as an associated member of the MERCOSUR institutional structure.[6] A similar economic complementation agreement had been signed with Bolivia in December 1995.[7] In 2006 Venezuela's affiliation was decided[8] as associated country, becoming a contracting

---

5 CMC Decision Nbr. 3 dated June 25, 1996.

6 Joint statement by the presidents of Mercosur countries. Montevideo, December 15, 1997.

7 Presidencial joint statement. Punta del Este, December 6 and 7, 1995.

8 By July 4, 2006, protocol.

part and taking part in all rights and obligations issued by the common market, thus moving ahead in the South American integration process. The process of Venezuela adapting to MERCOSUR rules is still underway, as stipulated in the membership protocol.

I. 3 Some economic indicators

MERCOSUR is 4% of the world by the number of its inhabitants, with a population estimated at somewhat more than 240 million people in 2007. In GDP terms it has 3% of the world level (according to 2006 data)

	Population 2007 (In thousands)	GDP 2006 (Millions of US dollars at current prices)
MERCOSUR	240,789	1,312,545
Latin America	530,758	2,847,176
World	6,671,226	48,572,164

Source: UNCTAD.

MERCOSUR – Total flows of foreign trade

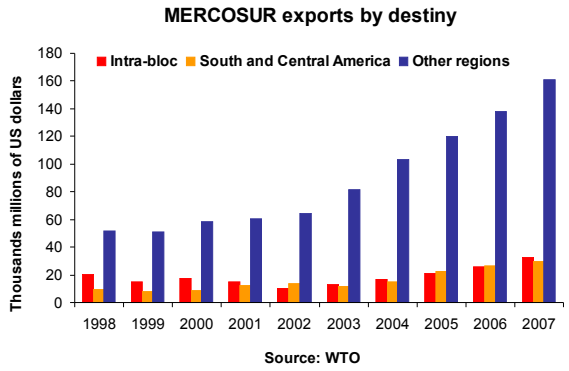
In millions of US dollars

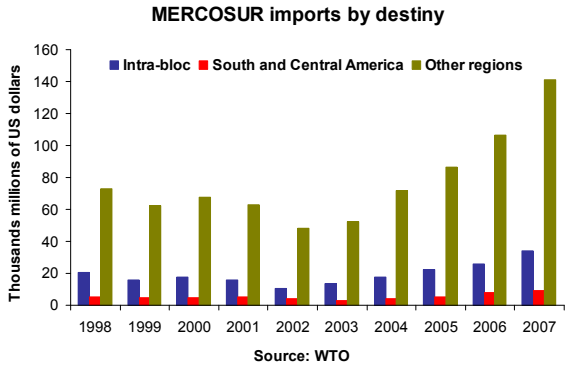
	1998	2002	2006	2007	2007[1]	2008[1]
Exports	81,336	88,901	190,268	224,178	101,251	129,119
Imports	95,375	59,705	134,757	176,567	76,789	115,755
Commercial balance	–14,039	29,196	55,511	47,611	24,462	13,364

[1] First half of the year.

Source: Institutio para la Integración de América Latina y el Caribe (BID-INTAL). Informe MERCOSUR No 13 – Febrero 2009. Serie Informes Subregionales de Integración. Buenos Aires.

Foreign trade data show a growing tendency, especially since the 2002 crisis, when MERCOSUR's commerce with the rest of the world begun to increase steadily. The largest world trade blocs (the EU and NAFTA) are MERCOSUR's main trading partners, purchasing 21% and 20% of exports by the bloc, respectively.





The growth rates of GDP have remained stable in the four member countries during recent years.

MERCOSUR – Gross Domestic Product

Real interanual variation %

Year	Argentina	Brasil	Paraguay	Uruguay	MERCOSUR
1998	3.9	0	0.6	4.5	**2.3**
1999	–3.4	0.3	–1.5	–2.8	**–1.9**
2000	–0.8	4.3	–3.3	–1.4	**–0.3**
2001	–4.4	1.3	2.1	–3.4	**–1.1**
2002	–10.9	2.7	0	–11	**–4.8**
2003	8.8	1.1	3.8	2.2	**4.0**
2004	9	5.7	4.1	11.8	**7.7**
2005	9.2	3.2	2.9	6.6	**5.5**
2006	8.5	3.8	4.3	7	**5.9**
2007	8.7	5.4	6.8	7.4	**7.1**
2008[1]	7.2	5.2	5.1	10.8	**7.1**

[1] Predictions. According to Market Expectations Surveys carried out by the Central Banks.

Source: Instituto para la Integración de América Latina y el Caribe (BID-INTAL). Informe MERCOSUR No 13 – Febrero 2009. Serie Informes Subregionales de Integración. Buenos Aires.

II. Macroeconomic convergence targets

In June 2000 the member countries agreed to establish joint fiscal, public sector debt and price targets, as well as a convergence process towards them.[9]

The first MERCOSUR macroeconomic convergence targets and mechanisms were defined in December 2000.[10] This initial coordination assumed a transition stage (to take place during 2001) and a stage called “common targets” beginning in 2002.

For the transition stage a joint announcement by the member countries of their respective inflation targets, change of net fiscal debt of the consolidated public sector and the net debt of the consolidated public sector (i.e. subtracting the international reserves) was planned. These targets had to be consistent with those agreed on for the common targets period beginning in 2002, which contemplated:

- Fiscal flow variable: In order to measure the change in the net fiscal debt of the consolidated public sector the countries agreed on a common target starting in 2002

[9] By CMC Decision Nbr. 30 dated June 29, 2000.

[10] Through the presidential declaration on macroeconomic convergente signed in Florianópolis on December 15, 2000.

of a maximum 3% of the GDP. An exception was made for Brazil, setting a 3.5% of GDP cap for 2002 and 2003.

- Fiscal stock variable: A three-year indicator (with 2002–2004 as the base period) for the ratio of net debt of the consolidated public sector (subtracting the international reserves) to nominal GDP. The countries agreed on a downwards path as from the 2005–2007 three-year period, setting a 40% of GDP cap for 2010, with each country being able to individually define a lower limit and excluding from the downwards path countries whose indicator was already below 40% of its GDP.
- Inflation: Initially a maximum rate of 5% was agreed for the years 2002 to 2005, defining a "core inflation" which had to be estimated and published starting in 2003. As from 2006 the maximum level of this core inflation was set at 4% yearly, and it could not be over the 3% trend as from that year. An exception was provided for Paraguay, agreeing that every year (from 2002 to 2006) it would reduce by a quarter of the difference between the rate observed in 2002 and the maximum level for each year. A reservation was also provided for Brazil, which by its legal statutes had set a range of ±2 percentage points from its inflation target (3.5%) for 2002. This price level target was restated in 2002,[11] establishing a long term inflation target stipulated as a 5% maximum to be achieved in 2006. It was also clarified that this referred to the annual change between the beginning and the end of the year of the consumer price index or its equivalent. Likewise, it was agreed that the path to reach this target must take place as an annual reduction of a quarter of the difference between the inflation observed in 2002 and the 5% maximum limit.
- Procedure to adjust deviations: It was decided that should deviations occur, the countries must submit to the GMM meeting the corrective measures required to correct such deviations and converge towards the stipulated targets again, having a one year deadline to adjust to the set targets. The corrective measures to be applied must include at least a macroeconomic projection of the period during which it would return to the preestablished target, concrete macroeconomic policy measures and of a structural nature when pertinent. These measures would be analyzed on a strictly technical basis by the GMM team, who would submit their assessment to the meeting of economy ministers and central bank chairmen for them to discuss, with this forum being able to issue the comments and suggestions it believed convenient.

At the first follow-up on macroeconomic convergence targets (in 2002) the treasury ministers and central bank chairmen decided to establish an ex-ante monitoring system of the convergence trajectory of each country to the stipulated targets, in addition to the reports issued ex-post. This assessment and analysis task, entrusted to the GMM, was supplemented with the possibility that the GMM group of experts might issue recommendations and suggested courses of action in the event of deviations from the convergence targets.

At the same meeting the GMM requested more depth in certain relevant issues for macroeconomic convergence, such as progress to harmonize balance of payments statistics, a deeper analysis of the core inflation definition by organizing a seminar on the subject and debate on how public sector corporations should be dealt with in the fiscal results, considering international experience on the subject and the practices recommended by the International Monetary Fund. More depth in aspects related to fiscal accounting and the structural fiscal result was also requested from the GMM.

[11] Conclusions and recommendations issued at the meeting of treasury ministers and central bank governors of Mercosur, Chile and Bolivia, held in Brasilia on December 4, 2002.

The economic development of MERCOSUR during recent years has been marked by a very unstable macroeconomy. The volatility of the exchange rate and the economic recession between 1999 and 2002 was one of the deepest since MERCOSUR was founded and the first to affect the four members simultaneously.

The financial crisis in 2001 and 2002 distracted catering to the stipulated convergence scheme, and caused some deviations from the agreed common targets.

However, once the crisis was overcome the macroeconomic convergence issues resurfaced, restating some of the common targets that had been agreed on.

III. Statistical harmonization

At the 40th meeting of MERCOSUR economy ministers and central bank chairmen in December 1998[12] the need to have statistical data based on a common methodology in MERCOSUR was acknowledged. The concern of representatives of the member countries due to the uncertainty generated by the global crisis was expressed by reconfirming the commitment to continue advancing in the integration process of the bloc, undertaking the structural reforms required to maintain macroeconomic stability. The representatives felt that harmonization of macroeconomic statistics and mutual knowledge of the regional economies was a fundamental step towards deepening the economic dialogue seeking the long term MERCOSUR objective of achieving policy coordination.

This declaration by the treasury ministers and central bank chairmen materialized in 2000, as a result of the member countries' decision to coordinate their macroeconomic policies establishing joint convergence targets.[13] At that meeting preparation of harmonized statistics was agreed on, starting with six indicators:

- Nominal fiscal result of the national government
- Primary fiscal result of the national government
- Net debt of the national government
- Net debt of the consolidated public sector
- Change of net debt of the consolidated public sector
- Price level
- Construction of a new indicator of the structural fiscal result

Setting up a Macroeconomic Monitoring Group (GMM) as part of the meeting of economy ministers and central bank chairmen was also decided, entrusted with assessing the adequacy and consistency of the statistics to the agreed methods as well as tracking these indicators.

To supplement compiling these harmonized indicators and in order to move forward with the integration of the financial and capital markets of the member countries, there was an agreement to go ahead with a survey of rules and a comparative analysis, including the payment systems applied in each member country. Publication of the relative indicators on fiscal matters on a regular basis was also contemplated.

---

[12] Comunique issued at the XL Meeting of Treasury Ministries and Central Banks. Rio de Janeiro, December 8, 1998.

[13] CMC Decision Nbr. 30/00 on Macroeconomic Coordination.

Continuing with the process of developing statistics based on common and harmonized methodologies in 2006 the Technical Committee Nbr. 6 under the "MERCOSUR Foreign Trade Statistics" label was set up under the MERCOSUR Commerce Commission, in order to prepare a method to gather information to enable setting up a data base on MERCOSUR trade. Among the tasks entrusted to this committee was studying homogenization of the measurement units used by the member states in their trade registers and designing a data base that enables access to information about trade between the member countries. Supplementing this, the committee was instructed to design a technical unit to be in charge of managing the foreign trade data base, compiling periodical reports tracking MERCOSUR foreign trade and preparing specific statistics on this matter requested by other institutional organs of MERCOSUR.

The contracting parties promised to cooperate to build the data base, by sending periodical information (in the agreed format) about:

- FOB value
- Insurance and freight costs
- Statistical quantity
- Net weight
- Origin and port of shipment of imported goods
- Destination of the goods exported

As a supplement fundamental for the disclosure of harmonized MERCOSUR statistics in 2007 the semi annual publication of a Macroeconomic Indicators Bulletin by the GMM was decided to comply with the instruction issued by the Common Market Council. At present the bulletin is still at a design stage and defining certain content, but overall it includes statistics referring to economic activity and price levels, data on money and credit, on public finances and the external sector. An earlier precedent was during 1997 when strengthening the monthly publication of the MERCOSUR Macroeconomic Indicators Bulletin was decided. At that time the responsibility for receiving the data and processing and printing the bulletin was at the MERCOSUR Administrative Secretariat.[14]

III.1 Initiatives to promote the harmonization process

Precedents of EC-MERCOSUR relations

The European Community (EC) has been supporting the integration process by the member countries of MERCOSUR and consolidation of economic and commercial relations with the regional bloc date back to when MERCOSUR began. This EC backing has been reflected by celebrating several cooperation programs between both blocs.

The cooperation between both blocs was reflected by the joint financing of programs targeted at sectors strategic to the regional integration process, like technical standards and quality (ALA 93/12 program), customs harmonization (MER 93/17 program) and animal and vegetable health (ALA 93/16 program)

These programs seek to reinforce the integration process that the MERCOSUR is undertaking and towards tighten links between the region and the EC by developing common working methods in strategic fields.

[14] Common Market Group Resolution Nbr. 76. December 13, 1997.

In 1995 the EC and MERCOSUR signed an inter-regional cooperation framework agreement which became effective as from 1999.[15] This agreement aimed at strengthening relations between the blocs, preparing the conditions to establish an interregional association that would include aspects like trade, economic aspects, cooperation towards integration and other areas of common interest to the parties signing the agreement. Democratic principles and human rights were also included in the Treaty as a fundamental aspect of mutual understanding between the blocs.

In 1999 the two blocs agreed to prepare a bi-regional association agreement to start negotiations in April 2000 on three pillars: political dialogue, cooperation and trade. In this direction the EC has on several occasions expressed its desire to establish an interregional association with MERCOSUR in the long term.

A year later both blocs signed a memorandum of understanding which defined the priorities for cooperation between the regions by sector during the 2000–2006 period,[16] the Regional Strategy Paper (2002–2006) signed by the European Commission in September 2002. This document covers the guidelines laid down in the memorandum with a €48 million budget to be used to support MERCOSUR in the following aspects: setting up the common market, strengthening the bloc's institutions and support for civil society. In the framework of this program, the Macroeconomic Monitoring Support (AMM in Spanish) project described below was signed in 2006.

In 2007 the EC approved the second Regional Strategy Paper for the 2007–2013 period, in order to assist MERCOSUR regional integration and thus prepare the implementation of future association and a trade assistance agreement between both blocs.

Related to statistics, in 1997 MERCOSUR signed the "Statistical cooperation with MERCOSUR countries" agreement with the European Community, which was carried out between 1998 and 2002.[17] MERCOSUR acknowledged that the European experience proved that a progressive harmonization of the statistical methods between the member countries was inevitable in order to carry out an integration process.

The aim of that program was to strengthen statistical integration between the countries of both blocs, develop statistical indicators common to both regions, and adopt harmonized statistical methods in the framework of strengthening the economic and trade relations between both blocs. The program backed the task MERCOSUR had begun, making the European experience in harmonization of statistics carried out by the national statistics institutes and Eurostat available, including training activities, methodology studies and technical assistance through working groups of European and MERCOSUR experts. The second phase of the program was called Statistics II.

---

[15] Interregional Framework Cooperation Agreement between the European Community and its Member States, of the one part, and the Southern Common Market and its Party States, of the other part-Joint Declaration on political dialogue between the European Union and Mercosur. Madrid, December 15, 1995.

[16] July 26, 2001.

[17] CMC Decision Nbr. 23, in 1997.

Statistics II and Redima II projects

The Statistics II Project, coordinated by Argentina's National Statistical and Census Institute (Indec), began with the second phase of the Statistics Cooperation Project between the EC and Mercosur in 2005. The aim of this Statistics II project consisted in developing harmonized indicators related to three large subjects: social, economic and transverse topics. The social statistics related to the compliance of the "Millennium Targets" and the Guadalajara EU-ALC 2004 Summit agreements. Economic statistics focussed on national accounts, services and foreign trade in services issues, while the transverse issues sought to strengthen the national and regional statistics activity in order to meet the targets.

Mercosur also takes part as an observer in the Macroeconomic Dialogue Network II (Redima II) that the Economic Commission for Latin America and the Caribbean (CEPAL-ECLAC) is undertaking with EC financial support.

The coordination of all regional harmonization and cooperation projects is important to avoid duplicating efforts and resources and to take advantage of the related synergies.

More recently, in June 2005 the GMM submitted a draft agreement of cooperation with the EC that was used as base work to define the AMM project. In this proposal the GMM highlighted three fields of interest for MERCOSUR, the first three relative to the production of harmonized statistics and a fourth related to generating spaces for dialogue about macroeconomic convergence issues.

The Macroeconomic Monitoring Support project

The overall aim of the Macroeconomic Monitoring Support project consists in stimulating the development of a macroeconomic convergence plan established by MERCOSUR that favors regional integration and the institutional strengthening of the bloc. The specific target to achieve these purposes stipulates developing a statistical base grounded on harmonized methods in order to have comparable statistics that make the macroeconomic convergence process easier.

In all this cooperation process the contribution of ideas and information about the European Community is very important for MERCOSUR in achieving a successful integration process. On this matter, the experience provided by the European Community on specific statistical subjects (like harmonization, production, validation and publication of information) or on issues related to the macroeconomic convergence process is expected to contribute much towards achieving the targets proposed.

Activities in the project are carried out organized in four sections:

I. Strengthening, developing, expanding and harmonizing the statistical base in fiscal matters, monetary, credit and interest rate variables, and the balance of payments and the international investment position.

II. Having a system that allows for an adequate validation and quality control of the harmonized statistics so that these are disclosed in a timely and apt manner.

III. Reinforcing the processes associated with the disclosure and publication of the statistics, if possible in a manner articulated with the EC-MERCOSUR Statistics II project, to make regional statistics institutional.

IV. Promoting the analysis of issues related to the macroeconomic convergence of the countries that are part of MERCOSUR, by selecting the specific discussion points.

The contribution of each bloc to develop each activity is budgeted as follows:

Activity	EU contribution	MCS contribution
Strengthening the statistical base	67%	33%
Validation	63%	37%
Publishing	60%	40%
Macroeconomic dialogue	85%	15%
Total budget	**67%**	**33%**

The breakdown of the activities to be carried out in each area is shown below:

I. Strengthening, developing, expanding and harmonizing the statistical base	
Fiscal	1. To verify the adequacy of current statistics to the harmonized methodology. 2. The development of mechanisms to validate the information compiled by the institutions involved. 3. To hold workshops in order to discuss and transmit best practices based on the European experience. 4. The identification of the sources that provides information and to hold meetings with them. 5. Identification of criteria to disclose and record transactions in official statistics. 6. Training of technical teams responsible for compiling and preparing statistics.
Monetary, credit and interest rates	1. To enrich the harmonization by including seasonal adjustments. 2. The production and publication of series expressed at constant prices. 3. The extension of the time frame covered by the series. 4. The identification of factors that account for changes of stocks. 5. The inclusion of broader definitions of credit. 6. To discriminate by credit class according to the adjustment criteria employed. 7. To expand the statistical breakdown to enable identifying the borrower, use and activity sector. 8. The inclusion of information about interest rate changes and the spread on credit transactions. 9. The training of staff entrusted with preparing the statistics. 10. To hold workshops for the MERCOSUR and the European Community to exchange experiences.

I. Strengthening, developing, expanding and harmonizing the statistical base (cont)	
Balance of Payments and IIP	1. To determine the asymmetries in dealing with and recording the different components of the Balance of Payments and the International Investment Position (IIP). 2. The promotion of mechanisms and activities that enable preparation of an aggregate MERCOSUR Balance of Payments and IIP and bilateral between the member countries. 3. The training of technical teams responsible for compiling and preparing the statistics. 4. To coordinate the activities to be developed in the current project and those defined by the Statistics II project.

II. Adequate validation and quality control of the statistics

1. To learn the European experience on validation matters.
2. To identify a harmonization criterion that should be taken into account in order to validate statistics.
3. The training of staff responsible for providing and analyzing the information.
4. The establishment of communication channels with national institutions that provide information.
5. To prepare a method to validate the harmonized statistics.

III. Releasing and publishing information

1. The development of a specific website to publish MERCOSUR statistics.
2. The training of staff in charge of publication.
3. The publication of articles and other information about the Project and the macroeconomic convergence process.

IV. Promoting analysis of matters related to the macroeconomic convergence

1. To hold seminars, conferences and working meetings to understand the European experience and to deepen research of regional convergence issues.
2. The organization of regular meetings among the authorities responsible for macroeconomic programming.
3. The elaboration of specific studies for the GMM on specific priority issues.

The largest shares of the budget are for local technical assistance and research items, which reflects the severe restriction the MERCOSUR bloc faces to hire additional human resources to be able to undertake tasks that tend towards convergence. On this matter the project assumes the possible access to a qualified workforce to carry out harmonization tasks investigating issues of interest to the bloc on different aspects of the homogenization of their statistical bases. This will be possible by contracts through tenders, for which public announcements were made based on the terms of reference prepared by the technical teams of MERCOSUR specialists in each field (fiscal, monetary, balance of payments, validation, disclosure and macroeconomic dialogue)

The duration of the project was initially set at 48 months. This period had to be extended for operating reasons, such as delays in the tenders to hire additional staff and prepare specific studies. The initial deadline to finalize the project in July 2010 was extended to February 2011.

The difficulties in statistical matters faced by the bloc can be summarized as follows:

1. Fiscal statistics:
   - Are not prepared according to a harmonized methodology
   - No mechanisms exist to validate information gathered by different institutions
   - There is no adequate concordance of flows and stocks
   - There are large differences between the informatics systems of the countries, which make it difficult to have harmonized statistics
2. Monetary statistics:
   - Do not consider seasonal adjustments nor series expressed at constant prices of the statistics that are already harmonized
   - Limited timespans covered by the series
3. Credit statistics:
   - There are theoretical and methodological differences between the countries about producing statistics
   - In some case there are difficulties to obtain certain data
   - There is little progress on harmonization
   - Not all countries have statistics on credit flows and stocks
   - Factors associated with stock change are not identified correctly in some cases
   - It is impossible to discriminate loans according to the adjustment coefficients
   - The available breakdown of some statistics does not fulfill criteria for an adequate analysis
4. Interest rate statistics:
   - There is little degree of harmonization
   - Comparable reference interest rates do not exist
5. Balance of payments and international investment position statistics:
   - There are asymmetries in dealing with and recording different balance of payments and IIP statistics
   - Legal restrictions make it difficult to exchange information between the intra-bloc countries in order to build an aggregate balance of payments and IIP
6. Validation of the statistics:
   - There are legal restrictions that make exchange of information between the member states difficult
   - Development of standardized mechanisms to validate the harmonized statistics is required
   - Defining courses of action to face possible deviations from the harmonized methodology is necessary
7. Publishing the statistics:
   - There are operational difficulties to manage and update software

– Coordinating the stages prior to release, and the validation and timely and adequate compliance with submitting information is required

8. Macroeconomic dialogue:

– It is necessary to define the specific subjects for debate about the macroeconomic convergence of the member countries

– The insufficient availability of technical studies makes it difficult to exchange ideas as well as a dialogue between the member states on aspects related to the development, transformation and interaction the countries in the region

Monetary statistics

The monetary component specialists group met for the first time in 2005, to prepare a concrete proposal to be included in the cooperation agreement that MERCOSUR and the EC would sign with the purpose of supporting macroeconomic monitoring.

At these first meetings priority areas for the region on statistical matters were established, defining the following targets for the statistics compiled by the central banks of the member states:

- Improving the existing harmonized statistics
- Building new series under harmonized criteria
- Extending the timespan coverage of the statistics
- Seasonally adjusting the harmonized series
- Building series expressed at constant prices
- Having a manual that includes the harmonized methodology

The group also prepared what are known as the Administrative Technical Decisions, which specified the actions to be carried out, the expected results and the budget needed to complete this program. After the project was approved and signed (on December 5, 2006 by the EC and on January 18, 2007 by MERCOSUR), the technical groups of each component prepared the Global Operating Plan and the Operating Plan for the first year of program execution, which duly specified the timetable of activities and the funds needed to carry them out.

The need to have special contract technical assistance for the purposes of the project is an important part of planning activities. In order to meet this requirement, during 2008 the technical teams worked on defining the terms of reference stating the guidelines to which the future international tenders of staff dedicated to technical assistance would be subject. At all central banks in the member states, due to the size of the project, hiring additional staff is an unavoidable requirement to comply with the plans in a timely manner. In some countries, these restrictions even include the informatics systems capable of managing the new volumes of information and process them.

The statistics about base money and monetary aggregates had already been harmonized by the GMM, at least as an initial stage. For interest rate statistics, whether lending or borrowing, and with the exception of the rates negotiated for inter-bank loans (the only harmonized interest rate to date), it is difficult to find representative rates due to the different products and the different policies applied in each country. As regards credit statistics, although the GMM was able to reach harmonized definitions beyond the scope of the AMM project, major differences between the four countries that make up MERCOSUR are considered.

To solve these asymmetries, the AMM Project includes an item about studies that contemplates undertaking special consultancy tasks on issues that are very important for the bloc, but which due to logistical, resources or planning reasons cannot be carried out easily. For this, the funding provided by the project will be crucial for progress in the diagnosis and comprehension of the credit-related issues in the region.

The three priority studies for the region defined by the technical specialists on credit matters are therefore:

1. Study of non-bank financial sources for the private sector. This work aims at evaluating the different alternatives for funding economic activity outside the banking system and related instruments in the four countries in the region, by statistical surveys and the pertinent legislation. The domestic and external non-bank credit channels, the share of each of these markets and of the different instruments in the total financing volume will therefore be assessed. Meanwhile, significant differences between countries will be identified, as also the limitations that exist in the data base on the financial intermediation channels. This diagnosis will be accompanied by an analysis with proposals to expand the information base.

2. Study on the distribution of credit by firm size. The purpose is to expand the data base on credit related to the size of firms in the different sectors of economic activity in order to reduce the lack of these statistics at present in the countries of the region. The expansion and more detail in these statistics will provide new instruments to asses the degree of access to credit by firms, which may contribute to a more effective implementation of the micro and macroeconomic policies about the financial system.

3. Bankarization indicators. This study will provide elements to verify the different degree of access to the financial system by the population, based on surveys of the statistics on local banks, the instruments and the related legislation. Improving the statistical base in order to allow for a better design of strategies that enable an increase of the financial insertion in the region is thus sought.

Allocating carrying out these tasks, mainly large scale will be assigned – like the technical assistance to be hired- by international tenders, which are in their final stage. For this public auction the specialists in the monetary component also have to define the terms of reference of the studies requested.

These studies are expected to be useful for a future expansion of the statistical base on credit transactions in the region. These studies will provide new and important elements about the financial systems in the MERCOSUR countries, contributing to improve the data base on credit statistics and their harmonization process, as well as improving the activities carried out by the region's central banks.

With the project already underway, each country prepared a report with a diagnosis of its statistics to serve as a base for the discussion of specific activities to be carried out in order to achieve the targets that were set. Based on this diagnosis of the strategic situation of monetary matters in each country, the specialists from the four central banks started discussions and progress towards the next stage, which is underway at present, and in which the concepts and methodologies to be harmonized will be reviewed and possibly redesigned.

Once the harmonized ideas and the initial panoply of series to be included are defined, and having a methodology manual to prepare information, the next stage will be to start to produce and compile harmonized statistics. This stage will be linked to the validation and publication component of the project, so that the sequence between obtaining the data and making it available will be completed.

The scale of the project means that some countries must make an additional effort to achieve the standards proposed at the regional level. The project therefore assigns a budget item to

informatics development, in order to cover the requirements that the central banks of these countries face to produce statistics.

Another pillar of the project consists in the importance granted to exchanging experiences between the EC and MERCOSUR. The process the EC began over 50 years ago makes it an undisputed reference for regional integration in all fields. To better understand the European experience in the convergence process in statistical affairs, and specifically on monetary matters, the central bank specialists took part in sessions specially organized by the European Central Bank and the Bank of Spain.

Among the main asymmetries detected by the group of specialists on monetary statistics were the following:

- Different time periods of the surveys.
- A strong presence of foreign currency in some countries.
- Different criteria are used (for example: amounts or percentages for bank reserves; end-of-month balances or averages of daily balances, working days or calendar days, how capital or accrued interest are considered in the surveys, loan classification).
- Different breakdowns of the information.
- Outdated harmonized CPI.
- Little timeframe coverage of the series in some cases.
- Different degree of development of the financial systems or the capital markets.
- Finding relevant criteria to construe an interest rate spread.

The statistical convergence process between the countries of the bloc will no doubt require concessions in order to have comparable data. The expert groups will define the best alternatives bearing in mind the methodology issues and the international information standards, but the political decision will be crucial to secure the targets and for progress towards a broader range of statistics comparable between countries, not merely at an intra-bloc level, but also with the rest of the world.

Conclusions

MERCOSUR is more than merely economic integration. Trade liberalization is undoubtedly a starting point for the political decision towards the convergence process. But MERCOSUR means integration that goes far beyond the markets of goods and services. Democratic principles, human rights, human labor, education, culture, fair trade and defense of competition practices, have become important aspects of the integration process.

The MERCOSUR countries share similar histories, like their origins in the conquest of America as from the XVth century, the struggles for independence and the domestic clashes. This shared trajectory, together with the relative geographical isolation of this southern region from the rest of the world, their similar languages, cultures and traditions, give the region further strength which favors the communion of the group and entices easing the pathway towards the deepening of the integration process.

MERCOSUR is a significant bloc at the worldwide level, with a broad growth horizon. And although it has shown some flaws during its history, mainly heightened by the current world crisis, it must continue working on the convergence process. Common long term policies that generate confidence and enable continuing with the deepening of the economic, social,

financial, political and cultural links based on social justice and equality are necessary, comprehending that regional integration is fundamental for the development of our peoples.

The Macroeconomic Monitoring Support Project will be very useful to indicate the trajectory that the countries in the bloc must follow towards growth and institutional strengthening. Statisticians are well aware that the harmonization process does not end with the current cooperation project, but is rather an ongoing task of rethinking what one has, including new practices, preparing new reports, adopting innovations on compiling and publishing what there already is, and to pay attention to international standards.

This initial macroeconomic convergence stage is still aimed very much at within the bloc. These first steps that MERCOSUR is taking to obtain comparable statistics, is a stance more focused on achieving consistency and coherence inside the bloc. This is the easiest road to travel, but the international comparison stage will be fundamental to insert MERCOSUR in the world scope, in order to have parameters to compare the intra-bloc countries with themselves, but also MERCOSUR with the rest of the world.

Based on the experience acquired, not only due to the fruitful exchange of experiences with the European Community, but also from the experience that the intra-MERCOSUR working parties are gaining, starting to think about a harmonization more oriented to the outside world is to be expected. However, this must no doubt be accompanied by a broader integration process at the regional level, where harmonizing statistics under international standards will help to back this convergence process.

Apart from the significant progress that cooperation between MERCOSUR and the EC will generate through the Macroeconomic Monitoring Support Project, the greatest challenge for MERCOSUR will be the sustainability of the path it has begun. In order to continue producing harmonized statistics, broaden the time and subject coverage, discuss new statistics matters and informatics innovations related to producing data, keeping the web portal updated, continuing the dialogue with intra and extra-bloc technical specialists, training human resources and the institutions involved, expressing concern about adopting international standards and the continual improvement in the quality of the statistics, will not be minor issues among the challenges that the MERCOSUR bloc faces over the medium and long terms.

The macroeconomic stability process together with the legal security issues and respect for institutions and individuals, are fundamental requirements for a regional integration process. In all macroeconomic convergence processes like that which MERCOSUR has begun, having comparable data, of quality and at timely periods, become inevitable factors for progress in the regional integration process. Ensuring this comparability and homogenization of statistics is therefore a necessary condition so that economic information is transparent and useful to make decisions.

Appendix

Organizational structure of MERCOSUR, as defined by the Ouro Preto Protocol on December 17, 1994

Organ	Description	Members	Meetings	Functions and capacities
Common Market Council	Highest MERCOSUR organ. It is in entrusted with political leadership of the integration process and for making decisions that ensure the objectives stipulated by the Treaty of Asunción are met and to attain the definite setting up of a common market. It issues Decisions that are mandatory.	Made up by the Foreign Ministers and the Economy Ministers or their equivalent. The presidency is exercised by rotation of the member states for six month periods.	It meets as often as regarded timely, but at least once every six months with the presidents of the member states present. Meetings are coordinated by the Foreign Ministers, and other ministers or authorities at a ministerial level may be invited to take part.	a. Oversees compliance of the Treaty of Asunción, its protocols and the agreements signed in its framework; b. Defines policies and promotes the actions required to set up the common market; c. Exercises leadership of MERCOSUR as a legal person; d. Negotiates and signs agreements in the name of MERCOSUR with other countries, groups of countries or international organizations. These may be delegated by explicit mandate to the Common Market Group in the conditions stipulated in article XIV, clause VII, of the Ouro Preto protocol; e. States its position on the proposals that are submitted by the Common Market Group; f. Sets up ministerial meetings and expresses its position on the agreements that these meetings submit; g. Creates the organs it regards as pertinent, as well as modifying or eliminating them; h. Clarifies, when this is considered necessary, the content and scope of its decisions; i. Designates the director of the MERCOSUR Administrative Secretariat; j. Makes decisions on financial and budget matters; k. Ratifies the internal rules of the Common Market Group.

Organizational structure of MERCOSUR, as defined by the Ouro Preto Protocol on December 17, 1994 (cont)

Organ	Description	Members	Meetings	Functions and capacities
Common Market Group	Is the executive organ of the MERCOSUR. In order to prepare and propose measures it can call on representatives from other government administration organs or the MERCOSUR institutional structure. Its statements are by Resolutions of a mandatory nature.	Made up by four full members and four alternate members from each country, among which the Foreign Ministry, Economy Ministry and Central Bank representation is obligatory. It is coordinated by the Foreign Ministries.	Holds ordinary or extraordinary meetings according to its own internal regulation.	a. Oversees, within the scope of its capacities, compliance with the Treaty of Asunción, its protocols and the agreements signed in its framework; b. Proposes draft decisions to the Common Market Group; c. Takes measures needed to comply with the decisions adopted by the Common Market Group; d. Sets working schedules that ensure progress towards setting up the common market; e. Creates, modifies and eliminates organs like working subgroups and specialized meetings in order to comply with its objectives; f. States its views on proposals or recommendations submitted by the other MERCOSUR organs within their capacities; g. Negotiates with representative of all the contracting parties, by explicit delegation from the Common Market Council, and within the limits stipulated by the specific mandates granted for this purpose, agreements in MERCOSUR's name with other countries, groups of countries or international organizations. The Common Market Group, if so authorized by the Common Market Council, may delegate those powers to the MERCOSUR Commerce Commission; h. Approves the budget and annual statement of accounts submitted by the MERCOSUR Administrative Secretariat; i. Adopts Resolutions on financial and budget matters, based on guidelines issued by the Council; j. Submits its Internal Regulation to the Common Market Council; k. Organizes the Common Market Council meetings and prepares the reports and studies that it requests; l. Selects the director of the MERCOSUR Administrative Secretariat; m. Supervises the MERCOSUR Administrative Secretariat activities; n. Ratifies the internal rules of the Commerce Commission and the Economic and Social Consultation Forum.

Organizational structure of MERCOSUR, as defined by the Ouro Preto Protocol on December 17, 1994 (cont)

Organ	Description	Members	Meetings	Functions and capacities
MERCOSUR Commerce Commission	Entrusted with assisting the CMG, overseeing the application of the common trade policy agreed on by the member states of the customs union, as well as reviewing and keeping track of issues related to the common trade policies, intra-MERCOSUR commerce and with other countries. It issues directives (which are mandatory) or proposals.	Made up by four full members and four alternate members from each member state. Coordinated by the Foreign Ministries.	Meets at least once a month or when requested by the CMG or any of the contracting parties.	a. Oversees application of the common trade policy instruments intra-MERCOSUR and with other countries, international organizations and trade agreements; b. Considers and makes statements on requests submitted by the member countries about applying and complying with the common external tariff and the other common trade policy instruments; c. Keeps track of how common trade policy is applied in the member countries; d. Analyzes common trade policy instrument developments for the customs union operations and issues proposals on this matter to the Common Market Group; e. Makes decisions related to the administration and application of the common external tariff and the common trade policy instruments agreed on by the member states; f. Reports to the Common Market Group on developments and application of common trade policy instruments, about the manner requests it has received are dealt with and on the decisions adopted on them; g. Proposes new rules or changes in existing rules on MERCOSUR trade and customs matters to the Common Market Group; h. Proposes the revision of tariff rates on specific items of the common external tariff, even to consider cases that refer to new productive activities within MERCOSUR; i. Establishes the technical committees necessary to comply with its tasks adequately, as well as directing and supervising their activities; j. Carries out the tasks related to the common trade policy requested by the Common Market Group; k. Adopts its internal rules that will be submitted to the Common Market Group for approval.

Organizational structure of MERCOSUR, as defined by the Ouro Preto Protocol on December 17, 1994 (cont)

Organ	Description	Members	Meetings	Functions and capacities
Joint Parliamentary Commission	Is the representative organ of the parliaments of the member states within MERCOSUR. It issues recommendations to the CMC, through the CMG.	Made up by equal numbers of congressional representatives from the member states, designated by the parliaments according to their internal procedures.		Seeks to accelerate the domestic procedures for the prompt effectiveness of the rules issues by the MERCOSUR organs. Cooperates to harmonize legislations as required by the integration process. The CMC can request it to review priority issues.
Economic and Social Consultation Forum	Represents the economic and social sectors. States its position by recommendations to the CMG.	Made up by equal numbers of representatives from each of the member countries.		It has a consultation function.

Organizational structure of MERCOSUR, as defined by the Ouro Preto Protocol on December 17, 1994 (cont)

Organ	Description	Members	Meetings	Functions and capacities
MERCOSUR Administrative Secretariat	Operating back-up organ of MERCOSUR. It is responsible for providing services to the other MERCOSUR organs. Its venue is in Montevideo city, and it has a budget to cater for its operating expenses and those the CMG decides, which will be funded in equal shares contributed by the member states.	Headed by a director who is a national of one of the member countries, with a two-year mandate. The director is selected by the CMG by rotation, after consultations with the member states and designated by the CMC.		a. Acts as the official archive for MERCOSUR documentation; b. Publishes and releases the rules adopted in the MERCOSUR framework; c. Organizes the logistical aspects of the Common Market Council, Common Market Group and MERCOSUR Trade Commission meetings and, if possible, of the other MERCOSUR organs when the latter are held at its permanent venue. For meetings held away from its permanent venue, the MERCOSUR Administrative Secretariat will provide support for the state where the meeting is held; d. Reports on a regular basis the measures implemented by each country to member states so that they can include the rules issued by the MERCOSUR organs by article II of the Ouro Preto Protocol into their legal statutes; e. Keeps records of the national lists of arbitrators and experts, and undertakes other tasks stipulated in the Brasilia Protocol; f. Carries out the tasks requested by the Common Market Council, the Common Market Group and the MERCOSUR Commerce Commission; g. Prepares the draft budget, and once it is approved by the Common Market Group, carries out all tasks necessary for its correct execution; h. Every year it submits its statement of accounts to the Common Market Group, as well as a report on its activities.

Session 2

Convergence in the SADC and African economic integration process: prospects and statistical issues

Chair: Johan van den Heever, South African Reserve Bank

Papers: Regional economic integration in SADC: progress, prospects and statistical issues for monetary union
Mshiyeni Belle, South African Reserve Bank

Convergence in the SADC and African economic integration process: prospects and statistical issues
Ivan Zyuulu, Bank of Zambia

Alternative reconsideration of output growth differential for West African Monetary Zone
E D Balogun, University of Lagos

Discussant: Aurel Schubert, Austrian National Bank

Regional economic integration in SADC: progress, prospects and statistical issues for monetary union

Mshiyeni Belle[1]

1. Introduction

The creation of a monetary union by 2018 in the Southern African Development Community (SADC)[2] is an idea first planted by the Heads of States and Government of this region in the SADC Treaty via Articles 21 and 22 and through its Finance and Development Protocol (FIP)[3]. Article 21 lays the foundation for areas of cooperation by member states and emphasises the need for countries in the region to cooperate in all areas so as to advance regional development and integration. Furthermore, member states are required through appropriate institutions to ensure that coordination, rationalisation and harmonisation of macroeconomic policies occur to achieve the objectives of regional integration. In addition, Article 21 calls for cooperation by member states in specific areas like trade, industry, investment and finance.

Article 22 calls for the member states to conclude Protocols that will support the areas of cooperation and integration, and the creation of relevant institutions to implement programs of regional integration.

Noticeable progress has been achieved by member states in propelling the objectives of the Treaty and these have been spearheaded by various institutions like the CCBG and Senior Treasury officials and its substructures tasked with implementing the Protocols and Regional Indicative Strategic Development Plan (RISDP)[4]. What has been apparent in this process from its inception is the realisation that statistics will be a key ingredient in the ensuing economic analysis as countries move towards a monetary union. The process requires that SADC countries provide accurate, timely, and reliable data that adhere to international standards and allow for equitable measures that will make it easy to implement macro - economic policies across SADC countries in particular the execution of monetary policy in a monetary union.

In addressing the challenges encountered by SADC countries as they move towards a monetary union, the paper highlights the background to the SADC programme of regional integration, which has a number of stages or milestones. Secondly, a general overview of the collection, compilation and use of statistics in SADC will be provided with emphasis on the work that has been undertaken by the Committee of Central Banks in SADC in building several databases. These cover central bank indicators, macro- economic convergence

---

[1] South African Reserve Bank. Head International Relations and Committee of Central Bank Governors (CCBG) in SADC Secretariat.

[2] Fifteen countries forming SADC Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Madagascar, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

[3] Protocol on Finance and Investment.

[4] RISDP is the document that sets out the detailed strategy for achieving a Monetary Union through a four stage plan that includes Free Trade Area (2008), Customs Union (2010), Common Market and Monetary Union (2016).

indicators, financial soundness indicators and others that need to be developed over time for use in the analysis especially of financial markets, notably debt and equity securities statistics relevant in the analysis of financial stability and the formulation of monetary policy. Coherent, relevant and internationally comparable securities statistic will be required for analysis in the SADC region,not least in light of the current global financial crisis. Thirdly, the focus will shift to assessing the data needs in the region as countries move towards a monetary union. Furthermore, the institutional setting for producing statistics in a SADC monetary union will be explored. In this light the discussion will draw from other experiences, especially those of the European Economic and Monetary Union (EMU), the proposed Gulf Cooperation Council and the Afristat in Africa. Fourthly, the paper will identify challenges experienced by SADC central banks in attempting to collect, compile and disseminate data for use in a future monetary union. It will be clear from the discussion that SADC institutions are still battling with the quest to meet international standards, still having to deal with the problems of timeliness in the submission of data and closing the numerous data gaps in the body of statistics supplied. Fifthly, we draw lessons from observed experiences to inform a future statistical approach for a SADC monetary union, and then we conclude.

2. Background on SADC Monetary Union

SADC has a membership of fifteen countries and has from its inception committed itself to pursue policies aimed at economic liberalization and economic development. In 1992 when SADC was transformed from its predecessor the SADCC, the member countries recommitted themselves to a concerted effort to achieve deeper regional integration as a means of attaining economic growth and eventually reducing poverty. In preparations to move towards the implementation of programmes of regional integration SADC restructured its institutions to give them an improved focus with an emphasis on a common agenda.

It is this process that yielded four clusters that included: Trade, Industry, Finance and Investments (TIFI); Infrastructure and Service; Food, Agriculture and Natural Resources and lastly, Social and Human Development and Special Programmes. The TIFI directorate includes mainly work done by central banks, ministries of finance, trade and investment. Central banks have been prominent drivers of the programmes in this directorate having contributed seven annexes in the Finance and Investment Protocol.

SADC' s road to a Monetary union is outlined in the Regional Indicative Strategic Development Plan which is a broad strategic plan for implementing programmes for achieving key milestones that will ensure the realisation of a Monetary Union in SADC. These key milestones include as a first step the attainment of a SADC Free Trade Area (FTA) by 2008. This milestone was reached when the Heads of States and Government in SADC launched the FTA in August 2008. The next milestone is the launch of Customs Union by 2010, and a common market by 2015 which will be followed by the establishment of a SADC central bank by 2016 and eventually a SADC currency by 2018. It is this quest to achieve the SADC central bank and currency that has resulted in Central banks focusing on development of Statistical databases for current and future use in macro economic analysis.

The other major instrument that is critical in the implementation of the regional integration process is the Finance and Investment Protocol. In its preamble it recognises the need for accelerated growth, investment and employment in the SADC region but more importantly regards "the establishment of sustained macroeconomic stability as a precondition to sustainable growth and for the creation of monetary union in the region".[5] The protocol has

[5] Protocol on Finance and Investment page 14 August 18 2006.

relevant annexes for the activities of preparing for the achievement of monetary union and these are on: Macro Economic Convergence (Annex 2), Co-operation and Coordination on Exchange Controls Policies (Annex 4), Harmonisation of Legal and Operational Frameworks (Annex 5), Cooperation on Payment, Clearing and Settlement Systems (Annex 6), Cooperation in the area of Information and Communications Technology Amongst Central Banks (Annex 7), Cooperation and Co-ordination in the Area of Banking Regulatory and Supervisory Matters (Annex 8), Cooperation in SADC Stock Exchanges (Annex 11) and Cooperation among SADC Banking Associations (still to be Annexed to the FIP). This array of annexes directly or implicitly calls for the collection and use of data and statistics, for the purposes of achieving a convergent status. The most direct mention of the need for the collection and use of statistics are with regard to the macro-economic convergence annex in which member states are required to converge around a set of indicators,mentioned below in table 1, which shall be measured and monitored to determine the extent of convergence.

Table 1

RISDP Macroeconomic convergence indicators

	2008	2012	2018
Inflation rate	Single digit	5%	3%
Ration of budget deficit to GDP	Not exceeding 5%	3% as an anchor within a band of 1%	3% as an anchor within a band of 1%
Nominal value of public and publicly guaranteed debt	Less than 60% of GDP	Less than 60% of GDP	Less than 60% of GDP
External reserves/import cover	3 months	More than 6 months	Sustained
Central Bank credit to government	Less than 10% of previous year's tax revenue	Less than 5% by 2015	Sustained

Source: South African Reserve Bank.

The above listed convergence indicators are "similar to those adopted in Europe as part of the Maastricht Treaty of 1992".[6]

3. The Collection, Development and Utilisation of Statistics in SADC

This section reviews some elements related to the development of institutions and the preparation of statistics for a SADC Monetary Union. This discussion will indicate which institution was allocated the responsibility of collection data and establishment of a database on financial and monetary statistics in SADC. The discussion will also reveal the type of efforts conducted through workshops to deal with issues around standards, methodology, classifications, comparability of data submitted by countries and institutions that publish data like the IMF.

[6] Jadresic, Esteban, 2002, "On a Common Currency for the GCC Countries" IMF Policy Discussion Paper 01/12 (Washington: International Monetary Fund).

The initial efforts at formally organizing the collection and development of Monetary and Financial statistics with a view to building a SADC database was reached at a joint meeting of Central Bank and Treasury officials on the 14 September 1995. The intention to have the database was primarily to utilise it as a basis for consultation on policy formulation as countries move towards stabilizing their economies in preparation of achieving the convergence criteria. Furthermore, the database was intended to be a source of in information for researchers and the private sector individuals involved in regional economic analysis.

In moving forward with the process, the central bank and treasury officials decided that the development and maintenance of this database was better left with the secretariat of the Committee of Central Bank Governors. When the secretariat undertook the initial efforts of development of the database it soon encountered challenges raging from delays in receiving data, which at the initial instance was sourced from the IMF and World Bank, and dealing with alterations made on the data. The problem was finally resolved when the CCBG secretariat started collecting the data directly from the central banks.

The process was also taken a step further when the CCBG formally adopted the project in November 1995 and as it was eventually approved by the SADC Ministers of Finance and Investment in August 1996. With this support secured from the Governors and Ministers, clear objectives and terms of reference were developed. In particular the objective emphasised the establishment of a comprehensive database that can be accessed by member states and stakeholders. Equally the terms of reference also put emphasis on important areas that included the necessity and importance of examining the adequacy of existing data and data sources supplied by countries. In the event that shortcomings were identified these were to be addressed by remedial actions. In addition, the terms of reference also called for recommendations to be made on how best to disseminate information and make it accessible to the member states and other stakeholders.

With the terms of reference and objectives clarified, a series of focused statistical workshops for central banks ensued to build further the statistical vision and work required for the preparation of data for use in analysis and macroeconomic convergence.

In the first workshop held in Namibia in September 1996 which was a planning session, a Statistical Task Force (STF) was formed and its existence and focus areas were approved by Governors in October 1996 to deal with the major issues identified by the CCBG Secretariat in particular the non-comparability of data across the region, accuracy and difficulty of communication experienced by central banks when transmitting data to the CCBG secretariat. To enhance communication among central banks and CCBG secretariat, the SADC Central Bank Information Technology Forum was created. One of the significant developments to come out of the formation of the STF was to ensure that SADC countries converted their balance of payments statistics to be in line with BOP 5 manual of the IMF. This was done to ensure that from the beginning SADC countries began to observe common international standards which are “needed to be able to aggregate and consolidate data which must be applied to all member states”.[7]

The second workshop was held in Botswana in June 1997 in which all central banks endorsed the recommendations put forward by the STF with regard to the structure and definitions of the database. Central banks also confirmed that they had begun to report relevant statistics in accordance with the BOP 5 manual. The workshop also agreed that research directors from the SADC central banks would be tasked with verifying all data which

[7] Krueger, R, and Ettore Kovarich, 2006, “Some Principles for Development of Statistics for a GCC Currency Union” WP/06/141.

would be reported in US dollars instead of the various currencies of the SADC region. This work resulted in the first publication of an updated database in October 1997.

The third workshop was held in conjunction with the IMF from 30 August to 3 September 1999 in South Africa. The main objective was to review the classification and definitions of the database, expansion of fiscal statistics and definitions and compare the data published in the SADC Central Bank Statistical Database with those published in the International Financial Statistics (IFS) of the IMF. The outcome of this workshop was an expanded database from 143 to 268 variables, standardised definitions in line with statistical manuals, revised definitions for monetary and fiscal statistics. In addition, it was agreed that definition of external sector and national account statistics would be provided in accordance with the BOP 5 manual and the 1993 System of National Accounts (SNA).

The fourth workshop on statistics for SADC central banks facilitated by the IMF was held in Johannesburg from 17 to 26 October 2001. The focus of the workshop was on Government Finance, Monetary and Financial and Balance of Payments statistics. The result of the workshop was a recommendation that the CCBG database that had government finance statistics be based on the 1986 Manual on Government Finance Statistics (GFS) and should not be altered at that time. It was also decided by the participants at the workshop, that member countries be encouraged to improve the quality and timeliness of data in the current system. In addition, SADC countries were encouraged to commence with the initial steps of implementing the GFS system based on the new GFS Manual of 2001 which was soon to be published and further requested that particular attention be paid to developing the new GFS classification.

With regard to monetary and financial statistics, the workshop concluded then that the database should remain unchanged. It was agreed however that future changes to the CCBG database should incorporate recommendations from the IMF on the classification and dissemination that will be based on the new Monetary and Financial Statistics Manual. SADC countries were assured though that the IMF recommendations for reporting data were expected to be in line with what was already happening in the region.

On discussing the balance of payments statistics, the workshop agreed on the extension of the database to include other additional lines, in particular imports and exports Free on Board (FOB) for each component of goods and total imports and exports of services. Finally, countries were encouraged to improve further the timeliness and quality of their balance of payments statistics and adopt the fifth edition of the Balance of Payments Manual.

The collection and development of statistics in SADC cannot be complete without highlighting the contributions of the CCBG subcommittee focussing on Information and Technology. The Information and Technology Forum (IT Forum) was instrumental, from the beginning of the Statistics project, in providing technological support to the CCGB secretariat as it undertook the development of the database. In 1997 the IT Forum reported to the CCBG that email connectivity was established in all SADC central banks that will allow each central bank to connect into the central database and submit the required data. Furthermore, the IT Forum reported progress in the development of an Internet website for SADC central banks. The website which has been subsequently upgraded several times by the IT Forum has a publication side and an interactive communication part. In addition, the necessary data links and conversions were created and implemented for electronic data dissemination. The current arrangement within SADC central banks allows for each central bank to have a dedicated employee responsible for updating the required statistics and data via the interactive web, a system that has proved very useful in building the database and implementing the facility in 1999.

4. Data Needs for Regional Integration and Monetary Union

This section will focus on the type of statistics required for monetary unions. These data needs for a SADC monetary union which are collected and compiled by SADC central banks are viewed from experiences of other regions that have adopted monetary unions, like the Euro area with those that are in the process of adopting a monetary union and a single currency, like the Gulf States in the Middle East. In the process, of discussing these requirements, an analysis of what statistics have been collected by SADC countries in the CCBG database will be touched on to evaluate how close SADC central banks are towards meeting these needs. It will also be necessary to assess whether these needs should exactly mirror those implemented by countries pursuing monetary unions.

Regional blocks like European Union and similarly the Gulf Cooperation Council used statistics to achieve various monetary union goals. The common thread which is of importance for all those seeking to achieve a monetary union and those that have it is that "progress in economic integration can be measured against a set of criteria, including convergence of macro economic indicators, trade patterns and social trends".[8] The SADC region has proceeded in this manner with regard to the use of the statistics as a tool to measure progress in attaining convergence in the various indicators. While it appears on observation that no major differences exist on the type of convergence indicators or statistics to be used by the different regional blocks, there is also an understanding that various "Statisticians may distinguish among several types of statistics relevant for the unions: convergence criteria that serve as tests before countries can join or to monitor countries' continuing macroeconomic performance; the core sets of statistics to operate a union; statistics on external aspects of a currency union; a broad macroeconomic and market statistics to evaluate general conditions and monetary policy and assess its effectiveness; statistics disseminated to inform the public and serve as the public face of the union; and specialised statistics related to the economic and institutional conditions within the union".[9]

In a similar vein, if data sets are observed for the GCC countries, it is clear these can be divided into those that can be utilised to support the establishment of a monetary union and a common market and in some cases these do exhibit great overlaps. In the CCBG data base there is commonality that can be discerned with the types of data collected and used in both the Euro area and the Gulf area. As an example these regions have adopted the following data for policy support and the monitoring of economic performance by countries in their regions. The core data include statistics on national income and expenditure accounts, price data, (consumer price index), balance of payments, government finance and monetary and financial accounts. This list is similar to that collected by SADC central bank but it is not exhaustive since for these regions it also includes data on customs, labour, agriculture and employment among data collected for analysis. The SADC central banks have been utilising the core data listed above for comparison of the economic performance of each member state but most importantly the data has been used to measure the extent of convergence by these countries towards a set of primary targets. Over the years central banks have been able to draw conclusions from the data supplied by the various countries to determine the extent of convergence around inflation, the ratio of nominal government debt to Gross Domestic Product (GDP), ratio of budget deficit to GDP, the percentage of credit extended to government by central banks and the import cover. The outcome has shown convergence on some of these indicators until recently when the performance of countries in SADC started to

---

[8] Fasano, Ugo, and Zubair Iqbal, 2002: Common Currency, Finance and Development, Vol. 39, December.

[9] Krueger, R, and Ettore Kovarich, 2006, "Some Principles for Development of Statistics for a GCC Currency Union" WP/06/141.

be affected by the current global financial crisis. Inflation as a convergence indicator has in most instances spiralled out of the single digit target set for the period ending in 2008.

The other important work done on statistics collected and compiled by central bank is in the areas of payment, clearing and settlement systems. The SADC Payment Systems Project team of the CCBG embarked on a project to collect payment system data from various SADC central banks. The project resulted in the eventual publication in 1999 of the SADC Green Book[10] prepared by both the SADC Payment Systems Project Team and the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries. The publication describes among other topics the institutional arrangements, payment instruments, risks in the interbank settlement system and its management, the role of central banks in the operation of the interbank settlement systems and especially in the provision of settlement facilities in the banking system, the relationship between payment systems and monetary policy and finally the publication has a section that is dedicated to statistics.

The statistics which were recently updated by the SADC Payment Systems project team, will be included in the new version of the Green Book, to be published with the assistance of the World Bank and published by the Bank for International Settlements (BIS). It captures the statistics by country on the value in dollars of bank notes and coins in circulation, the number of different cards issued and their usage, the number of ATM's and point of sale terminals located in each country, the features of selected interbank funds transfer system like the Real Time Gross Settlement (RTGS) system and the value of payments and number of transactions processed by the funds transfer system. The analysis and conclusions drawn from these statistics are proving to be critical in the modernisation of the current RTGS system in SADC central banks. The real use of this information is also critical as an input in the proposals currently on the table on the type of a regional cross border payment and settlement model for SADC, which will be a critical and an integral element of a future monetary union in SADC.

The SADC Subcommittee of Banking Supervisors (SSBS) of the CCBG has played an important role in the collection of statistics required for regional integration and the attainment of a monetary union. While the SSBS has concentrated on producing country status reports on the implementation of both the International Accounting Standards (IAS) and Basel II, and ensuring that principles of supervision and regulation of banks are harmonised, the collection and analysis of Financial Soundness Indicators (FSI) has indicated the importance of these statistics in the SADC region for purposes of comparing the performance and stability of banks in SADC.

Currently, fourteen SADC central banks provided statistics on the following Financial Soundness Indicators: Capital adequacy ratios, quality of assets, earnings and profitability, liquidity, and sensitivity to market risk. The SSBS conclusions from the analysis of statistics supplied by the SADC central banks in 2008[11], reveals that capital adequacy ratio in the region averaged 16.5 percent; with regards to the quality of assets, the average non performing ratio was maintained at 4.1 percent. The average return on assets and equity were 3.1 per cent and 33.6 per cent respectively. The average liquidity ratio declined to 38.9 per cent in 2008 from 40.8 per cent in 2007. This ability to collect, compile and analyse statistics in the region will allow for the establishment of indicators for the SADC financial sector that will provide standards that can be used as benchmarks for SADC countries and compared to international benchmarks. In concluding this section, it can be observed from

[10] The Publication is based on the Red Books prepared by the Bank for International Settlements (BIS) and was published in 1999.

[11] See Report of the SSBS presented to the meeting of the CCBG 29 May 2009.

the discussion above that there have been significant progress achieved in the development of statistics required for the establishment of a monetary union. It should be noted that a myriad of challenges remain that still need to be addressed as the process of regional integration proceeds towards 2018.

5. Challenges for SADC Statistics Collectors

The collection of statistic in SADC has as an objective to arrive at a common statistical language that will embrace uniform technical standards, concepts, comparability, data quality and the use of similar methods. The observance of uniformity among these and others can lead to harmonised statistics which is an important milestone for a monetary union.

SADC like other developing regional blocks has challenges that are unique to the region and may be similar to other regions. The first of these challenges is the timely adoption of uniform technical standards like the GDDS and the SSDS. In the 2001 GDDS workshop in Botswana this was already evident as some SADC countries were still getting introduced to this standard. The subsequent workshops and technical assistance further addressed this problem of implementing the standard. The second challenge for most countries in SADC is the timely availability and submission of data to the central collection agencies. This challenge is as a result of structural problems in the various countries which emanate from long-turn around times for the return of surveys and lack of capacity to quickly process the new information that will result in the production of data.

Thirdly, there is a continuing prevalence of gaps in the database of the CCBG. These gaps also reveal the non uniformity of data collected by various national statistics agencies or the lack of capacity to produce these statistics. Some national agencies in SADC for instance can only supply quarterly data rather than monthly data. This has resulted in the CCBG compiling only annual data sets as an objective for the moment. Even this data gets delayed in some instances for reasons stated above.

Fourthly, comparability of data is another challenge, for SADC data. This is also as a consequence of different data set collected and is revealed by the existing gaps in the statistics compiled. There is no doubt that “Comparability of data is a key requirement of Statistical information and this requires adopting common methodologies in compiling, processing, and disseminating data”.[12] As was discussed above, the workshops held in SADC in early 2000 were directed at ensuring that the methodology of compiling, processing and disseminating data was similar and adheres to the same standards. One way in which the region is moving forward in its attempt to achieve the uniform standards is in the accounting and auditing arena where a draft Annex on Accounting and Auditing Standards[13] is being discussed among SADC stakeholders including central banks. This annex will however have to take cognisance of the a thorny issue related to the measurement and reporting of profits and losses by central banks which is in conflict with the International Financial Report Standards (IFRS).

Lastly, the biggest challenge for SADC collectors of data is the proper coordination at SADC level. While central banks have continued on a progressive path of collecting, establishing

---

[12] Dziobek, Claudia and Al – Mansori, K.L. Abdulraham, 2006,”Providing Official Statistics for the Common Market and Monetary Union in the Gulf Cooperation Council (GCC) Countries – A Case for “ Gulfstat,” IMF Working Paper 06/38 (Washington: International Monetary Fund).

[13] This annex will ensure that SADC accounting and auditing standards to allow for the use of similar methods by the financial sectors. If accepted by SADC countries it will be added to the Finance and Investment Protocol (FIP) and will become a binding document.

and maintaining good databases for SADC there is also a need for the active involvement of a SADC statistics agency to articulate the vision for harmonization of statistics in SADC and the preparation of a regional legal framework for statistics that will outline the relationships with national agencies, central banks and other compilers and how dissemination should occur for the benefit of the public in the region. This SADC Statistics Agency can function in a similar way as the Afristat and Eurostat.

6. Lessons for a future SADC Monetary Union

This section will discuss what lessons are there for SADC to learn as the region moves towards a Monetary Union in 2016. It is clear from the preceding discussions that progress has been achieved over the period since the establishment of the CCBG and its decision to begin the process of collecting statistics and building a reliable database. This move signalled the importance that Governors have attached to the collection of statistics in the region for the purpose of using the data first for comparisons and analysis of macro-economic convergence and secondly for use in a monetary union to inform policy decisions of the union. The discussion that follows proposes lessons that SADC could learn from experiences of other regional blocks engaging in similar economic integration efforts.

First, coordination and good cooperation of statistics bodies in SADC is a lesson that the region can learn from the experiences of the Eurostat and Afristat and their national agencies, central banks and regional central bank. The experience elicited here shows that an important coordination role is undertaken by a regional statistics body. This approach could assist SADC to address issues related to bringing harmonisation of data standards throughout the region. Secondly, it is also important that collaboration with the suppliers of data like the CCBG should be intensified so that common programs can be jointly conducted to ensure that data collection procedure are standardised at an early stage so that accuracy and comparability are entrenched. Such cooperation was observed with the Afristat and Eurostat as they proceeded with supporting the move towards a monetary union. It is also important at this stage to mention that SADC's experience and environment is different from that of the Euro area and therefore some aspects of this cooperation may have to be developed at country level with national agencies.

The other lesson for SADC agencies is the development of regional legal frameworks that gives the mandate to all collectors of data the right to perform this task. This will prevent conflicts on who has a right to collect which data. It will also lessen duplication of data collected by the various agencies which at times may differ. In addition, the legal backing tends to bring with it credibility for the collector and introduces trust and professionalism to the users.

Finally, moving forward an assessment should be conducted through a discussion on which future institutions are needed to support a future monetary union with sound statistics that will be relevant for the application of a single currency exchange rate policy by a SADC central bank. In this assessment a strategy is required on how the region utilises the support it receives from international institutions to be increase its resources for the Statistics offices in the region.

7. Conclusions

This paper sets out background on the development of statistics in SADC taking into consideration the noble idea of preparing the region for a monetary union in 2016. It became clear from the analysis and descriptions provided above that SADC has embarked on a

process to achieve regional integration as a means of growing economies in the region. It is through this approach that economic growth and financial stability can be achieved and poverty reduction and the eventual eradication can be ushered in.

It is not surprising that to move forward with the project of regional integration, countries and their specific agencies like the central banks have to prepare legal instruments to enable the implementation of processes that sets the pace and direction for the realisation of deeper integration in the future. This process has included studying other regional economic blocks, in particular the European Union and the European Central Bank (ECB), and many interactions to seek guidance and learn from them.

The process has been rich and rewarding in a sense that it has allowed SADC institutions to interrogate the question of whether the path it follows should be a total replica of what happened in Europe. There are different responses to this question, with some arguing that SADC with its basic economies is far away from to the feat achieved by the Europeans. The other view argues that Europe should not be the basis of what can and cannot be achieved in SADC; the region must chart and carve its own future fortunes and make its own mistakes. These mistakes on the one hand should not be costly for a region that is already home to some of the most poverty stricken countries in sub- Saharan Africa.

To deliver some of these countries out of the jaws of poverty, statistics that are accurate, reliable and timely should be compiled and disseminated to the public so that public users can make wise policy decisions that will have an impact across the region.

The Committee of Central Bank Governors in SADC has demonstrated the ability to collect and compile these statistics over a period of time and they are posed to strengthen their involvement in this arena to build a solid basis for a future regional central bank in 2018. Consistent capacity building continues in the CCBG and in individual central banks in collaboration with other international institutions and there is evidence that adherence to international standards like GDDS that encourage the use of uniform methodologies for collection, compiling and processing of data will improve harmonization and make comparison realistic. This ability to compare data is critical for the analysis of macro economic data required for convergence and policy implementation.

There are challenges ahead for the central banks and other statistics collectors including the SADC Statistics Agency in that there is a lack of legal clarity with regard to collection of statistics especially for the region. Issues pertaining to harmonization of statistics and who drives the process for the region should be addressed. Lastly, there is a need for better cooperation and coordination of activities related to statistics and finally division of labour should be encouraged and more collaboration at regional level so as to prevent duplication of statistics collected. Most importantly though, this will allow for the development of a SADC statistics vision that will ensure that capacity is built to produce quality, reliable and accurate data for future use in a monetary union by its inhabitants, foreign investors and institutions.

References

Afristat, 2001, “Contribution to Statistical Capacity Building in Member States During the 1996 – 2000 Period,” Seminar on the Launching of the Study on “Afristat after 2005,” from seminar of 7 – 9 May 2001 available on the web at http://www.Afristat.org.

Bull, Peter, 2004, The Development of Statistics for Economic and Monetary Union (Frankfurt am Main: European Central Bank).

Committee of Central Bank Governors in SADC and Committee on Payment and Settlement System of the Central Banks of the G10 Countries, 1999, “Payment Systems in Southern African Development Community,” (Basel: Bank for International Settlements).

Committee of Central Bank Governors in SADC, 2009, “Recent Economic Development and Statistics for SADC Countries” (Pretoria, South African Reserve Bank).

Committee of Central Bank Governors in SADC, 2008 “Report on the Development of a Monetary and Financial Statistics Database,” (Pretoria, CCBG Secretariat).

Declaration And Treaty of SADC, 17 August 1992.

Dziobek, C, and A.K.L. Al – Mansouri, 2006, “Providing Official Statistics for the Common Market and Monetary Union in the Gulf Cooperation Countries” (GCC): A Case for “Gulfstat,” IMF Working Paper 06/38 (Washington: International Monetary Fund).

ECB Statistics, 2003, Brussels available on the Web at http://www.ecb.int.

Fasano, Ugo, and Zubair, Iqbal, 2002: Common Currency, Finance and Development, Vol. 39, December.

Krueger, Russell, and Ettore, Kovarich, 2006, “Some Principles for the Development of Statistics for a GCC Currency Union,” IMF Working Paper 06/141 (Washington: International Monetary Fund).

SADC Protocol on Finance and Investment 18 August 2006.

SADC Subcommittee of Banking Supervisors, May 2009, “Report to the CCBG May 2009”, Document I (Pretoria, CCGB Secretariat).

Sturm, Michael, and Nikolaus, Siegfried, 2005, Regional Monetary Integration in the Member States of the Gulf Cooperation Council, ECB Occasional Paper Series No. 31, June (Frankfurt am Main: European Central Bank).

Convergence in the SADC and African economic integration process: prospects and statistical issues

Ivan Zyuulu[1]

Introduction

Convergence among countries with significant diversity or at different levels of economic development, as is the case in Africa, presents a platform for least developed countries to catch up. Poorer countries on the continent would attain levels of development that may reduce disparities. Regional economic communities realise that they cannot achieve economic union status unless there is sustainable macroeconomic convergence, which encompass activities aimed at promoting policies and strategies through which regional economic community member countries can work together to ensure monetary cooperation, secure macroeconomic and financial stability, facilitate intra-regional trade, and promote high employment as well as sustainable economic growth.

A number of regional economic communities in Africa have evolved over time to take into account the ever increasing challenges of globalisation. The birth of the European Union and the African Union (Mutasa 2003) among other processes has been inspirational in reviving regionalism in Africa. Key instruments that are at the disposal of governments to steer their economies towards an economically viable area include, among other indicators: inflation, fiscal balance and current account balance. The Southern African Development Community (SADC) has put in place a framework for achieving macroeconomic convergence in the region which requires commitment from member countries. Equally, SADC member countries are required to have quality statistics which are cardinal for the formulation of appropriate macroeconomic and financial policies as well as monitoring performance. This entails that member countries need to adopt sound statistical practices which are internationally accepted and promote best practices in the dissemination of economic and financial statistics.

Macroeconomic convergence – theoretical aspects

Macroeconomic convergence is a concept that has gained popularity for a variety of reasons. Proponents of economic convergence say that coordination of economic policies leaves countries better off without others being worse off. By cooperating to coordinate policies to take account of spillovers, each country may better achieve its specific objectives. Convergence is a prelude and is crucial to economic integration. The basics of economic integration were promulgated by Hungarian Economist Bela Balassa in the 1960s. Balassa indicates that as economic integration increases, barriers of trade among countries diminish.

It often makes sense for countries to coordinate their economic policies to generate benefits that are not possible otherwise. For instance cooperation in international trade by setting

[1] Bank of Zambia. The paper was prepared with the research assistance of Jacob Lungu who contributed a lot to ensure that the paper was completed on time. However, the views and interpretations expressed in this paper are those of the author and do not necessarily represent the views of the Bank of Zambia.

zero tariffs against each other, countries are likely to benefit relative to the case when countries attempt to secure short term advantages by setting optimal tariffs. Benefit may accrue to countries which liberalise labour and capital movements across borders, coordinate fiscal and monetary policies and who coordinate resource allocation. Balassa adds that economic integration tends to precede political integration. He believed that supranational common markets, with free movement of economic factors across national borders, naturally generate demand for further integration.

Economic convergence exists (Paola Barrientos 2007) when member countries tend to reach a similar level of development and wealth. According to Solow's economic growth model, an economy converges towards a steady state due to diminishing returns to investment in physical capital. Solow assumed that countries are equal in all aspects but their initial levels of capital per capita and poor countries have higher marginal capital productivity than rich countries, thus will eventually catch up. Solow's assumption was affirmed by the findings of Dowrick and Ngunyen (1989) where convergence was confirmed among developed countries. However, it was concluded that convergence does not apply among the poorest world economies. Pesaran (2007) nonetheless, cautioned that the conclusion of the existence of a convergence club may be spurious results, reflecting inconsistency in model structure, choice of sample period and data generation problems.

Three overriding reasons are cited in the literature for the absence of convergence. Sachs and Warner (1995) firstly, indicate that technology affects comparative advantage and has a tendency to increase economic growth. This conclusion of the role of technology is consistent with the findings in Goo and Park (2007). Secondly, they state that convergence holds among countries with sound human capital base and use of modern technology. Thirdly, Sachs and Warner point out that poor countries generally have low long-term potential. They, however, note that countries tend to grow faster when the gap between their current income and their long run potential is greater.

Economic Integration can be categorized into four stages depending on the degree of integration. These stages include:

- A Preferential Trade Agreement (PTA), where partner countries offer each other tariff reductions to a set of products. In other cases countries may agree to eliminate tariffs among themselves, but maintain their own external tariffs on imports from the rest of the world to form a Free Trade Area.
- A Common Market is a form of integration which establishes free trade in goods and services, sets common external tariff among members, in addition allows free mobility of capital and labour.
- The other form of integration is an Economic Union, which typically maintains free trade, set common external tariffs, free mobility of capital and labour and also regulates some fiscal spending.
- The next stage of integration is a Monetary Union whose salient feature includes a common currency among a group of member countries. This entails formation of a central monetary authority which will determine monetary policy for the member countries.

Depending on the degree of integration, member countries will be required to meet some convergence criterion. These may include among others, stable institutions, functioning market economy, removal of national barriers to flow of funds and harmonisation of regulation and supervisory standards for financial institutions.

Status of macroeconomic convergence in SADC

The Southern African Development Community has sequenced a number of activities in order to move toward economic integration in the sub-region. SADC launched a Free Trade Area in August 2008. According to the SADC Regional Indicative Strategic Development Plan (RISDP), once the FTA is attained, Customs Union will follow in 2010, thereafter in 2015 a Common Market will be formed. In 2016 a monetary union will be formed and a single currency will be introduced in 2018.

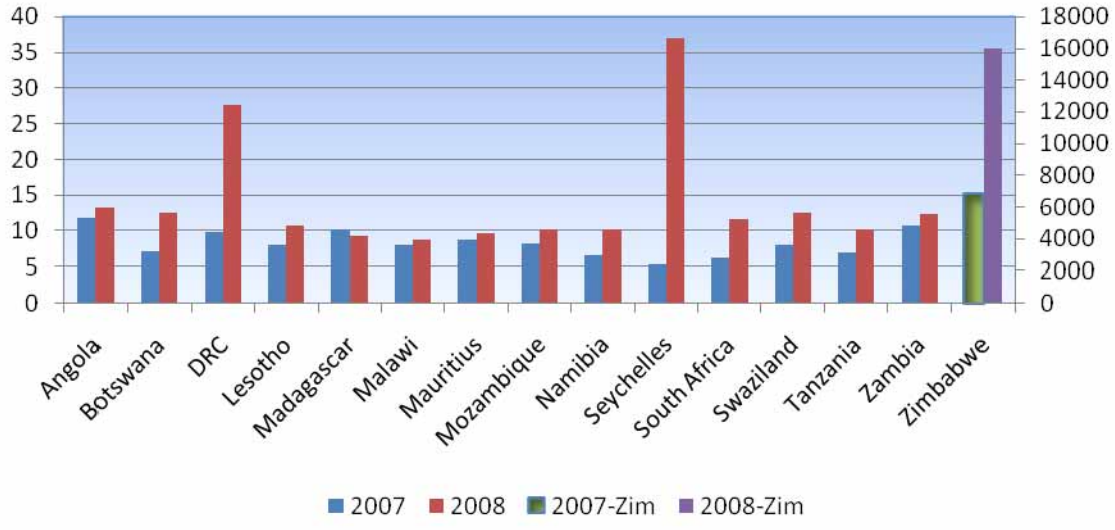
In order to prepare for the various degrees of economic integration set out in the RISDP, the Southern Africa Development Community has set itself four macroeconomic convergence benchmarks. These include attainment of single digit and stable rate of inflation, reduction in the ratio of budget deficit to GDP, ratio of public and publicly guaranteed debt to GDP and should take into account the debt sustainability index and status of current account should be in line with the Finance and Investment Protocol. These benchmarks are used to assess macroeconomic convergence at SADC level. A study conducted by Hakim Ben Hammounda, Stephen N. Karingi, Angelica E. Njuguna and Mustapha Sadni Jallab (2007) using different statistical tests showed significant negative coefficient of time when standard deviation of inflation was regressed with time.

This indicates a tendency of monetary policy convergence among SADC countries. Other analyses they carried out included the unit root test which was applied to data sets (1987–2002 data) of more than half of the countries in SADC including Madagascar, Malawi, Namibia, Swaziland, Tanzania and Zambia. The test rejected the presence of unit root, which imply convergence to regional inflation mean. At the time SADC countries showed some evidence of convergence in inflation, an indication of possible coordination with desired results in monetary policies. This was affirmed by the Economic Commission for Africa Southern Africa Office (2007) that the number of countries registering inflation rates within single digit increased steadily from four in 2002 to 9 in 2006 and 13 in 2007. The Commission indicated that apart from Zimbabwe, the rest of the SADC countries projections for 2007 were within the single digit range of 4–9 percent. However, the 2008 inflation outturn for most SADC countries, except Madagascar, Malawi and Mauritius was above the single digit threshold. The increase in inflation was due to high food and energy prices (see Chart 1).

Chart 1

Inflation in SADC countries

2007–2008



A report on the fourteenth meeting of the Intergovernmental Committee of Experts for Southern Africa projections for 2008 indicated that D R Congo, Swaziland and Angola would miss the less than 10.0 percent inflation target for 2008, with the three expected to record 10 percent rate of inflation. The committee further pointed out that Zimbabwe would continue to be in a hyper inflationary environment while other countries in the region were projected to meet the inflation target.

Less than 5 percent of budget deficit as a percentage of GDP

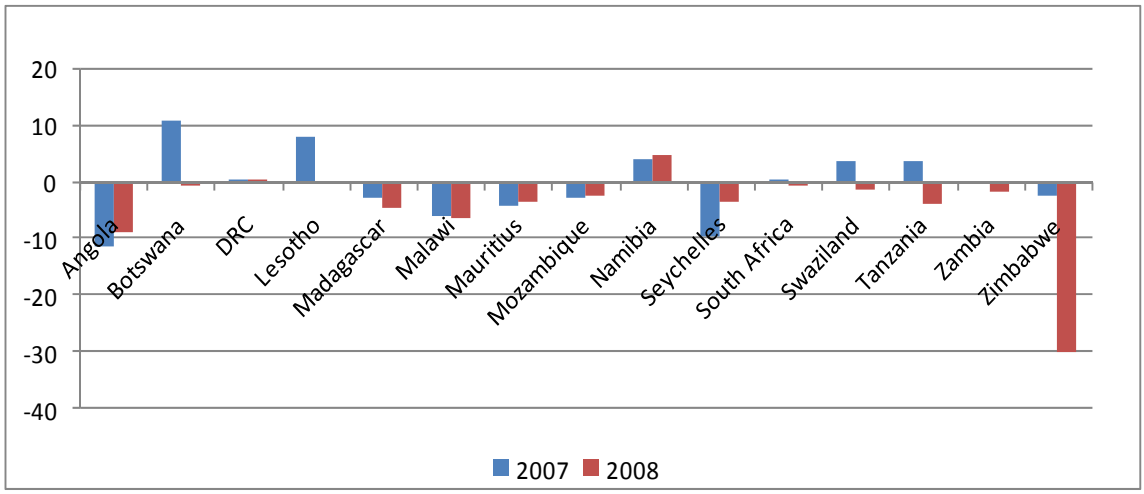
The Bank of Namibia, in a paper entitled Recent Developments in SADC (2006), indicated that most countries showed no improvement on average as public deficit increased to 3 percent of GDP in 2005 from 2.7 percent recorded in 2004. However, this was within the limit of less than 5 percent budget deficit as a percentage of GDP set in the SADC macroeconomic convergence criteria. The paper further states that Botswana and Lesotho with budget surpluses of 1.2 percent and 1.5 percent of GDP respectively, were the countries with good fiscal performance.

A study conducted in 2007 for the Friedrich Ebert Foundation by Tatiana Rakotonjatovo and Eric N. Ramilison found that the majority of SADC countries are still confronted with high budget deficits mainly due to the need to develop social and economic infrastructure. Similarly, the Economic Commission for Africa found that a number SADC countries were still grappling with fiscal deficits, with Angola, Zambia and Zimbabwe having widening budget deficits in 2006. In 2007, the region recorded an average fiscal surplus of 0.6% of GDP in 2007, lower than the 2.6% surplus achieved in 2006. All SADC member states, apart from Angola and Zimbabwe made tremendous progress towards achievement of the macroeconomic convergence target of fiscal deficit of less than 5% of GDP in 2008 (see Chart 2). This against the backdrop of declining commodity prices, hence less tax revenue for governments following the world economic slowdown.

Chart 2

Budget deficit as % of GDP

2007–2008



Less than 60 percent of public debt as a percentage of GDP

With regards public debt, the Bank of Namibia reported that there was a decrease in public debt with six countries recording a stock of public debt below the target of 60 percent of GDP. The Bank reported that there was an improvement in the public debt ratio in SADC

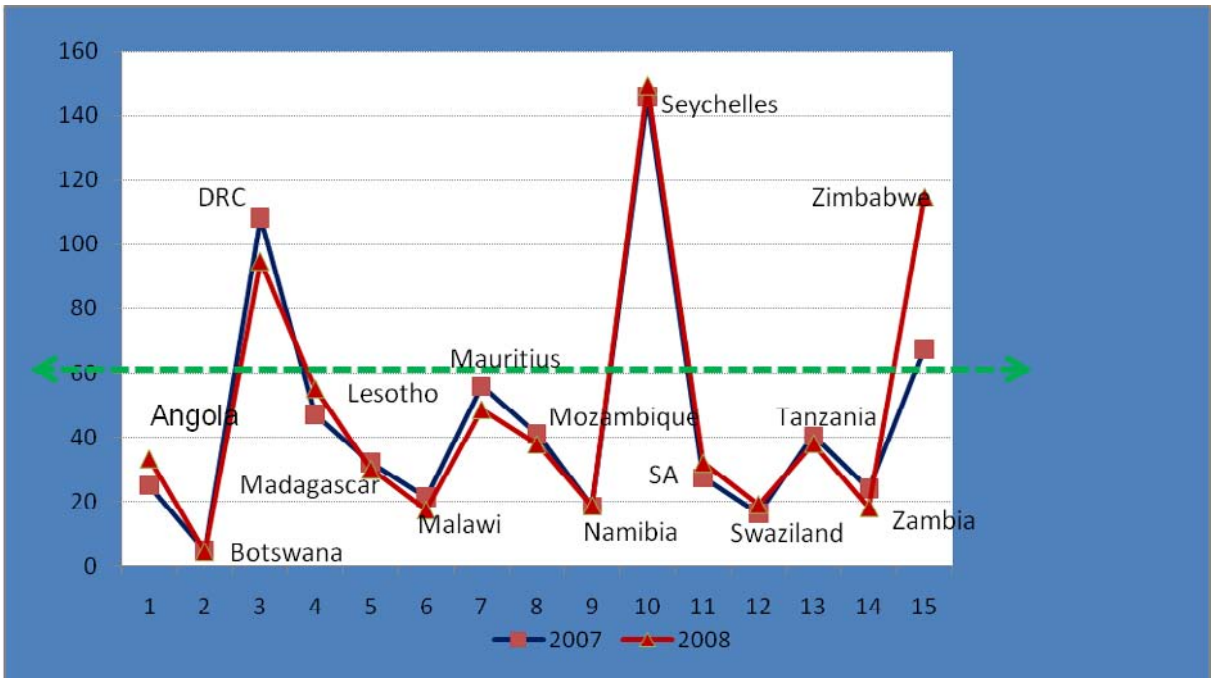
from 66.2 percent in 2004 to 56.4 percent of GDP in 2005. The reduction in the debt to GDP ratio was mainly on account of debt forgiveness extended to six SADC countries namely DRC, Madagascar, Malawi, Mozambique, Tanzania and Zambia under the enhanced HIPC initiative. According to the Economic Commission for Africa public debt to GDP ratio improved after debt forgiveness in the SADC region from 63.4 percent in 2002 to 44.9 percent in 2006, with a further projected reduction to 36.0 percent in 2007 (see Chart 3). As illustrated in Chart 3, only the DRC, Seychelles and Zimbabwe had ratios above 60 percent in 2007 and 2008.

However, David Maleleka (2007) views the achievement of the public debt benchmark as superficial because it was not driven by any improvement in the management of the economy in the respective countries.

Chart 3

Public debt as a % of GDP

2007–2008



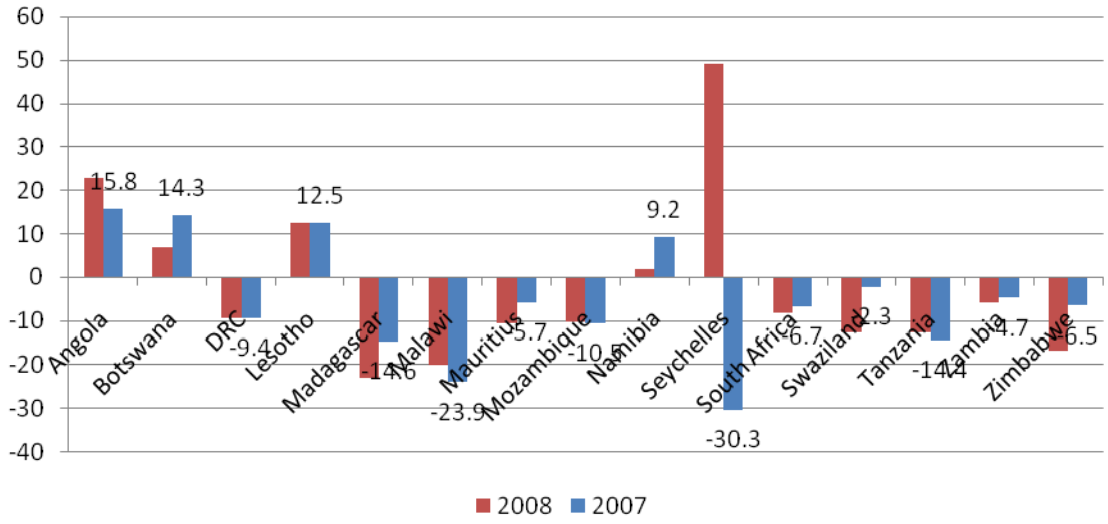
Less than 9 percent of GDP in current account deficit

According to the SADC Directorate of Trade Industry Finance and Investment, the region's current account balance deteriorated from an average deficit of 0.7% of GDP in 2006 to an average deficit of 1.8 percent of GDP in 2007, largely on account of a surge in intermediate imports (see Chart 4). The Economic Commission for Africa reported that in 2006, most of the SADC countries achieved the target of minus 9 percent balance on current account as a percentage of GDP. Current account status in 2005 as presented by the Bank of Namibia showed that current account as a percentage of GDP worsened to minus 4.0 percent from minus 3.3 in 2004, but still within the required convergence target of less than –9 percent. The Bank further reports that Angola, Botswana, Lesotho and Namibia recorded improvements in their current accounts, whereas the rest of SADC countries experienced worsening current accounts as percentage of GDP in 2005.

Chart 4

Current account deficit

2007–2008



Prospects for macroeconomic convergence in Africa

In a way macroeconomic convergence in Africa is already in motion through sub-regional groupings. These groupings have set benchmarks to achieve a climate of economic stability and growth which would enable trade and economic relations among countries in the region flourish and foster economic integration. Established sub-regional economic communities in Africa are acting as building blocks toward the entire continent's economic integration. To this end, sub-regional groupings have assumed formal frameworks to guide the transition process in order to promote harmonisation and convergence of national economic structures and macroeconomic policies.

Following the 1980 Lagos Plan of Action and the Abuja Treaty of 1994, a number of regional arrangements on policy coordination, economic cooperation or integration have been initiated and re-aligned to continental aspiration of economic integration. Several regional economic communities are in existence such as UEMOA, ECOWAS, COMESA, EAC, CEMAC and SADC. These communities have set macroeconomic convergence programs. Proponents of Africa's integration indicate that strong economic integration could present some opportunities among member states for increased trade, industrialisation and promotion of sustained economic development. Macroeconomic convergence can also help bring about macroeconomic efficiency, stability and presents a real opportunity for least developed nations to catch up. This entails Africa having efficient and non-distortionary markets. Economic integration would provide a wider market for African countries as well as a strong base for bargaining as a group on the world economic fora.

Factors limiting macroeconomic convergence

Africa faces a number of impediments to economic integration. According to the Journal of Business in Developing Nations (1998), Africa has yet to succeed in having a regional grouping that has all the three fundamental conditions necessary for the success of economic integration. These are sustained political dedication, regular growth of national

economies and no major economic sub-regional disparity. Daniel A. Tanoe (2007), in an analysis on macroeconomic policy convergence in Africa adds that limping economies can hardly constitute a viable economic bloc. He further states that countries with timid growth, insignificant production and manufacturing capability can hardly form a credible economic bloc.

Other limiting factors include inadequate and substandard transport systems, insignificant trade among African countries and lack of developed financial markets. Africa also lacks well developed infrastructure and has a number of restrictions on movement of both goods and factors of production across borders.

Statistical issues in macroeconomic convergence

Macroeconomic statistics are key in enabling policy decision makers plan countries' development process while at the same time such statistics are an essential tool for monitoring and evaluating economic performance against set targets. For macroeconomic statistics to be relevant in regional groupings, it is imperative to call for deeper harmonisation of economic statistics by employing internationally recognised compilation methodology, classifications and standards. This promotes cross country consistency and comparability. As part of the convergence process, conceptual frameworks, data sources and compilation methods of macroeconomic statistics should be harmonised based on internationally recognised standards such as the International Monetary Fund guidelines on the collection and compilation of various macroeconomic statistics. The benefits of such an integrated approach will increase policy significance of economic statistics, improve the capability of countries to produce data in a cost effective way and at the same time ensure better comparability and interpretability. Efficient tools for harmonisation of macroeconomic statistics are Special Data Dissemination Standards (SDDS) and General Data Dissemination System (GDDS), implemented by the IMF. In addition to the two systems, adherence to the IMF Data Quality Assessment Framework will ensure data integrity, methodological soundness, serviceability, accessibility, accuracy and reliability. Furthermore, use of IMF compilation guides on various statistics would promote harmonisation of statistics in the sub-region and Africa in general. (See also Krueger and Enoch's paper eslewhere in this booklet).

Definitions

The overall structure in terms of concepts and definitions should follow internationally accepted standards, guidelines, or good practices and these should be adopted by all member countries. In the absence of uniform definitions, member countries will be collecting different statistics, making comparability a daunting challenge.

Coverage

Statistical coverage, which should be standard in all member countries, when collecting macroeconomic data should be observed. A case in point here is a situation where some countries in the SADC region conduct consumer price surveys country-wide while others cover the capital city for the same surveys. This makes cross-country analysis a futile exercise.

Accuracy

To ensure accuracy and reliability, data sources should be credible and regularly assessed. Statistical techniques employed should conform to sound statistical procedures.

Timeliness

The IMF has established two dissemination standards, as mentioned earlier, namely SDDS and GDDS, through which countries commit to improve data quality and dissemination. Statistics should have adequate periodicity and timeliness and follow a predictable dissemination schedule. Periodicity and timeliness should follow internationally accepted dissemination standards.

Comparability

Integration demands consistency of definitions, as variations in basic concepts in various fields of macroeconomic statistics may cause data incomparability. To promote comparability and common interpretation, harmonisation of macroeconomic statistics is crucial.

Challenges in view of global financial and economic crises

The global financial and economic crisis has posed great challenges to most developing economies whose major export products are primary goods. With the tumbling of commodity prices, aggregate economic growth rate in these economies has slowed down. As a result of the crisis, countries have witnessed low export earnings, reduced revenue collections and capital flight. Other adverse effects include reduced foreign direct investment (FDI), low international reserves and widening fiscal deficits. These are threatening macroeconomic stability. Therefore, the major challenge is to maintain macroeconomic stability, curb capital flight and put in place strong measures to attract FDI and also promote economic diversification to manufacturing of secondary goods. Countries should formulate and Implement stringent financial system supervisory measures in order to strengthen the financial sector and make it resilient to external shocks.

The fall-out of the global economic crisis has made the road to regional and continental economic integration more challenging, as macroeconomic gains made over the last 10 years are being eroded at a fast rate. However, the devastating impact of the effects of the crisis is a reminder of the importance of macroeconomic convergence and regional integration. Anecdotal evidence seems to show that integrated regions such as the EU have provided better coordinated policy response to the global crisis. This has been more effective in calming the markets than the disjointed single country efforts in dealing with the effects of the financial and economic crises, particularly in Africa.

Recommendations

SADC Member countries are urged to continue working on achieving set targets despite the setback arising from global economic meltdown. Diversification of economies in the SADC region from primary goods producers to value addition would help most countries recover from the current economic downturn. Different levels of economic development in the region should inspire least developed to attain higher levels of economic integration, which will in turn facilitate accelerated growth and development. The choice is limited; economic integration is the viable way for economic development in the SADC and Africa in general.

Regarding macroeconomic statistics, member countries are encouraged to standardise statistical compilation, adopt internationally recognised standards and set time frame in which to achieve statistical convergence. Harmonisation of statistical definitions and data quality across the African continent as well as modernisation of government financial statistics will provide a firm foundation for pursuing macroeconomic convergence and economic integration.

Countries are further urged to adopt a formal arrangement of information exchange among statistical institutions such as central banks, statistical offices and finance ministries. In addition, the SADC secretariat should conduct surveillance in particular structural, institutional, and operational aspects, and provide technical expertise and assistance to help address any weaknesses in the statistics that are compiled and disseminated. Experience has shown that global economic and financial systems are forever evolving, in order to keep pace with these changes, the SADC Secretariat should continuously monitor statistical compilation and dissemination in member countries in order to meet the needs of the ever changing global economic and financial system.

Conclusion

Disparities in the levels of economic development among member countries in regional economic blocs and Africa as whole should not be a stumbling block, rather it should be an opportunity to speed-up economic integration to enable countries catch up, promote financial deepening, stabilise their economies, promote economic growth and provide a wider market. Economic integration will not only provide a wider market but also provide a stronger bargaining base in global fora and for mutual benefit in the form of accelerated growth and development among member countries.

Standardisation of statistical compilation would ensure availability of high-quality statistics and facilitate international comparability of data, and promote the analytical usefulness of statistics.

References

Bank of Namibia, 2006, Integrated Paper on Recent Economic Developments in SADC.

Barrientos, Paola, Theory, History and Evidence of Economic Convergence in Latin America, 2007.

Economic Commission for Africa, 2007, Macroeconomic Policy and Institutional Convergence in Member States of Southern African Development Community.

Economic Commission for Africa, Progress and Challenges Towards the Attainment of a Free Trade Area and a Custom Union in Southern Africa.

Hammouda, Hakim Ben, Stephen N. Karingi, Angelica E. Njuguna, Mustapha Sadni Jallab, 2007, Does Macroeconomic Convergence Lead to Growth? The Case of Africa.

Harri, Ardian,1998, Theoretical and Empirical Aspects of the Economic Integration and Trade Liberalisation.

International Monetary Fund, 2003, Monetary Union among Member Countries of the Gulf Cooperation Council.

Jenkins, Carolyn, 2003, Regional Integration in Southern Africa “Catch-Up and Convergence.”

Maleleka, David, 2007, Macroeconomic Convergence in Southern Africa Development Community, paper presented at the African Economic Conference at the United Nations Conference Centre, Addis Ababa.

Maruping, Mothae, 2005, Challenges for Regional Integration in Sub-Saharan Africa: Macroeconomic Convergence and Monetary Coordination.

Mutasa, Charles, 2003, Regional Integration and Debt in Africa, A comparative Report of Africa's Regional Grouping.

Nwachukwu, Iheanyi, 2009, Global Economic risis: Impact, Challenges in Nigeria.

Rakotonjatovo, Tatiana, Eric N. Ramilison, 2007, Regional Integration in Southern Africa. Vol. 11, Deepening Integration in SADC, Madagascar – Challenges for the Newcomer.

Saurombe, Amos, 2009, Regional Integration Agenda for SADC "Caught in the winds of change" Problems and Prospects.

The Journal of Business in Developing Nations, 1998, Impediments to Economic Integration in Africa: The case of COMESA.

United Nations Economic Commission for Europe, 2007, Does Financial Openness Promote Economic Integration.

Varblane, Urmas and Priit Vahter, 2005, An Analysis of the Economic Convergence Process in the Transition Countries.

Alternative reconsideration of output growth differential for West African Monetary Zone

E D Balogun[1]

1. Introduction

One of the conditionality for the commencement of WAMZ draws extensively from the convergence hypothesis which postulates that costs associated with unionization can be minimized if the differences in spatial distribution of income and opportunities between intending members at the international and national levels can be narrowed down or eliminated. Barro & Sala-i-Martin (2004) gave a two-fold definition of such convergence: firstly, they defined economic convergence as the narrowing of output gap between less developed and developed economies which accompanies international trade. The neoclassical growth model describes this as absolute or conditional β convergence if the economies have similar tastes and technologies, thereby converging to the same or their own steady state. Benos & Karagianis (2008) notes that a second form of economic convergence occurs if the dispersion of the cross-sectional distribution of a variable such as per capita income (measured, for example, by its standard deviation across a group of countries/regions) declines over time (σ convergence). Although Corsetti (2008) acknowledges the desirability of economic heterogeneity (especially one generated by sustainable policy pursuits), he argues that such could be inconsequential if independent national policy pursuits interfere adversely with regional macroeconomic stabilization around desired growth path.

The observation, since the commencement of WAMZ in 2000 is that this primary condition has been the most difficult to fulfill. Not only has there been persistent divergence in output growth rates among these countries, the prospect for attaining its convergence has also been weak thereby deeming commencement prospect also. If progress is to be made towards convergence, there is therefore the need to understand what generates the differentials growth path among these countries. In particular, there is the need to ascertain the role of nominal exchange rates volatility (appreciation/depreciation), under independent floating exchange rate regime as well as the independent monetary policy stance in stimulating growth in these countries. The objective of this study therefore is to ascertain the determinants or factors giving rise to these differences in the light of historical differences in independent monetary policy pursuits.

2. Related literatures

Several studies examine regional income convergence and its determinants globally from a macroeconomic perspective. At the policy level, regional convergence has been an objective of most governments all over the world and particularly in Europe since its inception as the European Economic Union (EEC) in 1957. Proponents of the European common markets

[1] E. D. Balogun is a Lecturer in the Dept. of Economics, University of Lagos. The views expressed in this paper are strictly those of the author.

argued that lower regional inequality is necessary in order for European Monetary Union (EMU) to be successful. However, the international evidence is mixed. For example, Barro & Sala-i-Martin (1991) have documented convergence at an approximate annual rate of 2% in the US states/regions for 1880–1988 and 73 EU regions for 1950–1985. In a recent study they found very weak evidence to support the theoretical assertion that migration from poor to rich economies fosters convergence (Barro & Sala-i-Martin, 2004). Furthermore, Chessire-Carbonaro (1995) reported mixed results for 122 urban EU regions. Recently, J.R Cuadrado-Roura (2001) found that after a period of regional convergence from 1960 to the mid-1970s, the process stopped and stabilized until 1996 in the EU regions. Benos & Karagianis (2008) notes that economic convergence occurs if the dispersion of the cross-sectional distribution of a variable such as per capita income (measured, for example, by its standard deviation across a group of countries/regions) declines over time (σ convergence).

Several new empirical literatures also emerged on the subject of output supply shocks especially in the late 1980s and early 1990s when the debate on similarities of shocks – i.e. the extent by which partner countries intending to adopt a single currency endure symmetric versus asymmetric shocks – acquired great prominence. This was the result of advancements in econometric techniques by Blanchard and Quah (1989) and other authors. The main underlying argument posits that if the incidence of supply and demand shocks and the speed with which the economy adjusts – taking into consideration also the policy responses to shocks – are similar across partner countries, then the need for policy autonomy is reduced and the net benefits from adopting a single currency might be higher. Hence, the similarity of shocks, and policy responses to shocks was perceived as a "catch all" property capturing the interaction between several Optimum Currecny Areas (OCA) properties (Masson and Pattillo, 2004).

Among the studies that examine the incidences of supply shocks are: Blanchard and Quah (1989), Bayoumi and Eichengreen (1992, and 1993). These studies estimate vector auto-regressions (VAR) for output and prices; restricting demand disturbances to effect on only prices in the long run while allowing supply disturbances to have long-run effects on both prices and output. In particular, they find positive correlations between the fundamental shocks in Austria, Germany, Denmark, France, the Benelux countries and Switzerland, while the correlation between these countries and the southern countries is weaker.

At the continental level, Buigut, and Valev (2004) estimated a two variable VAR model to identify supply and demand shocks for East African (EA) countries in order to determine if they are good candidates for a monetary union. Their analysis shows that contemporaneous shocks among the EA countries are mostly asymmetric with the exception of Kenya and Burundi that was positive and significantly correlated.

At the ECOWAS regional level, Fielding and Shields (2001) estimated an output and price shocks for CFA franc countries using a 4-variable (output growth, inflation, money growth and foreign inflation) VAR model to confirm a high degree of correlation between inflation shocks across countries. Fielding and Shields (2003) extend this study to WAMZ using a 3-variable (output growth, real exchange rate and money growth) VAR model and the terms of trade as an exogenous variable. The results suggest less real exchange rate volatilities for WAMZ countries and negative output shocks correlation, although the latter result is not significant. Houssa and Leuven (2004) analyzed the costs of a monetary union in West Africa by means of asymmetric aggregate demand and aggregate supply shocks but departed from previous studies that estimated the shocks with the VAR model. Instead, they discussed the limitations of the VAR model approach and apply a new technique based on the dynamic factor model. The results suggest the presence of economic costs for a monetary union in West Africa because aggregate supply shocks are poorly correlated or asymmetric across these countries. Although their studies also show that aggregate demand shocks are correlated between West African countries, their analysis also returned a verdict that it would not be an optimal policy choice to commence a monetary union for the region.

Also, Masson and Pattillo (2004) applied an "Augmented OCA Model with Fiscal Distortions" to evaluate the feasibility of a monetary union for Africa. It is based on the optimum currency area literature, which focuses on asymmetries of shocks, but further identifies another important asymmetry: fiscal distortions, under the assumption that the regional central bank is assumed not to be fully independent, but sets monetary policy to reflect *average* conditions (including fiscal deficits) in the region. As a result, countries that were very different with respect to fiscal distortion would be unattractive partners for a monetary union, because the central bank would produce undesirable outcomes for one or both of them. In this particular study, Nigeria was identified as an unattractive partner for the WAMZ monetary union, while suggesting selective accession to existing monetary union by intending members of this union to the WAEMU.

The major criticisms of the shocking studies are that the test results are ambiguous (Tavlas, 1994), and often in conflict (with no concurrence on its theoretical underpinning, e.g., on the relationship between exchange rate variability, trade and investment); De Grauwe (1990) observed the difficulty in constructing measures of future shocks. Mongelli (2002) noted that the shocking measures does not take into account the Lucas critique and the changes in structures due to changes in policy regimes, such as a "disciplining effect" on policy-makers as well as the effects of market liberalization. These studies also lead to the drawing of narrower borders for monetary integration, i.e., the "core group", than other type of studies. Due to the need for relatively long time series for econometric tests, these studies cannot reflect a progress under some properties, such as a change in policy preferences accompanying a fall in inflation differentials, in the more recent part of the sample period.

A recent study by Corsetti (2008), therefore suggest a reconsideration of output shocks criteria from the perspective of new Keynesians monetary theory that indeed, output shocks divergence under inefficient independent monetary policy should actually signaled the need for putting in place an overriding supra-national monetary policy controls that can remove the autonomy from national monetary authorities. While he acknowledges the desirability of economic heterogeneity (especially one generated by sustainable policy pursuits), he argues that such could be inconsequential if independent national policy pursuits interfere adversely with regional macroeconomic stabilization around desired growth path.

3. Theoretical framework and analytical model

For the purpose of this study, I lean towards Corsetti (2008) that analyzed monetary stabilization policies from a Neo-Keynesian perspective. Corsetti (2008) uses a new micro-founded model of the costs of adopting common currency, relative to an ideal benchmark in which domestic monetary authorities pursue country specific efficient stabilizations that encompass both demand and supply stabilization. The analytical framework is premised on the assumption of a closed economy populated by identical households, who derive utility from consumption of goods and leisure, i.e. their utility is decreasing in labour effort. In the tradition of macroeconomic models, especially as in many modern contributions to monetary theory, he posits that aggregate demand coincides with consumption expenditure, i.e. abstract from investment and government spending. From the demand side, Corsetti (2008) argues that if C denote aggregate consumption, and P its price (or CPI), then nominal aggregate demand is thus given by PC, and real domestic output YH coincides with real consumption expenditure, i.e. C = YH. Corsetti (2008) therefore related aggregate demand PC to a variable μ, which indexes the stance of monetary policy: a higher μ means that monetary authorities pursue expansionary policies, raising aggregate demand and thus nominal consumption. Corsetti (2008) therefore hypothesize that the dynamic aggregate demand in nominal terms which reflects optimal consumption and savings decisions by households can be written as follows:

$$\mu_t = \frac{1}{\beta(1+i)} \frac{1}{E\left(\frac{1}{\mu_t + 1}\right)} \tag{1}$$

Where β is the discount factor reflecting consumers' impatience, E denotes expectations of future variables and the equation makes it clear that, for given expectations of future prices and future real demand, current spending (corresponding to the current monetary stance) μ is decreasing in the nominal interest.

From the supply side, Corsetti (2008) assumes that output is produced in many varieties by specialized small firms with monopoly power and characterized by production function such that: $Y_H = Z_H \ell$, where Z_H denotes the level of productivity, identical across firms, ℓ denotes employment under the assumption that Z_H vary randomly at business cycle frequency. He further assumes that if firms face demand for output that is constant price elastic and preset prices which maximizes their market value, such that it results from charging the equilibrium markup over expected marginal costs, the following equilibrium conditions obtains:

$$P_H = mkp * E[MC_H] = mkp * E\left[\frac{wage}{Z_H}\right] \tag{2}$$

Where the marginal costs MC_H, the nominal wage divide by productivity and the equilibrium markup *mkp* is a decreasing function of the elasticity of substitution. As the price is fixed over the production period, the (ex-post) realized markup will vary inversely with marginal costs. Corsetti (2008) assumes that labour market is competitive and varies proportionally with the monetary stance μ and linking both

$$MC_H = \left[\frac{wage}{Z_H}\right] = \left(\frac{\overbrace{\mu}^{monetatr\ policy\ stance}}{\underbrace{Z_H}_{productivity}}\right) \tag{3}$$

Abstracting from Eq. 7, Corsetti (2008) characterized the natural rate of employment (output) if all prices were flexible (i.e. in the absence of nominal rigidities) by assuming that each firm would maximize current profit by charging the equilibrium markup over current marginal costs:

$$P_H^{flex} = mkp.MC_H = mkp.\frac{\mu}{Z_H} \tag{4}$$

Substituting the definition of μ, the production function $Y_H = Z_H \ell$, and re-arranging, yields the result that the natural level of employment (output), ℓ^{nr}, is constant:

$$\ell^{nr} = \frac{1}{mkp} \tag{5}$$

In the long run, ℓ^{nr} is a decreasing function given the monopoly of domestic firms and as goods become better substitutes, or regulation and competition policy reduces the average markups in the economy, the natural rate of employment and output rise. At business cycle frequencies, the natural rate of output fluctuates with productivity, i. e. $Y_H^{nr} = Z_H \ell^{nr}$.

For an efficient monetary stabilization, Corsetti (2008) examined the macroeconomic implications of random fluctuations in current and future productivity, and optimal policy response to stabilize the economy (demand shocks). He therefore argued that holding monetary stance μ (hence nominal wages) fixed, a positive productivity shock (an increase in Z_H) lowers marginal cost ***ex post***. But if prices are preset, firms cannot take advantage of higher productivity to lower prices and raise output: a fixed μ implies that aggregate demand is also fixed in nominal and real terms. As a result firms satisfy current demand using less productive inputs, while the positive productivity shocks opens a positive output gap: employment and output fall short of their natural rate, i.e., their equilibrium value in a flexible price allocation.

In response to an unexpected increase in productivity, monetary authorities can improve welfare by expanding aggregate demand via expansionary stance (in the case of positive shocks (and contracting it in response to a negative shock, as to rule out over-heating and excess employment). This it can do by setting monetary policy such that nominal marginal costs are constant during the period:

$$MC = \frac{\mu}{Z_H} = \tau \tag{6}$$

If the above holds, i.e. if private agents expect the central bank to credibly pursue rules such that $\mu = Z_H \tau$, optimal prices would remain constant in nominal terms also in the absence of nominal rigidities as there would be no difference between the Eq. 7 and Eq. 9. Thus, a monetary rule that satisfies this condition make nominal rigidities inconsequential, in that the sticky price allocation coincides with the flex-price allocation and the economy operates at a natural rate. Corsetti (2008) observed that Eq. 11 requires a central bank to commit to (a) align aggregate demand and (b) keep the price level along the predetermined path, indexed by τ.

With regard to interest rates and demand stabilization, Corsetti (2008) noted that traditional models of stabilization would require central banks to pursue interest rates policy corresponding to the optimal stabilization policy by substituting Eq. 11 into the dynamic demand equation, that is:

$$\frac{1}{\tau Z_H} = \beta(1+i)E\left(\frac{1}{\tau_{+1} Z_{H+1}}\right) \tag{7}$$

He then derived the interest rate corresponding to the implementation of the optimal stabilization policy as:

$$i = -\ln\beta + \ln\frac{\tau_{+1}}{\tau} + \ln\frac{1}{Z_H} - \ln E\left(\frac{1}{Z_{H,+1}}\right) \tag{8}$$

Corsetti (2008) concludes from this expression that given the path of price levels τ to which a central bank commits when it defines inflation targets at different horizon, and holding

expectation of future productivity constant, the natural rate of interest falls with current productivity gains – which, in the absence of a contingent optimal reaction by monetary authorities, would open a positive output gap that rises with anticipated productivity growth. He further maintains that the need to promote a non-inflationary growth as in the condition in Eq. 11 would require that monetary authorities not only respond to current productivity shocks, but also to current aggregate demand disturbances.

Against this framework, Corsetti (2008) analyzed and compared the costs of losing monetary autonomy when it translates into insufficient stabilization of national business cycles to the apparent noise generated by subscribing to a common monetary policy rules. He characterized the main inefficiencies from insufficient stabilization in terms of relative price distortions, which translates into suboptimal level of output and consumption. He therefore argued that if the central bank does not stabilize marginal costs completely, demand does not fall optimally when productivity is low. With preset prices, these turn out to be too high relative to factor costs, and firms supply too much relative to the flex-price level of output, and vice versa. He therefore concludes that a highly unstable monetary policy could potentially produce large welfare losses, up to dwarfing the costs of insufficient stabilization.

Corsetti (2008) introduced trade and international interdependence into the model via nominal exchange rates under the assumption that growth rates of marginal utilities are equalized across countries in Purchasing Power Parity. He argues that if the two countries involved in trade are perfectly symmetric ***ex ante***, it means that wealth and consumption are always equalized in nominal terms across countries. This implies that exchange rate depends on both home and foreign monetary stance. He concludes that a commitment to a monetary union (in which the two countries adopt a common currency or irrevocably pegged exchange rates offer a least cost than two national monetary authorities acting independently or even under an international monetary policy coordination but which yields undesirable results.

Analytical model

Since price stabilization around the optimal path is not the only objective of monetary policy of the WAMZ countries in the light of rigidities which inhibits the capacity of factor prices such as interest and exchange rates from performing effectively expenditure switching transmission mechanism, I lean towards Corsetti (2008), that monetary policy stance can also give rise to welfare losses due to insufficient stabilization derived from the case in which domestic productivity shocks are purely idiosyncratic.

I abstract from equation 6:

$$MC = \frac{\mu}{Z_H} = \tau$$

(6)

To note that productivity shocks in the context of its convergence to regional benchmarks would reflect the condition that

$$\mu = Z_H \tau$$

(7 a)

Whereby μ is the productivity shocks, ZH is the expectation that macroeconomic stance would keep prices constant, while τ is a vector of aggregate monetary stabilization stance. This suggests a reformulation of the effect of monetary policy stance on productivity shocks or output gaps as a measure of output dispersion such that:

$$\mu_{it} = \vartheta_t + Z_H \tau + \lambda y_{it-1} + \varepsilon_{it}$$

(8)

Where redefine the vector as: $\tau = [\Delta NER_{it-1}, M_2, CP_{it}, CG_{it}, i_{it}]$ where ΔNER_{it-1} is the lagged change in nominal exchange rate of the national currencies to the US $, their dominant reserve currency; M_2 is money supply, which is an important component of independent monetary policy targets of WAMZ countries, in the light of the use of both reserve and interest rates operating procedures, CP_{it} and CG_{it} represents banking sector credit to private and government sectors respectively, to capture the loose stand of monetary policy with regard to government borrowing and the extent of bias it implies for private sector credit; i_{it} denotes the overall interest rate policy stance of the monetary authorities, represented in this model by the monetary policy rate or minimum rediscount rates and finally yet the initial level of output growth. This gives us the following empirical specification:

$$\mu_{it} = \vartheta_t + \alpha_1 \Delta NER_{it-1} + \alpha_2 \pi_{it} + \alpha_3 CP_{it} + \alpha_4 CG_{it} + \alpha_5 M_2 + \alpha_6 i_{it} + \lambda y_{it-1} + \varepsilon_{it}$$

(9)

Where both the dependent and explanatory variables are as defined earlier, while ϑ_t refers to the fixed effects constants of the pooled regression equation. All the αs are the coefficients of the explanatory variables of the model, while λ represents the coefficient of the lagged value of output gap.

The expectation of the coefficient of nominal exchange rate in Eq. 9 α_1 is neutral since a home nominal depreciation following a home monetary expansion has no expenditure switching effects, but can potentially worsen terms of trade in favour of the foreign partner in trade. It can be potentially harmful if the foreign exchange content of domestic production is very high. On the other hand, α_2 is expected to be negative, since higher widening gap of inflation from desired level could lead to higher costs of production and consequently lower output. α_3 is likely to be positive, as expansion in credit to the private sector is expected to lead to output expansion (a positive shock) and therefore contributes to higher growth in output. α_4 is likely to be negative, if the potential goal of macroeconomic stabilization is to reduce the gap between consumption and its efficient level, which may vary with time depending on the state of the economy. Credit to government and especially monetary authorities borrowing from the public through public debt instruments as part of monetary control measures can critically stifle credit to the private sector, with a crowding out effect and adverse effect on output. α_5 is likely to be negative if an expansionary monetary stance originates from fiscal indiscipline, weak monetary authorities that lacks autonomy to restrain fiscal authorities or from inability of the monetary authority to adopt an appropriate monetary framework in the face of deep internal economic distortions. This would generally have adverse effects on output. α_6 is expected to be negative, in line with Corsetti's (2008) argument that given the path which monetary authorities commit when it defines inflation targets at different horizon, and holding expectation of future productivity constant, the natural rate of interest falls with current productivity gains. This could potentially open a positive output gap in the absence of a contingent optimal reaction by the monetary authorities, which rises with anticipated productivity growth. The sign of λ is expected to be negative as lower past values of output level is likely to be associated with higher output gap.

4. Empirical results

The regression results of Equation 9 which is the estimates of the partial effects of national monetary and exchange rate policy stance on production shocks asymmetry among participating countries in WAMZ is presented in Table 1.

Table 1

Pooled single equation regression results for the partial effects of monetary and exchange rate policy on WAMZ output

Equation 3.14

Dep. Variable: Real GDP, y_{it}
Method: Pooled EGLS (Cross-section SUR)
Linear estimation after one-step weighting matrix

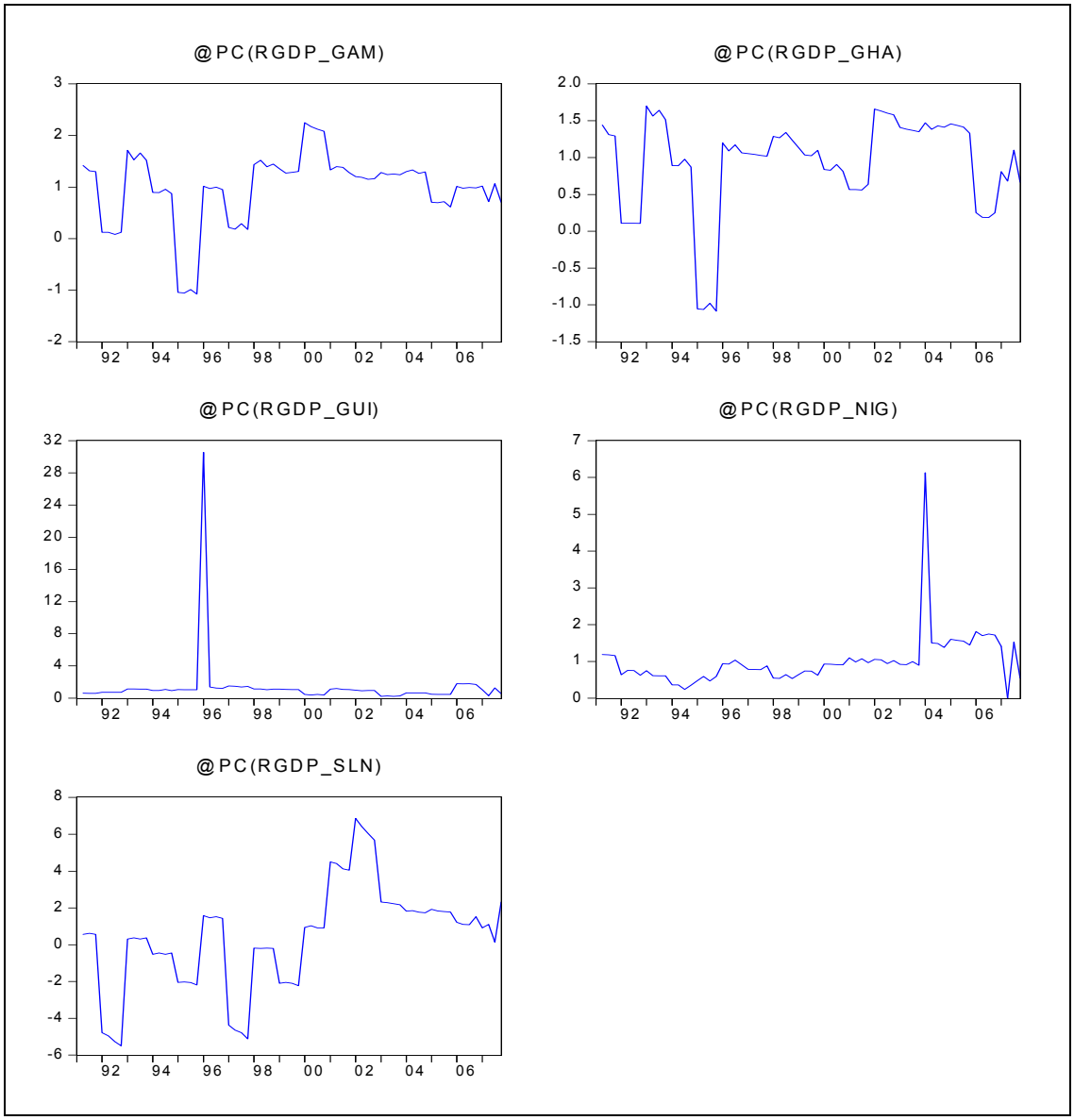
Dep. Variables			**a. *μit***			**b. y_{it}**		
Independent Variables			**Coeff.**	**Statistics**		**Coeff.**	**Statistics**	
Name	**Symbol**	**Coeff.**	**Value**	**t-Stat.**	**Prob**	**Value**	**t-Stat.**	**Prob**
Constant	ϑ_t	ϑ_t	3.47	1.2	0.24	426.8	0.5	0.65
Nom.ER App/Dep.	ΔNER_{it-1}	α_1	–0.00093	–0.4	0.66	–4.7	–1.9	0.06
Inflation Divergence	π_{it}	α_2	–0.0296	–3.3	0.00	–7.6	–1.4	0.16
Credit to Pr. Sect.	$Cp_{it}(-1)$	α_3						
Credit to Govt.	$CG_{it}(-2)$	α_4	6.69E-07	3.8	0.00	–0.0024	-14.8	0.00
Money Supply	$M_2(-1)$	α_5	5.21E-07	4.7	0.00	0.0030	19.5	0.00
Monetary Policy Rate	Log i_{it}	α_6	–0.268	–2.3	-268.6	–268.6	–4.0	0.00
Lagged Aggr. Output (GDP)	$y_{it-1}(-2)$	λ	–0.873	–2.4	1058.3	1058.3	9.9	0.00
Fixed Effects (Cross)								
_GAM–C			–1.72			–5471.1		
_GHA–C			0.92			–3244.0		
_GUI–C			–0.09			–6874.4		
_NIG–C			1.96			20942.2		
_SLN–C			–1.08			–5352.6		
Weighted Statistics								
R-squared			0.157			0.988		
Adjusted R-squared			0.131			0.987		
S.E. of regression			0.987			0.803		
F-statistic			5.954			2568.9		
Prob(F-statistic)			0.000			0		
Mean dependent var				–2.6			5.6	
S.D. dependent var				3.1			4.5	
Sum squared resid				310.5			205.7	
Durbin-Watson stat				1.1			0.3	

Two sets of equations were estimated. The first estimated the effect of monetary policy instruments on output gap, measured by the extent of divergence between the national growth targets and attainment, denoted by μ_t. The second evaluated the relative effectiveness of independent monetary and exchange rates policy on national economic performance, measured by the real Gross Domestic Product denoted by y_t. The adjusted R-squared of the regression results of μ_t dependent equation (see table 1a) is very low, suggesting that independent monetary and exchange rate policy pursuits explained less than 15 per cent of the pervasive output shocks within the WAMZ in the study period. A plot of the growth rates in a stacked graph as shown by Figure 7 suggests very strong business cycles asymmetry. Aggregate economic performance vacillated very widely around stagnation, with a good number of the countries recording declining growths, while most had never attained up to 5 per cent growth rates. The descriptive statistics associated with this graph is as shown in Table 2. The statistics shows that mean average growth rates ranged from as low as 2.2 per cent for Sierra Leone to about 6.6 per cent for Guinea.

Figure 1

Trends in real GDP growth rates of WAMZ countries

1991–2007



Gambia, Ghana and Sierra Leone had records of minimum growth rates that were negative, while Guinea output was most volatile ranging from a minimum of 0.9 per cent to a maximum of 190.4 percent. In general, these countries are characterized by slow growth rates. Another important source of asymmetry is the relative size of participating countries in the real aggregate demand of the region. Figure 2 shows that Nigeria accounts for a significant proportion of the output WAMZ (approximately 80 per cent).

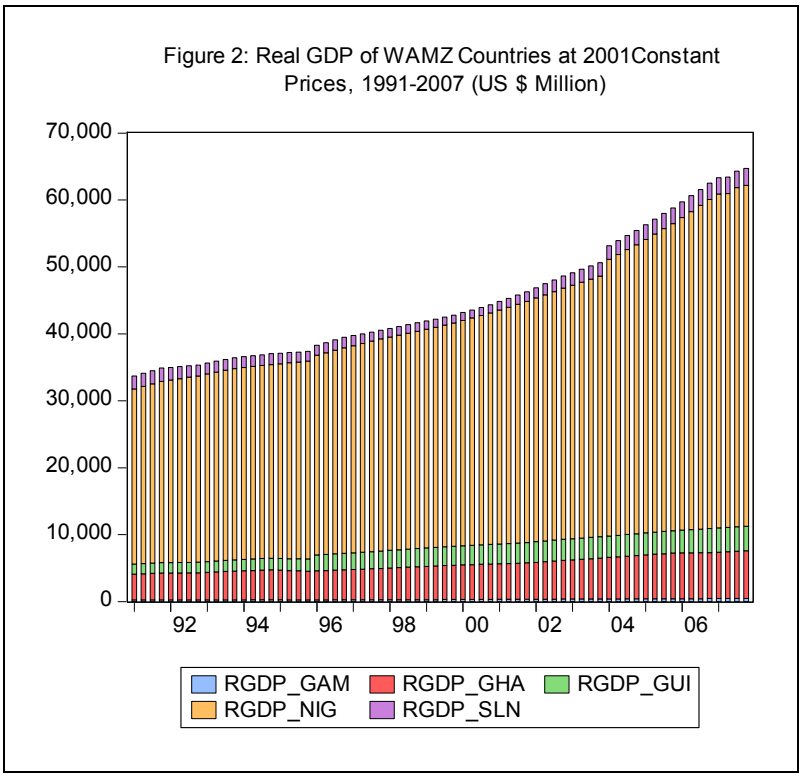
The overall estimate of the fixed effects constant, ϑ_t, for both equations of Table 2 are not significant, but also reflects very significant variation in its value across the participating countries in WAMZ. Whereas, it exhibited a negative spread from the regional average in all the other countries, it posted a positive average for Nigeria. This finding tends to confirm that there is a wide divergence among the participants with regard to the average outcomes of macroeconomic stabilization efforts, with a higher disproportionate weight in favour of Nigeria that is obviously an outlier of the proposed convergence club. This implies that pursuits of a less than optimal macroeconomic stabilization policy could have very negative spillover effects on efforts towards convergence. The trend in National Real GDP displayed in Figure 2 shows the divergent growth path which tended to accentuate these asymmetries.

Table 2: WAMZ Real GDP Growth Descriptive Statistics, 1991Q1 to 2007Q4 %)

	Gambia	Ghana	Guinea	Nigeria	S/Leone
Mean	4.0	3.8	6.6	4.1	2.2
Median	4.7	4.3	4.2	3.7	3.7
Maximum	9.3	7.0	190.4	26.9	30.4
Minimum	-4.2	-4.3	0.9	0.0	-20.3
Std. Dev.	2.9	2.7	22.8	3.3	11.4
Skewness	-1.2	-1.5	7.9	5.1	0.1
Kurtosis	4.8	5.1	64.4	36.5	3.2
Jarque-Bera	24.9	37.2	11217.4	3435.2	0.2
Probability	0.0	0.0	0.0	0.0	0.9
Sum	266.4	251.4	444.5	275.0	147.6
Sum Sq. Dev.	537.2	473.8	34445.1	702.8	8515.2
Observations	67	67	67	67	67

Source: Estimated with Eviews 6.1 from the Regression Data

The coefficient, α_1, of exchange rate devaluation, ΔNER_{it-1}, is not significant as a determinant of demand/output shocks within WAMZ in equation 1a, but exhibited an inverse relationship to aggregate output at about 6% confidence level. This result tends to suggest that the production and asymmetric shocks experienced by these countries is not caused by exchange rate devaluation. This is expected, since as a group of small countries, with non-tradable currencies, both export and import prices are preset in foreign traded currencies. As such, exchange rates movements do not necessarily perform the expenditure switching stabilization roles envisioned by traditional theory. Instead, exchange rate devaluation translates into higher costs of imported inputs and consumer goods. The magnitude of these costs can be very high if the foreign resource content of domestic production and consumption is also very high, and economic activity is dominated by non-tradable and primary commodities export. This assertion is consistent with regression results of Table 1b, which shows that 1% devaluation can potentially lead to about 4.7% decline in output.



On the other hand, the coefficient, α_2, of inflation divergence variable, π_{it} is negative and significant in the regression results of Table 1a, confirming the expectation that higher widening gap of inflation from desired level could lead to higher costs of production and consequently lower output. Although the t-statistics of 1b results show that inflation is not a significant determinant of aggregate output in WAMZ, it exhibited a negative relationship confirming the earlier assertion.

The performance of credit to the private sector variable, Cp_{it}, in the estimated equations was poor, and had to be eliminated from the regression, while the estimate of the coefficient, α_4, of the credit to government, CG_{it}, is significant and correctly signed but inelastic in both equations. The positive sign of this coefficient in 1a suggests that credit to government, especially through the issue of public debt instruments as part of monetary control measures can critically stifle credit to private sector via a crowding out effect with adverse consequence on output performance.

The coefficient, α_5, of the money supply variable, M_2, is significant, positive but inelastic, in line with New Keynesian stance that expansionary monetary stance can spur limited growth when economies operate at less than full employment capacity. This is most likely the case, given the slow growth rates, and inelastic supply which characterize these countries. However, the inelastic outcome of this coefficient points to the weakness of using reserve control via monetary targets as an instrument for promoting growth.

The coefficient, α_6, of monetary policy rate, i_{it}, is significant and exhibit the correct sign. This is consistent with the literature (Corsetti, 2008) that given the path which monetary authorities commit when it defines inflation targets at different horizon, and holding expectation of future productivity constant, the natural rate of interest falls with current productivity gains. This could potentially open a positive output gap in the absence of a contingent optimal reaction by the monetary authorities, which rises with anticipated productivity growth.

The coefficient estimate, λ, of lagged aggregate output variable, y_{it-2} is significant and have the right signs in both equations. The negative sign of this coefficient in 1a is consistent with theoretical expectation that lower past values of output level is likely to be associated with higher output gap. The finding that past trends in output is the major determinant of current output performance is remarkable. This implies that monetary policy pursuits, in the face of nominal and structural rigidities play insignificant role in demand/output stimulation. Instead, trend in business cycles and output tended to follow the natural rate path which fluctuates with productivity along the production possibility frontiers.

5. Summary and conclusions

This study presents an alternative reconsideration of traditional Optimum Currency Areas (OCA) macroeconomic convergence criteria as options for WAMZ commencement, in the light of recent advancements in monetary theory. It presents micro-founded models, rooted in New Keynesian traditions to show that tests confirming widespread divergence from ideal macroeconomic benchmarks with unsustainable independent monetary and exchange rates pursuits are more appropriate evaluating criterion for WAMZ instead of output convergence.

The results show that substantial macroeconomic costs have been associated with monetary autonomy reflected in the wide divergence of outcomes from set benchmarks, with very little prospect for moving towards macroeconomic convergence in the absence of internationally binding monetary policy coordination framework. Indeed, it was established that given the ***ex ante*** independent fiscal and monetary policy pursuits of each of the participating country, there is the likelihood that not more than two countries can meet output convergence criterion, suggesting that the commencement date could remain indeterminate. This result also shows that alternative empirical tests of OCA can further be explored to lend credence to this new perspective of output shocks implication.

In conclusion, it is desirable to note that the relative ineffectiveness of independent monetary and exchange rates policies stemmed in part from the lack of political autonomy of the national monetary authorities (the central banks, which hitherto led to a compromising stance with respect to its choice of instruments for monetary controls) and partly to inappropriate choice of instruments, with inherent bias against growth, but laying very strong foundation for inflationary spiral. It does appear that under this macroeconomic environment, there is little prospect for improvement except some alternative actions are taken to overcome the overbearing political influence.

References

Appleyard, D. R. and A. J. Field, JR. 1998. *International Economics*. © Irwin/McGraw-Hill Boston.

Balogun, E. D. (2007), "Monetary Policy and Economic Performance of West African Monetary Zone Countries", West African Journal of Monetary and Economic Integration, 8(1): pp 33–59.

Bayoumi T. and Ostry, J., 1997, "Macroeconomic Shocks and Trade Flows within Sub-Saharan African: Implications for Optimum Currency Areas", Journal of African Economics, 6, 69–182.

Bayoumi, T. and Eichengree, B., 1992. "Shocking Aspects of European Monetary Unification", NBER Working Paper No. 3949.

Bayoumi, T.; Eichengreen, B.(1993), Shocking Aspects of European Monetary Integration, In: Torres, F.,Giavazzi, F. *Adjustment and Growth in the European Monetary Union*, New York: Cambridge University Press, 1993, pp. 193–229.

Benos, Nikos and Stelios Karagiannis (2008) "*Convergence and Economic Performance in Greece: Evidence at Regional and Perfecture Level*", RURDS Vol 20 No. 1, pp. 52–69.

Blanchard, O. and D. Quah (1989), "Dynamic Effects of Aggregate Demand and Supply Disturbances", American Economic Review 79, pp.655–673.

Buigut, S. K. and N. T. Valev (2004), "Is the Proposed East African Monetary Union an Optimal Currency Area? A Structural Vector Autoregression Analysis", *Working Paper 04-07 Andrew Young School of Policy Studies, Georgia State University*.

Buiter, W.H.C., C. Corsetti, and P. A. Pesenti (1995). "A centre-periphery model of monetary coordination and exchange rate crises". National Bureau of Economic Research Working paper No. 5140.

Buiter, Willem H. (2000), "Optimal Currency Areas: Why Does the Exchange Rate Regime Matter", Centre for Economic Policy research (CEPR), Discussion Paper Series No. 2366.

Barro R.J. and Sala-i-Martin, X. 2004. *Economic Growth*. Cambridge, Massachussets; London, England: MIT Press.

Barro R.J. and Sala-i-Martin, X. (Ed.) 1991. Convergence Across States and Regions. *Brookings Papers on Economic Activity* 1, 107–158.

Corsetti, G. (2008), "A Modern Reconsideration of the Theory of Optimal Currency Areas", *European University Institute (EUI) Working Papers, ECO 2008/12*.

Chessire, P. and Carbonaro, G. 1995. Convergence/Divergence in Regional Growth Rates: An Empty Black Box? In: *Convergence and Divergence among European Regions* (Eds).

Christopoulos,D.K and Tsionas, E.G. 2004. Convergence and Regional Productivity Differences: Evidence from Greek Prefectures. *The Annals of Regional Science* 38, 387–396.

Cuadrado-Roura, J.R 2001. Regional Convergence in the European Union: From Hypothesis to the Actual Trends. *The Annals of Regional Science* 35, 333–356.

Eckey, H.-F., Dreger, C., and Turck, M. 2006. European Regional Convergence in a Human Capital Augmented Solow Model. University of Kassel working paper, 88, 1–19.

Fujita, M., Krugman, P., and Venables, A. 2001. *The Spatial Economy: Cities, Regions, and International Trade*. Massachusetts: MIT Press.

Debrun, Xavier, Paul Masson, and Catherine Pattillo, 2002, "Monetary Unions in West Africa: Who Might Gain, Who Might Lose and Why?" IMF Working Paper 02/226 (Washington: International Monetary Fund).

De Grauwe, Paul, (1990a), "Fiscal Discipline in Monetary Unions", International Economics Research Papers, No. 71. Katholieke Universiteit Leuven.

De Grauwe, Paul, (1990b) "The Cost of Disinflation and the European Monetary System", Open Economies Review, vol. 1 pp. 147–73.

European Commission. (1992), *One Market, One Money*, New York: Oxford University Press, 1992.

Fidrmuc, J. and I. Korhonen. 2004. A meta-analysis of business cycle correlation between the euro area and CEECs: What do we know — and who cares? BOFIT Discussion Paper 20.

Fielding, D. and Shields, K., 2001, Estimating the Macroeconomic Effects of Monetary Union: The Case of Trade and Output, *African Development Review* 15: 2–3, 126–145.

Fielding, D. and Shields, K., 2003, Economic Integration in West Africa: Does the CFA Make a Difference? Discussion Paper No. 001, Department of Economics, University of Leicester.

Fielding, D. and Shields, K., 2004, Do Currency Unions Deliver More Economic Integration than Fixed Exchange Rates? Evidence from the CFA and the ECCU, Journal of Development Studies.

Friedman M. (1953), Essays in Positive Economics, University of Chicago Press.

Guilaumont, P., Guilaumont, S., and Plane, P. (1988). "Participating in African monetary unions: an alternative evaluation", World Development, 16:569-76.

Gujarati, Damodar N. (1995). Basic Econometrics, 3rd Edition, McGraw-Hill.

Hausman, Roberto, Ugo Panizza, and Ernesto Stein. 2001. "Original Sin, Pass through, and Fear of Floating", Washington: Inter-American Development Bank, mimeo.

Hodrick, R.; Prescott, E. Post-war U.S. Business Cycles: An Empirical Investigation, *Journal of Money*, 1980 Credit and Banking, 29 (1), 1980, pp. 1–16.

Hoffmaister, A. W., Roldos, J. and Wickham, P., 1998, Macroeocnomic Fluctuations in Sub-Saharan Africa, IMF Staff Paper 45, 132 – 160.

Houssa, Romain and K. U. Leuven, 2004, Monetary Union in West Africa and Asymmetric Shocks: A Dynamic Structural Factor Model Approach.

Hughes Hallett, A.; Piscitelli, L. BEMUin Reality: The Effect of a Common Monetary Policy on Economies with Different Transmission Mechanisms, *CEPR Discussion Paper*, no. 2068, 1999.

International Financial Statistics Online Database 2003, International Monetary Fund.

International Monetary Fund, "Exchange Arrangements and Exchange Restrictions: Annual Report", Available via the Internet: http://www-int.imf.org/depts/mae/maeweb/databases/ AREAER/index.htm.

Jhingan, M. L. 2003. *Macroeconomic Theory*, 11th Revised Edition, © M. L. Jhingan, Vrinda Publications, New Delhi, pp. 773–787.

Jhingan, M. L. 2004. *Monetary Economics*, 6th Edition, © M. L. Jhingan, Vrinda Publications,New Delhi.

Lane, P. R. (2000) "Asymetric shocks and monetary policy in the currency union" Scandinavian Journal of Economics, 102 pp. 585–604.

Lucas, Robert E., Jr., (1976), "Econometric Policy Evaluation: A Critique", *Journal of Monetary Economics*, Vol. 1, No. 2, pp. 19–46.

Masson, P., and C. Pattillo (2004) "A Single Currency for Africa". Finance & Development, December 2004.

Masson, Paul, and Catherine Pattillo, 2002, "Monetary Union in West Africa: An Agency of Restraint for Fiscal Policies?" Journal of African Economies, Vol. 11 (September), pp. 387–412.

Masson, Paul, and Catherine Pattillo, 2004, The Monetary Geography of Africa (Washington: Brookings Institution).

Mongelli, Francesco Paolo (2002); ""New" Views on the Optimum Currency Area Theory: What is EMU Telling US?". Rivista di Politica Economica, Vol. 4.

Mundell, R. B.(1963) "The Theory of Optimum Currency Areas", *American Economic Review*, 51 (4), September, 1961, pp. 657–663.

Mundell, Robert A. (1973), “Uncommon Arguments for Common Currencies”, in H.G. Johnson and A.K. Swoboda, *The Economics of Common Currencies*, Allen and Unwin, 1973. pp.114–32.

Ojo, M. O. (2005), “Towards a Common Currency in West Africa: Progress, Lessons and Prospects”. *West African Journal of Monetary and Economic Integration, Vol. 5(2):pp.47–79*.

Tavlas, G. S. (1993), “The ‘New’ Theory of Optimum Currency Areas”, The World Economy, pp 663–685.

Tavlas, G. S., (1994), “The Theory of Monetary Integration”, Open Economies Review, Vol. 5 no. 2, pp 211–230.

West African Monetary Institute, 2007 Is The Fiscal Criterion Achievable In The WAMZ? Working Paper © WAMI, Accra.

World Bank ,2008. World Development Report and Indicators Washington DC.

World Bank Africa Database 2002 CD-ROM, World Bank, Washington, DC.

Session 3

Key variables: issues of definition, measurement and statistical improvement

Chair:	Manuel Marfán, Chairman of the Irving Fisher Committee
Papers:	SADC economic integration and statistical framework: issues of definition, measurement and statistical improvement Stanislaus T Mrema, Bank of Tanzania
	European statistical harmonisation and improvements to serve the needs of the European Economic and Monetary Union Steven Keuning and Alda Morais, European Central Bank
	Currency unions: key variables, definitions, measurement, and statistical improvement Charles Enoch and Russell Krueger, International Monetary Fund
	Statistical measurement, standards and definitional issues: towards data convergence? Rashad Cassim, Statistics South Africa
Discussants:	John Steytler, Bank of Namibia
	Ulrich Kohli, Swiss National Bank

SADC economic integration and statistical framework: issues of definition, measurement and statistical improvement

Stanislaus T Mrema[1]

1.0 Introduction

The Southern African Development Community (SADC) was established with the ultimate objective of achieving economic integration featuring Customs Union in 2010 and Monetary Union by 2016. Generally, economic integration derives relevance from the potential to achieve common goals more effectively by joint actions and efforts. The amalgamation in the SADC region strive to facilitate effective utilisation of regional resources for faster and sustainable economic growth unilaterally and in the SADC region altogether. This endeavour looks forward to achieve a common front in fighting poverty and human life miseries and promotion of regionally supported sustainable development plans and socio-economic inter-dependence of the Member States.

It is evident from similar arrangements found elsewhere around the globe that, if managed properly, integration arrangement benefits the region and the partners primarily from aspects such as increased market size, enhanced intra-regional trade, intra-regional investment flows, technology and experience transfers, and more correlated economic growth cycles. Studies on regional growth cycle convergence in the EU exhibited that deeper trade integration had strong direct positive effect on the synchronisation of regional growth cycles in the Euro area.[2]

To facilitate attainment of the SADC integration agenda, a convergence framework based on selected common key macroeconomic variables was developed and adopted by the SADC Member States, the thrust being to create necessary conditions and environment to allow monitoring, assessment and acceleration of the convergence process. Selected primary indicators (based on the best judgement of the SADC macroeconomic environment) include, single digit inflation rate, budget deficit not exceeding 5.0 percent of GDP, nominal value of public and publicly guaranteed debt less than 60% of GDP and current account deficit of less than 9.0 percent of GDP.

A regional statistical program that was instituted by SADC to support the regional integration process through provision of requisite statistical information forms one of the key elements in the attainment of the SADC regional objectives. The implementation of the SADC Statistical Programme is generally overseen and guided by the SADC Statistical Committee.[3] The SADC through the Committee has undertaken various initiatives in respect of the operationalisation of the statistical framework that include training (jointly financed by EU and SADC), special work on price statistics with objective of generating harmonized CPI for the region, capacity building in analysis of poverty reduction and millennium development goals

---

[1] Bank of Tanzania.

[2] See G. Tondl and I. Traistaru-Siedschlag (2006).

[3] See SADC RISDP.

in the member state.[4] The subsequent sections examine issues of definitions, measurement and statistical improvements on the selected SADC macroeconomic convergence variables.

2.0 Definition of Key Variables

This section provides definitions of macroeconomic variables which have been selected as primary indicators for convergence in SADC. In particular, the coverage summarizes the concepts, definitions and classifications that have been developed under the SADC paradigm to guide statistical practices in the Member States.

2.1 Inflation

In the SADC region, inflation is defined as the general increase in consumer prices of goods and services over a specified period of time. Inflation is generally categorised into headline inflation and core inflation, where the former is a measure of general level of inflation and the latter measures the level of inflation excluding certain items that face volatile price movements, e.g. food and energy.

In the region, it is the headline inflation that matters for a typical household because it measures the rate at which the cost of living is rising. The structure of the majority of SADC economies, distribution of economic activities and the rural urban superstructure confirms the use of headline inflation in assessment cost and standards of living. Thus for purposes of monitoring the macroeconomic convergence programme, the recommended measure is headline inflation, i.e. the all-items Consumer Price Index (CPI), with the exception of interest on mortgages. This is the measure of inflation that is likely to be most consistently available across all countries.

However, in the interest of achieving monetary policy objectives, Central banks in the region also measure underlying (core) rate of inflation that is less influenced by exogenous factors. The relevance and application of the core inflation in the convergence process compared to use of the headline inflation is that, the former exclude some items whose prices are considered unpredictable and less under the control of monetary policy.[5] Deciding on the items to exclude from the general inflation constitute main challenge for using core inflation in the region.[6]

2.2 Fiscal Balance

In the SADC region, budget deficit/surplus is as defined in the Government Finance Statistics (GFS) manual of the IMF. The balance comprises total Central Government Expenditure[7] and Net lending[8] less total revenue (including external grants), but excluding extraordinary financing items such as privatisation proceeds, other asset sales, etc. For purposes of monitoring the macroeconomic convergence programme in the region, budget deficit/surplus

---

4 See SADC Regional Statistical Programme.

5 Supply related.

6 Tanzania, food group which include all food items is excluded. Exclusion of energy sub-group is under consideration.

7 Central government includes budgetary accounts, extra-budgetary accounts, and social security funds.

8 Lending for public policy purposes less repayments of such lending, and acquisition of shares and other equities for public policy purposes less sales of such equities.

as a percentage of GDP shall imply overall deficit/surplus, calculated after including external grants as part of revenue. Analysis of performance of government fiscal operations includes indicator(s) to assess the level of Member States' dependence on grants and other forms of external financing and sustainability.

2.3 Public Debt

In the SADC the public debt is defined the sum of public and publicly guaranteed debt where public debt is the sum of all domestic and external obligations of public debtors which include the central government and its agencies; states, provinces or similar political subdivisions including their agencies; and autonomous public bodies such as state enterprises and subsidiaries in which they have joint ownership with the private sector and a major shareholding. Publicly guaranteed debt is the sum of all domestic and external obligations of the public or private sector that is guaranteed for repayment by a public entity.

2.4 Current Account Balance

The current account of the balance of payments is the sum of net sales from trade in goods and services, net factor income (such as interest payments from abroad) and net unilateral transfers from abroad. Positive net sales to non-residents correspond to a current account surplus; negative net sales to non-residents correspond to a current account deficit. In the SADC region, the calculation of the current account deficit/surplus is guided by the Balance of Payments Manual 5 (BPM5).

3.0 Measurement Issues

Measurement of the macroeconomic convergence variables represents unresolved challenges in view of the diverse economic backgrounds and methodologies inherent in SADC countries. There is wide evidence of statistical inconsistencies in the statistical data generated in the region and used in comparative assessment across the member states and policy guidance. Against this background, the main initiative in the SADC integration process has been to harmonise these diverse procedures and methodologies towards achieving a standard and consistent framework of statistical measurement.[9]

Much attention in measurement focuses at attaining consistency in qualitative and quantitative assessment of the key variables to enable comparative evaluation and harmonisation across countries to create measurement equivalence (using the same instruments and equality of measures) and functional equivalence (involves different instruments but addresses same concepts). However, since measurement equivalence may not necessarily imply similar measurement instruments, the best way to attest that they measure the same in all countries. Thus, functional equivalence is more precisely what is required. The arisen situation in the SADC region attests to application of statistical concepts and methodologies that are a mix of local and international standards. More so, statistical superstructures inherent in the member states have not been revamped or overhauled to accommodate statistical challenges. It is evident in the existing systems of failure to generate high frequency statistics that are necessary in assessment of recent macroeconomic challenges.[10]

---

[9] See SADC Regional Statistical Programme.

[10] Tanzania is still unable to generate quarterly GDP numbers.

3.1 Inflation

In practice, a number of approaches have been put forward to measure developments in levels of prices. Widely, the variable inflation is measured by use of indices generated from price developments of a chosen basket of consumption goods or by use of GDP deflator. There exist credible volumes of work on the measurement aspects of this variable and standard frameworks are put forward on the basis of the use of the outcome.

In line with the long term strategy of a Monetary Union in the SADC region, convergence in price stability features as a key priority. To that effect, the region adopted a consensus on the approach to measure inflation, by focusing on consumer price index generated using a basket of selected consumed goods and services. In practice, the member states generate inflation numbers based on CPI baskets developed from household budget surveys.[11] However, the CPI baskets are unique country wise in terms of coverage and composition, largely influenced by the structure of the respective economies. In essence, the implied disparities in composition of country CPI baskets constitute the main source of differences in inflation drivers in the member states. Technically therefore, the existing CPI baskets that are used to generate inflation numbers mirror the structures of the respective economies and may be more useful in prescribing country specific inflation-related policies than for the region. In fact, there is no internationally agreement on composition of the CPI baskets other than the general framework of measurement including the famous Laspeyres and Paasche formulations. The measurement methodologies are customarily country specific reflecting the fact that such indices are generally used for national purposes, such as wage arrangements and price stabilization policies, and are frequently subject to heated discussions and social and political negotiations (C. Frale and J. Mortensen – 2008). ***Table 1*** presents the basis of computation of the CPI used in measurement of inflation in selected SADC countries.

Table 1

Selected SADC Countries: Basis of Consumer Price Indices

Country name	CPI Coverage and Base Period	Items Covered
Angola	Luanda Province – 2000/01 HBS	224
Botswana	Whole Country – 2002/03 HBS	384
Congo, Republic of	Kinshasa, Income group – 1995	–
Malawi	Whole Country – 1997/98 HBS	–
Mauritius	Whole Country – 2001/02 HBS	194
Mozambique	Whole Country – Dec. 2004	–
Namibia	Whole Country – 1993/94 HBS	–
South Africa	All Provinces – 2000 HBS	1500
Tanzania	Mainland Urban Towns – 2000/01 HBS	207
Zambia	Whole Country – 1993/94 HBS	300
Zimbabwe	Whole Country – 1995	337

Source: IFS.

[11] Available data show differences in reference periods.

CPI Basket Coverage and Item Weights

As shown in table 1, the coverage of the CPI basket varies across countries. This has implications on the structure and levels of inflation across these economies. For example, in agriculture dominated economies, a basket that exclude rural areas will tend to record relatively high inflation levels driven by developments in food prices. In another dimension, coverage of the basket items may also differ significantly on case by case basis. In their review, C. Frale and J. Mortesen observe that, even after the harmonisation process in the EU region, the reference price index in Europe is based on a basket of goods and services and weights that are not homogeneous in all member states.

However, for purposes of calibrating monetary policy in the region, consensus exists to focus on core inflation to be generated using inflation-excluding-shocks approach. The approach shall involve exclusion of items whose prices are considered to be uncontrollable in the short run from the comprehensive measure of inflation. Literature indicate however that, within the inflation-less-shocks approach, variations in the efficacy of the results may occur because of the structural differences in the individual economies that determine/underlie composition of CPI baskets and the items defined as shocks or volatile.

Due to existence of various methods and alternative formulations to measure core inflation, empirical country studies do not present consensus on the choice of optimal approach. Proposals exist to base choice of method to generate core inflation to be data driven-tailor-made to empirical realities and needs of countries[12] and for the region. However, as it has been the case elsewhere, adoption of this approach is foreseen to improve the calibration and estimation of the relationship between inflation and monetary policy in the region.

3.2 Fiscal Balance

Measurement of budget balances raises conceptual and practical issues, which are compounded by lack of uniformity in usage among countries. For instance, the conventional budget balance can be measured on a cash basis or accrual basis. In the first case, the balance equals the difference between total cash flow expenditure and fiscal revenue. In the second case, the balance reflects accrued income and spending flows, regardless of whether they involve cash payment or not. As such, accumulation of arrears on payments or revenue result to higher balances when measured on accrual basis compared with a cash-based measure.

According to economic literature and practices by institutions such as the World Bank and the IMF, a couple of different ways to measure the conventional budget balance exists. The most commonly accepted measure used by government's world wide to define the conventional budget balance is the resources utilized budget balance. From a balance sheet perspective, the fiscal balance (net lending or borrowing) equals the difference between transactions in the financial assets and transactions in the financial liabilities.

For purposes of monitoring the macroeconomic convergence programme in the region, the overall deficit/surplus as a percentage of GDP is calculated after including external grants as part of revenue. This general practice in some instances is prone to generate incomparable fiscal aggregates due to factors including timing and form of recording transactions that is influenced by sophistication of frameworks supporting fiscal operations in the member states – mode of payment (real time or by cheque), accrual v/s cash, and financial or calendar year

[12] See Mick Silver - IMF Staff Papers (2007) 54.

accounts (***Table 2***). In economies[13] where government payments are made by cheques results into huge expenditure floats or adjustments to cash.

Table 2

Fiscal Years in Selected SADC Member States

Country	Financial /Fiscal Year
Tanzania	July – June
Botswana	April – March
Democratic Republic of Congo	January – December
Mauritius	July – June
South Africa	April – March
Swaziland	April – March
Zambia	July – June
Zimbabwe	July June

Source: IMF IFS.

3.3 Public Debt

Classification of debt and the eventual categorisation constitutes sources of divergence in measurement of public debt. Albeit achieving standardisation on categories of debts that qualify to be public debt, to include public and publicly guaranteed debt, there are factors profoundly driven by policy and operational frameworks found in the member states that are likely to generate differences in measurement and choice of assessment criteria. To avoid this inconsistence, there is a general consensus among SADC members to adhere to the structure of public and publicly guaranteed debt stipulated in the relevant manuals.

The choice of indicators to be used in the analysis of country debt positions lies in the discretion of a country, often driven by data availability and the objective of the assessment. On the basis of the acceptable framework or guidelines on measurement of this variable[14], a range of indicators are commonly generated grouped into nominal stock-of-debt indicators and net-present-value-of-debt indicators. In absence of a harmonised approach to the debt sustainability analysis countries are likely to base debt assessment on indicators favourable to their situation. For example a country with booming exports sector is bound to assess debt positions using exports based indicators.

Timing and recording of the national debts constitute potential source of incomparability in measurement outcome. Practically, debt recording follows a specific pattern that is rooted in the nature and treatment of debt categories. This situation would require harmonisation of debt declarations that shall stipulate when a debt should be declared as a debt. What should exactly go into the debt assessment indicators? What form of debt should constitute the public debt – total debt stock or total disbursed outstanding debt or total committed debt? Debts of what maturities should be considered in the assessment of the public debt position?

[13] Tanzania fiscal operations are reported on cheques issued and cheques cleared basis.

[14] The IMF External Debt Statistics, Guide for Compiler and Users.

Large debt ratios that involve long term debt spreads are likely to have less damaging impact on economic performance than a concentrate of short term debts.

Exchange rate developments in the individual countries impacts differently on the debt positions. While depreciation of the reporting currency would contract the country's domestic debt position in all aspects – reduce the total debt figure, improve debt service through implied export competitiveness, and improved current account balance through reduced imports – appreciation shall imply worsening debt positions. This presupposes that, if not taken into account during the assessment, exchange rate developments could lead into misleading judgement of country total debt positions.

The combination of different approaches and other country specific factors means that public debt indicators will tend to be inconsistent among the SADC member states, notwithstanding the attempts to abide to the standard procedures. To avoid this shortcoming there has been considerable efforts to adopt a common approach for measuring the public debt indicators.

3.4 Current Account balance

A good starting point is to ask what a current account deficit or surplus really means and to draw insights from the many ways that a current account balance is measured. First, it can be expressed as the sum of balances from goods, services, income and current transfers' accounts. Since balances from income and current transfers accounts are usually a small fraction of the current account balance, the current account balance can be taken as difference between the value of exports of goods and services and the value of imports of goods and services. A deficit then means that the country is importing more goods and services than it is exporting.

Second, the current account can be expressed as the gap between national (both public and private) savings and investment. Thus, the current account balance mirrors the saving and investment behaviour of the economy. A current account deficit may therefore reflect a low level of national savings relative to investment or a high rate of investment – or both. For capital-poor developing countries, which have more investment opportunities than they can afford to undertake with low levels of domestic savings, a current account deficit may be natural. A deficit potentially spurs faster output growth and economic development – although recent research does not indicate that developing countries that run current account deficits grow faster (perhaps because their less developed domestic financial systems cannot allocate foreign capital efficiently).

Third, the current account can be viewed in terms of the timing of trade. We are used to intratemporal trade – exchanging cloth for wine today. But we can also think of intertemporal trade – importing goods today (running a current account deficit) and, in return, exporting goods in the future (running a current account surplus then). Just as a country may import a certain good and export another under intratemporal trade, there is no reason why a country should not import goods of today and export goods of tomorrow.

Although the current account workings rests on the rigorous work by reputable sources such as IMF and World Bank, the measurement process and the outcomes are susceptible to inconsistencies based on level of sophistication of the relevant systems in terms of capacity to classify and capture transactions falling under the balance of payments of a country. Besides, timing and recording of the transactions exacerbates the situation. The balance of payments statistics for Tanzania, for example are reviewed throughout the year in attempt to improve data capture, recording and revisions, hence the positions reported within a period of a year remains subject to significant changes. This in inherent in the efficiency and capacity of the systems used in classification and recording of balance of payment transactions.

Cross boarder trade represent practical experience on varying country capacities and initiatives to capture and record balance of payments transactions. Notwithstanding the

substantive magnitude of cross boarder activities, in some of the countries, records are scant and particularly on the source, and such information is rarely included in balance of payments. To the extent that countries have adopted individual frameworks to capture and record cross boarder activities, it impacts differently on the balance of payments positions. There are practices that may be supported qualitatively that relate to undervalue or overvalue balance of payments which add to distortions on country statistics – such are associated with overheads of doing business in different countries.

However, measurement of the current account balance in the SADC countries is done in accordance to the principles set in the BOP Manual 5 of the IMF and the SNA 93. The current account balance (deficit/surplus) is measured as the sum of balances on trade in goods and services, balance on income and balance on current transfers account as a ratio of GDP.

4.0 Statistical Improvements

In view of the divergent economic backgrounds, there are efforts to develop frameworks and mechanisms with a view to improving the standard and reliability of statistical information and make them comparable across the SADC member countries. This has been the trend particularly under considerations for regional integration efforts that require integrated assessment and evaluation of member countries performances against selected convergence targets. On individual basis, countries generate statistics in the context of standard statistical frameworks but hardly comparable substantively between countries. Over time, there have been initiatives to improve statistics motivated by increased demand for the quality of statistical data for use in analysis and decision making in the wake of developments in social and economic interactions both in the individual countries and in the region.

Generally, statistical improvement, especially those related to key macroeconomic variables is based on frameworks and guidelines/manuals developed by renowned institutions in the respective disciplines such as the IMF and World Bank. In addition to the application of the standard frames, countries undertake processes to generate statistics considered ideal for particular cases or occasioned by specific requirement. Estimation of inflation provides a typical example of a common practice where individual countries work within the standard frame of definition and measurement to generate statistics that fits best and explains country specific phenomenon. Statistics used by countries to generate core and non-core inflation present vivid cases of disparity in terms of items that are removed from the general index or items considered volatile.

Similarly, SADC countries utilize standard statistical frameworks and methodologies to generate data that is used to facilitate assessment and evaluation of regional integration efforts. However, these frameworks offer a range of methods for collection, presentation and analysis of data, which culminates to incomparable structures. Sequel to this, there has been initiatives focused at achieving significant and ongoing improvement on the suitability, availability and quality of data in the SADC countries. At the same time, there is a concern that generation of statistics in the region should address the new challenges from both country and regional information needs.

In the wake of the new economic challenges in the region associated with the ongoing global financial and economic crisis, the need for credible assessment of the convergence efforts has received high priority in order to develop neat basis to prescribe realistic and workable rescue plan for the individual countries and for the region. Provision of quality and reliable statistics on the key macroeconomic variables constitutes the basis for the needed informed policy decisions and interventions. This is to be achieved through engaging into execution statistical programme that shall ensure timely availability of harmonized and comparable

statistics in the economic and social areas as well as provision of assistance to the member states in implementation of standard statistical procedures, development of customized procedures commensurate to the statistical structure and classifications found in the region. To consolidate achievements and the on-going efforts to improve on generation and quality of statistics in the region, following interventions are contemplated.

4.1 Legal Framework in Statistics

This intervention should target at creation of a legal framework in the SADC region that shall define the legal and economic bases of the functioning of regional statistics and regulate the legal relations associated with compilation, processing, dissemination, processing, dissemination, use and storage of statistical information.[15] The legal statistical framework shall include provisions to commit and subject the member states to comply with its operationalisation. The SADC should also spearhead strengthening of the statistical frameworks and policies in the member countries to guide statistical operations. The statistical frameworks found in some of the member states are unable to cope with statistical challenges calling for phase out or upgrade.

4.2 Harmonization

Notwithstanding adherence to the application of standardized statistical procedures by individual countries in the SADC region, there has to be a process to ensure consistency and uniformity in generation of macroeconomic statistics and indicators. The essence of harmonization rests on the rules of inclusion and exclusion. Globalisation brings a need from harmonisation of statistical practices across countries, as much as within countries (Len Cook, 2005). Through the harmonization process, countries have to calibrate approaches and methods used in generation of statistics to achieve comparable sets of data especially in the key convergence areas. The process encompasses a range of considerations including definition and measurement criteria. As it has been the case in other regional integration initiatives, this process has started in the SADC and definitions and measurement of the key variables has been adopted. However, much need to be done to achieve consistent sets of data across countries that shall facilitate achievement of the ultimate goals of economic and financial integration.

It is through this process that a solid basis shall be developed to facilitate development of effective policies for the region that shall address adequately the regional interests. At the moment the assessment based on statistics reported on the key variables may or may not paint a true representative scene of the situations in the reporting countries mainly on account of classification, categorization and measurement inconsistencies. Studies on assessment of debt and current account as feasible convergence variables underpinned potential possibilities of inconsistencies in reported numbers that is associated with classification, measurement and country specific issues. The analysis on debt underscores the need to iron out differences in defining and measuring this variable as it is potentially prone to distortions as it involves key aspects of national interest such the implementation of fiscal and monetary policies. Countries that have different and divergent public and publicly guaranteed debt will make it difficult to coordinate monetary and fiscal policies in the integration arrangement (CCBG Macroeconomic Convergence Research Paper – Reserve Bank of Zimbabwe, November 2008).

[15] See SADC Regional Statistical Programme.

Similarly, the study on current account balance as a convergence variable underscores the potential and justification for divergent country positions that is rooted in structural differences as well as the inter-temporal considerations. The reported current account positions of countries potentially reflect a future stream of flows to the economy, negative or positive, that makes it more appealing to develop framework that shall facilitate judgment of current account positions of countries through inter-temporal solvency. The envisaged framework will generate current account positions that are consistent with the inter-temporal solvency (CCBG Macroeconomic Convergence Research Paper – Bank of Tanzania, April 2009).

Equally, literature presents evidence for significant differences in generation of inflation statistics associated with definition and the specific economic situations. As it has been the case in other regional integration efforts, benchmarks have to be reached for development of harmonized price statistics where a stylized formulation will be developed to guide compilation of a comparable estimates of inflation across the member states.[16] This process in the SADC shall encompass synchronization of all practices surrounding approaches and methods of measuring and generation of inflation statistics.

4.3 Technical Assistance

It is imperative to embark in programs to assist the member states to implement statistical operations in accordance with the standard frameworks with a view to achieving consistency, while taking into account economic and structural differences inherent in the countries. This has become possible in the IMF member countries where surveillance and assessment of the impact of the reforms and recovery program is made possible by adherence to prescribed methods of data classification and reporting. This achievement comes out of huge efforts by the Fund in form of resources, training, technical assistance and joint missions with the member countries.

In the same spirit, technical support programs are in pace in the SADC region to rectify problems associated with the heterogeneity of the economic structures in the SADC member state. This has remained a continuous effort through the SADC functional structures and organs of the SADC including MEFMI through the Macroeconomic Management Programme, and various programmes executed under the CCBG and the SADC Secretariat. There have also been substantive collaborative efforts from the EU in support of the technical programs. Where possible more effort from the SADC member states should be sought to support the execution of the programs found key in the convergence process, while soliciting topping up from international development partners.

4.4 Modern Statistical Systems

The modern level of demand for the quality of statistical data is very high. The concept of quality in statistics is no longer limited to the timeliness and coverage of data. The role of information in decision and policy making is increasing steadily, driven by advancement and sophistication in operations exacerbated by the consequences of globalisation. Statistical data are used more and more frequently in complicated forms of analysis – econometric models, research, forecasts and solution of important economic and political problems. These recent developments have significantly re-shaped statistical requirements to the point that necessitate overhaul of the methods of statistical generation.

[16] EU adopted harmonized CPI in 1997.

The challenge in place is to generate high frequency statistical series on the key macroeconomic indicators across the SADC countries to assist in regional policy decisions. While some of the member states are far advanced, majority are trailing mainly explained by capacity and resource constraints. Statistical surveys are conducted in a staggered and in uncoordinated fashion across the member states which limit comparability which is the important aspect of quality of data. For improvement, it is thus imperative for the SADC to advance with the initiatives to facilitate implementation of statistical improvement mission drawing from the advanced member countries such as the RSA. What could be done to facilitate generation of high frequency and current statistics for GDP, health, and employment?

5.0 Conclusion

This paper examines definitions and discusses measurements and statistical improvement on selected macroeconomic variables under the SADC macroeconomic convergence paradigm. The paper observes that there are relentless efforts coordinated under the SADC Regional Statistical Programme to influence the evolution of statistical frameworks in the region to achieve statistical standards and practices that are consistent and comparable transversely across the SADC countries. The paper observes also that different statistical frameworks and backgrounds inherent in the individual member states hinder significantly the ability to cope with the magnitude and quality of the recent statistical demands. It is appreciated that statistical measurement issues and practices presents the ultimate challenge in the effort to generate comparable county and regional statistics. Development of legal frameworks in statistics, harmonisation, standardization and provision of technical support constitute suggestions for improvement.

Bibliography

IMF (2003): External Debt Statistics; Guide for Compilers and Users.

C. Frale and J. Mortensen (2008): The Challenge of Measuring Inflation.

Mick Silver: IMF Staff Papers (2007) – Core Inflation, Measurement and Statistical Issues in Choosing Among Alternative Measures.

IMF (2007): The Fifth Edition of the Balance of Payments Manual (1993).

Gabriele Tondl and Iulia Traistaru-Siedschlag: Regional Growth Cycle Convergence in the European Union, EI Working Paper No. 71, June 2006.

CCBG Macroeconomic Convergence: The Feasibility of Public and Publicly Guaranteed Debt Relative to GDP as an Indicator of Macroeconomic Convergence in the SADC Region (Zimbabwe 2008).

CCBG Macroeconomic Convergence: The Feasibility of Balance and Structure of Current Account as a Macroeconomic Convergence Indicator in SADC (Tanzania 2008).

IMF (2001): The Government Finance Statistics Manual.

Marco Cangiano and Teresa Ter-Minassian: Strengthening Fiscal Management in the Euro Area.

SADC Regional Statistical Program.

SADC Regional Indicative Strategic Development Plan.

Len Cook: Globalisation and Some Measurement Issues for Economic Statistics.

European statistical harmonisation and improvements to serve the needs of the European Economic and Monetary Union

Steven Keuning[1] and Alda Morais[2]

The foundations of euro area statistics

The European Central Bank (ECB) conducts the monetary policy in the euro area, with the primary objective of maintaining price stability. It also contributes to other ESCB tasks such as the conduct of foreign exchange operations, the oversight of payment systems and the stability of the financial system [1] [2]. The performance of these tasks requires a large amount of high quality statistical information, used inter alia to assess economic, monetary and financial developments in the euro area, to feed into the ECB projection exercises, to assess the transmission of monetary policy decisions of the ECB and to analyse financial integration and financial stability. Such statistics are provided by the ECB (DG-Statistics), with the assistance of the EU national central banks (NCBs), which, together with the ECB, form the European System of Central Banks, ESCB. Part of the data provided by DG-S is compiled by Eurostat (the statistical office of the European Commission) in cooperation with the EU national statistical institutes [3].

The preparation of ESCB statistics started in the late ’80s / early ’90s, i.e. even before the establishment of the European Monetary Institute (EMI, the forerunner of the ECB). The EMI was entrusted by the EU Treaty with the task of undertaking the statistical preparations for the establishment of the European Economic and Monetary Union (EMU). This entailed promoting the harmonisation of national statistics necessary to support the conduct of monetary policy of one of the largest economic areas of the world - the euro area [4]. It was decided to use available national statistics as much as possible and, within the ESCB, to pursue the necessary harmonisation of concepts, definitions and methods in compiling the national contributions to euro area statistics, thus gradually increasing their comparability, consistency and coverage. The national data must be sufficiently homogeneous to permit meaningful aggregations and, in particular in the areas of monetary, financial and balance of payments statistics, transactions and positions within the euro area need to be identified, to permit consolidation at the level of the euro area.

The aggregation and consolidation at the euro area level is performed by the ECB, while the NCBs collect data from reporting institutions and other national sources, compile contributions to euro area aggregates and transmit this national aggregated information to the ECB.

Traditionally, the collection of statistics for the euro area has been based on ECB legal acts [5]. Whenever the ECB’s statistical needs have been sufficiently well established and converted into cost-effective reporting schemes by the ESCB Statistics Committee and its Working Groups, these schemes are, in most cases, formalised in a legal instrument adopted by the ECB’s Governing Council [6]. In this way, most statistical information provided by the

[1] Director General, Statistics. European Central Bank. steven.keuning@ecb.europa.eu.

[2] Principal Economist-Statistician, European Central Bank, alda.morais@ecb.europa.eu.

ECB fulfils high quality standards in terms of harmonisation, coverage and methodological soundness of source data [7].

In order to keep the reporting burden contained, draft ECB Regulations on new or substantially enhanced statistics addressed to reporting agents are subject to a merits and costs assessment before the reporting requirements are translated into the legal act (so that mandatory reporting is confined to those requirements that are deemed very important for policy purposes). Alternatively, the ECB may issue Guidelines addressed to the NCBs, collecting from them data already existing at national level and without requiring them to impose additional requirements on respondents. Of course, this typically leads to somewhat less harmonized and lower quality data than those collected by means of an ECB Regulation.

To enable the ECB to publish timely euro area monetary, financial and balance of payments statistics,[3] there is a need for monthly data to be available to the ECB within about three weeks after the end of the month to which they relate.[4] Quarterly euro area accounts should be published within three months after the end of the quarter to which they relate, which requires an availability of e.g. quarterly b.o.p. and i.i.p. statistics after 80 days. In addition, it may be noted that statistical discrepancies are largely absent from these euro area accounts; for instance, the errors and omissions in the balance of payments are eliminated during the integration process. [8]

Main challenges faced during the 10 years of producing EMU [9]

A very important challenge since the first days of monetary union has been the successive waves of enlargement of the euro area (from initially 11 to 16 member countries today), implying long lead times in the preparatory work for both the ECB and the countries joining the euro area. Harmonised national statistics are crucial before the countries join the EMU because they are used in the assessment of their economic convergence with the EMU, which is largely based on formal statistical indicators. Once these countries join the monetary union, all statistical series for the euro area have to be amended to include the new members. This greatly affects ECB statistics because, as explained above, euro area aggregates are not a simple sum of national data. In addition, all back series have to be adjusted.

Examples of other major challenges for euro area statistics have been: the increasing demands for new statistics, coinciding with very limited resources and calls for response burden reduction; the need to keep pace with financial innovation; and the wish to communicate better with external users and the public at large. For instance, both euro area statistics and the national contributors are often jointly disseminated by the ECB and the NCBs, using a single database but tailor-made presentation formats, in the national languages.[10]

The conventional provision of information, through an ECB legal act, takes a long time to be developed. This process cannot always keep pace with rapid phenomena like financial innovation. For example, the financial turmoil has evidenced the need to monitor and understand economic and financial developments at a very early stage. With these challenges in mind, in December 2007 the Governing Council of the ECB approved a

---

[3] For example, the monetary developments in the euro area are released monthly on the 19th working day following the end of the month to which the data relate.

[4] More detailed quarterly data become available up to three months after the reference quarter.

strategic vision that has been translated in the medium-term work programme for the ECB's statistical function for 2009-2012. This work programme sets out as statistical priorities inter alia i) closing remaining gaps/needs within an integrated statistical framework; ii) developing more micro-databases; and iii) fostering cooperation and information sharing. [11]

A greater recourse to micro databases, for example, permits both a continuity of the standard statistical time series and a timely statistical response to new policy issues, without increasing the burden for respondents. Indeed, requiring reporting agents to transmit the data existing in their systems only once, on an item-by-item basis, significantly alleviates their reporting burden (as they are no longer required to statistically aggregate the reported information). Moreover, it improves the flexibility of statistics, since the data can be used in various ways to derive new statistical outputs almost in real time. The use of micro-databases for statistical purposes is obviously much facilitated by the modern IT facilities that permit a swift handling of large amounts of information at reasonable costs. Yet, it should be acknowledged that maintaining micro data bases, and particularly the related data quality and data source management, entails higher resource requirements at the ECB and the NCBs.

The Centralised Securities Database (CSDB) is the best example of a micro-database that is currently under development by the ESCB. It contains reference information on several millions of securities, namely those issued by residents of the euro area and those issued elsewhere but still likely to be held by euro area residents. The CSDB may be accompanied by a security-by-security data collection on the holdings of securities, which is typically much less burdensome for reporting agents than the usual aggregate reporting in standard statistical frameworks. Moreover, as securities statistics derived from the CSDB are used in a range of other statistics, such as monetary, financial and balance of payments statistics, financial accounts and government finance statistics, the CSDB significantly enhances the consistency among these statistics.

Since several years, the ECB has also put much effort into a user-friendly dissemination of its statistics, increasingly using web-based tools, while retaining paper publications where appropriate [12]. The “Statistical Data Warehouse” allows users to quickly find, display and download euro area data, including national breakdowns in some cases. [13] In addition, so-called “dashboards” are being developed to better communicate statistics to the general public. A first example is the so-called “inflation dashboard”, which combines rather straight-forward texts with interactive graphs [14].

The main projects ahead

To address the ongoing challenges, which have been reinforced by the economic and financial crisis [15], the ECB is focusing on the following improvements in the domain of monetary and financial statistics: a) further advancing the timeliness of some statistics (e.g. banks’ interest rate statistics), b) providing more breakdowns of banks’ balance sheet and interest rates statistics (e.g. loans by industry; securitised and collateralised loans), c) compiling new data on credit lines, d) releasing new statistics on assets and liabilities of investment funds, including hedge funds and real estate funds, (planned for their inaugural publication in December 2009), e) compiling complex, completely new statistics on Financial Vehicle Corporations engaged in securitisation transactions and banks’ securitisation (with an inaugural publication scheduled for late 2010), and statistics on Insurance Corporations and Pension Funds. Most of these improvements were already scheduled well before the outbreak of the financial turmoil. Other initiatives encompass the development of securities holding statistics (with a residency and sub-sector classification of holders) and the ECB’s leading role in the enhancement of BIS statistics on credit default swaps.

The ECB's statistical basis for policy-making will be also greatly improved by incorporating better information on non-financial sectors. In this respect, the ECB is coordinating ESCB surveys on households' consumption and financing and has set up a euro area wide survey on corporate finance, including Small and Medium Enterprises (first survey results were released in September 2009). The ECB, with the assistance of the NCBs, is also further elaborating the euro area accounts jointly compiled with Eurostat. Indeed, these quarterly accounts have become an increasingly important tool for the ECB's economic and monetary analyses and their cross-checking, capturing inter alia key inter-linkages between financial and real developments. In order to better meet the policy needs, the timeliness of these accounts must however be improved to 90 days after the reference quarter. Their coverage will soon be enhanced to include housing and other produced assets, in addition to the already included financial assets and liabilities.

Concluding remarks

The experience of the ECB since the first days of monetary union in producing high quality, timely, harmonised and coherent statistics has been acknowledged to be of paramount importance for the success of monetary policy in the euro area and of the other tasks of the ECB. However, the success of the European statistical project would certainly not have been possible without a solid legal framework for the statistics collected and compiled by the ESCB. The same holds for the intensive and efficient cooperation of the ECB with the EU NCBs and with other statistical authorities in Europe and elsewhere, as well as with other partners such as European associations of financial institutions and financial supervisors. In particular the cooperation within the ESCB, as formally organized within its Statistics Committee and Working Groups, has always been, and will certainly continue being, essential to the success of the statistics serving the needs of the European Economic and Monetary Union.

References

Unless otherwise indicated, the documents mentioned below can be found in the "Statistics Section" of the ECB website (www.ecb.europa.eu).

[1] A wide range of information on the tasks of the ECB and on the organization of the European System of Central Banks (ESCB) can be found on the homepage of the ECB website.

[2] The Mission Statement of the Eurosystem can be found on the homepage of the ECB website.

[3] The responsibility for European statistics is shared between the ECB and the European Commission, along the lines of a Memorandum of Understanding (MoU) on economic and financial statistics between the Directorate General Statistics of the ECB and the Statistical Office of the European Communities (Eurostat). The ECB is responsible at European level for monetary and financial statistics, including the quarterly financial accounts for the euro area. Responsibility is shared with the Commission in the areas of the balance of payments, the international investment position, and integrated financial and non-financial accounts broken down by institutional sector. Every quarter, the ECB and Eurostat jointly compile these integrated euro area accounts. The Commission is responsible for other areas of statistics, with the ECB, as a user, taking a close interest in statistics on prices and costs, other national accounts and a wide range of other economic variables. The MoU can be found on the ECB website.

[4] More information on the statistics provided by the ECB can be found in the brochure “ECB Statistics, an Overview”, April 2008, available on the ECB website.

[5] More information on the framework within which the ECB and the EU NCBs conduct statistical work can be found in the note “The ESCB’s governance structure as applied to ESCB statistics”, available on the ECB website.

[6] As foreseen in the EU Council Regulation (EC) No 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank, as amended, available on the ECB website.

[7] More information on the “Principles for the development, collection, compilation and dissemination of ESCB statistics” and the “Quality principles and elements guiding the production of ECB statistics” can be found on the ECB website.

[8] See article in the ECB Monthly Bulletin of November 2007, p.75-87, “The introduction of quarterly sectoral accounts statistics for the euro area”, available in the “Publications Section” on the ECB website.

[9] See also the Special ECB Monthly Bulletin, to mark the 10th anniversary of the ECB (in particular Section 8 on Statistics, p.133-137), available in the “Publications Section” on the ECB website.

[10] The joint dissemination framework is available on the ECB website.

[11] The “Medium-term work programme for the ECB's statistical function (2009-2012)” is available on the ECB website.

[12] The main paper publications are the Statistics Pocket Book and the statistical annex of the ECB Monthly Bulletin, both available in the “Publications Section” on the ECB website.

[13] The ECB Statistical Data Warehouse provides comprehensive sets of statistics and indicators and is available on the ECB website.

[14] The HICP Inflation Dashboard can be found on the ECB website.

[15] See also “Statistical needs emanating from the financial crisis and the ECB’s initiatives for more comprehensive financial statistics”, by Steven Keuning, ISI 2009, STCPM 52

Currency unions: key variables, definitions, measurement, and statistical improvement

Charles Enoch and Russell Krueger[1]

"The achievement of macroeconomic stability and convergence in key macroeconomic aggregates is a necessary condition for the evolvement of a monetary union."

(Association of African Central Banks–2002)

Summary

This paper reviews issues related to the creation of currency unions with less than strong macroeconomic convergence between member countries. The issues have a number of statistical implications.

Strong convergence among economies was a precondition to join the European Monetary Union (EMU; Euro area), but it has recently been questioned whether currency unions can be formed with looser convergence. These questions reflect research showing that convergence between economies appears to be faster between currency union countries than nonmember countries, as well as pressures in planned unions in Africa to create new unions and benefit from them without a long wait for strict convergence.

In such situations, it is particularly important that statistical programs and infrastructure provide unbiased and timely signals of convergence or divergence. This provides a strong rationale for the early development of statistical systems in the union building process. This will include promoting the introduction of common statistical and accounting standards among potential union countries, and building an effective union-level statistical program. The General Data Dissemination System (GDDS) and the Special Data Dissemination Standard (SDDS) – with minor customization to union conditions – may provide a central role in this regard.

Convergence and divergence

This paper notes that currency unions may be created with less than strong macroeconomic convergence between member countries. The concept of convergence in currency unions is driven by conclusions of the Theory of Optimum Currency Areas (OCA)[2] that economies that

---

[1] Statistics Department, International Monetary Fund. The views expressed in this paper are those of the authors and should not be attributed to the International Monetary Fund, its Executive Board, or its Management.

[2] The inaugural paper that inspired a huge literature was Mundell, R. (1961) *"A Theory of Optimum Currency Areas"* American Economic Review. Vol 51. pp. 657–665. OCA has dominated thinking about currency unions ever since. It played an important role in devising procedures for selecting members of the European Monetary Union, and it continues to be used to analyze whether a group of countries should create an union. However, the OCA theory has not been static but has been modified by many contributions over the years to

are more convergent have greater benefits in being in a currency union and better odds of success. Convergence can be defined either in terms of countries having similar economic behavior, such as nearly equal rates of inflation and economic growth, or in absolute terms, such as all countries achieving a low rate of inflation, such as 2 percent per year. Forming unions with less convergence is more difficult than otherwise, but may be feasible. Enhancing statistical capacity may be particularly important in these circumstances. The General Data Dissemination System (GDDS) and Special Data Dissemination Standard (SDDS) – with minor customization to union conditions – could be particularly useful in these circumstances.

The contemporary model for forming currency unions is the European Monetary Union (EMU). Membership in the EMU requires that countries comply with a set of strictly defined convergence criteria. Other unions have emulated this model, adopting the view that convergence is necessary to form the union and creating convergence criteria similar to those in the EMU.

The rationale behind the Euro area convergence criteria seems to be that absolute convergence is needed in addition to relative convergence. Eva Srejber[3] summarizes this view;

> "Criteria could be described as an absolute as well as a relative measure of macroeconomic health. Absolute, since no economy benefits from, for instance, an excessive fiscal deficit or a high rate of inflation. Relative, since differences between member countries should not be too large. Of course, a common monetary policy would be made much more difficult if inflation rates were to diverge substantially already at the outset."[4]

In Europe, the concept of convergence is built into specific statistical indicators called "convergence criteria" [see Table 1, below] that are obligatory for all countries seeking to join the Euro area or who are already members. Overall, the criteria are quite strict, requiring countries to demonstrate that their economic conditions will not destabilize the monetary union if they become members. The strict criteria also mean that conditions in all union member countries will be similar in practice so that a single monetary or exchange rate policy should be effective throughout the union and unlikely to be destabilizing on specific economies. This is seen as contributing to good policy development and effective policy implementation.

---

the point where its advice today may differ widely from the past. The evolution of the OCA theory is summarized by Mongelli, who identifies five phases in the development of the theory. Mongelli, F.P. *"New" Views on the Optimum Currency Area Theory: What is the EMU telling us?* ECB Working Paper No. 138. April 2002.

3 Srejber, E. "Frameworks and stabilisation policy in a monetary union" Speech at Bank of Uganda, Kampala, 17 August 2006. p. 3.

4 However, she also describes how local conditions can affect the degree of absolute convergence needed. She states with regards to the situation for the planned EAC currency union, "In this respect, the development among the EAC countries is very promising, as is the harmonization of statistical practices. However, given a significantly higher potential growth rate compared to the Euro area, fiscal deficits can be correspondingly larger with the debt to GDP ratio increasing."

Table 1

Euro area convergence criteria

Rate of Inflation: No more than 1.5 percentage points higher than average of the 3 best-performing *European Union* member states.

Government deficit: The ratio of the annual government deficit to GDP must not exceed 3 percent at the end of the preceding fiscal year.

Government debt: The ratio of gross government debt to GDP must not exceed 60 percent at the end of the preceding fiscal year.

Long-term interest rates: The nominal long-term interest rate must not be more than 2 percent higher than the average rate in the three best-performing member states (based on inflation).

Exchange rate: Applicant countries should have joined the Exchange Rate Mechanism of the European Monetary System (EMS) for two consecutive years without a devaluation during the period.

For example, one high visibility convergence criterion is the 3 percent cap on the ratio of the general government deficit to GDP, which is backed up by a framework that can apply large penalties for continuing violations. Another criterion particularly relevant for applicants to join the union is the cap on the permissible rate of inflation – Lithuania was rejected for membership in 2007 because its inflation rate was 0.1 percent higher than the criterion permitted, even though its rate was lower than in numerous EMU member countries. These are strict limits that result in countries taking specific policy actions to bring their economies in line with the criteria.

A relevant question is whether future currency unions need to adopt similarly tight convergence criteria for their unions. Planned unions elsewhere have adopted convergence criteria similar to those in Europe and formally intend to converge like in Europe. However, for unions in Africa, for example, the ability of small, poor countries to meet strict criteria may be limited. Long delays may be experienced before countries meet strict criteria and a union can be formed. The delay may impose high costs and indeed may make the process unfeasible. During the wait to create a union, the countries will not be able to experience advantages of a union, such as lower financial transactions costs, more stable monetary conditions, greater exchange rate stability, better price signals, and financial market integration, etc. Such foregone economic opportunities and political pressures may make countries eager to pursue currency unions before tight convergence criteria are met.

The situation in future unions could even be circular – without the advantages that exist in currency unions of financial stability, larger efficient markets, and integrated markets, individual countries might have great difficulty in meeting the convergence criteria to enter a union where large, efficient, and integrated markets exist.

Because the European convergence criteria have legal force and are used for important purposes such as admission to the monetary union or sanctioning member countries that fail to meet the criteria, strong emphasis is placed on the quality, unbiasedness, and cross-country comparability of the statistics used to compile the indicators.[5] Formal, union-wide

[5] Statistical issues related to the criteria that were used in the EMU included:

The level of inflation: measured via the consumer price index. A common index was developed to accurately represent inflation within all candidate countries and in the entire Union.

The level of interest rates: short- and long-term rates on government securities or other sets of securities chosen to be comparable and descriptive of the interest rates prevailing in all countries. The methodology developed should consider the subsequent need to monitor single-currency-area interest rates.

statistical standards aligned with international statistical reporting requirements are needed. The statistics must be transparent and suitable for a wide range of analyses and public purposes. The statistics also provide the basis for regular official "convergence reports" that either certify countries are ready for membership in the union or monitor whether countries are following balanced macroeconomic paths.[6]

Table 2

Currency unions under construction

Gulf Cooperation Council (GCC): consists of six Arab countries along the Arabian Gulf comprising Saudi Arabia and smaller countries along the coast – Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman. However, at this point Oman and the UAE have announced they do not plan on joining the union. The GCC just established a Monetary Council in Riadh to organize preparations for a union. The GCC countries have pegged their currencies to the U.S. dollar as a step toward creating the union.

African Community (EAC): Five countries in East Africa actively working to build a currency union (Tanzania, Uganda, Kenya, Rwanda, and Burundi).

Southern African Development Community (SADC): This group is working to create a currency union by 2016. It has as its core the Common Monetary Area (CMA), which is a group of countries with currencies linked to the South African Rand – Lesotho, Swaziland, and Namibia (informally). The SADC union will absorb the CMA and may ultimately include about 15 countries (CMA plus Angola, Botswana, Democratic Republic of Congo, Madagascar, Malawi, Mauritius, Mozambique, Seychelles, Tanzania, Zambia, and Zimbabwe).

West African Monetary Zone (WAMZ): Five mainly Anglophone countries in West Africa now accelerating their push for a currency union (Gambia, Ghana, Guinea, Nigeria, and Sierra Leone). They have not yet established pegs to each other. Consideration is being given to setting up a virtual currency similar to the ECU, called the ECO, that would allow the national currencies to adjust to a common value.

ECOWAS (Economic Organization of West African States): This is a West African regional organization that encompasses both the WAMZ and WAEMU (West African Economic and Monetary Union, an existing currency union of mostly francophone countries) and regions, and is considering merging the regions into a single currency union.

Relevance of loose convergence

The issue of loose convergence is an immediate concern in at least two regions, affecting over four dozen countries, as described below.

The stock of government debt: in absolute value and as a percentage of GDP, which was calculated in a comparable way by all countries.

The evolution of public spending: in this case, definitional issues proved particularly tricky in the European case and led to long technical discussions and even to disputes.

[6] Because the convergence criteria chosen will focus on priority macroeconomic statistics for the new union, the criteria should monitor the individual economies as well as the union as a whole.

Proposed African currency unions

The issue of whether it is feasible to create a currency union in a loose convergence situation is highly relevant for the proposed unions in Africa. Many of the economies involved face severe challenges in overcoming poverty, recovering from conflict situations, building market institutions, overcoming constraints of small size or isolation, and overcoming poor policy stances of the past. Some have large fiscal deficits and are battling against inflation. All this was before feeling the effects of the current crisis. Much progress has been made in many of these countries and they are on a path toward convergence with more sustainable economic and financial footings. They find themselves some distance from meeting strictly determined convergence criteria and still show differences from each other, but the point has been reached where it is possible to ask whether convergence is sufficient to create a union based, for example, on indicators such as single digit inflation or 5 percent ratio of deficit to GDP.

In some cases, loose convergence or even divergence might be built into the union. For example, the potential West African Monetary Zone must deal with the situation that Nigeria is a large oil exporting country, but the other countries are oil importers, including from Nigeria. This complicates union monetary and exchange policy development, but also creates a possibility of the union taking special steps to deal with the issue, such as providing fiscal transfers between countries. Such situations will be particular to each union and will need to be analyzed based on the facts and policies in each case.

One issue in many of the proposed unions, as indeed it was in the EMU, is asymmetries in the size and strength of individual union members. Nigeria, Saudi Arabia, and South Africa stand out in their respective regions. The success of establishing a union, especially one with limited convergence, may depend on the extent that the largest members may be willing to support smaller or weaker members until greater convergence can be achieved.

Euro area candidate countries

Another situation where loose convergence could occur deals with the candidate countries to join the Euro area. The financial crisis has caused tremendous economic upheaval in EU countries in Eastern Europe, and it has been suggested that they could benefit from early membership in the Euro area to help them ameliorate some of the problems caused by the crisis.

- Piatkowski and Rybinski argue for all candidate countries to adopt the Euro by 2012. It would provide economic stability to the new members and would convey an important message of solidarity. They point out that the financial crisis has created a situation where deficits and the debt ratios in candidate countries are lower than in the Euro area and inflation only marginally higher – in other words, the economies are largely convergent with the Euro area, but they are not yet fully aligned with the formal convergence criteria, and in some cases have lost ground against the formal criteria.[7]
- Willem Buiter argued as early as 2007 that the case for rapid entry of candidate countries is “overwhelming”. In the face of what he refers to as obtuseness and arrogance by the ECB and the European Commission and their unwillingness to

[7] Marcin Piatkowski and Krzysztof Rybinski. “Let us roll out the Euro to the whole Union” *Financial Times*. June 11, 2009. Also see Stefan Wagstyl “IMF warns of strains exerted on east Europe” FT.com April 5, 2009.

bend on the convergence criteria, he argues that the candidates should make the Euro and the national currencies joint legal tenders.[8]

- *The Economist* reviewed the advantages and disadvantages of fast-track entry of the candidate countries into the Euro area. It also asked whether accelerated entry of the candidate countries would hurt the Euro, and implies that the answer is not clear.[9]

The currency and interest rate stability provided by being in the Euro area would lessen the number of problems that need to be dealt with. The recent financial crisis has caused some of the countries to move away from various convergence criteria for Euro area entry, thus delaying their formal entry – for example, the post-crisis levels of government debt to GDP due to crisis-rescue efforts could cause countries to exceed the 60 percent convergence criterion ceiling for the next half decade or more. If candidate countries are permitted to join prior to fulfilling the standard monetary union convergence criteria, a *de facto* loose convergence situation would result. However, it must be emphasized that this option has been rejected by the ECB and thus it is only hypothetical.[10]

Endogeneity

Endogeneity is the concept that countries within a union will converge economically and become more like an Optimum Currency Area (OCA)[11] and thus be better served by a single monetary and exchange policy. This convergence might be expressed in multiple ways – trade expansion between union countries, production processes spread through the union, sharing of economic risks due to cross investment between countries, integration of financial markets and the opening of capital markets to promote efficient and productive investment. Kenen also mentions the effects "of a full-fledged monetary union on capital markets and capital movements and … the impact on the ability of households and others to self-insure against various shocks by holding internationally diversified portfolios".[12]

---

8 Willem Buiter. "Euroisation while playing by the rules: a proposal for the Euro as joint legal tender for EMU candidates" October 4, 2007. http://maverecon.blogspot.com/search/label/European%20Union.

9 *The Economist*. "Fear of Floating" June 11, 2009. The article quotes Buiter to the effect that inflation convergence is best achieved after membership, also that floating exchange rates are dangerous and that the most important thing is to get into the union and remove the threat of currency crisis.

10 The President of the ECB, Jean-Claude Trichet has stated, "The adoption of the Euro cannot be a substitute for the need of domestic policy adjustment. This would go against the economic logic which underlies the convergence process in Europe. And it is important to bear in mind that the premature adoption of the Euro can make it more difficult for a country to cope with the challenges ahead. Without sustainable convergence, the monetary policy stance of the ECB would be inappropriate for the country concerned. In this case, the country in question could face the risk of excessive output and inflation volatility, as it would lack important tools to stabilize economic conditions at home. Thus, Euro adoption cannot take place until major imbalances in the country have been eliminated and provided appropriate sustainable convergence has been achieved as required by the Treaty." Jean-Claude Trichet: Hearing before the Economic and Monetary Affairs Committee of the European Parliament. Introductory remarks by Mr Jean-Claude Trichet, President of the European Central Bank, Brussels, March 30, 2009.

11 The OCA theory has examined conditions in which countries could benefit from ceding their monetary and exchange policy independence by irrevocably linking their currency to another currency, and by extension joining into a monetary union.

12 Kenen, P. "What can we learn from the Theory of Optimal Currency Areas" in HM Treasury. *Submissions on EMU from leading academics*. 2002.

Probably the best known study of the endogeneity effect is by Rose,[13] who showed that trade growth between country pairs within unions was twice as strong as between non union pairs of countries. Others have found similar effects. Kenen concludes that "one must attach great weight to this trade-promoting effect when weighing the overall benefits and costs of a monetary union. It says that a currency union permits its member countries to realize more fully the welfare-raising gains from trade, and it should also promote growth. Furthermore, it has strong implications for the functioning of a monetary union."[14]

However, the endogeneity view may heavily reflect evidence from Europe where the EU strongly promoted integration of the European economies; that is, convergence was a policy goal in Europe supported by a wide range of actions. It is possible that convergence is not an inevitable consequence of being in a union, nor would it necessarily be the case that additional convergence follows once some threshold of convergence is crossed. This argument is unresolved, but for future unions, the lesson may be that in order to gain advantages of a union continuing work towards convergence will be needed even after the union is formed.[15]

Loose convergence

Much of the discussion about the OCA leads to the important issue of what degree of convergence is needed to support union development? Several proposed unions are concerned whether a union can be formed first without achieving strict convergence between the potential members such as was done in Europe. Can a union be formed if countries are progressing toward convergence, and then complete the convergence process once the union if formed? Similarly, when are conditions suitable to establish an ECU-type[16] system in which countries fix their bilateral exchange rates? Is convergence sufficient, or must countries first converge toward highly favorable levels (very low inflation, very low debt ratios, etc.) to succeed in forming a union?[17]

These questions are critical for regions considering creating currency unions. Long delays might result if strict convergence criteria such as used in Europe were required, and unions may never actually be achieved. Nevertheless, the general sense of the OCA theory would be that a high degree of convergence is clearly desirable. For example, national inflation differentials imply that member countries' real exchange rates will change against each other affecting their relative competitiveness – conditions that could destabilize the union.

---

[13] Rose, A. "One Money, One Market: The Effects of Common Currencies on Trade", *Economic Policy* 30. (2000).

[14] Ibid; p. 154.

[15] The states in the United States show divergent performance over many years, but the effects are mitigated by substantial fiscal transfers.

[16] The European Currency Unit (ECU) was the precursor to the Euro. It was a currency unit constructed as a weighted average of participating currencies (called the "central rate"), in which the individual currencies were not permitted to diverge from a tight band around the central rate. The system permitted some flexibility but the currencies were roughly linked to each other.

[17] For example, can a union be effectively formed if all countries have the same inflation rates, but at a high level; for example, around 10 percent? Does the union need to wait until inflation is subdued (under 3 percent) in all countries?

Reasons to avoid loose convergence

Reprising some of the points made earlier, there appear to be many reasons why loose convergence may not be suitable. Possible offsetting factors are discussed in the next section.

- *Inflation differentials*. Real equilibrium exchange rates may diverge, changing relative competitiveness in the union and creating balance of payments problems and differences in economic activity. National interest rates will carry different inflation premia, which may distort investment flows between member countries.
- *Growth differentials*. Economies growing rapidly may need to be cooled down, but other economies may need stimulation. It may be impossible to find a monetary policy that benefits diverging economies, or does not damage one of the economies. Also, if union countries have the same marginal propensity to import, rapidly growing economies will incur current-account deficits with other union countries, which can be potentially destabilizing. Conversely, if member countries have different marginal propensities to import, a common growth rate will result in different balance of payments effects.
- *Fiscal differences*. Different net fiscal situations will draw funds into government liabilities in countries with the largest deficits. This damages investment elsewhere in the union and potentially pulls funds into one of the weaker members. This may undermine international confidence in the strength of the currency.
- *Insufficient structural and infrastructure harmonization*. Early formation of a union might bring together countries that still have major differences in their economic and financial infrastructure, standards, and supervisory systems. Cross-border transactions may face costly frictions. These could impair the advantages of joining a union.
- *Tax and seignorage income differences*. Each member may follow different tax regimes and rely on seignorage income to different extents to finance government activities. Joining a union will create common rates of seignorage income for each member which may be insufficient for those countries that had had the highest rates of monetary growth.[18]
- *Different structural shocks*. If the loose convergence stems from different responses to common structural shocks, this indicates that the economies may be fundamentally different and are thus not good candidates to form a union.
- *Different adjustment mechanisms and speeds*. If countries have different structural conditions and speeds of adjustments, they may respond differently, even to common shocks or policy actions. If loose convergence reflects this, the countries may not be good candidates to join a union.
- *The common exchange rate might not be well integrated into each economy*. The ECU existed for many years before it was converted into the Euro at a one-to-one rate. This caused little shock to the price structure for each economy. These conditions are unlikely under loose convergence conditions.

[18] Seignorage income can be substantial, sometimes equal to 2 or 3 percent of GDP annually.

Factors supporting unions with loose convergence

For a number of reasons, new unions might prove feasible even if convergence is not complete when the union was formed.

- Once a union is created, numerous common institutions and practices may be introduced, which can foster convergence. New union institutions may be seen as an important cooperative step that can create impetus for overall development in line with a common vision. The process of creating the union institutions is also a process that can contribute to improved economic and financial prospects and convergence between member countries.
- Evidence has been collected showing that membership in a union promotes greater intra-union trade.
- The union currency may be stronger than the currencies of individual members. This can create more stable economic conditions conducive for economic growth.
- The strength of the union currency can expand overall demand for the currency and reduce cocirculation[19] of foreign currencies within the member economies. This can increase seignorage income of the union and its member countries.
- Creating a currency union can contribute to building trade, tourism, or other types of economic unions. The common currency can facilitate intra-union trade, capital, labor, and other factor flows that create larger, more competitive, more resilient markets.
- A currency union can create a larger market, permitting economies of scale and greater competition.
- Price transparency increases across borders, which benefits consumers and allows more efficient use of capital.
- Regional infrastructure investment (which may be important for overall economic development) is facilitated by denominating investments, costs, and benefits in a common unit. This applies not only to infrastructure investments across different countries in the region, but also to the discounting of costs and returns over time.
- Some economies may lack resources or conditions to be able to stabilize economic and financial conditions on their own, and thus may not be able to converge with other members of the union. The union, or larger members of the union, may be able to provide guidance, oversight, or assistance.
- There was great uncertainty whether the EMU would work, and therefore starting the process under the most favorable conditions (including a high degree of convergence) was prudent. Its success might allow future unions to learn from its experiences and might give some confidence that success is possible with somewhat less convergence.[20]
- Risks can be shared within a union, reducing the threats of destabilization to each of its member countries. Additional resources to address instability may be available.

---

[19] Cocirculation is the use of two or more physical currencies within an economy. It can occur due to many factors, but a foreign currency is often likely to cocirculate when the national currency is perceived to be weak. Successful introduction of a union currency would reduce the incentives for holding and using foreign currencies.

[20] The less-than-strict adherence in Europe to the fiscal convergence tests under the EMU's Stability and Growth Pact has raised questions in some proposed unions if this indicates there is some room for flexibility.

The feasibility of loose convergence

To conclude, there are many reasons why introducing a currency union with only loose convergence between union members can create problems. The cautions provided in the OCA literature are well founded, and countries considering forming a union before a high degree of convergence is achieved should do so cautiously and fully aware of the difficulties that may be faced.

However, there are also reasons why a union based on loose convergence might succeed. Indeed, convergence might not be possible without a boost from union institutions and policies. Convergence is good, and convergence with adherence to strict criteria is better. However, building a union with loose convergence may be the best choice in some situations. Moreover, the idea is gaining acceptance that countries with little initial integration can benefit from the risk sharing properties of unions and can successfully create unions.[21] A strong political commitment to building a new union would, of course, contribute to finding solutions to overcome any remaining obstacles in loose convergence situations.

If countries seek to create currency unions starting with only loose convergence, three issues may be requisite.

- Conditions among potential union countries are similar enough to potentially be handled by the common union policies.
- Countries feel confident they can abandon the advantages of independent monetary and exchange policies.
- Countries have access to resources to defend their positions. This can be either their own resources, access to special facilities, or common union resources.

There are three important cautions, however.

- *Revocability*. The looser the convergence, the greater the advantage of retaining flexibility in case shocks hit or problems develop. Thus, construction of a regional exchange rate bloc may be a good alternative, at least initially. Countries can agree on bilateral rates, cooperate on monetary policy, and provide mutual support, but retain their national currencies in order to be able to make rare but necessary exchange rate adjustments.[22]
- *Strong union institutions*. Even though there might be adequate macroeconomic and financial convergence, effective union institutions must be built and put in place before starting the union. This includes both technical institutions, such as settlement houses, but also policy institutions that can provide unbiased and high-quality policy direction based on union conditions. Simultaneous institution building and convergence make sense.
- *Enhanced surveillance/assistance*. Where there is loose convergence, problems may be more likely. Therefore, enhanced surveillance on the more divergent economies may be called for, and it may be useful for the union to provide

---

[21] Böwer states, "While the initial OCA framework warns countries with asynchronous business cycles about joining a currency due to the resulting loss of national monetary policy and exchange rate adjustments, Mundell II suggests that it is exactly those countries with asymmetric shocks which may benefit most from adopting a common currency and the resulting risk-sharing and income insurance mechanism. In other words, a country that considers joining a currency union, such as the new EU member states, may not want to wait…." Böwer, U. *"Risk Sharing, Financial Integration, and "Mundell II" in the Enlarged European Union"* Institute of European Studies Paper # 060801. (University of California, Berkeley, 2006) p. 6.

[22] This also permits countries time to get used to cooperating with each other. Also, the regional bloc format permits time for progressively stronger union institutions to be constructed and gradually put into place.

assistance to countries to become convergent as soon as possible. Milestones to move progressively toward convergence should be considered, and backsliding must be avoided.

Union responses to economic shocks

A key question for unions is the nature of shocks hitting the union and how the union is constituted or has policies to deal with various types of shocks. The key distinction is between *symmetric* or *asymmetric shocks*. Symmetric shocks affect all union member countries in similar ways – an example could be a sharp hike in food prices that affects all union countries and creates union-wide balance of payments problems. Asymmetric shocks hit union member countries differently. For example, a hike in oil prices will stimulate the economies of union countries that produce oil, but can cause balance of payments problems and recession in other union member countries that import oil.

A second question is whether the union policy effects are symmetric or asymmetric. A monetary union can operate only a single monetary or exchange rate policy and does so in the hope that all member countries are affected in similar ways. Unions have problems in formulating policies if different parts the union react in different ways to a common policy.[23]

The appropriate union policy response depends on whether shocks are symmetric or nonsymmetric. A single unified policy for the entire union is more likely to be successful for symmetric shocks. In contrast, asymmetrical shocks might be handled poorly by a single union policy because countries face different conditions. In the face of asymmetric shocks, countries within unions cannot rely on traditional monetary policy and exchange rate instruments because there are now controlled by the union, and therefore must rely on other policies available to them (such as taxation, public expenditure, market development, etc.) to deal with the shocks.[24]

In the Euro area, the strict convergence criteria can be considered as a policy-oriented response to a long history in which countries struggled against inflation and exchange rate instability and to gain fiscal control. Germany provided a model for price control and fiscal tightness that contributed to exchange rate strength; other countries struggled to achieve similar success and were often punished by markets if their policies lapsed, or sometimes even appeared to lapse. The convergence criteria were designed to guarantee that anti inflation and firm fiscal policies would be maintained in the union even though countries no longer feared currency repercussions of poor policies once they were in the union.

In theory, symmetrical shocks are easiest for a union to handle, but an interesting empirical investigation of shocks found that such shocks are by no means the most common. Bayoumi and Eichengreen[25] estimated the cross-country correlations of demand shocks between

---

[23] An example could be the influence of low Euro rates in promoting large capital movements into real estate in selective Euro area countries, such as Spain, Portugal, and Ireland, but not into similar investments in other union countries, such as Germany. Excessive construction and rising asset prices in those countries led to situations where tighter monetary policy could have been used. Conversely, continuing capital flows into those areas tamped down investment in other areas where it was needed. When the boom receded, the countries that had experienced the overbuilding suffered the most severe downturns as construction and real estate prices collapsed.

[24] Also, smaller countries in unions face an additional challenge that union policies are more likely to be responses to the shocks hitting the largest countries in the union. Due to their lack of independent economic power, the small countries may find that they are always the ones forced to make the adjustments.

[25] Bayoumi, T. and Eichengreen, B. *One Money or Many. Analyzing the Prospects for Monetary Unification in Various Parts of the World.* Princeton Studies of International Finance 78. (Princeton, N.J.: Princeton) 1994.

countries within various regions of the world in order to test the degree to which the assumptions of the OCA apply. Their data, which end in the early 1990s, showed correlations between countries that ultimately would become Euro area members were often quite low, suggesting that OCA conditions did not prevail. For example, the correlation between the two anchor economies – France and Germany – was only 30 percent, and between two very close economies – Netherlands and Germany – only 21 percent. Common shocks existed but at best the correlation was usually no higher than 60 percent. This suggests that numerous asymmetrical shocks will continue to affect union countries, which has important implications for planned new unions.

- First, the EMU was successfully created with much less than perfect OCA conditions.
- Second, national authorities within unions will face shocks for which applying union wide policies for money, interest rates, exchange rates, reserves, etc., may not be appropriate.
- Third, countries must deal with asymmetrical shocks by continuing to exercise the policies that have not been ceded to the union. Effective policy research, development, and implementation in the remaining areas of national competence become more important.
- Moreover, in the proposed unions, the nature of the shocks and their responses could be different than in the Euro area.
- The planned unions generally are comprised of commodity exporters. They may be affected symmetrically by global shifts in commodity prices, and asymmetrically because of the different commodity endowments.
- Planned unions currently lack the diversified industrial base that existed in Europe, which may make adjustment more difficult.
- Planned unions lack the degree of financial market development and integration that exists in Europe. This may make financial markets more volatile, less capable of providing good market signals, less flexible to respond to financial shocks, less able to raise capital for productive purposes, and make transmission of monetary policy impulses less effective.
- Planned unions are all expected to need substantial financial market development in order to benefit from the potential advantages of integration within an currency union and to have financial markets serve as a source of flexibility and stability.
- The institutional settings in the planned unions may be substantially different from that in Europe. In Europe, an overarching social and political framework is provided by the European Community and its institutions, which few other regions match.[26] The planned unions start with greater divergence in policy institutions, and less independence and analytical and policy strength of those institutions. Thus, policy responses to shocks may involve greater challenges than experienced in Europe.
- Finally, however, globalization of real and financial markets has resulted in a situation where demand or price shocks affect more intensively a broader range of countries, and thus the planned unions may face more symmetric shocks than might have been typical in the past.[27]

---

[26] The Andean Community, however, was designed to have institutions similar to those in Europe.

[27] Srejber (ibid) has noted this trend. “The assumption presupposes that what is to be stabilised is mainly driven by factors that can be affected by national policy instruments. Is this really the case? A recent cross-country

Statistical signals of convergence and divergence

If a union is set up under loose convergence conditions, the probabilities are greater that imbalances and economic problems can occur that can disrupt the union or individual member countries. In recognition of this, planned unions need to set up a statistical system from the beginning to collect information on whether economies are converging or diverging and on problems that may result. Accurate and timely information that the economies are diverging or problems are developing allows remedial action to be taken. Specific indicators need to be monitored and compared between countries and for the union as a whole.[28] With some embarrassment, these could be called "Divergence indicators".[29]

A number of the tests call for comparisons between countries or constructing statistical measures of convergence or divergence. Good quality statistics are needed for each member country in order to carry out such comparative analysis.

Assessment of convergence indicators

Although high convergence may not already have been achieved when the planned unions are established, convergence criteria still should be put in place and the performance of the union and the participating countries should be regularly monitored. As with the EMU, the criteria would likely include inflation, debt, and fiscal performance, but additional criteria can be developed specific to each union's situation.

- To monitor performance, the criteria can be assessed both in terms of their absolute levels and relative to performance in other union countries. For example, three countries might achieved the fiscal deficit criterion, one country may have a deficit 2 percent too high, and two have deficits 4 percent too high. The arithmetic mean of the country observations (weighted by the size of the economy) can provide information whether the union goal as a whole is being approached.
- The dispersion of the criteria should also be examined and whether the countries are converging or diverging over time. A time series of the standard deviations of the criteria can provide indications of whether the economies are moving closer together or diverging.
- Following EMU practice, the planned unions should regularly monitor the convergence criteria/indicators and should prepare formal reports on the state of convergence. In recognition of the greater potential for divergence starting with loose convergence, the union should also report on divergence trends and their apparent causes.

---

study suggests that determinants of inflation have become less "country-centric" and increasingly "globecentric." Of course, national stabilization policy still plays an important role, but global factors are becoming increasingly important. At the same time, business cycles in the G7 countries seem to have become increasingly synchronised, thereby narrowing the difference between domestic and global determinants of inflation."

[28] Countries within the Euro area are subject to regular review of their adherence to the union convergence criteria. Sanctions can be applied for failure to meet the fiscal criteria. Regular, formal reviews are made. Thus, review for evidence in divergence in unions formed under loose convergence conditions is little different in spirit from what is already done in the Euro area.

[29] That is, the opposite of "convergence indicators". "Convergence criteria" are used as tests for countries' suitability to join the Euro area, but once within the union the same tests are still applied and formally assessed. However, because they are no longer criteria for membership, they are "convergence indicators".

Price signals

Overall price movements in countries may be one of the indicators of convergence or divergence that can be easiest to track. Both absolute and relative measures can be tracked.

- Inflation rates rise above a specified cap. The union could set a maximum tolerable level of inflation, such as 6 or 10 percent. Remedial actions may be needed for individual economies that exceed the caps; if numerous countries exceed the cap, it could indicate a union-wide problem.
- Deflation. A decline in general price levels in any country could be a danger sign. A decline in prices increases the real burden of outstanding debt liabilities and can depress economic activity. A deflationary bias in multiple countries would be a serious structural problem for a union.
- Spread between inflation rates. The standard deviation can be used to measure the dispersion between inflation rates. Increased integration between the member countries is likely to result in a reduction in the standard deviation over time. However, widening of the spread can indicate that the real exchange rates of the economies are diverging and affecting the competitiveness of the economies.

Government borrowing

Fiscal stances of union member countries may differ considerably. Because of use of a common currency and open capital markets within a union, a country that borrows heavily to cover a deficit will potentially draw in funds from other member countries. This could divert funding from productive investments to the detriment of the union as a whole.

- High overall government borrowing involving many union members indicates structural problems for the union that could constrict investment in private sectors and possibly damage the long-term health of the union.
- A wide dispersion of government deficits could indicate that certain economies were drawing in investment capital to the possible detriment on other union members.
- Government borrowing rates should equalize in a union based on market perceptions of the soundness of the common currency if markets judged that each union member was following prudent and sustainable fiscal policies, and if national financial markets were stable.[30]

Debt measures

Convergence criteria can also focus on the ratio of government (or total public sector) debt to GDP. Debt ratios can provide information on the long-term sustainability of fiscal positions, and stable or declining ratios are considered desirable.

Over time, the size and rate of growth of the government debt ratio is a function of the size of the fiscal deficit. In the Euro area, the 60 percent debt ratio is considered compatible with the

[30] Following the creation of the EMU, the spread between government borrowing rates fell to very low levels based on confidence about the fiscal condition of EMU member countries (who must record a fiscal deficit of 3 percent of GDP or less). However, the spreads grew large when the financial crisis struck and stimulus and rescue costs put the fiscal situations of some countries in serious peril. Thus, large or widening government borrowing spreads indicate potential trouble for the union.

3 percent deficit ratio. High deficits can cause potentially unsustainable growth in the debt ratios, and thus the deficit and debt ratios must be monitored together.[31]

The ratio of total international debt to GDP also could be selected as a criterion to help assess the sustainability of the union's external position.

Other indicators

In addition to reviewing the union's regular convergence indicators, various other measures that could be monitored are listed below.

Real exchange rates

In concept, within a currency union increased competition and cross-border trade in both components and finished products should result in some convergence in price inflation between members, and thus in greater similarity in external competitiveness. Competitiveness of each country in a union is a function both of the union exchange rate and the prices in each country. A country with higher inflation relative to other union members will become externally less competitive as its real exchange rate rises.

Terms of trade shifts

Union member countries may have large differences in their external trade patterns, both in terms of origins and destinations of trade and also in trade composition. Changes in exchange rates and prices in different types of traded goods can affect the external positions of each member country individually. Substantial differences can create situations where the common monetary and exchange policies are inappropriate for some member countries. The statistical indicator is an index of changes in the terms of trade based on the ratio of export prices to import prices, each adjusted for exchange rate changes to get measures of delivered prices.

Terms of trade shifts can also affect competitiveness and current account positions between union members. The indicator is the ratio of export to import prices on trade with other union members only. Large shifts in the intra-union terms of trade can create political conflicts between members because gains of one member come at a cost to other members.

This case is also interesting because within the union there could be mechanisms for fiscal or other adjustments to offset sharp differences in the terms of trade between members. A classic example would be if one member country exports oil to the other members, and thus directly gains or loses relative to other members depending on the oil price. Future unions may or may not have mechanisms to compensate in such situations.

Industrial and trade concentration or dispersion

The more diversified an economy, the more likely that it will be affected by shocks affecting other union member economies – that is, diversification makes idiosyncratic shocks less likely. Equally important, more diversified economies have greater flexibility to adjust to

---

[31] The Euro area criterion is that the government debt should be under 60 percent of GDP or should be declining. However, numerous countries have failed to reduce the size of their deficit ratios, and in some cases caused the debt burden to move in the wrong direction. In 2007, seven of the fifteen Euro area countries had debt ratios over 60 percent. See European Central Bank *"Ten Years of the Stability and Growth Pact" Monthly Bulletin*. October 2008. pp. 53–65.

shocks and to buffer shifts in demand. Two opposite effects on industrial concentration have been hypothesized following entry into a union – first, unions will cause greater *inter*industry specialization because firms exploit their comparative advantages within larger markets, which reduces trade diversification, but the second possibility is that increased *intra*industry specialization results as suppliers link up with industrial customers throughout the union, which will increase trade diversification.

- Signals as to whether trade concentration is increasing or decreasing within the union include whether trade in finished goods is increasing for just a few countries or whether trade in components is increasing for a broad range of countries? Alternatively, industrial censuses and production surveys can provide information. Both of these sources of information involve sophisticated frameworks that may not be available in some unions.

Unemployment differences

Large differences in unemployment are a serious threat to currency union. It could indicate that some countries are not benefiting from the common monetary and exchange policies,[32] or there could be structural rigidities or problems affecting specific countries.

Real and financial market price signals

A currency union should result in a high degree of real and financial integration, price discovery, and competition. Residents of the union will have greater ability to make cross border purchases, borrow and deposit, and invest in other union member countries. All these should result in price convergence. A lack of convergence is likely to indicate the presence of continuing barriers to cross-border activity and a lack of integration that lessens the potential benefits of the union.

Gathering information on price differences is not easy, given the range of products and markets involved. This work would probably be done as part of regular cost of living surveys, benchmark price censuses, or work on the International Comparison Project. This work may benefit from creating a central union price statistics office and taking surveys using a standard list of products in all countries.

Asset price convergence

One expected result of forming a currency union is that increased cross-border investment in real estate and other financial assets will raise assets prices in the recipient countries. Prices may rise toward levels elsewhere in the union. In the EMU this clearly occurred in Spain, Ireland, and for several new EU countries in Eastern Europe. Such convergence in prices is desirable up to a point, but if it results from too rapid inflows in short-term capital, over building, and rapid build-ups of credit to businesses and consumers, it may prove unsustainable and become a source of instability. In contrast, capital flows out of other union countries may result in relatively stagnant construction activity and slow growth in assets prices.

---

[32] For example, within the GCC, Saudi Arabia has a large, young, underemployed population that could benefit from an exchange rate that promotes industrial exports, but the union exchange rate might be driven higher by high petroleum export income.

- Thus, sharp differences in asset price movements, and concomitant differences in investment flows, construction activity, etc. could be signs of trouble for the union, but more moderate increases should be considered desirable.

Statistical infrastructure

If countries choose to form a union with loose convergence, they are embarking on an uncharted strategy. The formation of the union may create conditions that support convergence among the countries (or some of the countries), or the divergent conditions could make policy development difficult and create problems. The creation of the union will result in monetary and exchange rate policy influences from outside the individual member countries penetrating deeply into each of them. The possibility exists that one or more of the countries may be adversely affected, and effects may spillover into other countries.

The economic rationales for strict European-type convergence have been worked out and are well known, and it can probably be concluded that the higher the degree of convergence, the better the odds of success for the union. Arguably, unions should not be attempted unless tight convergence exists between potential union members. The situation in the proposed unions is thus more precarious that what was experienced in Europe. If countries choose to implement a union based on loose convergence strategies in hope of later convergence, they are taking risks. However, the degrees of required convergence or acceptable nonconvergence are basically political decisions. A union could choose to create itself with loose convergence as a means to address serious economic problems of poverty and weak markets, to foster cooperative solutions, to limit monetary and exchange rate instability, to gain international financial strength, or to gain economies of scale in economic activity, etc. The risks may be great, but the rewards may be greater.

Given the uncertainties in loose convergence situations and greater possibilities of diverse reactions to policies, there is extra need to monitor the performance of individual countries. That is, the convergence criteria and other indicators (divergence indicators) need to be monitored closely.

Thus, unions begun under loose convergence conditions have particularly strong reasons for statistical monitoring of conditions for the union and the individual countries. This places great burdens on statistical systems in order to provide timely and unbiased information that can guide union and national authorities.

Hopefully, the planned unions will experience convergence once their union is created, but if divergence is observed there may be a basis for various actions – pressuring individual countries to respond in ways that cause them to converge toward the union targets, adjusting union policies, creating fiscal compensatory schemes, or potentially adjusting the structure of the union. But all such actions rest on high quality and timely statistical information.

Statistics thus play a critical role. It will be very important to have accurate and comparable statistics on a timely basis to unveil the *union*ification process. Is endogenous convergence occurring, are certain countries or sectors falling behind, are problems developing from nonconvergence, are policy actions supporting convergence? Do union authorities have the information needed to carry out policy oversight of relatively diverse economies? Are policies supporting convergence or divergence?

Thus, statistical programs must be strong and the infrastructure must be in place well before a proposed union is formally established. The statistical systems will provide the indicators of whether the union is progressing in the right direction. There is a strong rationale for very early development of statistical systems in the union-building process. Conversely, it could be dangerous if buy-in to a planned union occurs before sufficient development of comprehensive union statistical systems that can produce the comparable and timely

information needed to support the union-building process. The lead times to achieve the needed levels of statistical support may be substantial, all the more so given the limited resources available to national and union authorities and to the international statistical community.

The statistical systems

As noted above, a range of statistical indicators will be needed. The core indicators are likely to be those adopted for the EU. The definitions are likely to be similar, although critical values in the planned unions may be somewhat different from those in the EU. In a looser union, additional key data are likely to be needed, as discussed above, so that a picture commensurate with the conditions and aspirations of the members of the union, can be fully established.

The members of the EU manage a high degree of periodicity and timeliness for their statistics – enabling rapid policy responses, and a degree of certainty among policymakers that they have a good understanding of current economic conditions. At this time of financial turmoil, when economic conditions are changing rapidly, and there is wide uncertainty about the management of the economy and of the financial sector in particular, the availability of accurate, timely, and reliable economic data becomes critical.

Following the Mexican crisis of 1994, and the subsequent Asian crises, the IMF launched a number of data initiatives as part of its new emphasis on designing, implementing, and monitoring observance of a range of standards and codes. In 1996 the SDDS was launched – this prescribes levels of timeliness, coverage, and periodicity for a wide range of macroeconomic indicators, including those covered in the EU convergence criteria. This standard was intended for countries that borrow in international capital markets, or that intend to do so. The following year the GDDS was introduced intended for all other countries. Countries participating in the GDDS commit to using the system as a framework for the development of their statistical systems. It includes recommended levels of timeliness, coverage, and periodicity for a range of macroeconomic and sociodemographic data, and requires that participants post appropriate metadata (descriptions of data) as well as development plans on their websites. Recently, it has been agreed that the GDDS should be revised so that its data coverage comes into line with that of the SDDS, and also that countries participating in the GDDS should now start also disseminating data. The aim is to make it easier for countries to graduate from the GDDS to the SDDS.

As of July 2009, there are 64 SDDS subscribers, and 94 participants in the GDDS, comprising in total around 85 percent of the IMF membership. Interestingly, nearly all members of the EU are SDDS subscribers. With the expected subscription of Cyprus and Malta in the coming months, EU SDDS membership will be complete. It is noteworthy that all of the “old” EU members and several of the transition economy members were “founding” members of the SDDS when SDDS monitoring began in 2000. Also, two members – Bulgaria and Romania – are amongst the seven countries that originally participated in the GDDS but have since graduated to SDDS subscription. (The remainder of the graduates are in Central and Eastern Europe or in Central Asia).

Although not primarily intended as a tool for currency unions, there are two elements to the SDDS that make it particularly useful as an instrument for members, or aspiring members, of a currency union: first, it ensures that data provided for policymakers has appropriate levels of timeliness, periodicity, and coverage, and second that it is apparent to markets and to the countries’ population that policies are based on these data – i.e., data dissemination adds to the credibility of the union.

In contrast, at this point only one country in Sub-Sahara Africa (South Africa) is a subscriber to the SDDS; none of the members of the GCC are. Almost all, however, participate in the

GDDS. Immediate SDDS subscription is precluded in many of these countries through lack of capacity, but for some the issue is more than of residual nervousness about some of the data that they would have to disseminate: in particular, the reserve template, which is a mandatory element of the SDDS, requires detailed disclosure of a country's reserves, which still causes concern in a number of countries.[33]

Many countries in the various planned currency unions have benefited from extensive technical assistance within the framework of the GDDS, and significant improvements in their data can be observed. The so-called "DFID project" of assistance within the GDDS framework to Anglophone African countries is the largest single donor financed technical assistance project operated by the Fund.[34] The TA project is modular, with countries able to choose from a menu as to which elements of their statistical system they wish to prioritize for assistance. One module of this assistance involves helping countries prepare for subscription to the SDDS.

Eventual membership of currency union member countries may be a reasonable aspiration over the medium term that provides a suitable framework for enhancing capacity. In a currency union dominated by one major economy, it may be particularly important that that economy subscribes to the SDDS, or otherwise provides similar levels of disclosure. The IMF is working with several countries of sub-Saharan Africa to help them graduate from the GDDS to SDDS – these include Botswana, Mauritius, Tanzania, and Uganda – and encourages others to head down this path. Over time therefore, one hopes that Sub-Saharan African countries, as well as those in other areas where a currency union is planned, such as the GCC area, may progressively subscribe to the SDDS, thus further underpinning the statistical bases needed to establish and manage these unions.

Finally, it may be worth mentioning that currency unions themselves should assess the quality of their members' statistics, or seek outsiders to provide such an assessment. For example, Eurostat conducts an annual peer review of the statistics of EU member countries (and Switzerland). The IMF conducts the so-called "Data Module of the Report on Standards and Codes" (data ROSCs) on member countries, including those in currency unions, at their request, and has also conducted a data ROSC for one currency area – the East Caribbean Currency Union. Eighteen EU members have had IMF Data ROSCs (a few have had several).[35] Within southern Africa, for instance, Botswana, Mozambique, Namibia, and South Africa have had Data ROSCs – although not always recently. Consideration of a Data ROSC may be useful for a planned currency union.

Conclusions

To conclude, planned currency unions may have weaker convergence criteria than those of the EU. Nevertheless, or indeed because of this, the criteria need to be carefully specified and monitored, and polices need to take account of divergences from the criteria. The EU criteria on inflation, fiscal deficits, and debt are likely to be among such criteria, although others listed in this paper may be brought to bear as well. All this requires the development

---

[33] An important concern of any currency union is the amount of international reserves effecively available for union balance of payments or currency intervention purposes. For future unions, a framework will be needed that can generate information paralleling that in the international reserves template.

[34] The success of the second phase of this project is presently being evaluated, with indications that further expansion of the project may be in train.

[35] Given resource constraints, and the Eurostat peer reviews, the IMF is at the moment not actively soliciting further data ROSCs with EU members.

of statistical capacity – which may take a long time and require extensive technical assistance. The IMF's GDDS and, in time, the SDDS, may well provide useful frameworks for the statistical development necessary to underpin these planned currency unions.

Statistical measurement, standards and definitional issues: towards data convergence?

Rashad Cassim[1]

1. Introduction

The state of economic statistics in a specific country is informed by a complex mix of factors. Both the quality and scope, in particular, can vary considerably not only globally but also amongst countries within a specific region. Access to administrative data, overall skills and institutional capacity, financial resources, and level of economic development are some, amongst a host of other factors, that explain why we have statistical infrastructure and systems that may have evolved very differently from country to country. What this implies, in essence, is that our assessment of the economic performance of one country against another is complicated by very little knowledge of whether standards of measurement are comparable.

In view of a high variance in cross country measurement capability, this paper looks at how countries can improve their attempts to provide a basis for comparison of their economic data through a variety of initiatives. The note has in mind a region like the South African Development Community (SADC) and raises a number of statistical issues if countries within such a region were to integrate in whatever way this may be defined.

2. The challenge of within country inconsistencies

Government statistical offices face a variety of difficulties when it comes to assessing the consistency of data sets. Often, they find that one of their official numbers is contradicted by another. There are several areas where these contradictions are particularly visible. For example, in the area of employment statistics where one set is estimated from households while the other from businesses. Although they more or less measure the same thing, they often give out contradictory signals. This has been the case in South Africa recently with the introduction of a quarterly labour force survey and its comparison to the enterprise quarterly survey.

Other possible areas are typically within the domain of national accounts where GDP, estimated from the production side gives different signals to the expenditure side. Once again, these come about because surveys focusing on the supply side may vary in quality from surveys on the demand side.

These inconsistencies raise an important question. If one statistical agency faces these consistencies with its own data within its own national borders, what does this mean when comparing indicators across countries? This concern has particular relevance if we are to embark on any policy initiative such as trade or monetary integration.

---

[1] DDG Economic Statistics; Statistics South Africa. This is by no means an exhuasitve piece of research. It is at best some notes for discussion purposes.

3. Cross country comparisons

Cross country comparisons of economic data play an important role in a variety of ways. In particular, they provide tools to help in development assistance, evaluation of policy and its impact on the economy and last but not least, the readiness of countries to integrate. Naturally, depending on the issues at hand, data needs vary. For economic integration, flows in goods, services would be of critical importance. This short note, however, looks at some basic macroeconomic data for the purpose of highlighting a few challenges relating to standards definition and transparency. The most central indicator is the measurement of national income or GDP.

What is an area that may be much harder to come to grips with is the extent to which the measure of GDP, for example, in both level and change is comparable in one country relative to another. An alternative way of asking the question is the following. If we were to put under the spotlight, the GDP of South Africa and Zambia, for example, what would say the latter's GDP look like to its current numbers if we transposed South Africa's resources, expertise, statistical infrastructure and collection methods? A very difficult question to answer, but several initiatives can be put in place to begin to appreciate the strengths and weaknesses of country specific data. More will be said about this later.

Similarly, inflation and the system of price statistics underlying its measurement is another important area of concern. Methods differ from country to country and despite the existence of international manuals and guidelines, the extent to which countries rely on these manuals is purely resource dependent. If one country re-weights its inflation basket every three years and introduces quality adjustments, while another has a ten year re-weighting frequency and no quality adjustment, how comparable would their inflation rates be? Once again, we will never know unless we embark on systematic inter-country experiments which maybe very costly and time consuming.

The important point to emphasize is that cross country comparisons are used everyday to make judgements about the behaviour of one economy relative to another. The extent to which these numbers are based on comparable methods and sources, for good reason, is rarely given thought by economists. Statisticians have an important role to play in devising ways of providing ground rules to compare one number against a similar one in another country or countries.

4. Peer review and transparency

The importance of international statistical methods, as developed by a variety of international agencies plays a critical role in providing some confidence in comparative numbers. But despite this there is a long way to go in putting our faith in cross country comparisons of economic and social data.

Any indicators that would be central to assessing the readiness of convergence ought to be subject to scrutiny through an important peer review process. Countries need to invest resources in ensuring that methods and sources are developed and potential differences can be factored in if these exist.

The value of peer review is best demonstrated in the current international prices comparison (ICP) project conducted by the World Bank and other regional institutions. The ICP is the international exercise that answers the question whether country A is more or less expensive than country B at the exchange rates that prevailed in the year of reference. It does so by comparing exchange rate converted prices to an arbitrarily chosen standard – traditionally the US dollar but not necessarily so – and determining whether these are higher

or lower than the prices that would have prevailed if the exchange rate left the consumer indifferent as to where he should make the purchase.

The comparisons are made for about a thousand carefully defined goods and services and in order to preserve sense in the comparisons countries are first compared to their neighbours; sub regions are compared to neighbouring sub regions and in the last instance world regions are compared to each other using a carefully developed set of methods. From this, important indicators such as GDP and GDP per capita, expenditure and other variables provide the basis for cross country comparisons.

In order to provide good estimates of real consumption in the economy, ICPs are constructed on the basis of two important data sets – prices statistics and national accounts which in turn rely on a variety of data sets. The problem is that price statistics are not always collected monthly in all countries, while expenditure weights are not always available. Weighting frequency of expenditure weights differs from country to country. But frequency of data is only one side of the problem. As mentioned, countries are differently endowed with resources and priorities which mean that an investment made in indicator in one country will be different to that of another.

While the ICP project is should not be our main concern, it provides an interesting example of how countries in one region can begin to benefit from working collectively on a common framework. While the preliminary results of the ICP are out showing for example, how per capita income of South Africa differs from that of Egypt in official exchange rate terms compared to purchasing power parity terms, there is more scope to interrogate country specific estimates.

What this implies is that we need more transparency in how countries collect prices, what assumptions are made and so on to get a real sense of the cost of living in these countries. Moreover, we need a sense of how reliable expenditure weights are in different countries to get a real sense of whether price and weights truly reflect conditions in the respective countries concerned. In general, more transparency in methodology is a sine qua non for the success of ICPs, coupled with strong leadership by regional bodies. Without this it may be difficult to have faith in this kind of initiative.

For it to work we need critical reflection amongst countries and to find a way of forcing people to show what they have done. Hence an important ingredient of success is a culture of peer review, promoting transparency in methods and mutual trusts so that countries are confident of each others results.

A culture of contestation and peer review of detailed practices go to the heart of the basis of comparability. This is no substitute for a framework for common definitions. However, definitional considerations and dissemination are central to this process.

An all encompassing indicator like the GDP provides another interesting example of the problems of comparison. It is well know that the framework that informs the GDP is the system of national accounts. The most updated version is the 2008 revision, which is very recent and is just beginning to be rolled out by many developing countries.

In the SADC region, not all countries compile GDP on the basis of System of National Accounts (SNA) 93. In addition not all countries have a quarterly GDP. It may well be that, depending on the extent of implementation of whether it is SNA 68 or a partial SNA 93, the level or size of the economy could differ considerably. But it may be that this is less of problem as rates of change may matter more than levels.

Naturally levels or size of the GDP will become more contested if it is associated with an allocation fund. The level is not only sensitive to which national accounts framework is used but also what assumptions are made about informal sector activity. The extent to which countries invest resources into estimating the true level of GDP by developing detailed estimates of informal sector activity is another area that, at the best of times is riddled with problems.

If levels matter and the stakes are high, one way in which this can be resolved is to introduce common methods and ground rules that would be flexible enough to work around significant country differences but at the same time will allow some comfort to peers that some framework has been adhered to in measuring the informal sector.

5. Standards and dissemination

While it is generally easy to access country data either through websites, or international and regional organisations, it is generally difficult to access meta data allowing peer review of inter-country methods. The importance of peer review of meta data depends on how important economic indicators are to any policy initiatives. It may also be that tolerance for systematic measurement differences in GDP and inflation may be much lower than for other indicators. But the extent to which efforts need to be put in reviewing each others data will driven by the policy agenda at hand.

The Special Data Dissemination Standard (SDDS) under the auspices of the IMF is an interesting example how mechanisms can be put in place for peer review processes. The SDDS was established in 1996 to provide guidance on disseminating data to the public for countries that have or might seek access to international capital markets.

At this stage South Africa is the only country in sub-Saharan Africa that is SDDS compliant. What is important about this initiative is that subscribers must disseminate advance release calendars, giving the public prior notice when these data will be disseminated. In addition, sub-scribers must update and certify their approaches and metadata. This includes coverage, periodicity, and timeliness of the data, as well as on integrity, access by the public, and other aspects of data quality.

While the need to subscribe to SDDS may not be urgent for countries in the SADC region, the systems and principles may provide an important basis for protocol on data standards that may be an important pre-requisite for any policy initiative on convergence. Even a watered down version of these could serve as an important guideline for the SADC region if were wanted to develop standards for measuring each others economic behaviour.

6. Conclusion

All that has been said is meaningless unless policy demand is strong and clearly articulated. While statisticians, in general, need to work consistently at improving the integrity of economic data and work closely with international and regional initiatives on the adoption of common definitions, practices and methods, more effort should be put in opportunistically mobilizing around policy initiatives at the regional level. This will not only signal to policy makers the importance of allocating resources to measurement and statistics but it will also build capacity amongst countries by learning from each other and in the process build confidence in producing good comparable data.

Annex:
Participants in the seminar

Argentina	**Central Bank of Argentina** Ivana Termansen (Ms) Alberto Karlen
Austria	**Austrian National Bank** Aurel Schubert
Belgium	**National Bank of Belgium** Jan Smets Ghislain Poullet
Botswana	**Bank of Botswana** Kealeboga Masalila
Brazil	**Central Bank of Brazil** Renato Gerheim
Bulgaria	**Bulgarian National Bank** Emil Dimitrov
Cameroon	**Bank of Central African States** Albertine Petemoya (Ms)
Chile	**Central Bank of Chile** Manuel Marfán Gloria Pena (Ms)
China	**The People's Bank of China** Jianhong Ruan (Ms) Huiying Gao (Ms)
Denmark	**National Bank of Denmark** Torben Nielsen Bent Christiansen
European Union	**European Central Bank** Steven Keuning Richard Walton Reimund Mink
France	**Bank of France** Alain Duchateau
Germany	**Deutsche Bundesbank** Almut Steger (Ms)
India	**Reserve Bank of India** Allamraju Ramasastri

Italy	**Bank of Italy** Guido Bulligan
Japan	**Bank of Japan** Satoru Hagino Chihiro Sakuraba
Kenya	**Central Bank of Kenya** Angeline Limo (Ms) Musa Kathanje
Lesotho	**Central Bank of Lesotho** Rethabile Masenyetse
Malawi	**Reserve Bank of Malawi** Neil Nyirongo Alnord Palamuleni
Mauritius	**Bank of Mauritius** Mamode H Gendoo
Mozambique	**Bank of Mozambique** Silvina de Abreu (Ms) Pinho Ribeiro Jamal Omar
Netherlands	**Netherlands Bank** Henk Lub
Nigeria	**University of Lagos** Dele E Balogun
Norway	**Central Bank of Norway** Vetle Hvidsten
Pakistan	**State Bank of Pakistan** Azizullah Khattak
Phillipines	**Central Bank of the Phillipines** Rosabel Guerrero (Ms)
Poland	**National Bank of Poland** Michal Gradzewicz
Portugal	**Bank of Portugal** João Cadete de Matos Filipa Lima (Ms) Luís D'Aguiar João Falcão Silva
Romania	**National Bank of Romania** Marian Mustareata

Russia	**Central Bank of Russia** Anton Tikush Ekaterina Prokunina (Ms)
Rwanda	**National Bank of Rwanda** Nizeyimana Willybrold
Senegal	**Central Bank of West African States (BCEAO)** Kossi Tenou
Saudi Arabia	**Saudi Arabian Monetary Agency** Ahmed AlKholifey Ali Alreshan
Seychelles	**Central Bank of Seychelles** Dorotha Michel (Ms)
South Africa	**South African Reserve Bank** Michael Adams Mshiyeni Belle Lebogang Chiloane (Ms) Helene Coetzer (Ms) Barend de Beer Lisa De Nysschen (Ms) Hannu Grobler Michael Kock Nthabiseng Mahlo (Ms) Vukani Mamba Derick Maree Patience Mathuloe (Ms) Thabo Mbeleki (Ms) Phumzile Mbodla Danie Meyer Monde Mnyande Joel Mokoena Nthabiseng Molemoeng (Ms) Susan Motaung (Ms) Linda Motsumi (Ms) Zeph Nhleko Nonny Nhlapo (Ms) Logan Rangasamy Francis Selialia Gloria Setou (Ms) Daleen Smal (Ms) Melinda Smal (Ms) Mandy Smith (Ms) Pieter Swart Gomolemo Tlatsana (Ms) Khathu Todani Johan van den Heever Stefaans Walters Riana Willemse (Ms) Lalitha Yadavalli (Ms)

Spain	**Bank of Spain** Beatriz Sanz (Ms)
Swaziland	**The Central Bank of Swaziland** Acute Dlamini
Switzerland	**Swiss National Bank** Ulrich Kohli
Tanzania	**Bank of Tanzania** Stanislaus Mrema Dickson Lema
Turkey	**Central Bank of the Republic of Turkey** Cigdem Kogar (Ms)
Zambia	**Bank of Zambia** Ivan Zyuulu Jacob Lungu
Switzerland	**Bank for International Settlements** Paul van den Berg Madeleine Opt'Hof (Ms) Christian Dembiermont
United States	**International Monetary Fund** Charles Enoch
South Africa	**Statistics South Africa** Rashad Cassim