

SYSTEMS OF INDICATORS FOR MONITORING REGIONAL INTEGRATION PROCESSES: WHERE DO WE STAND ANNO 2010?

Systematically monitoring regional integration processes is a relatively recent activity, but its potential is quite important. From an academic perspective, it allows us to get a more precise idea of the depth and speed of certain regional integration processes, more clarity on the relative importance of regionalization versus globalization processes (and their interaction), and a better understanding of the meaning and significance of the so-called new regionalism. From a policy-making perspective, a better monitoring has the capacity to make integration policies more development effective and integration processes more transparent, involving higher degrees of participation and legitimacy, and therefore, making the processes more sustainable. In this paper the authors present a critical review of recent proposals and experiences with setting up indicator systems for monitoring regional integration processes in different parts of the world. The review covers both conceptual (academic) proposals as well as indicator systems developed by or for regional organizations such as the European Commission, the European Central Bank, the UN Economic Commission for Africa, ASEAN, COMESA, ADB, EDB, etc. A systematic comparison of the different indicator systems (covering both technical and political-economy aspects) makes it possible to evaluate their relative qualities and to identify best practices.

1. INTRODUCTION AND AIMS OF THIS PAPER

In the emerging multi-level governance architecture, the regional level (here understood as: supra-national) has become more important over the last decades and is likely to continue to gain importance in the foreseeable future. At the same time, and in line with the evolution at other governance levels, the variety of institutional arrangements and the types of actors involved are significantly increasing.

Institutionalised regional integration and cooperation includes, for example, ad hoc projects and policy coordination, networking, functional integration, free trade areas, regional economic organizations, etc. Hettne and Söderbaum [2004], for example, presented a typology of regional cooperation mechanisms, where economic integration appears as a special case. Their typology was based on two criteria: whether cooperation is delivered by an organization or network, on the one hand, and whether cooperation is unidimensional or multidimensional, on the other. According to these authors, there is a tendency observable from mainly uni-

lateral forms of cooperation (often at the level of organizations) towards multidimensional and hybrid forms of cooperation (*Table 1*).

This institutional complexity, in combination with the discourses developed around it, lead to a renewed need for adequate tools for monitoring, assessment and comparison of regional integration processes.

Table 1. Typology of regional cooperation mechanisms

	Organization	Network
Unidimensional	Sectoral organizations Security organizations Economic integration arrangements Regional development banks	Research networks Public-private partnerships Civil society networks
Multidimensional	Comprehensive organizations River basin organizations UN Economic Commissions	Growth triangles Cross-border micro-regional organizations Development corridors

Source: Hettne and Söderbaum [2004: 5-6]

Systematically monitoring regional integration processes is a relatively recent activity, though, but its potential is quite important. Different actors have appeared on this emerging scene and have shown that there is a growing interest from the side of policy-makers in such systems. The European Commission, the European Central Bank (ECB), the Inter-American Development Bank (IDB), the Asian Development Bank (ADB), the Eurasian Development Bank (EDB), ALADI, and UNECA, for example, have expressed their intentions to get involved in active monitoring or have developed and/or applied monitoring systems [De Lombaerde and Van Langenhove 2006].

From an academic perspective, systematic monitoring allows to get a more precise idea of the depth and speed of certain regional integration processes, more clarity on the relative importance of regionalization *versus* globalization processes (and their interaction), and a better understanding of the meaning and significance of the so-called *new regionalism*, viewed as a multi-dimensional phenomenon.¹ It allows us to explore the future of the international governance architecture, and clarify whether trends may be expected in the direction of multilateralism, (multi-) regionalism or a (new) combination of both [Fратиanni and Pattison 2001; Hettne 2005].

From a policy-making perspective, better monitoring has the capacity to make integration policies more effective and integration processes more transparent, involving higher degrees of participation and legitimacy, and therefore, making the processes more sustainable.

¹ On the concept of new regionalism, see e.g. Hettne et al. [1999-2002]; Breslin et al. [2002]; De Lombaerde [2003]; Söderbaum and Shaw [2003]; Gavin and De Lombaerde [2005]; Farrell et al. [2005].

In this paper we present a critical review of recent proposals and experiences with setting up indicator systems for monitoring regional integration processes. The review covers both conceptual (academic) proposals as well as indicator systems developed by or for regional organizations. A systematic comparison of the different indicator systems (covering both technical and political-economy aspects) should make it possible to evaluate their relative qualities and to identify best practices. The exercise presented here aims at contributing to the design of better indicator systems in the future.

Section two presents the aims and methodology of the paper. Section three evaluates the selection of indicator systems. Section four concludes.

2. METHOD OF THIS PAPER

2.1. CHOICE OF THE CASES TO BE EVALUATED

For this study we are interested in indicator systems designed to monitor regional integration processes in a systematic way, involving the use of a 'significant' number of indicators and variables. The criteria that are used to select the cases (indicator systems) are rather broad. We considered both academic and institutional initiatives; both conceptual and applied systems; both broad and narrow (specific) systems; both qualitative, quantitative and mixed systems; and both prototype and finalized systems. We have tried to be as inclusive and complete as possible in the identification of relevant cases, but cannot – of course – guarantee exhaustiveness.

We included the following institutional proposals: (i) the ECB proposal to examine regional institutional and economic integration in MERCOSUR (as compared to the EU) [Dorrucci et al. 2002] (further referred to as: ECB-MERCOSUR); (ii) the various schemes proposed and/or implemented by the European Commission and its regional partners, in the framework of interregional relations²; (iii) the COMESA proposal as a response to DG DEV's proposal (COMESA, 2002) (COMESA); (iv) UNECA's proposal to monitor regional integration in Africa (UNECA) (UNECA, 2001, 2002, 2004); (v) the indicator system proposed for ASEAN [Dennis and Yusof 2003], both in its full (ASEAN) and short (ASEAN-KEY) versions; (vi) the EDB proposal to monitor regional integration within Eurasian economies (EDB) (EDB, 2009); and (vii) the ADB system of indicators to measure economic integration and cooperation in East Asia (ADB) [Capannelli, Lee and Petri 2009].

The schemes proposed by the European Commission include: the EU-MERCOSUR Joint Photography (EU-MERCOSUR) [European Commission 1998]; the EU-CAN Joint Evaluation (EU-CAN) [Grupo de Trabajo UE-CAN 2005a;b]; the EU-Central America Joint Evaluation (EU-CENTRAL) [Grupo de Trabajo Conjunto CA-UE 2005a;b;c]; and the EU-ACP Reviews (EU-ACP) [European Commission 2002; European Commission 2005b; World Bank 2002; COMESA 2002].

² For the EC we have selected the indicators systems for (mainly) ex ante monitoring purposes. The EC has also a well developed system of ex post monitoring - the Results Oriented Monitoring (ROM) System - that is used for the monitoring of the effectiveness of EC funded programme.

In addition, the following ‘academic’ proposals, were included in our sample: (i) Hufbauer and Schott’s proposal to assess regional integration in the Americas [Hufbauer and Schott 1994] (further referred to as ‘H&S’); (ii) its modified version by Feng and Genna [2003; 2004; 2005] (‘F&G’); and (iii) Ruiz’s GDRI model [2004] (‘GDRI’). Fourteen indicator systems have thus been selected for the evaluation exercise. A number of other proposals and initiatives have been left out of our analysis.³

2.2. POLITICAL ECONOMY ASPECTS: BY WHOM? FOR WHOM? WHY?

Before tackling and evaluating the technical aspects of indicator systems let us first have a look at their political economy aspects. Indeed, the evaluation of the technical quality of a system cannot be seen independently from the actors involved or concerned (users and producers of the monitoring system), their goals and the goals of the indicator system itself.

Actors possibly interested in the design of indicator systems for regional integration include: regional organisations, individual countries, academia, civil society, and external governmental and non-governmental actors. In line with the shifts suggested by Hettne and Söderbaum [2004] in the direction of networked and multi-dimensional forms of regional cooperation, as mentioned above, it might be expected that more (and different) actors will be involved in monitoring in the future.

An important distinction that should be made is between uni-regional and pluri-regional (comparative) monitoring and indicator systems. Uni-regional systems refer to the regional integration process in one region. They can be designed by/for regional actors (e.g. regional organisations, regional civil society organisations, ...), by extra-regional actors (e.g. donor governments, international organisations, ...), or by a combination of both. Pluri-regional systems refer to two or more processes and feature a comparative aspect. Again they can be designed by different kinds of actors. Obviously, the comparative aspect implies a number of specific technical issues.

For the, politically more sensitive, comparative systems, a choice is possible between traditional comparative indicators (allowing for a direct comparison of the scores of particular regions on a particular variable) and ‘relative’ (‘reflexive’) indicators (comparing first the performance of each region with its own objectives) [De Lombaerde and Van Langenhove 2006]. The World Bank [2002], for example, favours relative comparisons. A combination of comparative and relative indicators is also possible. A concrete example of a case where both types of indicators are combined is the system of Indices of Economic Integration Effort in Africa [UNECA 2001: 2]. In that system two yardsticks are used: (i) the self-defined pre-determined

³ For example, DG Internal Market's Internal Market Scoreboard, launched in 1997 and published since then, and the Eurobarometer were left out of the scope of our evaluation because of their high level of specificity, although these tools are obviously interesting in terms of their design and in terms of the communication strategy built around them [European Commission 1997; 2005; Costea et al. 2008] (see, http://europa.eu.int/comm/public_opinion/standard_en.htm).

targets for target-driven indicators (if they exist for particular integration groupings), or (ii) an average of the *n* best performers.

When designing an indicator system for the monitoring of regional integration processes, a number of 'political choices' should further be made. Following De Lombaerde and Van Langenhove [2006], these include: (i) the *degree of specificity* of the system: referring to the number of aspects of integration (or sectors) that are covered; (ii) the *level of assessment*: referring to the fact that systems can be designed to monitor the dynamics of a group of (integrating) countries or regions, or otherwise, to monitor the participation of individual countries/regions in the integration schemes;⁴ (iii) the *treatment of overlapping memberships*⁵, relating to the choice of countries to be included in the monitoring exercise and leading to technical problems concerning the disentanglement of effects of regional integration; when, as also observed by the World Bank [2002], the evaluation of a regional arrangement involves 'rewards' or 'sanctions' from the international (donor) community, should be able to handle asymmetries within the groupings, such as passive or obstructive behaviour by one or a minority of members, caused by e.g. occurrence of a conflict, diverging policy preferences, etc; and (iv) the *distinction between policy discourse, effort, implementation and effect*.⁶

2.3. CONCEPTUAL FRAMEWORK

Between the political economy aspects and the technical aspects of indicator systems stands the conceptual framework used to build the indicator system, whether it is explicitly presented or implicitly present. Reflecting the fact that there is no unique definition of regional integration, and that it is a phenomenon with evolving characteristics, again a number of options lay open: regional integration conceived as a process or a state [Balassa 1961]; adoption of a uni-dimensional or a pluri-dimensional approach; focus on institutionalised or 'real' integration; focus on 'positive' or 'negative' integration [Tinbergen 1954; Pinder, 1968]⁷; focus on one actor or more

⁴ One should be aware that focussing on one level of analysis, say the regional level, might bias the results. Simultaneous policies (be it in different policy areas) in opposite directions might yield a net effect in either direction. A bias might occur if integration policies tend to be common policies, whereas disintegration policies (protectionist reactions) tend to be national, which might well be the case. Theoretically, ideal indicators would be net indicators, showing whether a given set of policies and measures taken during a period of time contribute or not to integration. Such indicators are however difficult to construct.

⁵ On the issue of overlapping memberships, see for example UNECA [2004]. It is particularly problematic in Africa, and it is becoming more problematic in South America.

⁶ In this context, the distinction between 'positive' and 'negative' integration is relevant. The former might suggest more 'policy effort' and be captured as such by many indicators, although nothing assures ex ante that 'positive' measures have more important effects than 'negative' integration [De Lombaerde and Van Langenhove 2006].

⁷ Low levels of integrative ambition are associated with negative integration, whereas high levels of integrative ambition are associated with positive integration, although it is difficult to conceive negative integration without a minimum amount of positive measures [Best 1997: 56]. Integration should be seen as a varying mixture of both types of measures.

actors; adoption (or not) of a typological approach, like Balassa's well-known stages approach [Balassa 1961] or a new regionalism typology like Hettne and Söderbaum's based on the regionness concept [Hettne and Söderbaum 2000]; etc. The definition of regional integration will usually imply that related concepts like coordination or cooperation are also to be defined.⁸

Concepts refer to theoretical models of regional integration. These theoretical constructs suppose causal or systemic relationships between variables and suggest ways of interpreting the results of monitoring exercises. Especially relevant within this context is the strong normative tradition in integration studies [Bekemans, Fiorentino and Van Langenhove 2000: 55-7]. This, in turn is explained by the fact that research on regional integration is very much steered by its context and, historically, by the development of European integration. One should be careful not to reduce the evaluation of the facts (actions, decisions, effects), taking place in particular regions, to a mechanical application of a model labelling them as positive or negative, progress or decline, functional or dysfunctional, etc. [De Lombaerde and Van Langenhove 2006].

The Balassa model of economic integration [Balassa 1961], for example, has been extremely influential in academia and lends itself very well for measuring 'progress' of a particular integration scheme. However, the model is too often confused with a set of general laws governing integration processes. In the real world, simultaneity, inversion and endogeneity are rather the rule than the exception [De Lombaerde and Van Langenhove 2006].

2.4. VARIABLES AND CATEGORIES

The choice of categories of variables is, on the one hand, linked to the chosen level of specificity of the indicator system and, on the other, to the theoretical framework employed. Alternative ways of classifying variables include: (i) the sectoral approach with a classification by policy areas; (ii) the sectoral approach with a classification by disciplinary fields; and (iii) the input-output approach [De Lombaerde and Van Langenhove 2006]. The first two approaches are straightforward, although border cases will occur.

The input-output approach is theoretically the most attractive because of its analytical focus; however, it is not necessarily the most practical for setting up a monitoring system. In the input-output approach, as 'inputs' can be considered: structural characteristics of the integrating area (number of countries, shared borders, etc.), asymmetries, capacities to integrate, commitments, governance structure, overlapping memberships, etc. As 'outputs' could be considered: policy implementation (as

⁸ Recently, for example, the problem of conceptualisation has been illustrated very well in the context of the discussions about the RCRP proposal of the European Commission. The World Bank [2002], proposed to distinguish between 'integration' and 'cooperation' on the basis of the degree of sovereignty that countries agree to transfer to supranational institutions, but recognised that the borderline is not clear-cut. The Commission itself proposed a category of inter-state interaction called 'functional regional cooperation' (see below).

intermediary output), effects on flows, effects on growth, degree of interdependence, etc. A special category of inputs could be called pre-conditions for integration. Although originally intended to assess (ex ante) the possibilities and potential of (future) integration agreements, the variables involved can also be used in a dynamic manner to evaluate the compatibility of the formal integration process with the pre-conditions. In addition, these pre-conditions are not static, they are often endogenous because of feed-back effects of the integration process.⁹ H&S and F&G are examples of indicator systems focussing on these pre-conditions. Ex ante studies have not been limited to trade and economic issues. Best [1997], for example, analysed the public-management capacities for regional integration and identified a set of variables that shape the complexity of the implementation of the integration objectives ('levels of integrative ambition'). The author identified nine key variables, various of these consisting of sets of variables themselves, that shape the complexity of the implementation of the integration objectives. The variables are: (i) number of member states, (ii) relative sizes of the participating countries, (iii) different levels of development, (iv) scope of coverage, (v) type of impact, (vi) time perspectives, (vii) degree of real interdependence, (viii) political framework, (ix) perceptions, values and norms.

In order to have a benchmark against which the indicator systems can be compared and evaluated, we propose to use the conceptual framework as developed in De Lombaerde and van Langenhove [2006]. The different systems that will be evaluated use a different terminology, ways of presenting, and ways of classifying which make it difficult to compare their contents. Our purpose is to screen the existing systems and to consider each individual variable and re-classify them in our pre-established categories. The conceptual framework which will be used here, combines features of the three generic ways of classifying variables, as explained before. In this conceptual framework, the distinction between real and formal integration is considered as not really appropriate; parallel (but interconnected) processes of regional integration are considered: institutional (more or less capturing what is usually called 'formal'), political, economic, cultural, etc. The effects of integration policies and the evolution of regional interdependence will obviously have feedback effects for the institutionalisation process, thus conceptually restoring its endogenous character.

In principle, variables and indicators are included in the framework on the condition that they inform us on the regional integration process. This seems straightforward, however, one should be aware of the fact that a (large) grey zone exists, consisting of variables that are, as such, purely national indicators but that can easily be transformed into indicators of convergence/divergence.¹⁰ Growth rates and inflation rates for member states illustrate this point very well. Another group of variables that are in a grey area, are the variables that belong to political economy approaches to integration, such as: underlying motivations of integration processes, role of interest groups, and permeability of regional institutions, etc. Without

⁹ See e.g. the discussion on the endogeneity of OCA criteria [Frankel and Rose 1998].

¹⁰ As in the case of the COMESA proposal [COMESA 2002], this can well be only a matter of presentation (i.e. not involving calculations of convergence indicators).

understanding the underlying motivations of a regional integration effort, it is difficult to evaluate.

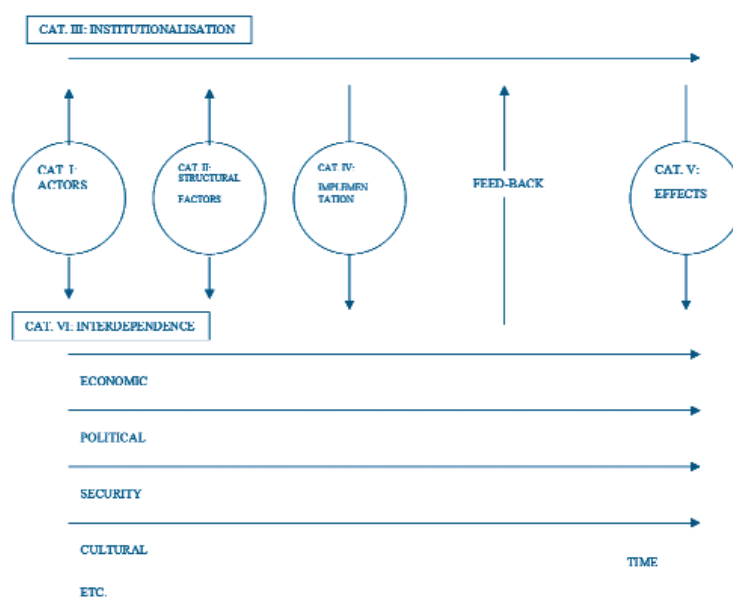
The conceptual model is shown in figure 1. Six categories of variables are considered: (i) actors, (ii) structural factors, (iii) institutionalisation, (iv) implementation, (v) effects, and (vi) interdependence.

The categories of *actors* and their structural characteristics (*structural factors*), contain information about the basic building blocks of the integration effort. The category of actors refers to the number and type of actors involved and their behaviour. The number of countries or regions involved has a direct influence on the dynamics of the decision-making process. From an administrative and political point-of-view, the number and character of the policy-making and implementing levels is also important. In addition to their numbers, within each category of actors a list of attributes can be established to reflect their character and importance. The intensity of their involvement and their importance in the decision-making process can be evaluated through quantitative methods (number of meetings attended, financial contribution, etc.) or qualitative assessments (expert opinion).

The category of *structural characteristics*, includes all those variables that refer to structural characteristics of the integration grouping and of its members. They should logically be restricted to variables that are directly or indirectly related to the integration process. These variables might relate to the scale of the arrangement, the structure of the grouping and of each component, the nature of the components, etc. Proximity of the actors is obviously a relevant variable to evaluate the potential and sustainability of an integration grouping. Gravity type models of economic interaction have shown significant (negative) relationships between the intensity of economic relations between countries and their distance. It has been shown also that proximity/distance is a typical multi-dimensional variable; physical, economic, political, cultural, linguistic, and historical proximity are all relevant variables. Structural asymmetries play an important role in integration processes although the direction of causalities is not clear. Its measurement can be based on variables of population, the economy, external relations, and so on.

The actors involved in integration processes take steps (measures) that are supposed to contribute towards regional integration and the 'Institutionalisation' of the region and its integration effort. These political decisions are implemented to some extent (*implementation*) and have or have not certain impact (*effects*) in different areas (social, economic, cultural, etc.). Also relevant is the institutional basis on which the whole integration process rests (for example, constitution-based versus treaty-based integration processes); institutionalisation should thus be analysed on different levels. Obviously, institutional activity has quantitative (for example, number of treaties or ministerial meetings) and qualitative aspects (content of the treaties or decisions). Productivity measures can be applied to the institutional activity, thus linking policy outputs to their resource cost.

Seen from the perspective of citizens and policy makers, the most important category of variables should be the *effects* of regional integration policies. It is also the most problematic category to include in the system. This is related to the fact that it is difficult to isolate effects of integration from those of other phenomena. Integration is a complex and dynamic process not necessarily adequate for causal



Source: De Lombaerde and Van Langenhove [2006].

Figure 1. Conceptual framework

explanation. On top of that, for many aspects of integration, there are no comparable data sets nor standardised research methodologies available. This is certainly true for the analysis of static effects of integration (directly linked to the reallocation of resources among sectors and countries), but even more so for the analysis of the dynamic effects of integration. Although researchers often concentrate on the short term (static) effects of integration measures rather than on the dynamic ones, it should be stressed that the sign (direction) of the effects does not necessarily coincide, so that the former cannot necessarily be used as a proxy for the latter. In practise, it is often explicitly understood and accepted that short term costs (transition costs) are the price to pay for reaping long term benefits.

Effects of integration, together with structural conditions and exogenous influences, can explain the degree and evolution of *interdependence* between the regional actors. Effects are thus attributable to specific integration policies, whereas the degree of interdependence is autonomously measured and reflects the evolution of interdependence in different dimensions. Interdependence is used here as a substitute for what is often called 'real' or 'de facto' integration. *Interdependence* tries to capture the degree of 'regionness' of the region, or at least some aspects of it. Regionness is also a central concept in the new regionalism approach [Hettne 1999; Hettne and Söderbaum 2000].

Interdependence can be assessed on different dimensions, such as economical, political, cultural, security and infrastructural. These dimensions coincide broadly with those considered in the proposal for a system of indicators of interconnectedness, made by Held and others in the framework of the Global Transformations project [Held et al. 1999]. The following dimensions are being considered in that project: (i) political-legal indicators, (ii) military indicators, (iii) economic indicators, (iv) migration indicators, (v) culture indicators, (vi) environment indicators, (vii) global stratification. Many of the indicators proposed could be transformed into

indicators of regional interconnectedness. The measurement of the degree of interdependence can be approximated via the measurement of the flows (of people, goods, capital, information, etc.) that are interconnecting the actors or via direct measurements of correlations of variables (for example, symmetries in business cycles, interest rate spreads, etc.). For the forms of interdependence that are more difficult to measure, like political interdependence, indirect measurements should be considered. The patterns of voting behaviour in multilateral organisations might, for example, be a possible indicator of regional policy convergence/divergence.

Interdependence through trade flows is probably the most studied kind of interdependence. Its study is usually based on simple indicators as the relative importance of intra-regional trade and its growth, which can easily be calculated. More sophisticated indicators are available, which correct the former for size effects in order to allow for methodologically sound inter-regional comparisons [Iapadre 2006].¹¹ The indicators of the degree of integration can be complemented with indicators of the direction and nature of commercial integration. This is particularly relevant from an analytical point of view. The composition of the flows induced by the integration process are good indicators of the underlying socio-economic changes that take place in the member countries. In the case of trade flows, for example, indicators of intra-industry trade and of the technological content of intra-regional trade can easily be calculated. The ex post analysis of the flows of (public) funds between national governments and the supranational institutions within a group of countries (a region) also permits an evaluation of the degree of their integration, provided that these flows reflect the actual level of organised solidarity, the importance of the supranational institutions, etc.

2.5. AGGREGATION AND WEIGHTING

Indicator systems can be designed as *tableaux de bord*, consisting of an ordered presentation of the values of the selected relevant variables, permitting - for each variable - cross-country or cross-region comparisons and time series analysis, but without establishing explicit weights for the variables and their categories. The designers can go a step further though and add calculations of aggregate indicators per country, per region and/or per sector. Aggregation procedures 'pre-process' the data so that their reading by the users is simplified, but it should be added that this is not necessarily true for its interpretation. Aggregate indicators might become too abstract, especially if they are multi-dimensional.

The index problem can be solved in different ways. The weighting procedure can be based on statistical criteria (based on the statistical contribution of the variables to the variation of a goal variable)¹², expert opinion or practical considerations (data availability, lack of knowledge or valid criteria, etc.) [De Lombaerde and Van Langenhove 2006]. In any case, weighting procedures will always be arbitrary

11 See also, the Regional Integration Knowledge System (RIKS) at: www.cris.unu.edu/riks.

12 For an example of statistical weighting, see e.g. the CSGR Globalisation Index [Lockwood and Redoano 2005]. On methodological aspects, see Nardo et al. [2005].

to some extent. The World Bank [2002], for example, pointed to the problem of combining indicators applying to different topics or different regional arrangements, and suggests to accompany the quantitative data with qualitative assessments.

3. EVALUATION OF THE SELECTED SYSTEMS OF INDICATORS

3.1. BY WHOM, FOR WHOM AND FOR WHAT PURPOSE?

Of our set of 14 indicator systems under evaluation, three proposals are proposed by academics, eleven by regional institutions.¹³ Of the latter, five belong to the EU family, thus illustrating the active role the EU is playing in promoting regional integration worldwide.

EU-ACP

The Cotonou agreement places particular emphasis on regional economic integration and the role of regional organisations (see articles 28–30 of the agreement and articles 6–14 of annex IV). Annex IV article 9 sets out some principles for regional resource allocation, which are comparable to those for national resources allocation. The article states *that the indicative resources allocation shall be based on an estimate of the need and the progress and prospects in the process of regional cooperation and integration*. Regional mid-term reviews (MTRs) and end-of-term reviews are explicitly foreseen in article 11 of the agreement.¹⁴ The Cotonou text is clear on the key principle, i.e., flexibility of financial cooperation to ensure that it is kept constantly in line with the objectives of the Agreement. Therefore MTRs are based on three elements: (i) the review process should provide an update of the regional strategy paper (RSP) analysis, i.e., update on the political, economic and social situation, priorities and objectives of the region concerned, highlighting any changes occurred since the RSP programming; (ii) regional MTRs should in principle not lead to a change in the RSP but should assess the implementation of the regional indicative programme (RIP), ensure its correct implementation and, where appropriate, lead to the formulation of concrete proposals to adapt the RIP to evolving circumstances; (iii) regional MTRs may lead to a revision of the region's allocation by the Community in the light of current needs and performance. In addition, and following the EU Council conclusions of March 2003, "MTRs should take into

¹³ Although external experts were contracted in cases like ASEAN and UNECA.

¹⁴ Cotonou Agreement, article 11 of annex IV: "Financial cooperation between each ACP region and the Community shall be sufficiently flexible to ensure that operations are kept constantly in line with the objectives of this Agreement and to take account of any changes occurring in the economic situation, priorities and objectives of the region concerned. A mid-term and end-of-term review of the regional indicative programmes shall be undertaken to adapt the indicative programme to evolving circumstances and to ensure that they are correctly implemented. Following the completion of mid-term and end-of-term reviews, the Community may revise the resource allocation in the light of current needs and performance."

account and operationalise, as appropriate, EC/EU policy initiatives and commitments taken at the international level, while respecting the principles of subsidiarity, ownership and concentration of aid.”

Although the Cotonou agreement does not explicitly require annual operational reviews within regional programming, such reviews were organised in 2003 for each of the programming regions in accordance with the principle of rolling programming and by analogy with the country strategy paper (CSP) review process.

The EU-ACP Reviews were based on reports prepared by DG DEV geographical services, with support from Delegations with a regional responsibility. These reports were discussed by the Commission services in the framework of a region team meeting and were finally formalised in the regional review meeting with the participation of regional authorising officers (RAOs), national authorising officers (NAOs), Heads of Delegation (HoDs), Member States and non-State actors. The 2003 operational reviews have concentrated on a limited number of priorities, such as: (i) 9th EDF programming and the use of old EDF resources; (ii) performance indicators in the intervention framework (9th EDF) to measure results in focal sectors; (iii) preparation of the Economic Partnership Agreements (EPAs); and (iv) preparation of MTRs.

The main weakness of the exercise has been the lack of involvement of the RAOs in the preparation of the operational reviews and the difficulty of ensuring participation of the RAOs, NAOs, HoDs, Member states and non-state actors (NSAs) in the exercise. In the absence of representatives of the region's member countries, it was not always possible to properly assess the economic integration process and the major constraints of its implementation at national level. In some cases there was no region team meeting but the 2003 draft annual report was only shared with the relevant services in headquarters and Delegations. Therefore, the annual reports cannot always be considered as real joint reports.

EU-MERCOSUR

The inter-regional Framework Co-operation Agreement signed by the EU and MERCOSUR in Madrid in 1995 led to the creation of three Technical Working Groups (on Goods, on Services and on Trade Norms and Discipline). The TWGs met for the first time in Brussels in March 1997, and for the second time in Punta del Este, Uruguay, in November 1997. In accordance with the agreed calendar, the TWGs have worked towards preparing a detailed photography of the current status of trade relations between the European Community and MERCOSUR, which has been finalised in April 1998. The assessment served as a background document for the preparation of the interregional association agreement between the European Community and MERCOSUR. In order to prepare each part of this photography, the EC and the MERCOSUR delegations to the Working Groups have conducted a number of comparative analyses of various aspects and areas of EC-MERCOSUR trade relations covering the period from 1990 to 1996. They have also exchanged complete data bases and information bases on all facts and legislation directly relevant to these analyses.

The Joint Photography establishes the final agreed description of the current situation and of its recent evolution as regards trade in goods and in services and trade

standards and disciplines (regulations; technical norms and conformity assessment; commercial defense instruments; competition rules; public procurement; rules of origin and veterinary and phytosanitary rules).

EU-CAN and EU-CENTRAL

In the case of EU-CAN and EU-CENTRAL, the Ad-Hoc Joint Working Groups dealt with the technical aspects of this phase of the joint assessment exercise. These Working Groups reported their conclusions and recommendations to the 9th Joint Committee and met three times per year (usually during the months of April, June/July and October) alternating locations between both regions.

The Madrid Declaration (2002) provided the political mandate to the European Commission for the negotiation of political dialogue and cooperation agreements with CAN and CA. The prospects for an Association Agreement, including FTAs, rest on two preconditions: (i) completion of the Doha Development Agenda; (ii) achievement of a sufficient degree of Regional Integration. An agreement on the Joint Assessment was reached during the EU-LAC Summit in Guadalajara in May 2004 and was formalized in January 2005 during the EU-CAN mixed commission. Under the joint exercise, officials from both sides met on a regular basis to review the state of integration and assessed whether the progress achieved permits to start negotiations. The exercise was conducted in parallel but independently with CAN and CA. The final report of the EU-CAN exercise was published in July 2006 (Joint Working Group EU-CAN, 2006). However, recent developments in the Andean Community, and particularly the abandoning of the common external tariff in July 2007, illustrate the meager impact of the whole exercise on the integration process.

ECB-MERCOSUR

The main goal of the contribution of the European Central Bank was “to test for the hypothesis that institutional integration interacts with economic integration at the regional level” [Dorrucci et al. 2002: 6]. The authors sought to draw lessons from the European integration experience for Mercosur.

COMESA

The COMESA proposal [COMESA 2002] was a response to DG Development’s proposal for the RCRP (EU-ACP). The short-term goal was to identify indicators to measure the effectiveness of COMESA programmes in promoting regional integration. The aim was to build up a time series which could measure the effectiveness over a specific period of time. This would allow COMESA as an organisation to determine which programmes are more effective than others and allow some fine-tuning of programmes which are not performing well. The long-term goal was to develop a regional surveillance mechanism (RSM): (i) to provide a measure of how successful regional policies are in promoting regional integration; (ii) to highlight potential issues which might slow down the regional economic integration and allow the region to develop timely policy responses; (iii) to take the initiative to determine

which parameters the region itself thinks are important in terms of poverty reduction and development rather than relying on preconceptions of outside agencies; (iv) to develop a set of indicators to measure the progress being made in regional integration which can act as both “conditionalities” for the PRSP approach and as a basis for assessing risk for outside investors; (v) to develop a set of regional lock-in mechanisms through a peer pressure system; (vi) to be used as a trigger mechanism for budgetary support in cases where countries need such assistance to continue with the process of liberalization.

UNECA

Progress in regional integration was assessed by UNECA in order to analyse the performance of each regional country (individually and relative to other member countries) in achieving specific objectives set by the treaties as well as to evaluate the overall progress made by the regional economic communities towards realizing the goals and objectives of the African Economic Community. The assessment focused on the progress made after the African Economic Community was established by the Abuja Treaty. The indicators have been based on the eight sectors that are common to the treaties of the regional economic communities. The sectors are: trade, money and finance, transport, communications, energy, agriculture, manufacturing and human development and labour markets. The Composite Integration Index which assesses the ‘relative performance of a regional economic community’ is also developed based on the eight sectoral indices. The main objectives of the indices are listed as follows: (i) “[t]o assess each country’s performance and relate it to the goals and objectives of each regional economic community and that of Africa as a whole, as well as to assess the performance of each economic community to that of Africa; (ii) to compare the contributions of each member country in a regional economic community towards the realization of such goals and objectives, in addition to the contributions that each regional economic community has made towards the realization of goals and objectives of the continent at large; (iii) to monitor the performance of each country, regional economic community, and the continent as a whole for regional integration efforts over time; (iv) to enhance the quality of the analysis by providing indices for scores and rankings at country, regional economic community and continent levels” [ECA 2004: 244].

ASEAN and ASEAN-KEY

The report on Developing Indicators of ASEAN Integration is a technical document prepared for the ASEAN Secretariat and funded by the Australian Regional Economic Policy Support Facility (REPSF). The objective of the ASEAN proposal was to measure “the progress towards economic integration of the 10 ASEAN nations in the context of the aim to move towards an ASEAN Economic Community” [Dennis and Yusof 2003: 1], a comprehensive set of indicators has been identified. These focus on the following areas, trade in goods, investment, trade in financial and other services, infrastructure, customs, standards, mutual recognition agreements and conformity assessment, small and medium enterprises, e-ASEAN and intellectual property. While

a complete set of indicators to monitor the progress of economic integration has been recommended, a limited set of indicators has been selected as key integration indicators to be used in the initial stages of monitoring (ASEAN-KEY).

EDB

The Eurasian Development Bank [2009] assesses the level of regional integration in post-Soviet countries through the System of Indicators of Eurasian Integration. The short-term goal is to describe the dynamic of integration between 1999 and 2008 and measure the level of integration after the Bing Bang of 1990. The SIEI proposed is based on the analysis of regional integration and regional co-operation. Regional integration is described in terms of integration of markets and convergence of economic system. The objectives of the indicators are:

1. To evaluate the overall level of regional integration achieved by countries and regions in terms of convergence of economic systems, overall cross-border flows of production factors and critical areas of cooperation, which can become areas of actual solidarity.
2. To assess the performance of the ongoing projects of regional integration and measure the members commitment, the fulfil of the institutional mandate and its role in the regional integration process.

The EDB plans to collect data and compute the integration indicators on an annual basis. The long-term goal is to build a consistent system of regional integration in Eurasia to systematically assess the drivers of regional integration, and how regional integration affects country members.

ADB

Regional integration in East Asia is driven by intra-industry production networks and the transmission of economic development from more to less developed areas. In this case market integration is leading regional integration. Nevertheless, regional cooperation is weak and regional institutions are underdeveloped. Capannelli, Lee and Petri [2009] measure regional integration with reflexive and comparative indicators through quantitative indicators of market integration and policy cooperation. Quantitative input indicators of political and cultural similarity are calculated to explain the disequilibrium between institutional and economic integration in East Asia.

Academic proposals (H&S, F&G, GDRI)

The integration process of the western hemisphere is rather complex due to the vast differences between the countries of North and South America. Two sets of indicators have been developed by Hufbauer and Schott [1994] to analyse this process of economic integration in the western hemisphere (H&S). One assesses the level of

economic integration achieved by each sub regional group and the other examines the level of readiness of these groups in order to increase the degree of hemispheric integration. The indicator system proposed by Feng and Genna [2004] is directly based on H&S. The F&G system measures the level of regional integration according to six categories associated to regionalism. The integration achievement score was used mainly to test the following hypothesis “a critical condition for the emergence of a successful economic union is that the homogenization of domestic economic institutions and the process of regional integration reinforce each other”. The model has been applied to Africa, Asian and Latin America.

The GDRI model developed by Estrada [2004] enables the process of regional integration to be analysed from a global perspective using a social, political, economic and technological framework. This analytical tool is said to be applicable to examine any form of regional integration based on past and present situations and characteristics. Unlike a majority of indicator system which focus on monitoring one aspect of regional integration, this tool encompasses a multidimensional approach. The GDRI model comprises the Regional Global Development Index which is “an indicator to compare different historical periods of the regional integration process in any region” [Estrada 2004: 13] and the Regional Integration Stage Index “measures the degree or stage of the regional integration development that any region achieves in its different stages of evolution” [Estrada 2004: 15].

In general, it can be observed that only few actors are apparently involved in the monitoring exercises. In addition, communication with the broader public in the region is underdeveloped, if not completely absent. The participation of different actors in the monitoring exercise (regional organizations, national governmental actors, civil society, international organizations, academia), could considerably improve the monitoring exercise. Especially the quality and choice of indicators, transparency and relevance of the process and its sustainability could greatly benefit from higher levels of participation.

Summarising, the following objectives of indicator systems can be identified:

- to measure the level of integration of a given regional grouping (H&S, GDRI, EU-MERCOSUR, EDB, ADB¹⁵);
- to measure the pre-conditions for (further) integration (H&S, EDB, F&G, ADB);
- to assess the performance and contribution of individual countries in regional groupings (UNECA, EDB);
- to evaluate regional integration policies (ASEAN, ASEAN-KEY, COMESA, EDB);
- to compare regional integration in different regions (UNECA, H&S, GDRI, EDB, ADB, EU-MERCOSUR, ECB);
- to evaluate donor-financed support programmes for regional integration (EU-ACP);
- to assess needs and merits of regional organizations upon which to base future aid decisions (EU-ACP);
- to be strategically used in the context of a negotiation process (EU-MERCOSUR, EU-CAN, EU-CENTRAL).

15 In theory, EU-CAN and EU-CENTRAL have also this objective.

3.2. CONCEPTUAL FRAMEWORKS USED

The conceptual framework is often not very developed in the proposals under consideration. Most of the cases exclusively focus on economic integration without further elaborating the conceptual framework. Some include also institutional aspects (ECB-MERCOSUR, H&S, F&G, EDB, ADB; three cover also technological variables (GDRI, UNECA, ASEAN). Table 2 shows the policy areas covered by the different indicator systems.

Table 2. Coverage of Policy Areas

Indicator System	Policy Areas						
	Economic	Social	Institutional	Political	Monetary	Cultural	Technological
H&S-AS	x		x		x		
H&S-RI	x			x	x		
EU-MERCOSUR	x		x	x			
ECB-MERCOSUR-INST	x		x		x		
ECB-MERCOSUR-ECO	x				x		
COMESA	x		x	x	x		
ASEAN Road Map	x		x		x		x
ASEAN-KEY	x				x		
GDRI	x	x		x			x
UNECA	x	x			x		x
EDB	x	x	x	x	x		
F&G	x		x		x		
ADB	x	x	x	x	x	x	
EU-CAN	x		x	x			
EU-CA	x		x	x			
EU-ACP	x		x	x	x		

Note: AS = Achievement Scores of Economic Integration; RI = Readiness Indicators; INST = Institutional Index of Regional Integration; ECO = Economic integration measure.

Only a few proposals deal with conceptual issues. In the ASEAN proposals, for example, a distinction is made between integration, openness and interdependence [Dennis and Yusof 2003: 24–25]. In the EU-ACP review process it is stressed that integration and cooperation should both be examined. The European Commission (2002b) further sustained that it favours indicators of inputs and efforts, rather than results and effects.

The EDB Report contains an extensive methodology [EDB 2009]. Regional cooperation, regional economic integration and social integration are defined and discussed. The study also distinguishes between existing approaches measuring regional integration: (i) market integration; (ii) economic convergence; and (iii)

institutional integration. A critical literature review and the technical aspects of monitoring the indicators are also developed.

A few proposals explicitly refer to a theoretical framework. The conceptual framework of GDRI is based on the old (closed) and new (open) regionalism [Bhagwati et al. 1999]. However, in spite of this economic bias in the theoretical framework, the choice of indicators shows a multi-dimensional approach [Ruiz 2004].

To evaluate institutional integration, the ECB developed an institutional index of regional integration based on Balassa's [1961] conceptual framework. The authors consider four stages of regional integration: (i) free trade area (FTA)/customs union (CU), (ii) common market (CM), (iii) economic union (EUN), and (iv) total economic integration (TEI). The index measures at a specific instance the level of integration attained by a particular regional arrangement. "Institutional integration can be defined as the outcome of joint policy decisions designed to affect the depth and breadth of regional integration over time" [Dorrucci et al. 2002: 6]. Interesting here is that they apply the Balassa model in a flexible way in order to account for different time patterns, instead of sticking to a strict sequencing. Economic integration is evaluated using a set of variables based on the Optimum Currency Area theory and also other measures outside of this framework. Dennis and Yusof [2003] also use a Balassa type conceptual framework.

3.3. VARIABLES AND CATEGORIES

The number of variables in the indicator systems under evaluation varies from one system to the other. It ranges from six variables (F&G) to 145 variables (EDB and ASEAN) (*table 3*). Cases like ECB's Economic Integration Measure (ECO), COMESA and ADB feature mainly quantitative measures, whereas H&S, F&G, ECB's Institutional Index of Regional Integration (INST) are based on ordinal variables.

The fourteen cases classify the variables in different ways, making a direct comparison difficult. The categories are usually based on policy areas. This is the case for EU-MERCOSUR, EU-CAN, EU-CENTRAL, all focusing on trade related variables, and UNECA, featuring eight 'clusters of activity' to classify the variables and indicators. These are: (i) trade and market integration, (ii) monetary, fiscal and financial integration, (iii) transport, (iv) communications, (v) industry, (vi) energy, (vii) food and agriculture, and (viii) human development and labour markets [UNECA 2001; 2002].

EDB [2009] distinguished three aspect of regional integration: regional market integration, convergence of economic systems and regional co-operation. The choice of indicators was determined by the availability of data on post-Soviet economies and the importance to particular areas of economic co-operation and modernisation in CIS countries. Integration of markets is divided between general market integration in trade integration and labour migration and indicators of functional integration in electric power, agriculture and education. Convergence of post-Soviet economies is evaluated in four areas: macroeconomics, monetary policy, financial policy and fiscal policy. Three types of indicators were calculated for market integration and economic convergence: (i) integration of country pairs: (ii) inte-

gration of a country with a group of countries; and (iii) integration within a group of countries. Regional co-operation and the potential for further integration is measured through an analysis of an expert poll and indicators of institutional performance.

Table 3. Number and Type of Variables

Indicator System	Number of Variables	Type				
		Quantitative Measures	Scores	Ranks	Binary System	Other qualitative measures
H&S-AS	6		x			
H&S-RI	7		x			
EU-MERCOSUR	52					x
ECB-MERCOSUR-INST	11		x			x
ECB-MERCOSUR-ECO	12	x				
COMESA	57	x				x
ASEAN	145	x				x
ASEAN-KEY	11	x				x
GDRI	102	x			x	x
UNECA	20	x	x	x		
EDB	145	x	x			x
F&G	6		x			
ADB	21	x				x
EU-CAN	21					x
EU-CENTRAL	21					x
EU-ACP	35					x

Notes: see Table 2. Quantitative measures are *a priori* not excluded in EU-CAN, EU-CENTRAL and EU-ACP.

More sophisticated classifications of variables, with features of the input-output model are found in ECB and EU-ACP systems. The ECB distinguishes between institutional and economic integration [Dorrucci 2002]. The former is evaluated on the basis of the implementation of decisions in four dimensions, based on Balassa's stages approach to integration, as mentioned before. Within the latter category, seven subcategories (and 11 variables) are considered: (i) synchronisation of the business cycle, (ii) convergence of inflation rates, (iii) exchange rate variability, (iv) trade openness and integration, (v) financial market integration, (vi) convergence of interest rates, (vii) income convergence.

EU-ACP distinguishes between types of policies. In the 2002 document, the categories were: (i) regional economic integration; (ii) functional regional cooperation; (iii) governance and financial issues; and (iv) implementation of EDF projects and programme. The indicators measure the efforts or inputs into the integration process (they do no attempt to measure results and outputs). In the 2005 document the indicators proposed by the EC are grouped under the following categories: (i) regional trade liberalisation and facilitation, (ii) other regional integration policies

(including EDF implementation), and (iii) institutional structure and governance issues. The distinction is stressed between institutionalisation (reaching agreements and adopting required legislation) and effective implementation. Monitoring should be able to distinguish those cases. However, it is not clearly specified how this should be done.

As a response to DG Development's proposal, the COMESA Secretariat launched a proposal for a system of indicators with an alternative design. The philosophy of that proposal is different in the sense that inter-regional comparisons are not the main focus, but rather the monitoring of their own integration process.¹⁶ COMESA considers 12 categories of variables: (i) trade liberalisation, (ii) trade facilitation, (iii) trade in services, (iv) transit facilitation, (v) monetary convergence, (vi) domestic payments and settlement systems, (vii) fiscal environment, (viii) government intervention in the economy, (ix) capital flows and foreign investment, (x) governance issues, (xi) regulatory environment, (xii) licensing requirements.

In its discussion of the UNECA methodology, the COMESA Secretariat expressed strong reservations over the methodology used, precisely for the reason that the UNECA indicators do not necessarily reflect the effects of programmes being undertaken by regional organisations [COMESA 2002: 6]. COMESA criticised, for example, the ranking of SADC and ECOWAS as the most successful regional organisations. According to COMESA, these rankings simply reflect the presence of a member with a large economy in each case (South Africa and Nigeria, respectively). One should therefore carefully distinguish between structural characteristics of countries and regional groupings, on the one hand, and integration policies, on the other hand.

In order to better compare the contents of the different indicator systems, we re-organised all the variables of the fourteen systems according to the categories of our conceptual framework, as presented in section 2.4. A summary of this re-classification exercise is shown in *table 4*.¹⁷ The table shows a different picture than the one based on the published results of the indicator systems.

Surprisingly, it appears that one fourth (175 out of 702 \approx 25%) of the variables do not inform us directly about the regional integration process. And this is not only due to the presence of readiness indicators. COMESA, UNECA, ASEAN, and GDRI illustrate this very well. The categories on which the systems focus are varied. Those that focus on one category are: F&G on Institutionalisation and Policies; EU-MERCOSUR, EU-CAN, EU-CENTRAL and EDB on Implementation; ASEAN-KEY on National Macroeconomic Indicators; and GDRI on Other National Indicators. Those that focus on two categories are: H&S on Institutionalisation and National Macroeconomic Indicators; ECB-MERCOSUR and ASEAN on Implementation and Interdependence; EU-ACP on Institutionalisation and Implementation; and ADB on Institutionalisation and Interdependence. Only EU-CENTRAL, EU-CAN and ASEAN cover all categories (with the exception of structural factors) at the regional level and EDB

¹⁶ COMESA also intends to assess the effectiveness of programmes that promote regional integration.

¹⁷ In a (limited) number of cases, the re-classification of the variables in our framework was not always straightforward, especially in the border area between the Institutionalisation and Policies category and the Implementation category. We consulted the original documentation to minimize classification errors.

cover all categories without exception. ASEAN (and ASEAN-KEY) is the only case where the criteria to select indicators are made explicit. The criteria chosen by the authors include: policy relevance, simplicity, statistical consistency, validity, data availability and indicator coverage [Dennis and Yusof 2003].

Table 4: Distribution of variables across categories (%)

Indicator System	Actors	Structural Factors	Institutionalisation and policies	Implementation	Effects	Interdependence	Global Integration of the Region	National Macroeconomic Indicators	National Trade Indicators	Governance and Regulations	Externally Financed Regional Development Projects	Other National Indicators
H&S-AS	16.7	0	83.3	0	0	0	0	0	0	0	0	0
H&S-RI	0	0	0	0	0	0	0	57.1	0	42.9	0	0
EU-MERCOSUR	0	0	3.8	94.2	0	1.9	0	0	0	0	0	0
ECB-MERCOSUR-INST	0	0	18.2	81.8	0	0	0	0	0	0	0	0
ECB-MERCOSUR-ECO	0	0	0	0	0	100	0	0	0	0	0	0
COMESA	0	0	0	19.3	0	7.0	0	19.3	14.0	40.3	0	0
ASEAN	0.7	0	4.1	43.4	2.1	49.0	0	0.7	0.7	0	0	0
ASEAN-KEY	0	0	0	9.09	0	0	0	90.9	0	0	0	0
GDR	3.9	0	3.9	0	0	2.9	0	21.6	5.9	9.8	0	52.0
UNECA	0	0	0	0	0	20.0	0	25.0	20.0	0	0	35.0
EDB	4.1	5.5	6.2	6.9	16	61.3	0	0	0	0	0	0
F&G	16.7	0	83.3	0	0	0	0	0	0	0	0	0
ADB	0	9.5	19	0	0	57.2	14.3	0	0	0	0	0
EU-CAN	9.5	0	14.3	61.9	9.5	4.8	0	0	0	0	0	0
EU-CA	9.5	0	14.3	61.9	9.5	4.8	0	0	0	0	0	0
EU-ACP	14.3	0	37.1	34.3	0	5.7	0	0	2.9	2.9	2.9	0

3.4. AGGREGATION AND WEIGHTING PROCEDURES

European Commission indicator systems (EU-CAN, EU-CENTRAL, EU-MERCOSUR, EU-ACP) ADB and COMESA do not feature aggregation procedures. Of the other seven indicator systems, ECB-MERCOSUR, ASEAN, GDR and UNECA feature two-step aggregation procedures with sub-indices (*Table 5*).

The weighting procedures are never based on statistical weights or expert opinion. In most cases (H&S, ASEAN, EDB, ASEAN-KEY, F&G), simple unweighted arithmetic averages are used. UNECA calculates unweighted arithmetic averages per country, which are then weighted by GDP figures. ECB-MERCOSUR and GDR use a combination of ad hoc and equal weights.

The ASEAN Regional Economic Integration Index is calculated as follows:

$$\text{INTEGAat} = (\text{TRADEAat} + \text{FDIINTat})/2$$

TRADEAat refers to the index value of intra-regional trade for the whole region as a percentage of intra-regional GDP for the same year and *FDIINTat* is the index value of intra-regional FDI for the whole region as a percentage of intra-regional GDP for the same year.

UNECA calculates the weighted composite integration index as the average regional economic community indices multiplied by the corresponding GDP weight of each regional economic community.

EDB calculates two types of consolidated indices based on market integration and economic convergence. The weighted average is calculated as the average of the standardized index of market integration and economic convergence for the country within CIS-12 and for each of the five analyzed regions.

ECB's Institutional Index of Regional Integration is calculated as follows. Scores ranging from 0–25 are assigned according to the degree of regional integration achieved over time in the development of the four stages. The scores are assigned to the variables based on the year and month when a decision started being implemented. Scores can be assigned in parallel to each of the stages. These scores are then summed up for all months to obtain the Institutional Index of Regional Integration. This index ranges from 0 (no economic integration) to 100 (economic, monetary and financial integration)

In the case of the GDRI, for each of the Regional Global Development Indexes (X_i) the values of the variables are added up under Actual Situation (AS) and the Total Possible Results (TPR) is obtained. Each of the indexes is calculated as follows: $X_i = \sum AS(i) \times 100 / \sum TPR(i)$. The Regional Global Development Index is the summation of the four Regional Global Development Indexes (X_i). The Regional Integration Stage index is calculated using the four Regional Global Development Indexes (X_i) and a constant coefficient, Regional Integration Approach Incline (RAIA). The RAIA can be taken as homogenous interest where each RAIA has the same level of importance or it can be taken as an incline with different possibilities of political approach incline, social approach incline, economic approach incline or technological approach incline.

4. CONCLUSIONS: TECHNICAL QUALITY AND POLICY RELEVANCE

The growing importance of the regional level of governance, combined with a growing variety of governance modes in a multi-level governance context, indicate a need for adequate monitoring tools. Both academia and the policy community have recognized this.

In this paper we reviewed fourteen indicator systems that have been developed for the purpose of monitoring regional integration processes. Conclusions that can be drawn from this revision include the following:

First, in general, only few actors seem to be involved in the monitoring exercises. Participation of stakeholders other than the designers of the system is very scarce, if not inexistent. The same holds for communication more in general. In our

view, the participation of other actors in the monitoring exercise (regional organizations, national governmental actors, civil society, international organizations, academia), could considerably improve its technical quality and its policy relevance. Considerable resources are sometimes invested in the design of the systems, but most of these remain one-shot efforts; there is certainly a potential to make the systems more sustained efforts through a better management of the monitoring systems and more openness.

Table 5: Aggregation and weighting procedures

	Overall/aggregate index	Weighting procedure	Sub indexes included
H&S	YES ■ Achievement scores on economic integration ■ Readiness Indicators	Unweighted arithmetic average	NO
EU-MERCOSUR	NO	NO	NO
ECB-MERCOSUR	YES ■ Institutional Index of Regional Integration	Ad hoc weights within categories. Unweighted arithmetic average for the overall indicator	■ FTA and CU ■ CM ■ EUN ■ TEI
COMESA	NO	NO	NO
ASEAN	YES ■ Regional Economic Integration Index	Unweighted arithmetic average	■ Regional Trade Index* ■ Regional Investment Index**
GDMI	YES ■ Regional Global Development Index ■ Regional Integration Stage Index	Unweighted arithmetic average at the level of factors. Ad hoc weights for the overall indexes	■ Regional Global Political Development Index (X1) ■ Regional Global Social Development Index (X2) ■ Regional Global Economic Development Index (X3) ■ Regional Global Technological Development Index (X4)
UNECA	YES ■ The weighted Composite Integration Index	Weighted arithmetic average	Sectoral Indices
EDB	YES ■ Consolidated convergence index	Weighted arithmetic average	Index of regional integration calculated as an average of indices
F&G	YES ■ IAS	Unweighted arithmetic average	NO
C&L&P	NO	NO	NO
EU-CAN	NO	NO	NO
EU-CENTRAL	NO	NO	NO
EU-ACP	NO	NO	NO

* Value of intra-regional trade for the region as a whole as a percentage of intra-regional GDP in year t compared to the base year.

** Value of intra-regional foreign direct investment as a percentage of GDP in country i , year t compared to the base year

Second, the review also learned that the objectives of indicator systems are diverse. They include the following: (i) to measure the level of integration of a given regional grouping; (ii) to measure the pre-conditions for (further) integration; (iii) to assess the performance and contribution of individual countries in regional groupings; (iv) to evaluate regional integration policies; (v) to compare regional integration in different regions; (vi) to evaluate donor-financed support programmes for regional integration; (vii) to assess needs and merits of regional organizations upon which to base future aid decisions; (viii) to be strategically used in the context of a negotiation process. This explains in part, but not totally, why the different systems focus on different types of variables.

Third, only a few proposals deal with conceptual issues. This, in turn, leads in many cases to a lack of clarity related to the selection of variables and categories and the existence of discrepancies between stated objectives and those that can be realistically and technically achieved with the indicator systems. An illustration of this point was that one fourth of the variables included in the indicator systems do not inform us directly about the regional integration processes they pretend to monitor.

Fourth, technical issues are often linked to political issues. Solutions for technical problems often require political decisions. Examples include: the inclusion of cross-region comparisons, the choice between absolute and relative comparisons, the choice of weights, the inclusion of policy implementation variables, the combination of quantitative measurements with qualitative assessments, and the interpretation of results.

A new initiative, involving national, regional and international organizations, academia and civil society would be welcome in this area in order to improve the design and implementation of tools to monitor regional integration.

5. REFERENCES

- Balassa, B. [1961]: *The Theory of Economic Integration*, Richard Irwin, Homewood.
- Bekemans, L., R. Fiorentino and L. Van Langenhove [2000]: "Reshaping Integration Studies in Social Sciences: Challenges and Perspectives for Research", *Collegium*, 20: 43–72.
- Best, E. [1997]: "Capacities for Regional Integration: Conceptual Framework for Comparative Analysis", in: M.O. Hosli and A. Saether (eds.), *Free Trade Agreements and Customs Unions: Experiences, Challenges and Constraints*, TACIS/European Commission – EIPA, Maastricht, pp. 51–75.
- Bhagwati, J., P. Krishna and A. Panagariya [1999]: *Trading Blocs*, MIT Press.
- Breslin, S., C.W. Hughes, N. Phillips and B. Rosamond (eds.) [2002]: *New Regionalisms in the Global Political Economy: Theories and Cases*, Routledge, London.
- COMESA [2002]: "Discussion Paper on surveillance as a means to measure the degree to which integration is taking place in the COMESA region", Paper presented at the informal workshop to discuss the regional cooperation review process, Brussels, 25 September.

- Costea, A.-C., P. De Lombaerde, W. De Vriendt and B. Fühne [2008]: "Monitoring and (Good) Governance of the Integration Process in the European Union", in: P. De Lombaerde, A. Estevadeordal and K. Suominen (eds), *Governing Regional Integration for Development – Monitoring Experiences, Methods and Prospects*, London: Ashgate, pp. 211–245.
- De Lombaerde, P. [2003]: "Book Review of 'New Regionalism in the Global Political Economy'", *Journal of Common Market Studies*, 41(5): 968–969.
- De Lombaerde, P. and L. Van Langenhove [2006]: "Indicators of Regional Integration: Conceptual and Methodological Aspects", in: P. De Lombaerde (ed.), *Assessment and Measurement of Regional Integration*, Routledge, London, pp. 9–41.
- Dennis, D.J. and A.Z. Yusof [2003]: *Developing Indicators of ASEAN Integration – A Preliminary Survey for a Road Map* Final Report.
- Dorrucci, E., S. Firpo, M. Fratzscher and F.P. Mongelli [2002]: "European Integration: What lessons for other regions? The case of Latin America", *ECB Working Paper*, 185.
- European Commission [1997]: *Single Market Scoreboard*, European Commission, Brussels
- European Commission [1998]: *EU-MERCOSUR Joint Photography*, DG Relex, European Commission, Brussels.
- European Commission [2002]: "Informal Workshop to Discuss the Regional Cooperation Review Process", Meeting Report, DG Development, European Commission, Brussels, (DEV/B/1/WK D(2002)).
- European Commission [2005a]: *Internal Market Scoreboard*, DG Internal Market, European Commission, Brussels.
- European Commission, [2005b]: *Guidelines for 2005 Mid-Term Reviews in ACP Regions under the ACP-EC Partnership Agreements*, DG Development, European Commission, Brussels.
- Farrell, M. [2005]: "The Global Politics of Regionalism – An Introduction", in: M. Farrell, B. Hettne and L. Van Langenhove (eds.), *Global Politics of Regionalism. Theory and Practice*, Pluto Books, London, pp. 1–17.
- Feng, Y. and G.M. Genna [2003]: "Regional Integration and Domestic Institutional Homogeneity: A Comparative Analysis of Regional Integration in the Americas, Pacific Asia and Western Europe", *Review of International Political Economy*, 10(2):278–309.
- Feng, Y. and G.M. Genna [2004]: "Domestic Institutional Convergence and Regional Integration: Further Evidence", in: I.D. Salavrakos (ed.), *Aspects of Globalization, Regionalisation and Business*, Atiner, Athens.
- Feng, Y. and G.M. Genna [2005]: "Measuring Regional Integration", paper presented at the *Claremont Regional Integration Workshop with Particular Reference to Asia*, Claremont, 25 February, 2005.
- Frankel, J. and A. Rose [1998]: "The Endogeneity of the Optimum Currency Area Criteria", *The Economic Journal*, 108:1009–1025.
- Fратиanni, M. and J. Pattison [2001]: 'International Organisations in a World of Regional Trade Agreements: Lessons from Club Theory', *The World Economy*, 24(3): 333–58.

- Gavin, B. and P. De Lombaerde [2005]: “Economic Theories of Regional Integration”, in: in: M. Farrell, B. Hettne and L. Van Langenhove (eds.), *Global Politics of Regionalism. Theory and Practice*, Pluto Books, London, pp. 69–83.
- Grupo de Trabajo Conjunto CA-UE [2005a]: Primera reunión del grupo de trabajo consunto ad-hoc Centroamérica-Unión Europea – Fase de Valoración Conjunta. San José 31 marzo-1 abril, (http://europa.eu.int/comm/external_relations/ca/doc/sanjose01_04_05.htm)
- Grupo de Trabajo Conjunto CA-UE [2005b]: II reunion del grupo de trabajo consunto ad-hoc Centroamérica-Union Europea – Fase de Valoración Conjunta. Bruselas, 19–20 Julio 2005 (http://europa.eu.int/comm/external_relations/ca/doc/05_doc1_19-07-05.pdf)
- Grupo de Trabajo Conjunto CA-UE [2005c]: III Reunión del Grupo de Trabajo Conjunto ad-hoc Centroamérica-Unión Europea Fase de Valoración Conjunta – El Salvador, 7 – 8 de noviembre (http://europa.eu.int/comm/external_relations/ca/doc/san_sal_nov05.pdf)
- Grupo de Trabajo UE-CAN [2005a]: Primera reunión del grupo de trabajo para el proceso de valoración consunta del sistema de integración andino 4–5 abril 2005
- Grupo de Trabajo UE-CAN [2005b]: Resumen Reunión Conjunta CAN-EU, Lima Abril 2005
- Guidelines for the MTRs in ACP Regions under the ACP-EC Partnership Agreement [2005]
- Held, D., A. McGrew, D. Goldblatt and J. Perraton [1999]: *Global Transformations: Politics, Economics and Culture*, Polity, London.
- Hettne, B., Andras Inotai and Osvaldo Sunkel [1999–2001]: *The New Regionalism Series* (Vol. I–V), Macmillan Press, London.
- Hettne, B. and Söderbaum, F. [2000]: “Theorising the Rise of Regionness”, *New Political Economy*, 5(3): 457–73.
- Hettne, B. and F. Söderbaum [2004]: *Regional Cooperation. A Tool for Addressing Regional and Global Challenges*, International Task Force on Global Public Goods, Göteborg.
- Hettne, B. [2005]: “Regionalism and World Order”, in: M. Farrell, B. Hettne and L. Van Langenhove (eds.) *Global Politics of Regionalism*, London: Pluto Books, pp. 269–286.
- Hufbauer, G.C. and J.J. Schott [1994]: *Western Hemisphere Economic Integration* Institute for International Economics, Washington.
- Iapadre, L. [2006]: “Regional Integration Agreements and the Geography of World Trade: Statistical Indicators and Empirical Evidence”, in: P. De Lombaerde (ed), *Assessment and Measurement of Regional Integration*, Routledge, London, pp. 65–85.
- Joint Working Group EU-CAN [2006]: *EU-CAN Joint Assessment on Regional Economic Integration. Final Report of the Working Group*, (12/07).
- Lockwood, B. and M. Redoano [2005]: “The CSGR Globalisation Index: an Introductory Guide”, *CSGR Working Paper* 155.
- Nardo, M. et al. [2005]: *Handbook on Constructing Composite Indicators: Methodology and User Guide*, Paris: OECD.

- Pinder, J. [1968]: "Positive Integration and Negative Integration: Some Problems of Economic Union in the EEC", *The World Today*, 24(3): 89-110.
- Ruiz Estrada, M. [2004]: "Global Dimension of Regional Integration [GDRI] Model", *FEA Working Paper* 2004-7.
- Söderbaum, F. and T. Shaw (eds.) [2003]: *Theories of New Regionalism: A Palgrave Reader*, Basingstoke-New York: Palgrave MacMillan.
- Tinbergen, J. [1954]: *International Economic Integration*. Elsevier.
- UNECA [2001]: *Annual Report on Integration in Africa. Methodology for Calculating Indices of Economic Integration Effort in Africa*, Addis Ababa: UN Economic Commission for Africa.
- UNECA [2002]: *Annual Report on Integration in Africa 2002*, Addis Ababa: UN Economic Commission for Africa.
- UNECA [2004]: *Assessing Regional Integration in Africa*, ECA Policy Research Report, UN-ECA, Addis Ababa.
- World Bank [2002]: *WB Comments to the EC Draft Discussion paper on a Regional Cooperation Review Process*, Washington: The World Bank.