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## **Regional Monetary Integration among Developing Countries: New Opportunities for Macroeconomic Stability beyond the Theory of Optimum Currency Areas?**

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# **Regional Monetary Integration among Developing Countries: New Opportunities for Macroeconomic Stability beyond the Theory of Optimum Currency Areas?**

## **Abstract**

Optimum Currency Area (OCA) approaches turn to be inadequate in the analysis of the new regional monetary integration schemes that have sprung up among developing and emerging market economies. Instead, in accordance with the concept of 'original sin' (Eichengreen et al.) we argue that regional monetary South-South integration schemes that, unlike North-South arrangements, involve none of the international reserve currencies, have specific monetary constraints and implications which need to be duly considered. A first comparative analysis of three cases of monetary South-South cooperation in South Africa (CMA), East Asia (ASEAN) and Latin America (Mercosur) shows that these can indeed provide macroeconomic stability gains but that this strongly depends on the existence of economic hierarchies within these integration schemes.

Key words: regional monetary integration, monetary integration theory, development theory, ASEAN, Mercosur, CMA

JEL classification: F33, F36, O11

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## **Zusammenfassung**

### **Regionale monetäre Integration zwischen Entwicklungsländern: Neue Möglichkeiten für makroökonomische Stabilität jenseits der Theorie Optimaler Währungsräume?**

Theoretische Ansätze zum Optimalen Währungsraum erweisen sich als unzureichend, wenn es um die Analyse monetärer Integrationsprojekte geht, die in jüngster Zeit zwischen Entwicklungs- und Schwellenländern entstanden sind. In Anlehnung an das Konzept des „original sin“ (Eichengreen et al.) argumentieren wir, dass regionale monetäre Süd-Süd-Integrationsarrangements, die im Gegensatz zu Nord-Süd-Integrationen keine der internationalen Reservewährungen mit einbeziehen, spezifischen monetären Beschränkungen unterliegen, deren systematische Berücksichtigung innerhalb der Theorie Monetärer Integration bisher weitgehend fehlt. Eine erste vergleichende Analyse von drei Fällen monetärer Süd-Süd-Kooperation im Südlichen Afrika (CMA), Ostasien (ASEAN) und Lateinamerika (Mercosur) zeigt, dass diese tatsächlich makroökonomische Stabilitätsgewinne mit sich bringen, die aber in hohem Maße von der Existenz interner ökonomischer Hierarchien innerhalb dieser Integrationsräume abhängen.

# **Regional Monetary Integration among Developing Countries: New Opportunities for Macroeconomic Stability beyond the Theory of Optimum Currency Areas?**

**Barbara Fritz and Laurissa Mühlich**

## **Article Outline**

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6. Concluding Remarks: OCA Adjusted to the Specifics of Regional Monetary South-South Integration

## **1. Introduction**

Volatile capital flows and exchange rates must be identified today as major sources of instability that have triggered intensive bloc building, including increasingly strong attempts to regional monetary integration (cf. Eichengreen 1994; Cohen 1998, 2002; McKinnon 2005). This holds true especially for developing countries and emerging markets that are characterized by a significantly lower degree of financial development, where exchange rate volatility has a negative impact on growth (Aghion et al. 2006).

In this context, the purpose of this paper is to develop a more differentiated point of view on regional monetary integration by analysing South-South integration within several regions. This permits the exploration of opportunities offered by regional monetary integration among developing countries and emerging markets to enhance macroeconomic stability and economic development in the participating countries (cf. Fritz/Metzger 2006). In accordance with the 'original sin' concept (Eichengreen/Hausmann 1999, 2005)<sup>1</sup>, we determine the assignment of a country to the typological categories of 'South' or 'North' by its ability to accumulate debt in its own currency ('North'), or predominantly in a foreign currency ('South'). We thus consider the term 'South' not entirely as a geographical characterisation. By pointing specifically to the macroeconomic restriction of foreign currency denominated debt for many developing countries, we seek to provide an adequately differentiated definition for the analysis of likely stabilisation gains of South-South integration. We thereby aim to analyse regional monetary integration as a monetary policy strategy to handle macroeconomic instabilities in a more sustainable manner.

The first section of this paper briefly summarises major aspects of the monetary constraints of developing and emerging market economies that influence the incentives, as well as limitations, for regional monetary South-South integration. In this context, we briefly discuss major hitherto identified gaps of the Theory of Optimum Currency Areas (OCA) with respect to the analysis of developing and emerging market economies. The second section of this paper then analyses the present trend towards regionalisation and economic block-building among neighbouring nations as a monetary strategy for immunisation against international monetary instabilities. In the third section, we elaborate on a possible approach to the latter by integrating recent concepts of 'balance sheet effects' and 'original sin' into the analysis of regional monetary integration by emphasizing that the development of regional financial markets may initiate substantial stabilisation gains for SSI. The fourth section elaborates on two dynamic and one stagnating example of monetary cooperation in South-South integration projects in the Association of South East Asian Nations (ASEAN), the Common Monetary Area of Southern Africa (CMA), and in the Mercado Común del Cono Sur (Mercosur). Finally, we outline several preliminary conclusions with regard to potential

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<sup>1</sup> Eichengreen/Hausmann (1999) introduced the term 'original sin' in order to point to the fact that developing countries are not able to borrow abroad in their own currencies. In contrast to the self suggesting metaphor to the religious term 'original sin', the authors point out that the origins and the responsibilities for economic original sin are rather historic than policy-dependent; there are no correlations between the level of original sin on the one side and the level of development, macroeconomic credibility and quality of institutions on the other side; the only explanation found empirically by the authors is economic size. 'Since it is not clear what countries have done to bring this problem upon themselves, it is referred to as <original sin>' (Eichengreen/Hausmann 2002).

stabilisation gains of SSI as a monetary policy strategy and with respect to its recognition in further monetary integration theory research.

As a last introductory remark, it is important to note here that, while this paper concentrates on economic and specifically monetary reasons for regional monetary integration, we assume that the dynamics of monetary integration go beyond purely economic aspects. Political commitment to regional monetary policy coordination is generally assumed to be the precondition and underlying driving force of any integration process.

## **2. Recognising the Monetary Constraints of Less Developed Countries in Monetary Integration Theory**

The series of financial crises in emerging markets within the last decade shows that the unilateral defence of a national currency is a challenging task in the current international monetary system. The inherent instability of the international monetary system in connection with an increasing regionalisation of international trade imposes new monetary constraints, particularly on developing and emerging market economies. As a result, exchange rate and capital flow volatility between international key currencies, such as the US dollar or the euro, has increased significantly (cf. Cohen 1998, 2002; McKinnon 2005). Thus, even in a favourable world economic climate, volatile capital flows and exchange rates must be identified today as major sources of instability to which countries not engaged in a regional monetary integration arrangement are unilaterally exposed. More often than not, these countries fall back on a combination of monetary and fiscal policies to avert depreciation, and if the struggle is lost, on competitive devaluations.

The vulnerability of developing and emerging market economies to external instabilities of the international monetary system has had a substantial influence on the economic debate on sustainable exchange rate regimes, and has enhanced the analysis of balance of payment crises. Economic theory today particularly emphasizes the impact of fluctuations in exchange rates in the presence of a large stock of un-hedged foreign currency denominated debt, fluctuations that may lead to a dramatic decline in the private sector's net worth and credit worthiness, a fall in spending and output, and a financial crisis (Krugman 1997, 2003; Corsetti et al. 1998; Chang/Velasco 2000). In this context, the concept of 'balance sheet effects' is used to describe the deteriorating effects of the interaction between stocks and flows on net worth and net income that are induced by changes of the exchange rate (currency mismatch) and the interest rate (maturity mismatch) respectively (Céspedes et al. 2000; Aghion et al. 2000, 2004; Allen et al. 2002; IMF 2003; Berganza/Herrero 2004; Chue/Cook

2004). Balance sheet exposure of economic entities, e.g. governments, banks, non-financial firms, and households with differing currency compositions of assets and liabilities, systematically increases the risk of solvency crises and thereby the overall economic uncertainty in net debtor economies.

Furthering the balance sheet analysis of short and medium term effects, Eichengreen/Hausmann (1999, 2005) introduce the concept of 'original sin', i.e. the ability of a country to borrow abroad in its own currency as a long term factor in the cumulative impact of balance sheet effects and as a consequence of forced indebtedness in foreign currency. The authors show that most countries outside the major currency blocs and financial centres of Europe or the United States tainted by original sin are unable to borrow abroad in their own currency or at long maturities in their domestic market. Thus most developing and some emerging market countries are faced with higher economic volatility and losses in macroeconomic growth and income. In contrast to balance sheet effects, which are supposed to be mitigated to a certain extent by monetary policy decisions, the negative effects of original sin cannot be limited by domestic macroeconomic policy (Eichengreen/Hausmann 2005).

Rather than domestic policy choices, the generation of economies of scale in financial market development plays an important role for what Eichengreen/Hausmann (2005) call the 'redemption' of domestic and international original sin. Domestic financial market development in developing and emerging market economies plays a crucial role to minimize a country's exposure to currency and maturity mismatches and the share of foreign currency denominated debt (cf. Eichengreen et al. 2006, Eichengreen/Hausmann 2005, Goldstein/Turner 2004, Burger/Warnock 2003, 2004). In order to adequately analyse the role of financial market development for the elimination of mismatches in national balance sheets, we suggest to narrow the common conception of financial development (see Galindo/Leiderman 2003; Galindo et al. 2002) to domestic currency denominated assets and liabilities in relation to GDP. Eliminating foreign currency denominated shares of domestic assets and liabilities in the measurement of financial development reveals the risk exposure and potential mismatches in national balance sheets. For the analysis of regional monetary integration, we suggest to widen the conception of financial market development by taking in credits and deposits that are denominated in the currencies of the integrating countries. Thus, we define regional financial market development here primarily by the sum of financial contracts that are denominated in regional currencies relative to GDP.

Although the described ongoing regionalisation of international trade and monetary block-building encourages many developing and emerging market economies not belonging to either of the major trading or currency blocs to join or establish their own regional monetary arrangements, the regional monetary integration projects of developing and emerging mar-



ket economies have received little attention in economic research. The literature on regional monetary integration outside Europe so far widely lacks a systematic analysis of qualitative differences and the specific conditions of regional monetary South-South integration, in which, unlike in North-South integration, none of the major reserve currencies, such as the euro, US dollar or yen is or would be involved.

Rather, the debate centres on the question whether the optimality criteria once set up by Mundell (1961) should be considered *ex-ante* or *ex-post* determinants for successful regional monetary integration. The recent theoretical debate is giving way to the consensus that the OCA criteria for a sustainable regional monetary integration set up by the first generation literature (Mundell 1961, McKinnon 1963, Kenen 1969), such as trade interdependence, liberalised factor movements, and macroeconomic convergence, should not be considered as exogenous determinants for the success of regional monetary integration. The current argument is that monetary cooperation could even give an impetus to further trade integration, thus realising OCA criteria endogenously during the integration process (Tenreyro/Barro 2003, McKinnon 2004, Rose/Stanley 2005). Further to this, economic research today has verified exchange rate flexibility as a major source of regional instability itself rather than an instrument for adjustment in the case of an asymmetric extra-regional shock (cf. Collignon 1997, Calvo/Reinhart 2000, Devereux/Lane 2002). Based on this literature, one conclusion is that the presence of external debt denominated in foreign currency may have an important effect on the way in which movements in the exchange rate impact on an integrating economy. Thus, the traditional cost-benefit-analysis of regional monetary integration is widely considered as outdated, or at least inappropriate for the analysis of regional monetary integration among developing and emerging market economies (for a summary see Rose 2006; also Schelkle 2001, Devereux/Lane 2002, Mongelli 2002, Bénassy-Quéré/Coupet 2005).

Both traditional monetary integration theory and its critiques are widely designed for developed countries, referring predominantly to the euro area. While the euro area could be seen, at least in part, as a point of reference for traditional 'trade integration first' sequencing, from a theoretical point of view, there is no clear reason for introducing trade integration ahead of monetary integration, particularly among countries with a large stock of unhedged foreign currency denominated debt. In the event of an external shock, these countries first try to avert depreciation and – if the struggle is lost – move on to a policy of competitive devaluations that, especially within regional trade integration schemes, have a beggar-thy-neighbours effect that hinders regional trade integration (see IDB 2002, Shin/Wang 2002). Nevertheless, new approaches to systematic empirical and theoretical research on re-

gional monetary integration arrangements outside Europe remain scant.<sup>2</sup> With a few exceptions, a comprehensive analysis of the specific macroeconomic conditions and integration dynamics of regional monetary integration among developing and emerging market economies is lacking in economic integration theory. Due to its case-by-case nature, current approaches to monetary integration theory have not yet compiled a new analytical framework for the analysis of more heterogeneous regional monetary integration arrangements, as, for example, in the case of developing and emerging market economies (cf. Bénassy-Quéré/Coupet 2005; Priewe 2006).

### 3. Contrasting North-South and South-South Integration

Looking for possible solutions for the outlined monetary constraints that net debtor countries are confronted with, empirical research on possible ways for the redemption of original sin has shown that the economic size of an economy reveals a significant influence on the ability of these economies to borrow abroad in their own currency (Eichengreen/Hausmann 2005). Following traditional portfolio theory, the influence of economic size can be explained by economies of scale in the diversification of investors' portfolios. Thus, SSI may contribute to macroeconomic stabilisation due to the initiation of a size effect within the enlarged common currency area (Panizza 2006).

Recognizing their potential to generate economies of scale in regional financial markets through a regional monetary arrangement, the potential stabilization gains of SSI need to be understood as a monetary strategy including a specific exchange rate regime choice of the integrating countries. Taking into account the international trend toward building economic blocs, it seems fruitful to understand the exchange rate regime options for developing and emerging market economies excluded from the economic blocs around the international key currencies from the perspective of their relation to the latter – instead of the usually applied corner solutions perspective. By focusing on the relations to the key currencies' economic blocs, four types of regimes exist:

- *unilateral defence* of the national currency in an independent currency regime;
- *unilateral subordination* to one of the key currencies ('dollarisation');

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<sup>2</sup> The research is either conducted by referring to the European experience (cf. Mongelli 2002, Wyplosz 2003, Mundell 2003, McKinnon 2004), including the new EU members in Eastern Europe (e.g. Souza/DeLombaerde 2006), or by conducting individually designed regional case studies; for example, extensive research is now elaborating on the trade and monetary integration process in East Asia (e.g. McKinnon 2004, Choi 2005, Schnabl 2006) and, to a lesser extent on each of the regional integration arrangements in South America (e.g. Eichengreen 1998, Giambiagi 1999, Fritz 2006) and South Africa (e.g. Masson/Pattillo 2004, Metzger 2006).

- *bilateral integration* into one of the currency blocs centred around a key currency (*North-South integration – NSI*);
- *bilateral cooperation and integration* in a regional monetary integration scheme or currency bloc of external debtor countries (*South-South integration – SSI*).

The term 'South', as already mentioned, is used here in the sense that indebtedness in foreign currency of most developing countries and partly also of emerging markets is the key determinant for sustainable development. The original sin concept (Eichengreen/Hausmann 1999, 2005) evidences the particular importance of the denomination and composition of domestic and external debt for economic growth and development. The assignment of a country to the categories of 'South' or 'North' is determined by its ability to accumulate debt in domestic currency ('North'), or predominantly in a foreign currency ('South') according to its original sin (Eichengreen/Hausmann 2005). Thus, by definition, SSI is pursued by countries which accumulate debt in foreign currency, thereby most often suffering from a restricted lender of last resort function, balance sheet effects in the event of a currency devaluation and original sin and, as a result, small and undiversified financial markets. While levels and composition of internal and external debt may vary among the participating countries, SSI needs to deal with the specific monetary constraints of the member countries (Fritz/Metzger 2006).

From this point of view, different forms of SSI need to be analysed relative to other remaining available monetary policy options for stabilisation and sustainable development. It becomes clear that NSI offers developing and emerging market economies a 'best of all worlds' by integrating bilaterally with the currency in which their debt is denominated, since, in this case, all external debt is turned into internal debt, reducing both potential balance sheet effects and original sin to zero.<sup>3</sup> However, since the formation as well as expected stabilisation gains of an NSI depend on the willingness of the Northern central bank to expand its lender of last resort function to the Southern economy, NSI cannot be considered as an available option for the majority of developing and emerging market economies today. Therefore we argue that, by considering SSI as a 2<sup>nd</sup> best strategy compared to the 1<sup>st</sup> 'best of all worlds' of NSI, South-South arrangements need to be analysed from the viewpoint of the existing available policy alternatives, namely, unilateral dollarisation or the individual defence of flexible exchange rates with typical boom-and-bust waves within the unstable context of the current international financial system.

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<sup>3</sup> The process of Eastern enlargement of the euro area that is currently under way provides a unique example of an NSI and the related stabilisation gains for the new member states (cf. DeGrauwe/Schnabl 2005).

With this in mind, in the following section we take on the perspective of developing and emerging market economies by shedding some light on their major monetary constraints in order to identify a preliminary set of determinants that may contribute to successful SSI, in spite of or even due to their greater regional heterogeneity. We draw particular attention to two remaining questions for further research regarding to what extent intra-regional heterogeneity in the sense of intra-regional hierarchies hinders or stabilises regional monetary integration dynamics and to what extent SSI may promote the development of regional financial markets. Further to sheer economic size, we also point to intra-regional differences in debt structures and original sin levels in this regard.

#### **4. Differentiating Forms of Regional Monetary South-South Integration**

While many of the East Asian, Latin American and South African developing and emerging market economies are similarly 'Southern' in the sense of our analytical differentiation of 'South' and 'North', a closer look into their different intra-regional conditions and forms of monetary integration leads to a further differentiation within this group of 'Southern' economies and monetary cooperation projects. This section outlines essential assumptions on the nature of different levels and forms of SSI and their respective potential to enhance macro-economic stabilisation in the integrating countries. In the next section, we will then specifically address three empirical cases of regional monetary cooperation and non-cooperation: the Association of South East Asian Nations (ASEAN) and the Common Monetary Area of Southern Africa (CMA), compared to one example of a stagnating integration process in the Mercado Común del Cono Sur (Mercosur).

To begin with, we divide the typological category of 'Southern' regional monetary integration projects into different levels and forms of regional monetary cooperation and integration. In order to find out more about the influencing factors that might cause differing integration dynamics and potential stabilisation gains of SSI, we consider not only full regional monetary integration but also different forms of regional monetary cooperation into the category of SSI. Thereby we assume that SSI comprises certain forms of monetary cooperation that might result in further monetary integration. Irrespective of the chosen extra-regional fixed or floating type of currency regime, each form of regional monetary cooperation may bring about a specific degree of stabilisation to the intra-regional exchange rates. As an explanatory contrasting point of reference, the status of non-cooperation is additionally considered.

- *Non-cooperation*: is characterised by a lack of commitment and fulfilment of binding agreements by the respective neighbouring countries, most often resulting in ‘beggar-thy-neighbours’ policy in the effect of an extra-regional shock.
- *Monetary cooperation*: is characterised by a closer monetary policy coordination which may appear either in the form of
  - a regional clearing union as a binding intra-regional payment arrangement for intra-regional trade flows to avoid balance of payment imbalances;
  - a regional liquidity fund as a binding commitment for mutual provision of liquidity in the event of extra-regional shocks, either through intra-regional swap arrangements, credit lines, or intra-regional reserve pooling;
  - intra-regionally fixed exchange rates weighted in a currency basket of the regional currencies; or
  - fixed but adjustable regional currencies at par rates.
- *Monetary integration*: is characterised by either the creation of a single currency or the adoption of a regional currency.

Given this differentiation, we further examine how the major monetary constraints that characterise Southern economies as presented in the third section influence the integration dynamics of SSI. As the interaction of financial and particularly bond market development with regional trade and monetary integration is still the subject of current theoretical and empirical research (cf. Rose 2006), we make an attempt to systematise the related effects. The analysis of regional monetary integration, in other words of optimality criteria for currency areas, needs to recognize these determinants that delineate the potential stabilization gains of SSI compared with NSI:

- potential net *balance sheet effects*, depending on the national debt structure and the denomination of assets and liabilities;
- *original sin*, including possible ways of redemption, such as *enlarged and diversified financial markets*.

In this context, we consider the principal drawback of *non-cooperation* of monetary policies within RTAs to be the inability to prevent the beggar-thy-neighbours policies among neighbouring net external debtors that can be highly damaging for the whole regional integration process (cf. Eichengreen 2004). Among countries with a net current account deficit and a net external debtor status in foreign currency, the regional rivalry for FDI and other capital inflows may easily disrupt trade integration efforts in the case of external shocks, since these countries compete for foreign exchange earnings in order to achieve current ac-

count surpluses (Fritz / Metzger 2006a). In this context, by aiming at harmonised intra-regional exchange rates, intra-regional monetary policy coordination generally provides enhanced prospects for intra-regional stability (cf. Wyplosz 2003, Branson / Healy 2005, Williamson 2005).

Thus, deepened forms of *regional monetary cooperation*, such as a liquidity fund or regionally fixed exchange rates, may reduce the probability of regional macroeconomic disturbances through stabilized intra-regional exchange rates. Potential stability gains of different forms of regional monetary cooperation essentially depend on the extent to which enlarged regionally integrated financial markets can be developed within an SSI arrangement with stabilized intra-regional exchange rates.

The literature on original sin shows that a *full monetary integration* may reduce currency and maturity mismatches in regional balance sheets due to scale effects in portfolio diversification of an enlarged regional currency area (Eichengreen / Hausmann 2005; Panizza 2006). While there is as yet no case of a fully integrated SSI, the literature shows that the potential stabilisation gains of regional monetary integration tend to depend on the size effect realised by monetary integration, in other words, the absolute and relative increase in terms of GDP, trade, and domestic credit (ibid.). While the threshold value at which the size effect of SSI realizes with regard to original sin, i.e. the ability to borrow abroad in the regional (or, in the case of cooperation, one of the regional currencies) has to be tested empirically, we see a large potential for larger economies in SSI to establish leading roles in intra-regional financial markets. From the perspective of SSI, we therefore argue that the development of regional financial markets plays a crucial role in minimizing exposure to currency and maturity mismatches (cf. Eichengreen/Hausmann 2005, Kahn 2005, Eichengreen et al. 2006). Thus, the increased economic size of a common currency area may bring about macroeconomic stabilisation effects, especially through an increased denomination of assets and liabilities in the regional currency in regional financial and particularly bond markets, and through the increased size of the regional bond market (cf. Bossone / Lee 2002; Burger / Warnock 2003, 2004; Goldstein/Turner 2004; Eichengreen/Hausmann 2005; Eichengreen et al. 2006).

While literature suggests in part that a currency union may help to overcome some of the disadvantages for countries possessing only 'small' financial systems, we consider the turnaround of international financial investment as a long term and rather difficult endeavour for regional monetary integration in the 'South'. Therefore, we point to the ability of the integrating countries to borrow at least regionally in domestic currencies as a realisable stepping stone towards intra-regional stability that may be supported by different forms of regional monetary South-South cooperation. The intra-regional stabilization of exchange rates

in SSI may thus contribute to regional financial market development and portfolio diversification.

The following section outlines the integration processes in Mercosur, ASEAN / ASEAN+3 and CMA in a comparative view by discussing to what extent the different forms of regional monetary cooperation may or may not provide potential stabilisation gains and further chances of a deepened regional integration and financial market development.

### **5. Differentiating Regional Monetary Cooperation among Southern Economies: Southern Africa, East Asia and Latin America/Carribbean**

Empirical evidence of both established and intended regional monetary cooperation can be found in several regions of the world (see table 1). The most prominent examples of prospering regional monetary cooperation among developing and emerging market economies can be found in the Association of South East Asian Nations (ASEAN) (see Dieter 2006), in the Common Monetary Area of Southern Africa (CMA) (see Metzger 2006), and in the Gulf Cooperation Council (GCC) (see Sturm/Siegfried 2005). Further to this, repeated attempts to regional monetary cooperation can be found in the Mercado Común del Cono Sur (MERCOSUR) (see Fritz 2006), among the Eastern European countries of the Commonwealth of Independent States (CIS) (see Schnabl 2006), among the Caribbean CARICOM Single Market and Economy (CSME) (see Worell 2003) and in the Pan-African Initiative (see Masson/Pattillo 2004), particularly with regard to sub-regional cooperations such as the West African Monetary Zone (WAMZ) (see Bénassy-Quéré/Coupet 2005).

Here, attention is particularly drawn to three cases: two progressive regional monetary cooperation arrangements in ASEAN and CMA on the one hand, and one stagnating regional monetary cooperation project in Mercosur on the other.

These examples of SSI generally demonstrate a similarly high vulnerability to external imbalances of the international monetary system, and a character similar to an SSI arrangement involving 'Southern' economies without a major international reserve currency. At the same time, from an intra-regional perspective, the macroeconomic context of the three cases differs first and foremost in terms of

- intra-regional hierarchies regarding potential net balance sheet effects due to differing national debt structures and relations of net debtor/net creditor countries, and
- intra-regional hierarchies between national levels of original sin, again due to differing national debt structures and influenced by financial market depth and economic size of the integrating countries.

**Table 1: Characteristics of Existing, Planned and Hypothetical South-South Regional Monetary Cooperation**

Regional monetary integration arrangement	Point of Reference: EMS II (expanded euro area)	Partly Commonwealth of Independent States (CIS)	Western African Monetary Zone (WAMZ)	CARICOM Single Market and Economy (CSME)	Mercado Común del Cono Sur (MERCOSUR)	Common Monetary Area of Southern Africa (CMA)	Association of South East Asian Nations (ASEAN)	Gulf Cooperation Council (GCC)
Start of Cooperation	2004	2003	2002	1992	1991	1974	1967	1981
Integration category	NSI	SSI	SSI	SSI	SSI	SSI	SSI	SSI
Number of participating countries	Estonia, Latvia, Lithuania, Poland, Czech Rep., Slovak Rep., Hungary, Slovenia, Malta, Cyprus (10)  EU member states (15)	Russia, Belarus, Ukraine, Kazakhstan (4)	Gambia, Ghana, Guinea, Nigeria, Sierra Leone (5)	Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago (13)	Brazil, Argentina, Paraguay, Uruguay, Venezuela (5)	South Africa, Namibia, Lesotho, Swaziland (4)	Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam (10)	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates (6)
Form of monetary cooperation	Exchange Rate Band (EMS II); Currency Union	none; envisaged monetary union	Exchange Rate Band against the US dollar; envisaged monetary union	none; envisaged common currency	none; envisaged common currency, 'Monetary Institute of Mercosur'	Fixed but adjustable exchange rates	Liquidity Fund (ASA, BSAs); envisaged common ASEAN currency	Exchange Rate peg to US dollar; envisaged Currency Union

Source: Authors' table.

On the foil of these arguments, we exemplify the above mentioned aspects in:

- a) the CMA, as a region with differing original sin levels and debt structures incorporating a strong hierarchical intra-regional relation;
- b) ASEAN, as a prospering integration process among countries with similarly high levels of original sin albeit differing debt structures; and in
- c) a case of a stagnating integration process among countries with similar levels of original sin and debt denominated in foreign currency in MERCOSUR.

#### **a) Regional Monetary South-South Cooperation Involving Distinct Levels of Original Sin: the Case of CMA**

The Common Monetary Area of Southern Africa (CMA) is the most longstanding and sophisticated monetary cooperation project exclusively between developing and emerging market economies with regard to the commitment of member countries to shared seignor-



age, fixed intra-regional exchange rates, a common foreign exchange pool, and a common capital control system (Metzger 2006)<sup>4</sup>.

The CMA is characterised by a strong hierarchy, with South Africa at the top, which excludes similar vulnerabilities with the other member countries – Lesotho, Namibia and Swaziland – to external shocks. South Africa determines the reference values regarding inflation for the CMA and – as the South African rand follows a managed floating – regarding extra-regional exchange rates as well. On the other hand, South Africa itself is a typical emerging market economy which has been hit by high exchange rate fluctuations. However, original sin of South Africa, both in domestic and international terms, is strikingly low compared with other emerging markets in Asia and Latin America (see table 2). Approximately two thirds of South Africa's total foreign debt is denominated in rand (South African Reserve Bank 2006). In contrast, the other CMA member countries have only marginal access to international foreign markets, and limited capability to attract foreign investors.

In both Lesotho and Namibia, the South African rand serves as legal tender; Swaziland abolished the legal status of the rand in 1986, although de facto it is still widely used. The regional banking sector, not only in South Africa but also in Lesotho, Namibia, and Swaziland, is dominated by four South African commercial banks, which together have a market share of about 90 per cent. Hence, the CMA can be perceived as one regional financial market, with the South African banks as the major regional players.

In the case of CMA, the smaller partners within the regional monetary cooperation seem to gain significantly from the SSI, resulting in a low level of interest rates and increased macro-economic stability, compared to other countries in the region with similar economic characteristics, but outside of CMA.

## **b) Regional Monetary South-South Cooperation Involving Similarly High Levels of Original Sin: the Case of ASEAN**

The Association of South East Asian Nations (ASEAN) has become the most dynamic and, as such, a prominent example for regional monetary cooperation among developing and emerging market economies. Since the Asian financial crisis, ASEAN monetary and financial integration has been fostered by the engagement of its strong neighbouring plus-three partners China, the Republic of Korea, and Japan, with the objective of financial crisis prevention. A bilateral regional swap arrangement for members facing temporary liquidity or balance of payments problems was launched together with the plus-three partners in 2001

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<sup>4</sup> The CMA case study presented here is based in part on unpublished work from Martina Metzger, whom we want to thank here by this way.

(‘Chiang Mai Initiative’) and transferred into a multilateral liquidity fund of about US\$ 80 billion in 2005.

**Table 2: Characteristics of Mercosur, ASEAN and CMA**

<b>Regional monetary cooperation project</b>	<b>CMA</b>	<b>ASEAN</b>	<b>MERCOSUR</b>
<b>SSI level</b>	Monetary cooperation	Monetary cooperation	Non-cooperation
<b>Current form of monetary cooperation</b>	Fixed but adjustable exchange rates	Liquidity Fund; envisaged common currency	None; envisaged common currency
<b>Regional average of international original sin (2001)</b>	South Africa 0.9 other countries n.a.	0.57	1.0
<b>Regional average of domestic original sin (2003)</b>	South Africa 0.08 other countries n.a.	0.47	0.96
<b>Foreign currency share of total debt (2002, percent)</b>	South Africa 14.63 other countries n.a.	Indonesia 52.53 Malaysia 18.59 Philippines 35.15 Thailand 22.07 other countries n.a.	Argentina 87.71 Brazil 30.95 Uruguay n.a. Paraguay n.a.
<b>Highest share of regional GDP (2004)</b>	98% (South Africa)	32% (Indonesia)	78% (Brazil)

Sources: IMF’s International Financial Statistics 2004, South African Reserve Bank 2006, INTAL / IADB 2005, ASEAN secretariat ([www.aseansec.org](http://www.aseansec.org)). Data on original sin levels: Eichengreen / Hausmann 2005, Hausmann / Panizza 2003, Mehl / Reynaud 2005; data on the foreign currency share of external debt: Goldstein / Turner 2004; n.a.: no data available.

Since 2003, and with strong support of the institutional initiatives of the Asian Development Bank (ADB) and the Executives’ Meeting of East Asia and Pacific (EMEAP), the development of regional financial markets through issuance of and investment in local currency denominated government bonds under the Asian Bond Market and Bond Fund Initiatives (ABMI and ABF) has become a major pillar of regional financial cooperation. The aim is to develop an efficient regional bond market which permits borrowing in the regional currencies in order to address the problem of currency and maturity mismatches in local balance sheets, in particular among the ASEAN countries (cf. Eichengreen et al. 2006). While the ‘Northern’ neighbour Japan is involved in EMEAP, the bond market initiatives target the

engagement in and of the strongest ASEAN countries Indonesia, Malaysia, Philippines, Thailand and Singapore together with China (cf. Sa/Guérin 2006).<sup>5</sup>

The core ASEAN region is characterised by intra-regional hierarchies with regards to net creditor and net debtor positions, access to international financial markets, and capability to attract foreign investors in the region. The strongest ASEAN countries partly show debt structures that are very similar to those in advanced countries, with a growing share of long-term domestic currency denominated debt, and are constantly turning from debtor to regional creditor countries (cf. McKinnon 2005a, Jeanne/Guscina 2006, see table 2). In contrast, most of the smaller ASEAN economies have only limited access to international financial markets. The ASEAN countries together with China follow similar monetary strategies with an extra-regional orientation to the US dollar in their currency regimes and through the reduction of debt shares denominated in foreign currency. At present, this is reflected in an intra-regional exchange rate harmonisation that could provide a valuable basis for enhanced regional monetary and financial integration (Branson/Healy 2005).

### **c) Regional Monetary Non-cooperation: the Stagnating Integration Process in Mercosur**

Compared with its far reaching goals that include monetary coordination and even a common regional currency, the Mercado Común del Cono Sur (Mercosur) currently represents not more than an unrealized customs union, characterised by a reduced and volatile degree of trade integration and repeated episodes of beggar-thy-neighbours policies concerning trade-related conflicts. Monetary and macroeconomic coordination mechanisms among Mercosur members are absent, despite repeated declarations by political leaders of the region about plans for monetary cooperation and the creation of a common regional currency (see Carvalho 2006).

The main member states follow opposite strategies in terms of enhancing the access to debt finance: Whereas Argentina, after its default on international debt in 2002, established capital inflow controls in order to prevent another increase in external debt, Brazil, after its currency crisis in 1999, opted for the opposite direction to open up its capital account in order to maintain capital inflows. Currently all member states realise a floating exchange rate regime, with only Brazil following an inflation target rule, whereas Argentina in fact does managed

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<sup>5</sup> The prospering regional monetary cooperation dynamics in ASEAN are enhanced by the stabilising potential of its strongest neighbouring economy, Japan. However, ASEAN is similarly influenced by the accompanying unresolved regional anchor currency dilemma between China as a 'Southern' emerging market and Japan as a 'Northern' industrialised economy that arises the question how far the selective involvement of Japan influences the development of local currency bonds and thus financial market integration in the ASEAN.

floating in order to maintain international competitiveness. Consequently, intra-regional exchange rates continue to show a high degree of volatility.

The deadlocked integration process in the Mercosur region impressively demonstrates how high degrees of liability dollarisation and rather similar levels of original sin may limit the opportunities of SSI to contribute to intra-regional exchange rate adjustment (Fritz 2006). Even if Brazil dominates the Mercosur with regard to economic weight (see table 2), there is no sign of clear regional economic leadership, as all member countries show a very high degree of original sin and of net external debt, hence symmetric reactions to external shocks, even if often with time delays due to differing exchange rate regimes (Fritz 2006). Regional financial integration in terms of banking ownership continues to be insignificant within Mercosur, and regionalisation of bond markets remains absent.

We see a series of arguments that, from the viewpoint of monetary constitution, add to the overall scepticism regarding the future of the Mercosur project. It is not only the lack of common political and economic goals, as, for example, the differing position towards bilateral trade agreements with USA that makes the future of Mercosur rather uncertain. From our point of view, the main question is what kind of stabilisation gains can be expected from Mercosur as an SSI with similar levels of original sin and of potential balance sheet effects since the first round stabilisation effects of monetary policy cooperation seem to be limited. Regional monetary and financial integration would require severe efforts to harmonize macroeconomic policies in the region in order to stabilise the intra-regional exchange rate. There are some efforts to coordinate initiatives on regional macroeconomic harmonization through the REDIMA (Proyecto Red de Diálogo Macroeconómico; [www.eclac.org/redima](http://www.eclac.org/redima)), organized by CEPAL (United Nations Economic Commission for Latin America and the Caribbean). The question arises, why these are less ambitious and weaker than the initiatives to be observed in ASEAN in South East Asia.

Looking at the three cases of Mercosur, ASEAN and CMA, it becomes obvious that intra-regional hierarchies in terms of original sin and net creditor/net debtor relations play a crucial role for the success of an SSI project. A clear hierarchy in terms of indebtedness in foreign currency seems to provide favourable conditions for a successful SSI and may provide further perspectives for regional monetary integration and financial market development. In this case, the country with the lowest level of original sin and indebtedness in foreign currency or, in other words, with the strongest lender of last resort function would have the capacity to intervene in favour of the weaker countries in the case of extra-regional shocks. In this sense, both stronger and weaker countries could benefit from regional monetary integration, with the larger economies establishing potentially stabilising leading roles in re-

gional financial markets. Table 2 summarises the discussed aspects of SSI in Mercosur, ASEAN and CMA.

This leads us to assume that intra-regional hierarchies involving differing levels of original sin and indebtedness in foreign currency constitute a major success factor for intra-regional exchange rate stabilisation and enhanced regional monetary South-South integration. Our brief comparative look on the three cases of SSI indicates that in the case of Mercosur, intra-regional hierarchies of original sin and debt structures are absent. Compared to ASEAN and CMA, these missing hierarchies might narrow the expected stabilisation gains too much to engage in the process of monetary cooperation that would be costly in terms of loss of national sovereignty.

## **6. Concluding Remarks: OCA Adjusted to the Specifics of Regional Monetary South-South Integration**

On the foil of the specific monetary constraints of developing and emerging market economies and a rather scant number of systematic research approaches to regional monetary integration among developing and emerging market economies, we first made a qualitative distinction between North-South and South-South integration with respect to different levels of original sin. Second, we came to the conclusion that regional monetary South-South integration needs to be understood as a strategy of immunisation against international monetary instabilities. Third, in order to identify potential stabilisation gains of South-South integration in this sense, we further distinguished regional monetary cooperation from complete regional monetary integration and the contrary status of continued non-cooperation. Empirically, we took a closer look at two promising regional monetary cooperation projects in ASEAN and in the CMA region, and at the contrasting case of the deadlocked integration process in Mercosur. By recognizing the specific monetary constraints of South-South integration projects in the Common Monetary Area of Southern Africa (CMA), the Association of South East Asian Nations (ASEAN) and the Mercado Común del Cono Sur (Mercosur), we show that different forms of exchange-rate cooperation bring along varying opportunities for regional macroeconomic stabilisation and for deeper forms of regional monetary South-South integration, although they would not be considered as an OCA.

Out of this perspective on a number of similar and diverse features in the exemplified regions, we have come to the following major three conclusions:

- The success of a regional monetary integration project among developing and emerging market economies depends first and foremost on the successful stabilisa-

tion of intra-regional exchange rates. Extremely divergent intra-regional exchange rates and their serious negative consequences for regional trade and growth, as in the case of Mercosur, serves to argue that, against conventional wisdom, exchange rate cooperation in South-South regional integration is necessary, even in cases of a relatively low degree of regional economic integration.

- Due to high unhedged foreign currency shares of total debt, high original sin levels, and the influence of balance sheet effects caused by exchange rate fluctuations, South-South integration among developing and emerging market economies is subject to specific macroeconomic conditions. However, even if international original sin might remain high and the ability to borrow internationally in domestic currencies might remain limited, the establishment of a regional anchor currency might enhance regional financial market development and borrowing in regional currencies as well, with stabilisation gains for both the weaker and the stronger countries. In other words, a clear hierarchy in terms of indebtedness in foreign currency seems to provide favourable conditions for successful deeper regional monetary South-South integration.
- In that sense, a first look to regional monetary cooperation in East Asia and Southern Africa shows that, even without the creation of a common currency area, regional monetary cooperation with a harmonised regional monetary policy is able to enhance financial market development in the integrating region by increasing the share of assets and liabilities denominated in regional currencies. With an increasing denomination of financial assets and liabilities in regional currencies, prospects for sustainable macroeconomic stability and development rise due to a strengthened lender of last resort function of the regional central banks.

Although we can assume that, for enhanced regional monetary cooperation, a clear hierarchical structure will be highly favourable for harmonising intra-regional exchange rates and stabilising expectation-building by agents engaged in intra-regional activities, the significance of such stabilisation gains in practice and their effects on the macroeconomic stability of the countries involved needs to be researched in more detail and with a solid empirical fundament. First, the limited size effect of South-South integration from the viewpoint of larger integrating countries needs to be examined as a potentially hindering factor for further monetary integration and, on the other hand, in light of the specific economic and non-economic incentives that these countries may develop with regard to SSI, particularly with respect to the development of regional financial markets. Second, the influence of regional monetary cooperation on regional financial markets is still an open question in integration

theory (cf. Bossone/Lee 2002, Rose 2006), particularly with regard to SSI. The experiences of regional monetary and financial market integration in East Asia show that the dynamics may depend on the political involvement of regional multilateral financial institutions by supporting long-term investments denominated in domestic or regional currencies that initiate spill-over effects on the denomination of private actors' activities in domestic or regional currencies. Third, the specific effects of regional monetary integration on domestic and international levels of original sin, and related aspects, such as regional bond market development in South-South integration projects, still require the attention of economic research (cf. Panizza 2006). In addition, the study of regional monetary South-South integration suffers from a number of limitations, above all, the availability and comparability of data with regard to the denomination of debt instruments and other assets and liabilities (cf. Burger/Warnock 2003, 2004, Jeanne/Guscina 2006, Mathisen/Pellechio 2006). Hence, empirical research on regional monetary South-South cooperation requires further development of adequate data sets for the purpose of further systematic study.

Taking these limitations into account, we make a case here for a differentiated approach of monetary integration theory when including developing and emerging market economies. By presenting a systematic approach for the analysis of what we call regional monetary South-South integration, we conclude that the integration among less developed countries can, under certain circumstances, be a prospective development strategy that provides opportunities for a sustainable development process in these countries. Future research should analyse to what extent intra-regional heterogeneity and hierarchical economic structures between the integrating countries may contribute to the success of regional monetary integration, particularly among developing and emerging market economies.

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