SOCIAL COHESION

IN LATIN AMERICA

Concepts, frames of reference and indicators

ECLAC

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Foreword

Social Cohesion in Latin America: Concepts, Frames of Reference and Indicators is the result of work by the Economic Commission for Latin America and the Caribbean (ECLAC), with valuable collaboration from the European Commission.

In a scenario that poses challenges of global integration for the region's countries, ECLAC is working to advance a comprehensive development agenda for the region, one that emphasizes the relationships between economic growth, social equity, the consolidation of democracy and sustainable development.

The question of social cohesion is an additional focus of concern in the region today. ECLAC has dwelt on the need for systematic institutional efforts to reduce the region's glaring social disparities, guarantee the rights of all, ensure respect for diversity and create a sense of belonging to a collective social project. Accordingly, the organisation has put forward proposals with a view to creating consensus among citizens around the provision of social protections and inclusion.

ECLAC has acted on various fronts to make social cohesion a priority issue on the region's national policy agendas. In *Social Cohesion: Inclusion and a Sense of Belonging in Latin America and the Caribbean*, a book that benefited from support from the EUROsociAL Programme, the Ibero-American Secretariat (SEGIB) and the Spanish International Cooperation Agency for Development (AECID), ECLAC constructed a concept of social cohesion and a frame of reference for measuring the phenomenon. In the subsequent

"System of Social Cohesion Indicators" project supported by the European Commission, ECLAC built on that work to develop a system of indicators for monitoring and evaluating social cohesion in Latin America. More recently, ECLAC implemented the project "Measuring social cohesion in Latin America" with funding from the European Union. This project aimed, among other things, to strengthen conceptual frameworks as they relate to specific aspects of social cohesion, and to explore the feasibility of creating a synthetic social cohesion index.

The present book describes the main results of the project. As an effort to contribute towards a more comprehensive view of development, it both attempts to strengthen the conceptual framework that ECLAC has developed for understanding and measuring social cohesion, and to encourage the incorporation of the issue on the region's national agendas.

We are aware that the work described here is a stage in an ongoing process. The focus has been on creating and validating basic conceptual and methodological tools that will facilitate study and understanding of social cohesion at an aggregate regional scale —an area in which many challenges remain.

Meanwhile, major attention should be given to any action furthering the inclusion of social cohesion as a priority objective on the region's national agendas in the near future. It is my conviction that what ECLAC has learned in these years of work must be made available to the countries in order to encourage players on the region's national stages to incorporate the issue of social cohesion in their nations' public policy-making.

Alicia Bárcena
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and the Caribbean (ECLAC)

Introduction

Policy designed to promote social cohesion is important on the Latin American development agenda today for a number of reasons. Important factors that threaten cohesion include widening social and cultural gaps, weakening governance, the erosion of traditional sources of a sense of belonging, and public mistrust of political institutions in democratic regimes. ECLAC has published a number of documents that stress the importance of creating consensus on the vital need to provide social protection, foster cohesion, narrow social gaps and guarantee the basic economic and social rights of all, while encouraging respect for diversity and fostering a sense of belonging.

Social cohesion is new as an academic theme and as a policy issue in Latin America. At this stage in the process of its incorporation in the public debate, it is essential to construct a concept of social cohesion that is relevant to the region's realities. To that end, ECLAC (2007)[1] has developed an approach to social cohesion that emphasises the *relationships between mechanisms of inclusion and exclusion in the region, and citizens' perception of how such mechanisms operate*. The organisation has also proposed a *frame of reference* and a *system of social cohesion indicators* to measure the phenomenon in the region's countries. The indicators are a translation of the organisation's concept of social cohesion into operational terms.

Cohesion as ECLAC conceives it goes beyond the notion of economic and social gaps to include issues of belonging and institutional strength —factors that must be taken into account in a more comprehensive view of

[1] Economic Commission for Latin America and the Caribbean (ECLAC), *Social Cohesion: Inclusion and a Sense of Belonging in Latin America and the Caribbean* (LC/G.2335/Rev.1), Santiago, Chile, 2007.

development. The main purpose of this work on measuring social cohesion —and the principal challenge that it presents— is to create a tool for designing and monitoring policy in the region.

Social cohesion is a theme subject to debate, both conceptually and in terms of practical application. Efforts to improve conceptual frameworks and indicators must take account of differing views about what strategies are most appropriate to measure cohesion and promote it as an item on national agendas. In the course of this work at ECLAC, some have stressed the primacy of methodological rigour, while others have insisted on simplicity and communicability as paramount factors. And while some believe that emerging issues in social development must be added to the subjects under consideration, others urge reducing the number of dimensions and indicators being proposed to understand and measure social cohesion.

As a contribution to the ongoing conceptual and methodological debate on social cohesion, this book moves in both directions. It examines the feasibility of incorporating new issues and thus broadening the conceptual scope of the approach, but also takes steps to reduce the number of variables and indicators. Accordingly, it describes work by consultants to expand the original conceptual and operational framework developed by ECLAC, introducing topics such as the environment and urban residential segregation as issues relevant to social cohesion. At the same time, it describes in some detail efforts to reduce the number of phenomena measured as elements of social cohesion. Thus, it includes a proposed short list of indicators and assesses the viability of a synthetic index of cohesion. Finally, it describes efforts to identify and remedy flaws in the architecture of the system of indicators.

The first chapter is a paper comparing the ECLAC approach to social cohesion with other approaches that have emerged in Latin America. It suggests that the three pillars on which social cohesion rests in the ECLAC scheme —which are defined as gaps, institutional realities and subjective factors— can indeed serve as a framework for observing the dynamics (or "how") of cohesion. As the difficulty of defining a limited list of indicators attests, however, the pillars do not throw light on the content (or "what") of the phenomenon. To solve this problem, the author of the article proposes adding to the notion of "pillars" the concept of the "arenas" in which social cohesion is played out. The hope is that the additional dimension will help to produce a more circumscribed list of indicators.

Chapter II describes indicators designed to capture relationships between segmentation in the labour market, segmentation in essential services and segmentation in the spatial distribution of housing, as these factors relate to social cohesion. The author points out that when these types of urban segmentation become linked, they endanger the social fabric, and make it

more difficult to build healthy patterns of coexistence among city dwellers. The author suggests that such threats are aggravated by medium- and long-term processes that increase citizens' awareness of their rights. Thus, social cohesion in the region's large cities is most threatened when growing expectations coincide with damage to the social fabric.

Chapter III proposes key indicators for monitoring the relationships among the different institutional spheres (State, market, family) that provide social welfare. As factors in the selection of indicators, the author discusses the role of welfare mechanisms, the concept of social cohesion put forward by ECLAC and the importance of capturing the relative importance of the three institutional spheres. The last of these factors —the need to capture the overall impact of different welfare configurations or regimes— is essential because the reduction of social gaps is bound to be a function of various institutions.

Chapter IV summarises the results of research on sustainable development and social cohesion. It presents, discusses and relates these two phenomena with a view to ascertaining how the two intersect. Although the authors make use of the "pillars" that ECLAC has proposed as a frame of reference (gaps, institutions and sense of belonging) to examine issues of sustainable development, they add the concept of environmental conflict as a horizontal dimension running through all three pillars, to make the system dynamic. Employing this analytical framework, they assess and propose measures of sustainable development that could be incorporated in a comprehensive system of social cohesion indicators.

Chapter V examines the feasibility of constructing a *synthetic index* of social cohesion for Latin America and the Caribbean, focusing on two questions. First, it examines available methodological strategies for constructing such an indicator, and second, it assesses the feasibility of reducing the concept of social cohesion to a single dimension. Lastly, the author inquires into the possible values of the parameters needed to construct an indicator of this sort, analysing the sensitivity and robustness of findings that would be associated with different values. The author concludes that a phenomenon as complex and multidimensional as social cohesion cannot be adequately captured by a single index —either as a description of the state of social cohesion in the region's countries, or as a basis for policy.

Concluding the book, chapter VI attempts to strengthen and further define the conceptual approach that ECLAC has proposed for measuring social cohesion. It also proposes a revised list of key indicators. Drawing on the preceding articles, the list reflects efforts to move towards convergence in measuring social cohesion. The central elements of the initial ECLAC approach are present here, but with an attempt at greater simplicity, measurability and applicability. The chapter begins by redefining social cohesion, and goes on

to redefine the pillars of cohesion and propose a short list of indicators. The authors close with a summary of the major challenges involved in measuring social cohesion.

This book is a milestone in a process of work on social cohesion at ECLAC the purpose of which was to develop, validate and further perfect an aggregate approach to the issue. If the process of incorporating social cohesion in the region's national agendas is to advance more quickly, mechanisms must be created that put national policy makers in a position of much stronger leadership. One possible strategy is to create a programme that provides training in the basic competencies needed to monitor and write reports on social cohesion at the national level.

Chapter I

A critical review of the eclac approach to social cohesion, and challenges to putting it into practice

Rodrigo Márquez

The concept of social cohesion has gained an important place in the discussion of Latin American issues in recent years, and its relevance and legitimacy as an issue are beyond doubt. The challenge now facing those concerned with the subject is how to translate the concept into a practical form that can effectively support public policy-making.

This paper suggests that while the definition and preliminary model developed by ECLAC can play an important role in paving the way for measuring social cohesion in the region, realising this potential requires significant further work on how to put the concept into practice and forge an integrated, systematic model.

The article begins by summarizing the principal features of the debate in Latin America, assessing both its contributions and its weaknesses. It concludes that the concept developed by ECLAC effectively reflects and synthesises thinking to date. The article then turns to the construction of an analytical model. The three dimensions or "pillars" of social cohesion developed by ECLAC —gaps, institutions and subjective factors— facilitate analysis, but neither order nor synthesise the actual contents of cohesion. They do, however, provide a means of observing the dynamics of the phenomenon. Thus, the arenas in which social cohesion unfolds —the spheres and contexts that are crucial for its construction— must be analysed as a

conceptual complement to the pillars and as a prerequisite to constructing an integrated system.

The article proposes four arenas as a way of understanding social cohesion in the region —social relationships, citizenship, the market and social protection— which, we suggest, are the contexts in which, in various ways and with varying intensity, social cohesion is constructed in Latin America. In conjunction with the pillars, they provide a matrix that should make it possible to move towards putting the concept of cohesion into practice.

In a nutshell, this paper suggests combining two types of elements as a systematic way of measuring social cohesion. The first is the ECLAC "pillars", which constitute a dynamic moment for the construction of social cohesion, revealing the "how" of the process. The second is the additional notion of "arenas", which helps to understand the "what".

A. A review of the Latin American debate on social cohesion

1. Latin America's incorporation of the social cohesion debate

The recent salience of social cohesion as an issue in Latin America derives from a discussion that began in the European Union. The foreign origin of the discourse is not insignificant, for when a concept developed in the context of one social reality is adopted in another, it comes with assumptions (and an implicit social project). Since the fact that different realities call for different conceptual assumptions is no novelty, the debate on social cohesion in Latin America has developed with an awareness that the European concept cannot be applied here without modification.

The concept of cohesion emerged in Europe as a way of unifying a number of different areas of policy concern in the European Union. As explained in ECLAC (2007, p. 33), "The way in which the idea of social cohesion has evolved in Europe has been heavily influenced by a supranational ethic which seeks to prevent unbridgeable social inequalities and gaps from arising, as well as overcome poverty, both within countries and among member States."

These historical roots have two important consequences. The first is conceptual. Given the genesis of the discussion, strict conceptual coherence has not been a paramount priority. Of note in this connection are the observations of Meller and others (2008, p. 234), who describe social cohesion as a "framework concept that has room for multiple dimensions of a society's problems: inclusion/exclusion, equality/inequality (of opportunity), social mobility, and [equality/]inequality of income distribution". They also quote

Bernard's statement that "the concept of social cohesion has the marks of a quasi-concept, one of those hybrid mental constructions that with increasingly frequency are put forward in the policy context". It is in the nature of concepts that, like this one, shape policy-making, that they are not precisely defined, for conceptual precision in these contexts is less important than fostering awareness in certain areas. Nevertheless, developing a truly different way of thinking about social cohesion in Latin America requires a coherent overall concept of the phenomenon. A holistic approach is required, and a mere aggregation of different dimensions will not suffice.

A second consequence of the concept's foreign origin has to do with the problem of measurement. If Latin American social cohesion differs from the European, then different tools will be required to measure it. That requires a systematic set of indicators based on a systematic concept, and the reasons for including certain indicators and excluding others must be clear.

Thus —to summarise this first section— the discussion in Latin America can be seen in terms of how it is advancing towards solving the dual challenge of constructing a systematic concept of social cohesion and creating a systematic and comprehensive set of indicators to put the concept into practice.

2. Positions in the debate on social cohesion in Latin America: different approaches to transcending the initial European conception of the issue

One way of grasping the range of positions in the Latin American debate is to review the various criticisms that have been made of the European concept from the perspective of Latin American application.[2]

One position is that of the New Agenda for Social Cohesion in Latin America, a project of CIEPLAN and the Fernando Henrique Cardoso Institute. The argument here has generally been that the characteristics of social cohesion in a society are a function of the particular society and the momentum of its historical forces. More specifically, the project considers the European concept of social cohesion inadequate to the Latin American context because of its assumption that social cohesion is constructed only (or centrally) by providing services that give the population the ability to participate actively in the society, thus reducing social disparities. Under this assumption, Latin America —where levels of inequality are among the highest in the world— should have major

2 Since the purpose of this review is descriptive, we suspend critical evaluation of the various positions for the time being. The absence of judgment here should not be taken to imply either agreement or disagreement with the positions described.

problems of cohesion. According to the project's research and documents, however, the region does not have critical problems of cohesion, and thus cohesion and inequality are present side by side.

If this is so, what factors permit the region's societies to be socially cohesive despite their high levels of inequality?

It could be that expectations of social mobility (in a situation resembling the United States model) allow inequality to be present without jeopardising cohesion. In such a context, "high levels of inequality do not imply a looming crisis of social cohesion if they are accompanied by significant processes of social mobility —or at least expectations of social mobility" (Tironi, 2008, p. 28).

Moreover, and more crucially, in this view, social cohesion in Latin America is based on the family and on other primary relationships that function as "glue", preventing more serious problems of social cohesion. The public policies that are most consequential for cohesion, then, are those that either strengthen or jeopardise those relationships' capacity to generate cohesion. Policy areas such as crime, generalised mistrust, and the family thus become key areas (Tironi, 2008, p. 101). The family, in particular, is central to cohesion at the microsocial level (in this connection, see Tironi, 2008, p. 31; Tironi and Pérez Bannen, 2008; and, for an empirical application, Tironi and Tironi, 2008).

What emerges from these considerations is a definition of cohesion as "a democratic society's dynamic capacity to absorb change and social conflict through a legitimate structure for the distribution of its material and symbolic resources —socioeconomic (welfare), sociopolitical (rights) and sociocultural (recognition)— that employs a combination of allocation mechanisms including the State, the market, the family, civil society and community networks" (Tironi, 2008, p. 19; Tironi and Sorj, 2007). The central point, according to this definition, is that cohesion depends on the legitimacy of the structure that distributes resources, rather than on equality *per se*.

A second criticism of the European concept —one articulated more clearly by Sorj and Martuccelli (2008)— is that certain assumptions underlying the European concept are not valid for Latin America. Since the European Union approach assumes a solid democratic regime, it does not take even democracy into consideration as an issue (Sorj and Martuccelli, 2008: 260). This is problematic in Latin America, where the solid institutional foundations needed to guarantee democratic social cohesion are lacking, and where this weakness and the difficulties arising from it can create problems for social cohesion.

Sorj and Martuccelli's argument is based to a large extent on the idea that the concept of social cohesion alone is an inadequate basis for public policy. These authors do not regard social cohesion as sufficient, or even

necessarily a positive thing, and therefore find it necessary to qualify the term, since, "as social theory teaches, all societies generate some form of cohesion. Otherwise, they would not exist" (Sorj and Martuccelli, 2008, p. 260). If all societies have some level of cohesion, the authors suggest, the question is simply what kind of cohesion they generate. This leads to a concern about the institutional dimensions of cohesion. How do institutional functioning and legitimacy affect the ability to construct social cohesion in a democratic context? How is democratic social cohesion constructed —for example, in societies whose judicial systems are often in crisis and of doubtful legitimacy, and whose populations' basic needs are not met (in this connection, see for example, Sorj and Martuccelli, 2008, pp. 156 and 166).

A third position, basically put forward by ECLAC (2007) —focuses on the notion that understanding social cohesion requires considering dimensions besides a society's social and economic disparities, or gaps. The emphasis here is on the idea that cohesion cannot be understood without taking the subjective dimension into account. Thus, information on perceptions and culture is necessary for any analysis of legitimacy. Moreover, the subjective element is necessary to avoid functionalist biases that in effect force the population to fit a model (ECLAC, 2007, p. 19). In particular, the subjective element is central to cohesion, because one of its parameters is the sense of belonging. In Latin America, one cannot simply assume that the sense of belonging relates to the dimension of disparities or gaps —let alone that that there is a correlation (recall the diagnosis of malaise in the UNDP 1998 Human Rights Report for Chile entitled "The Paradox of Modernisation").[3] Similarly, the dynamics of the concept make it essential to study the institutions through which society acts on disparities and inequalities.

Accordingly, the ECLAC proposal defines social cohesion as the dialectic between established mechanisms of social inclusion or exclusion and citizens' responses, perceptions and dispositions towards the way in which they operate (ECLAC, 2007, p. 13). This implies that the concept of social cohesion rests on three pillars —the relative presence or absence of disparities or gaps, institutional factors and the sense of belonging— as well as, more crucially, on how the three interact (ECLAC, 2007, pp. 39-40).

[3] In fact, the CIEPLAN-Fernando Henrique Cardoso Institute project shows evidence both of high levels of polarization and attendant social conflict in Latin America (Gasparini and others, 2008) and of low levels of these phenomena (Valenzuela and others, 2008). Gasparini uses "objective" data on polarization and conflict, while Valenzuela uses data from the 2007 ECOSOCIAL survey on social cohesion (see http://www.ecosocialsurvey.org/inicio/index.php).

3. Some features of the Latin American debate on cohesion

(a) Cohesion as an umbrella concept

One of the features of these different conceptions of cohesion is the diversity of indicators and issues that they involve. The indicators proposed by ECLAC (ECLAC/EUROsociAL, 2007), the issues analysed by Sorj and Martuccelli and the potpourri of analyses generated by the CIEPLAN project constitute a rather heterogeneous mix of elements to bring together in a single concept, for an element unifying them is not always easy to find. The ECLAC indicators (ECLAC/EUROsociAL, 2007) range from the open unemployment rate and the net preschool matriculation rate to the index of perceived corruption, the composition of the tax burden, private educational spending as a percentage of GDP and the political activism index, to mention only some.

This conceptual range has its hazards, because a concept that does not clearly exclude anything is (*ipso facto*) not a well-defined one. In this case, moreover, when a particular indicator is not included, the reason for its exclusion is not clear. Why, for example, is per capita gross geographic product (GGP) not included? If labour productivity is an element of social cohesion, why not total output? Furthermore, the range of elements proposed by different projects varies quite significantly. One of the CIEPLAN documents, for example (Cox, 2008) speaks of the relationship between educational curricula and social cohesion —something not mentioned in any other project. Similarly, Sorj and Martuccelli (2008) analyse the role of political activists and party members in building social cohesion— an issue not explored by other projects. Since one can ask of practically any element in a society whether it contributes to unity (functions as a basis for cohesion), it is easy to find oneself working with a concept of cohesion that lacks clear limits.

(b) Confusion about social cohesion versus social order

Much discussion fails to distinguish between social cohesion and social order.

For example, when Sorj and Martuccelli (2008) observe that all societies solve the problem of social cohesion in one way or another, they are really speaking of social order, for some level of social order —the reproduction of societal structures and practices— occurs in any society. It does not clearly follow from the presence of social order, however, that cohesion and unity are present. Indeed, it is perfectly possible to imagine social practices being reproduced coercively. If we believe, as Sorj and Martuccelli do, that social and economic gaps imply a lack of cohesion, then Latin American societies that reproduce practices of inequality are reproducing an uncohesive social order.

The relationship between social cohesion and social order is even stronger in the CIEPLAN scheme. Peña's (2007) exposition of the concept can best be understood as a discussion of the different explanatory traditions that are invoked to throw light on social order. The ostensible definition of social cohesion here (Tironi and Sorj, 2007; Tironi, 2008) in fact refers to the construction of social order: the legitimacy of social arrangements is often a central theme in sociological discussion of social order. Tironi (2008) is clearly concerned with social order. His examples of cohesion in Latin America —in connection with which he points out that the fabric of social cohesion in Latin America has not suffered the damage that religious wars and world wars have inflicted on Europe— in reality point towards the issue of social order. Thus, he is really exploring the question of how, if at all, societies resolve the Hobbesian problem of order and prevent a war of all against all. In effect, social cohesion in this discourse has become a matter of social peace and absence of war —again, social order rather than social cohesion.

(c) The importance of the subjective and institutional pillars of cohesion

The subjective element appears frequently in discussion of social cohesion in Latin America —a feature that distinguishes the discourse here from the European debate, where the subjective element is practically absent from the indicators. Both in initial programme statements and in how the concept is applied empirically, all the texts place substantial emphasis on citizens' perceptions and opinions. The CIEPLAN project's social cohesion survey is one of its central elements, and nearly all of the texts that it publishes refer to the Latinobarómetro survey.

The institutional element also appears in a significant range of texts. Sorj and Martuccelli (2008) devote a substantial portion of their discussion to institutional factors —justice, to cite the clearest example— and the CIEPLAN project includes a number of studies that focus on institutional behaviour (Marcel and Rivera, 2008, on welfare regimes; Cox, 2008, on schools), while, the ECLAC approach takes the institutional element as one of its three basic pillars.

(d) Concern about social unity in the Latin American debate: the importance of recognition of the other

The idea of a relationship between social cohesion and unity is common to the different approaches to these issues (this is explicit in Meller and others, 2008, as well as in Tironi and Tironi, 2008, p. 323). Now, what is a united society? If an ordered society is one whose institutions are legitimate,

we may say, analogously, that a cohesive society is one where individuals recognize each other's legitimacy, and where institutional objectives and priorities express that recognition. To be more precise, social cohesion is built on recognition of the other as a legitimate other in a scenario where people live together and accept each other: I accept others —and we recognise each other mutually— as members of the society of which we are a part. Thus, social cohesion is a function of legitimacy (the legitimacy of the participants, not of the social order).

Although the issue of recognition of the other has not been explicitly discernible in recent discussion, it does play a role in how the issue has been approached by ECLAC. Hopenhayn (2007, p. 42) refers to "the burning problems of social cohesion in Latin America", describing one of these problems as "the negation of the other as a secular mark of incomplete citizenship." He adds that in Latin America "the problem of exclusion and effective lack of citizenship is deeply rooted in a dominant historical pattern," and that while the pattern "imposed —or imposes— a cultural way of thinking based on negating the other, it also imposed —or imposes— the negation of the society's and its citizens' tie of reciprocity. It is not only that access to education, jobs and monetary resources is more precarious for groups who are discriminated against. They are also excluded because of a lack of political and cultural recognition of their values, aspirations and ways of living."

Including recognition as an issue makes it possible also to incorporate the issue of democracy in a clear way. While Sorj and Martuccelli address both of these issues, they do not incorporate them in their concept of cohesion. Democracy is a regime built on legitimate recognition of the other, which is why it is an element of social cohesion.[4]

(e) Conspicuous by their absence: the role of the elites in the debate

In general, Latin America's elites are relatively absent from the debate on cohesion. As Tironi, for example, notes, social conflicts in Latin America have not affected social cohesion, because they have involved only the elites: "Latin America has undergone political tensions leading on various occasions to violence, principally associated with the renewal and circulation of elites, rather than with social movements" (Tironi, 2008, p. 37). This approach to thinking about the role of the elites is rather limited, however.

[4] One might argue that recognition of the other as legitimate does not necessarily imply recognition of the other in a participatory role. Thus: "I recognize you as a legitimate member of the community, but not as a full member with the right to participate in decision-making." One could, in fact, argue that this is a common form of recognition in traditional societies. Nevertheless, recognition of the legitimacy of the other in the present context does imply participation and full inclusion. The social democratisation referred to by Sorj and Martuccelli (2008, pp. 4 and 5) implies that the legitimacy of recognition without inclusion is at best dubious.

If a society's elites in fact function as its governing group, they affect the dynamics of social cohesion in major ways. In markedly unequal societies whose elites are highly endogamous and have a social life that shows increasing features of oligarchic closure (UNDP, 2004) —that is, that are quite noticeably separate from the rest of the society— these features can play a decisive role in social cohesion. In such cases, cohesion obviously cannot be understood from a perspective that virtually ignores the existence of the elites.

(f) The concept of social cohesion developed by ECLAC

As this general description of the Latin American debate on social cohesion concludes, it will be useful to recall its starting point —namely, that measuring social cohesion requires a systematic conceptual approach to the phenomenon. The formal definitions that have been proposed have some weaknesses in this sense. The CIEPLAN strategy, as we have seen, centres more on social order than on cohesion. The concept as interpreted by Sorj and Martuccelli —which proves to be social cohesion circumscribed by certain qualifications— has similar problems. It, too, is to some extent based on a concept of social order (or at least it approaches social cohesion from that point of view), and it connects the issue of democracy to social cohesion without considering democracy an element of social cohesion. Absent an intrinsic relationship between the two, it is difficult to develop a means of systematic measurement.

The ECLAC approach appears to solve that problem to a very significant degree. The concept of a dialectic of mechanisms of inclusion and exclusion and perceptions of how they operate provides a good starting point. It both defines a clear specific context for thinking about social cohesion and provides a scheme that allows us to begin dealing with how to measure the phenomenon systematically. Thus, the approach implies a systematic way of measuring and understanding social cohesion, and has great potential for putting the concept into practice.

The potential does not seem to have been realized fully as yet, however. While the ECLAC approach seems to have more explanatory power and integrating capacity than any of the other proposals put forth so far, operationalising it requires making it more organic and systematic. Thus, it is unclear at this point whether all of the indicators have been specified, or whether some remain to be identified. Nor is the relevance of the indicators selected always obvious. The definition of the concept does not make clear by what criteria given elements are included or excluded. In other words, there is a list of indicators and dimensions, but what unifies them, or in what sense the indicators constitute a comprehensive set of all the relevant elements of each dimension, remains a question. Thus, further

work is needed on the operational aspects before an integrated system of indicators can be finalised.

Systematic measurement of social cohesion can be achieved if two conditions are met. First, it will be useful to recognize the "pillars" proposed by ECLAC as a dynamic moment of the construction of social cohesion (the "how"). Second, combining the pillars with the "arenas" in which social cohesion is constructed (the "what") will serve to complete the picture. Below, we explore these two strategic elements in more detail.

B. An analytical model for operationalising the ECLAC concept of social cohesion

1. The pillars of cohesion

The strategy that ECLAC has pursued to translate its concept of social cohesion into a way of measuring the phenomenon (see ECLAC, 2007b) is based on the notion of a series of pillars on which social cohesion is built, and on the notion of dimensions constituting each pillar.

The three pillars on which measurement is to be based derive from the ECLAC definition of social cohesion as the dialectic between instituted social inclusion and exclusion mechanisms and the responses, perceptions and attitudes of citizens towards the way these mechanisms operate (ECLAC, 2007, p. 18).[5] The next step is to establish indicators corresponding to the pillars, thus creating a system of social cohesion indicators. A crucial issue seems to have been disregarded here, though, in that the pillars are not *facets* of social cohesion, but *ways of looking at* certain processes. In other words, the system has no component designed specifically to represent outcomes. Rather, any given element of social cohesion has an aspect that is outcomes, as well as an institutional aspect and a subjective or belonging-related aspect. Each observable aspect of social cohesion must correspond to a measurable aspect of each of the pillars.

That is why the pillars of the ECLAC model generate a system of indicators: they are a methodical way of looking at any dimension of social cohesion. Thus, the model is already rather highly systematized —a feature that needs to be recognized and more fully developed. Social processes must

[5] Although ECLAC refers to the "sense of belonging" in connection with the pillars, it is clear from the conceptual definition that it will be more useful to speak of the "subjective element". Similarly, although ECLAC speaks of gaps, we believe that it is generally more useful to think in terms of outcomes. Although gaps or disparities are a form of exclusion, exclusion (or inclusion) is the broader of the two concepts: if no one has access to proper justice, there may be exclusion without disparity. Thus, it would seem that speaking in terms of objective outcomes will, in general, better express the original ECLAC definition.

be examined individually to ascertain how a society carries them out (the institutional pillar), what objective outcomes are produced (the disparities or gaps) and to what extent members of the society feel a part of the process (the subjective pillar).

It is important, in this work, to draw on the concept of a dialectic put forward by ECLAC, for the model is based on a relational dynamic, not on isolated elements. If, for example, the democratic construction of the State is crucial to social cohesion, then we must find indicators of that democratic process as it appears in institutions, social/economic gaps and people's perceptions. The pillars are thus aspects that will appear in any process that plays a role in constructing social cohesion. They do not represent separate and independent ways of constructing cohesion. Rather, they are perspectives from which to view all such processes.

The scheme thus provides a comprehensive view, and is truly systematic, for the three pillars not only have general applicability, but generate a system. The model permits us to ascertain the objective result of any action that we observe (in other words, to determine whether the action brought about the desired outcome), to examine the intentions and values behind it (does it express what is/was desired?) and to inquire into the subjective perception of the intentions and results (do they foster belonging and inclusion?). This general scheme for analysing social action —employing the categories of intention, results and perception— effectively covers all the relevant dimensions of the action that we observe.

2. The arenas of cohesion

Notwithstanding the usefulness of the pillars, neither they nor their relational dynamics directly generate indicators. These therefore remain a question mark, and the "what" of social cohesion remains a challenge that can only be met by studying the processes that constitute cohesion in a given society. This, in turn, means determining what spaces, dimensions and processes are central to the construction of cohesion in the society.

The term that we shall use to refer to a consistent space where the construction of social cohesion takes place is *arena of social cohesion*. In slightly different words, an arena is a space in a given society that plays a significant role in the construction of cohesion. Since arenas are specific to particular societies, a space that is an important arena of cohesion in one society may be less important in another, or may not function as an arena at all there. Hence, although the pillars are categories systematically applicable across societies, arenas can be identified only through individual analysis of societies.

What are these arenas in Latin America?

Four arenas can be distinguished in Latin America:

- **The social relationship arena**. Personal relationships at the micro level: I relate as a person within a world that I share with other persons.
- **The citizenship arena**. Personal relationships at the macro level: I relate with the collectivity in constructing a shared world.[6] The central theme here is the construction of how the society is to be governed.
- **The market arena**. Individual relationships at the micro level: I relate with others, but only through trade, not in a way that constructs a shared world. Relationships here are not between persons in their specificity, but merely between ultimately interchangeable "individuals".
- **The social protection arena**. Individual relationships with the collectivity: As a beneficiary, I do not relate with society at the collective level, but simply demand and receive specific benefits as an individual. The society protects its members, but without creating a shared world.[7]

The Latin American model is highly complex, as it constructs cohesion on the basis of interaction between these four arenas. This differentiates it from other models, in which a particular arena arguably predominates (the market in the United States, or the Welfare State in Europe). In Latin America, no single dynamic could by itself create cohesion. Although the region's countries differ in which of the four dimensions are strongest, all four may be seen as relevant in all of the countries.

(a) Each arena's criteria of cohesion: What do we wish to achieve?

What does achieving cohesion mean specifically in each of these arenas? Answering this question will allow us to determine whether a given indicator fits into one of the categories in the scheme —whether it in fact represents a specific parameter of what we wish to achieve. Thus, we must state what specific criterion of cohesion we wish to measure, and define it clearly. Each of the criteria, defined in terms of a *desideratum*, reflects a social aspiration or normative horizon towards which we wish the society to organize its resources and intentions. How, then, are they to be defined for each arena?

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6 We might note here that for a long time Sweden's Social Democratic Party propounded the idea of a collective "house". Although the collectivity is not a family in this view, it does create a "household" relationship.

7 While the arenas are not unrelated to the family/community/market/State scheme (see Filgueira, 2007; Pérez and Tironi, 2006), they are different. First of all, we do not believe that the State can be analyzed as an unequivocal category. Public sphere and public policy, citizen and beneficiary, are neither equivalent nor unique in their relationship to cohesion. The construction of a shared collective space called the citizenry replaces the community (while the category of "that which is public" must be analysed separately). Nor do social relationships consist only of the family, since people also relate as individuals in other contexts.

- **The criterion for social cohesion in the social relationships arena** is the existence (and possibility) of social relationships that assure a society's members of being accepted and recognized. The recognition and inclusion at issue here are personal —that is, they occur in social encounters between persons. When problems of cohesion arise in this sphere, they are the result of situations that work against the recognition of personal inclusion and legitimacy. (Examples include institutions that distinguish between legitimate and illegitimate children, environments in which numerous people do not feel accepted in their families, and high levels of intrafamily violence, which is a clear sign of non-recognition of the other.)
- **The criterion for social cohesion in the citizenship arena** is the existence of legitimate government officials who hold office as the result of elections in which the citizenry participates actively, and which are conducted according to the law. The requirements of elections and participation are interrelated, for the selection of public officials by election implies cohesion in this public sphere if the citizenry participates actively —in other words, if there is an active public sphere. The effective rule of law, in turn, is central for this. The ideal of citizen rule can be achieved only if the laws established through the political process are enforced. If all of these requirements are met, we can say that recognition and political inclusion (in the public sphere) are present.
- **The criterion for social cohesion in the market arena** is that a society's members participate in the market and as workers in a way that permits social mobility (and that ensures *economic* recognition and inclusion of the other). Insofar as a society's members can rise in the social scale and gain access to the goods and services that the society considers basic, this arena can be said to contribute to social cohesion.
- **The criterion for social cohesion in the social protection arena** is that the welfare of all members of the society be ensured, preventing polarization. Recognition in this context is based on inclusion where social rights are concerned—in other words, that people enjoy certain minimum inalienable rights by virtue of being members of the society.

(b) The specific dimensions of the arenas of social cohesion

To advance in measuring social cohesion, it will be helpful to define the dimensions of the arenas.

Three dimensions can be distinguished in the social relationships arena: family, social life and trust in others in general. In other words, we use the

closeness of social relationships to distinguish the dimensions of social relationship, beginning with the basic relationships (family), then moving to a second circle of primary relationships (social life, friends, neighbours and the like), and concluding with the widest possible circle of social relations —a general trust in the "others" who constitute the community. To avoid confusion, we should note that these dimensions are to be understood in terms of the criteria of cohesion previously specified for the arena. In other words, the indicators of social cohesion in the family do not reflect the extent to which families are "well-formed" according to a traditional criterion. Rather, they reflect the degree to which, independent of the particular way in which families are constituted, all members of the family participate in family relationships and are accepted and respected there.

In the citizenship arena, too, three dimensions can be distinguished: representation, democracy and the rule of law. Representation consists of the processes through which citizens relate to the State —the construction of legitimate social actors and the ways in which they are recognised in the public sphere. The central problem here is how the society constructs actors who it believes effectively represent it. Democracy is the election of public officials through legitimate democratic mechanisms. Finally, the rule of law requires effective enforcement. High levels of corruption, for example, are an indication that the law is not being enforced —and, more specifically, that it is not being enforced equally. In this sense, corruption also constitutes a lack of social cohesion.

In the market arena, too, three dimensions can be distinguished: social mobility, consumption capacity and work. Social mobility, which is one of this arena's central dimensions, implies that social position is non-hereditary. In other words, it is possible to move from any position to any other. From this perspective, cohesion is present insofar as there are no *a priori* distinctions preventing members of the society from moving from one position to another. The consumption dimension is measured in terms of effective presence in this arena. In other words, inclusion and participation in the market imply a not merely formal, but actual, role as a consumer. Finally, work is a dimension of this arena, because it is thanks to work and work income that individuals participate in the market (that they are able to consume and/or reap the benefits of social mobility). In this connection, it is important to note that most Latin American families and individuals obtain almost all of their income from work.

Finally, two dimensions can be distinguished in the social protection arena: health care and pensions. It is basic protection from risks and contingencies in these two areas that seems to constitute the fundamental elements of the social protection arena. Social cohesion is present here insofar as a society's members are confident of their access to the resources needed to deal with

the problems of health and old age. We refer here not to policies designed to enhance benefits —some of which (such as poverty reduction) are more appropriately considered elements of other arenas (the market arena, for example, in the case of poverty reduction)— but to basic mechanisms that provide protection from the universal risks of illness and old age that can threaten personal autonomy and the ability to do things for oneself.

(c) The social cohesion matrix

In short, the arenas and their dimensions, and their intersections with the pillars of social cohesion, constitute a basic matrix for the analysis of social cohesion.

To construct the matrix, we must determine the function that each proposed indicator of social cohesion can fulfill in the system (which is to say that it must "naturally" fall in one of the cells). Insofar as the pillars exhaust possible perspectives and the arenas cover the processes involved in constructing social cohesion, it becomes possible to define a set of indicators for measuring cohesion.

Table I.1

Arenas of social cohesion and their dimensions

Arena	Dimension	Outcomes	Institutions	Subjective element
Social relationships	Family			
	Social life			
	General trust in the other			
Citizenship	Representation			
	Democracy			
	Rule of law			
Market	Social mobility			
	Access to the market			
	Work			
Social protections	Health			
	Pensions			

Source: Prepared by the author.

This matrix approach makes room for a concept of social cohesion that is broad and inclusive, but specific (in other words, not including all possible elements). Thus, it allows us to ascertain clearly whether a proposed indicator in fact can function as an indicator of social cohesion. In order to qualify, the indicator must fit in one of the cells of the matrix.

In addition, given the matrix's organic quality, the placement of an indicator in one cell shapes what indicators consistency requires including in the remaining cells of the row. Thus, we are assured of an inclusion/exclusion rule, which we need to make the system coherent.

(d) Future stages of conceptual development

Given the purpose and scope of this chapter, we shall not further detail the issues involved in putting the proposed analytical strategy into practice, except to indicate the upcoming steps and impending challenges.

First challenge: Fill in the proposed matrix in a consistent way

This calls for ad hoc discussion of indicators, taking account of the fact that other lists of indicators have been proposed, but that they have been conceived in the context of other analytical schemes.

Filling in the matrix means applying the inclusion/exclusion criteria to specific indicators. This process will establish the operational shape that the general concept takes. There must be clear rationales for the decisions, and since there are obviously choices between different possibilities, the decisions are subject to debate.

Once indicators are identified, we can assess their potential usefulness and their potential to quantify or thoroughly describe social cohesion, either through synthetic indices or typological analysis —which brings us to the second challenge.

Second challenge: synthesizing the information

Given a system of social cohesion indicators, the question becomes how to achieve an analysis that integrates the system's different dimensions. At least two alternatives present themselves:

- **One possibility is to focus on the feasibility of creating a social cohesion index.** Given a set of indicators of cohesion, each representing a defined continuum of least to most cohesion, a synthetic index of cohesion can in principle be created by defining all the indicators operationally, assigning numerical scales to the more qualitative ones (such as those based on checklists of existing legislation or formal institutions), weighting them, creating sub-indicators for dimensions and defining an appropriate method for aggregating the data. One of the major challenges will be how to weight the different arenas once the data are compiled. In synthesising the information, is the citizenship arena, for example, to have more or less weight than the market arena? Is the gaps pillar to have more or less weight than the subjective pillar? Is the intersection of any pair to have more weight than the other pairs? And so on. This is a major challenge, especially given the technical and methodological decisions on which synthetic indices are based —decisions that it is generally considered desirable to base on some rule or finding arising from the data themselves. We cannot resolve this

issue here, but the solution could very well (and without jeopardising its validity) ultimately be based on a decision that is theoretical and political in nature. This, in the present author's view, would be a legitimate way of seeking coherence in the context of the objectives behind the whole debate on social cohesion in Latin America.

- **Another possibility is to construct typologies of social cohesion** based on the different combinations of arenas and pillars, as a way of describing the specific forms that social cohesion takes. The categories in such a scheme would not necessarily be ordered in terms of greater versus lesser cohesion (some categories could be equivalent in this respect). They would, however, occupy different positions in the more-than-one-dimensional space of properties that generate the different indicators of social cohesion.

Both of these approaches are possible, and each has advantages and disadvantages. Developing a *social cohesion index* strikes this writer as being both of interest and technically feasible. Given the nature and characteristics of the concept of social cohesion, however, a strategy based on typological analysis may in the end have more analytical power. The basic reason for this is that social cohesion is a highly complex phenomenon, with various pillars and dimensions, and that reducing it to a "high/low" or "greater/lesser" distinction and a single number could therefore entail a significant loss of information. Countries with comparable levels of cohesion may have reached them through very different combinations of indicators, and face correspondingly different challenges in constructing social cohesion.

In some cases, the construction of cohesion may depend more on the institutional framework, in others on subjective elements and social relationships. In some instances, gaps may explain a lack of cohesion, while in others, comparable objective results may hide notable differences in people's feeling of whether they are a part of what has been achieved. Similarly, achievements and challenges may be associated with each of the proposed arenas, and may facilitate understanding the general context of cohesion in a country. In some cases, success in the market dimension will be the primary basis for cohesion, while in others strong social relationships will play the primary role. In one country, empowerment in the citizenship arena will be the strength drawn on to meet the challenges, while another may find its greatest obstacle to be in this area.

A typological approach could also incorporate aspects of both the historical and recent dynamics of the phenomenon as a central analytical element. This is crucial for understanding how specific outcomes flow from the interrelationships of gaps, institutions and subjective elements, and it also facilitates discerning possible ways of processing findings. For example, the

nature of the challenges that a country faces will obviously vary: a country with diminishing poverty and a growing middle class will face challenges different from those confronting a nation where poverty is on the increase and the middle class is being squeezed. Although two such hypothetical countries could have the same current poverty levels and sizes of middle class, one would experience its situation as progress, the other as deterioration.

In summary, our hypothesis is that the integration of the different pillars, arenas and dimensions represent "variations" of the Latin American model of social cohesion, each with its own characteristics and dynamics, and that the presence or absence of these characteristics and dynamics can be distinguished in the different countries and merit attention.

This "density" is an advantage of the integrated approach to social cohesion, and provides an analytical power that should be exploited. In that sense, an index of social cohesion, although useful as a complement, would be insufficient on its own.

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Chapter II

The spatial dimension of social cohesion in Latin America

Rubén Kaztman

A. Introduction

This article explores a number of phenomena that can affect the degree of social cohesion present in urban areas. The phenomena are forms of segmentation in certain areas of urban life: the labour market, the provision of essential services and the spatial distribution of the urban population.

Although this study was initially designed to explore the effects of residential segregation on social cohesion, the account offered here is governed by the assumption that the types of segmentation mentioned above are closely related, and that attempting to isolate the effects of any one of these types of segmentation on the social fabric of the city is futile. Accordingly, this article focuses on dimensions and indicators that may be useful for research exploring the relationships between cities' essential structural features and their levels of social cohesion.

Today, the validity and reliability of many of the empirical pillars that could support hypotheses regarding the relationships between different types of segmentation, as well as their relation to the variables of social cohesion, are fragile. Long maturation is still needed before academic work in this field can begin to yield robust and reliable results. In the meantime, it seems worthwhile to try to compensate for the empirical insufficiencies by

developing a dense fabric of analytical relationships among all the variables involved. This will provide a solid conceptual foundation for the architecture of the hypotheses to supplement the scanty scaffolding provided by the available empirical structure.

1. The city and social cohesion

The process by which traditional societies are transformed into modern ones has been marked by a change from "mechanical solidarity" to "organic solidarity". In the process, patterns of social cohesion rooted in primary relationships have been replaced by a gradual universalisation of citizens' rights.

Cities have played a central role in this transformation. Max Weber argued that the notion of citizens' rights began to mature in the small fortified cities of the Middle Ages, where populations were dense, inhabitants were totally dependent on each other for their material needs, and spaces and services were shared. Weber saw such environments as the seedbed of phenomena that eventually fostered the development of citizenship —phenomena such as:

- strong demand by residents for equal treatment under the law, associated with comparably strong resistance to aristocratic privilege;
- the institutionalization of the idea of the public good —that is, the notion that the well-being of each is linked with that of others, and
- the activation of a dynamic of cooperation for conflict resolution that laid the groundwork for the establishment of specialised institutions in this area.

A long-range view reveals that after some centuries of struggle and conflict, the social dynamics put in motion by these phenomena converged, leading to a gradual expansion of areas of consensus regarding the universalisation of citizens' rights. The appearance of the welfare State provided support for such consensus, particularly during the respite from class conflict that followed World War II —the years that Hirschman calls the "Glorious Thirty".

In the late twentieth century and the early twenty-first, however, the idea began to emerge that the role of cities in promoting social cohesion and democracy was weakening seriously. This change appears to be associated with nodal features of the new modes of accumulation in the globalised economies, such as accelerating technological change, the consequent centrality of knowledge in the productive process, the rapidly rising skill levels required for stable and secure jobs, and the concentration of good jobs in globalised circuits —all of which has led to changes in the urban labour market and

the social morphology of the city. The results include segmentation in the workplace, in the provision of basic urban services and in the locations of different socioeconomic categories of households.

2. The purpose of the present study

Taking account of the multiplicity of economic, cultural, demographic and social factors that shape social cohesion in cities,[1] as well as the historical trends outlined above, this article attempts to provide guidelines for measuring certain processes of urban segmentation and segregation explored in the specialised literature that affect the health of the urban social fabric.

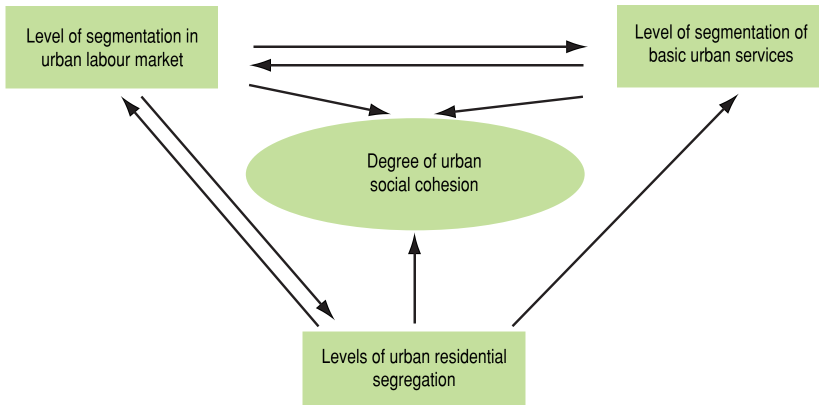
Each of the areas of segmentation —residential location, workplace and basic services— is examined here from two points of view: as a source of physical, human or social capital, and as a sphere of interaction for enhancing the capacity to coexist harmoniously in conditions where inequality is a reality. Thus, we examine the forms of urban segmentation as processes that affect both the inequality of asset configurations in the different social classes, and the opportunities for members of different classes to meet in environments governed by universal norms.

There is a reasonable degree of consensus regarding the notion that cohesion in urban settings is reflected in the strength or weakness of the urban social fabric, and that this strength or weakness is in turn related to the effectiveness of the norms that govern the lives of their inhabitants, as well as to the general atmosphere of cordiality or conflict permeating the collective space. Achieving cohesion depend on residents' willingness to cooperate, to construct negotiated arrangements for conflict resolution and to participate in the type of cross-class alliances that make these patterns of behaviour sustainable. The present article proposes instruments for understanding how such dispositions on the part of urban residents is affected by levels of segmentation in the labour market, in basic services and in the territorial distribution of the different classes' places of residence.

The following scheme summarises the conceptual framework that guides our analysis:

[1] Including all of these factors in a single explanatory model entails highly complex methodological problems, of which we shall mention two by way of illustration. First, the effects of each of the factors manifest themselves most clearly at different levels of population aggregation. This makes it difficult to isolate the effects of the different factors on any particular phenomenon that one is seeking to explain. Second, the significance of interactions between members of different social classes is a function of the physical context in which the interactions occur (school, hospital, recreational space, workplace, public transportation, or other).

Figure II.1
Conceptual framework



Source: Prepared by the author.

Methodological note

The recent worldwide surge of interest by social scientists in investigating the elements on which harmonious urban coexistence is based has revealed the ambiguity of the very notion of social cohesion. The ambiguity is evident in the uses of the term —for example, the metamorphoses that it undergoes when used to describe the social structures of population aggregates on different scales, ranging from small groups and communities to entire societies. Some of the multiple dimensions and nuances commonly associated with the idea of social cohesion prove to be more useful at some of these levels of aggregation than at others. The usefulness of the concept also depends on the type of variable (competitiveness, growth, political stability, a group's perceptions of well-being, and so on) that a researcher is attempting to explore by monitoring levels of social cohesion. Of course, there is less ambiguity when the units whose social structure is being described are smaller and more strictly defined.

ECLAC has defined social cohesion as the "dialectic between established mechanisms of social inclusion or exclusion and citizens' responses, perceptions and dispositions in relation to the way these operate" (ECLAC, 2007, p. 16). From an instrumental point of view, this means identifying the mechanisms of inclusion/exclusion, as well as the mindsets and behaviours with which people react to the presence and functioning of these mechanisms.

The processes of segmentation and segregation in large cities point precisely to the two central dimensions of this definition: a vertical dimension that measures disparities of access to opportunities for well-being, and a horizontal dimension representing the mindsets and dispositions to act that manifest themselves in social interactions.

Social scientists have made little effort to develop indicators of workplace, service and residential segmentation, or to study the relationships of these factors to social cohesion in cities. This is due, on one hand, to the scope of the methodological and operational problems that face such research, and, on the other, to a current bias in the social sciences that encourages focusing on present circumstances (rising or declining poverty, inequality, coverage of educational services and so forth) and correspondingly tends to neglect mechanisms like segmentation and segregation that operate over the medium and long term.

The tentative nature of the dimensions and indicators proposed below, for most of which there are as yet no solid tests of validity and reliability, reflect these lacunae in sociological research. The weakness extends to the empirical scaffolding that provides some of the underpinning for hypotheses regarding a link between segmentation/segregation and levels of urban social cohesion.

The present work attempts to compensate partially for those weaknesses by making ample use of informed speculation and reasonable conjecture regarding the logical relationship between forms of urban segmentation and segregation, and between both of these and the quality of the social fabric. The purpose of this approach is to render the proposed system of indicators sustainable by providing a dense conceptual framework as a supplement to the weak empirical pillars on which the system partially rests.

A second methodological point is the use of the terms *differentiation*, *segmentation* and *segregation* in this article. *Differentiation*, simply enough, refers to differences between the attributes of two or more social categories. *Segmentation* adds to the notion of difference the idea of barriers between different socioeconomic groups that prevent passage and inhibit interaction between members of the different groups in settings where the segmented activity takes place (work, education, health care, transportation, recreation and so on). *Segregation* —a term that the literature most often employs in connection with place of residence —is used here to indicate a will on the part of members of one or another population group to maintain or fortify the barriers that create segmentation.

3. Scheme of work

The work described here is based on the assumption that explaining why levels of social cohesion (sense of belonging, identity, trust, solidarity, moral responsibility towards others, aversion to inequality and so on) vary from city to city requires information both on the living conditions of the social classes in the cities being compared and on the level and types of interaction occurring between the classes.

Below, we shall examine segmentation in the workplace from this perspective, focusing on essential services and on the spatial distribution of households —with reference always to the two dimensions mentioned above: differences in the quality of what is obtained by participation in each of the segmented areas of urban life (good jobs versus bad, good education or health versus poor, and so on) and the scope of opportunity that each of the areas provides for interaction between unequal parties. For each of these processes of segmentation, the present document proposes tentative indicators of their nature, their principal determinants and the main consequences that they have on different dimensions of urban social cohesion.

B. Labour market segmentation

Information on segmentation in labour markets is a key element for understanding social polarization in today's cities. The urban population has taken to heart the idea that full citizenship is associated with work, and that aspirations of sharing in the material fruits of economic growth can only be satisfied through well-paid and stable jobs that provide social benefits. Under these circumstances, those who remain unemployed for long periods, or who live without such protections, tolerating perforce the uncertainties of the informal sector, may well find it difficult to feel that they are full participants in the society of their day.

In today's context of economic restructuring and expanding frontiers of competitiveness, most of the sectors involved in the urban production of goods and services are absorbing technological and organizational innovations at a rapid pace. With the resulting changes in forms of production, more sophisticated skills than in the past are generally needed to obtain good jobs.[2]

[2] Technological and organizational innovation can also have the contrary effect, replacing workers' skills and reducing their scope for control and decision-making with respect to the contents and organization of their work.

Some large cities have undergone a process of de-industrialization, at the same time as the State's employment capacity was shrinking and unregulated labour increasing. These factors combined to reduce the proportion of stable jobs with social protections and to shift a portion of the wage-earning population into the private service sector. Since the distribution of income and skills in the private sector is generally more polarized than in industry or government, the change in the sectoral composition of the workforce rapidly reshaped the social structure of the cities.[3] Some of this is due to the fact that many personal services and economic activities that are a part of daily household consumption can be replaced by family labour —a fact that limits productivity growth in these services, and exposes them to a "cost disease" that makes them inherently precarious and unstable (Baumol, 1967). On the other hand, most of those at the high end of the service-sector hierarchy, such as scientific patent holders, insurance companies, financial agents, travel and real estate agents, consultants, technological researchers, computer programmers and so forth, have very high skill levels and incomes.

A correlation between job quality and schooling has always existed. However, the processes described above have reinforced the relationship, while leading to a drastic devaluation of the types of skills and abilities acquired in the workplace. As a result, the disparities of remuneration, job stability, social protections, promotion, and career opportunities in general, between workers in different sectors of segmented markets, have increased.

Since a worker's level of skills is a given and determines his or her position in the social structure, segmentation in the labour market also implies a narrowing of workplace opportunities for interaction between individuals of low and high socioeconomic strata.

1. Possible indicators of labour market segmentation

Pronounced labour market segmentation is a feature of dual economies, where some sectors are largely integrated in global markets and have workers with high levels of skills, knowledge and capacity for innovation, while other sectors primarily draw on local labour markets, employing relatively unskilled workers. Occupational alternatives in the latter sectors are limited by low wages, and in some cases workers are largely domestic and/or international migrants.

[3] There is very wide-ranging discussion of the effects of deindustrialization on inequality (among others, see Sassen, 1996; Mollenkopf and Castells, 1991; Hamnett, 1998, and Musterd and Ostendorf, 1998). One of the main focuses of the debate is the failure to consider processes that may play a role in increasing income inequality, and that are connected, among other things, with changes in tax and social benefits systems, unemployment, household composition and the age structure of the population. The action of the State is central to investigating and analysing these issues.

Many indicators can be used to measure urban labour segmentation. Since access to the more desirable segments of markets increasingly depends on education, indicators must be designed to reflect changes in the degree of correlation between schooling level and job quality.[4]

Although their coverage of analytical categories differs, the great majority of the region's household surveys provide abundant and detailed information on working conditions. This makes it possible to describe forms of integration in the labour market through data on workers' principal and secondary occupations: total income, number of hours worked (this makes it possible to calculate hourly income and identify the underemployed), presence or absence of a contract, coverage of benefits, nature of workplace (home, street or regular place of business) and occupational category. The sector of activity in which workers are engaged is also explored, distinguishing public-sector enterprises and organizations from private, and differentiating establishments by size. Some surveys inquire into the presence or absence of unions in the workplace, either directly or via special modules, as well as asking whether interviewees are members or not, how long it takes them to get to work, and what sources of information and contacts they use in job-hunting.

Efforts to develop instruments to measure and compare labour market segmentation in different cities should focus on how and to what extent educational level relates to the various indicators of job quality.

2. Possible indicators of determinants of labour segmentation

The structure of job opportunities is highly dependent on the routes to competitiveness that cities take to integrate in the global marketplace, and by which they define themselves on the national, regional and world scene. The adoption of one or another route is usually the result of multiple decisions by economic and political elites. These decisions may be connected to varying degrees, but they all reflect the competitive potential of a city's configuration of assets.[5]

The quantity of high-quality human resources as a proportion of the total urban economically active population (EAP) is one of the most powerful

[4] When working in the context of the medium and long term, it is advisable to use educational indicators that take account of changes in people's relative —not absolute— position in the educational stratification. There are two reasons for this. One is the marked rise in educational level in all of the region's cities over at least the last two decades, the other the rapid change in job recruiting criteria as a response to the new distribution of skills available in the labour market.

[5] This configuration can include physical capital (technological, financial and industrial infrastructure), human capital, social capital (such as the solidity of institutions and the level of governance), cultural capital (museums, buildings, monuments and the like), as well as geographical factors of location and natural landscape.

indicators of a city's options when it comes to choosing between routes to competitiveness based on a high density of human capital and routes based on a low density of such capital. Cities with large numbers of skilled workers can opt for strategies based on knowledge, technology and innovation, while, in cities that have abundant pools of unskilled labour, the tables turn in favour of labour-intensive forms of production. Most of Latin America's large cities have not clearly chosen one strategy over the other, but have a dualistic pattern in which high-technology productive units exist side by side with labour-intensive maquilas.

Indicators that can be used to identify the two situations described above are the percentage of the employed EAP that has some tertiary education or that has completed technical study at the secondary level, and the percentage of the employed EAP that has not completed primary school.

Another aspect of a city's configuration of assets is its labour institutions and the role of the State in regulating collective bargaining and social benefits associated with work. Possible indicators in this area are (i) the percentage of the EAP covered by collective bargaining mechanisms; (ii) the percentage of the EAP that belongs to labour unions, and (iii) the percentage of the EAP that has formal labour contracts and is covered by social security benefits.

Some factors that play a role in cities' routes to competitiveness are more difficult to measure: the city's location in relation to major economic centres, its topography and natural landscape (which may, for example, make tourism a more or less feasible economic activity), technological infrastructure from earlier investments, municipal officials' degree of autonomy from national or regional government, and so on.

3. Urban labour segmentation as it affects the dimensions of social cohesion in urban settings

In attempting to assess the significance of labour segmentation for social cohesion in cities, at least two historical elements are important to consider. Both have to do with the central role of work —in one case, its role in the formation of the modern identity, in the other, its role in the history and form of the region's welfare states.

Today's trend towards ever more precarious employment for low-skill workers is present in societies that have left "mechanical solidarities" behind and have entered spaces dominated by "organic solidarities" (Durkheim, 1964). In other words, as the social division of labour has evolved, and economic activity has differentiated and become increasingly specialised, the imperative of interdependence has become a driving force, and societies' principal locus

of integration has shifted from its primary institutions (family, community and religion) to the work world. Progressive recognition of this change has fostered hopes based on the experience of nations that industrialized early, where work functioned as a prime path to integration in the society (as a source of identity and self-esteem).

In the environment created by today's new modes of growth, however, certain segments of the population can no longer realistically aspire to long-term stable jobs with social benefits. The promise of integration, and the advantages accompanying it, has therefore lost credibility. Experience in the work world is ceasing to be people's principal way to autonomously and sustainably improve their level of well-being, incorporate the routines and disciplines that help organize everyday life, articulate an individual identity that is consonant with a collective identity and achieve a place in society. Where society previously offered opportunities to participate in mechanisms of social integration and construction of citizenship, segments of the population that are excluded from access to "decent jobs" today face a vacuum.

This dilemma bears a relation to the second historical element that must be considered in assessing the effect of labour segmentation on social cohesion —namely, the region's prevailing type of welfare regime.[6] Although the countries of Latin America have not reached a level of coverage, quality and articulation of social benefits that would put them in the category of welfare States in Esping-Andersen's sense of the term (1990, 1999), the region does have embryonic welfare regimes. They have been constructed on the lines of the "conservative" continental European model, which emphasises rights in association with work, rather than the Nordic "social democratic" model, which emphasises universal citizens' rights, or the liberal Anglo-Saxon model with its focus on providing safety nets for the poor and marginalized. Thus, the region's institutions for socializing risk are poorly prepared to cover the dangers facing a population whose ties to the labour market are precarious and unstable.[7]

[6] By the term "welfare regime" we refer to the more or less connected set of protections from social risks provided by the institutions of the State, the market, the family and the community (Esping-Andersen, 1999).

[7] The State certainly plays a central role in determining the effects of economic restructuring on labour segmentation. A guaranteed social wage reduces individuals' need to accept unattractive jobs in areas such as the low-skill service sector, and government employment programmes can temporarily absorb workers displaced by technology in various types of service jobs. Changes in tax systems can also activate potential sources of work. In general, the State can adjust and balance the coverage and volume of the resources that it transfers to the social groups most affected by economic reforms, giving a more or less progressive cast to its action, and reflecting a greater or lesser will to provide a cushion from the concentrating effects of reforms. These factors help to explain the different changes of income distribution and shifts in the relative weight of the informal sector that are occurring in developed countries with differing welfare regimes. However, even studies emphasizing differences between regimes find indications that under the pressure of expanding frontiers of competitiveness and demographic change social security coverage is shrinking. This is true even in countries distinguished for their progressive approach in this area (see White, 1998, on France; Friedrichs, 1998, on Germany; Kestellot, 1998, on Belgium; Borgegard, Anderson and Hjort, 1998, on Sweden).

Failures of countries' labour markets and welfare architectures widen the gaps between urban residents working in different segments of the region's segmented labour markets. The question that emerges is: What are the asset configurations of those on the unfavourable side of the gap?

One element of these asset configurations is the social capital that individuals have acquired. For those with low skill levels, daily interaction with more skilled peers provides a potential source of exposure to role models, as well as opportunities for access to information and contacts that can be useful for career development. Settings that do not provide for such encounters —that is, where work relationships are limited to co-workers with the same low skill levels— reduce the chance of accumulating social capital for upward mobility. In extreme cases, workers' ties with the labour market are so fragile that they experience recurring periods of unemployment, as well as job instability and lack of social protections. As a result, they lack the opportunities and resources to build lasting social networks with fellow workers. Those for whom work no longer functions as a central factor promoting a sense of belonging are thus the most vulnerable.

Another dimension of social cohesion that is affected by labour market segmentation is the extent to which opportunities to build social capital collectively or as citizens differ. Since work skills are associated with having a "voice" —that is, with the ability to articulate and make collective demands— sharing a workplace with more highly skilled peers increases the opportunity of the unskilled to participate in labour organisations and benefit from the collective support that these provide for workers' interests and rights. Union membership also provides an opportunity to exercise citizenship as a member of a group that negotiates demands with other groups. Conversely, working in an environment that does not include workers' with a "voice" makes it more difficult for the less skilled to obtain organizational support for their citizens' rights.

As figure II.1 shows, labour market segmentation also affects social cohesion through the phenomenon of residential segregation. This occurs because differences in income and jobs are likely sooner or later to translate into gains and losses in the context of new economic growth patterns, and residential patterns will reflect those outcomes. Relatively unskilled workers will find it increasingly difficult to pay rent, or to find guarantors for leases or housing loans in central urban areas, and many will be forced to move to cheaper neighbourhoods, usually at the periphery of the city. The more skilled, on the other hand, will have opportunities for upward mobility, and will move to more select parts of the city in central areas undergoing gentrification, or to new suburban gated communities or other suburban middle-class residential areas.

Even if the trend of workplace segmentation does not affect rates of intra-urban migration in a major way, however, the impact of changes in the labour market on the lives of those living in different parts of the city can be expected to alter a city's social morphology. Residents of working-class areas in those of the region's countries where industrialization took place relatively early appear to have experienced this. The social life and institutions that emerged in the factory and in the neighbourhood context in these sectors created a harmony that strengthened solidarity in both the work and residential worlds. With de-industrialization, the residents of these working-class neighbourhoods lost their strong ties with the labour market, and with this their job stability and social protections. These neighbourhoods' integration with the rest of urban society suffered accordingly. The scenario resembles what Robert Castell (1997) has called "the wage society".

Table II.1 shows a broad range of dimensions and indicators of workplace segmentation. However, incorporating the issue of workplace segmentation in multidimensional models to explain social cohesion requires a "short list". The following three indicators, controlled for sex and age, are suggested for this purpose:

- Correlation between educational level and strength of ties with the labour market —the strength of these ties being measured by an index that captures unemployment, underemployment and workers' contract or non-contract status.
- Correlation between educational level and access to well-being through paid work —access being assessed by measuring the hourly income of workers' principal occupation and their coverage (or lack of coverage) by social benefits.
- Correlation between educational level and opportunities for collective action in the work context —these opportunities being measured by union membership.

Table II.1

Dimensions and indicators of the nature, determinants and consequences of workplace segmentation

Nature	Determinants	Consequences
• Correlation between schooling deciles and (i) hourly wage in principal occupation; (ii) unemployment rate among heads of household; (iii) proportion of own-account workers without a regular place of business, and (iv) proportion of workers in personal services. • For wage earners only: (v) proportion contributing to social assistance systems; (vi) proportion whose workplace has a union; (vii) proportion who belong to a union; (viii) proportion working in medium or large firms (size definitions adjusted according to size of city); (ix) proportion working in the public sector; (x) proportion with open-ended contracts. • The above variables are to controlled for sex, age and (in cities where ethnic groups constitute a relatively high proportion of the population) ethnicity.	• The goal here is to measure variables that can influence a city's selection of different routes to competitiveness. • Structure of urban EAP by educational level. • Proportion of wage-earning EAP covered by collective bargaining mechanisms. • Proportion of wage-earning EAP belonging to workers' organizations. • Proportion of wage-earning EAP with indefinite contracts and social security coverage. • Percentage of public spending devoted to science and technology. • Degree to which the State regulates collective bargaining. • Degree to which State obligates businesses to cover social benefits.	• Correlation between features of labour market integration (principally establishment size, public/private nature and economic sector) and (i) experience of having obtained stable work with social protections through information or contacts provided by friends; (ii) union membership; (iii) participation in political parties; (iv) participation in social or political movements; (v) level of trust in institutions; (vi) level of interpersonal trust; (vii) feeling of belonging to society; (viii) expectations of improving living conditions; (ix) readiness to collaborate across class boundaries; (x) expectations of cross-class collaboration and collective responsibility; (xi) possibility of cross-class alliances to maintain and develop public goods.

Source: Prepared by the author.

C. Segmentation in services

1. The nature of service segmentation

Quality of service is a basic dimension of segmentation in the service sector, but another dimension is the socioeconomic homogeneity or diversity of the users who attend the places where services are provided —a factor that affects whether there are opportunities for interaction between the social classes.

Generally speaking, the entry barriers that individuals and households face in attempting to access particular services are a function of their purchasing power. It is a well-known fact that some private schools filter applicants in terms of their religion, nationality, family background or social connections, while some recreational venues exclude young people whose dress, skin color or other symbolic marks identify them as members of low-status social groups or classes. There are also situations in which working-class populations are unable to take advantage of the free services available in wealthy neighbourhoods because the realities of transportation make these areas practically inaccessible to them.

The growing importance of e-services and virtual social communities and networks raises the question of whether new ICTs have the ability to create bridges between the classes and thus repair some of the damage to the social fabric produced by segmentation in other contexts.

2. Determinants of segmentation in services

(a) Middle-class abandonment of public services

Where basic services are concerned, it is clear that globalisation, while increasing labour market inequalities, has spawned new types of services, increased the range of quality of services available and served to make information on these services more widely available. In the new scenario, middle-class sectors that have profited from globalisation and have the means to begin paying for education, health and security services, and to provide for their future through the private sector, have begun to do so.

The middle-class flight from public services has to do with changes in people's opportunities, resources and motivations. Opportunities for migration to the private sector naturally present themselves when private services are created to compete with public services. There can be pronounced variations in the pool of private services offered in different cities, the size of which (in comparison to the pool of public services) is directly proportional to city size. This is because, as a city's population grows and a critical mass of potential users develops, it becomes profitable for certain economic agents to enter the market.[8] When this occurs, some members of the middle class —generally the most affluent— shift from the public sector to the private. Sooner or later, this weakens their commitment to maintaining and improving the public goods that they and their families no longer use.

The emergence of a critical mass of potential users of private services depends not only on city size, but on the proportion of residents who have the means to pay for private services. This portion of the population tends to consist of those middle-class sectors that are most closely associated with globalised productive structures (Sémbler, 2006). Thus, it is not surprising that the tendency of the middle classes to abandon public services, and the segmentation that results, are greater in contexts of pronounced income inequality.

In addition to changing opportunities and available resources, the motivation or willingness of urban middle-class residents to share spaces with less advantaged groups plays a role in whether or not they abandon public services. A number of factors influence them: (i) the growing freedom of choice that they may have; (ii) the degree to which they wish to mark the difference between their present position and their origins; (iii) their desire to participate in networks that are sources of valuable social capital, and (iv) a

[8] The inflection point from which the size of cities permits the formation of critical masses of middle-class sectors with the ability to purchase private services in the market definitely varies with the form of a city's urban stratification pyramid.

desire to avoid contact with stigmatized groups. Each of these four factors merits more detailed examination.

First, the general closeness and frequency of personal contact that characterises small cities fosters interconnected networks of sociability that actively include the great majority of inhabitants. Relying on informal mechanisms, these networks are usually highly efficient in controlling deviations from majority habits and lifestyles. Impulses that members of the middle and upper classes may feel to distance themselves from the main contexts of sociability and shared experience are thus inhibited. As the size of a city increases, however, community pressure for uniform behaviour diminishes, and there is more room for individual choice. Those who wish to can take advantage of new opportunities to acquire goods and services provided outside of the public sphere.

The use of private services can also reflect a desire for social differentiation. This is particularly evident in upwardly mobile sectors for whom private services are a symbol confirming the legitimacy of their changing status, at the same time as it clearly marks the distance that they have travelled from their socioeconomic origins.

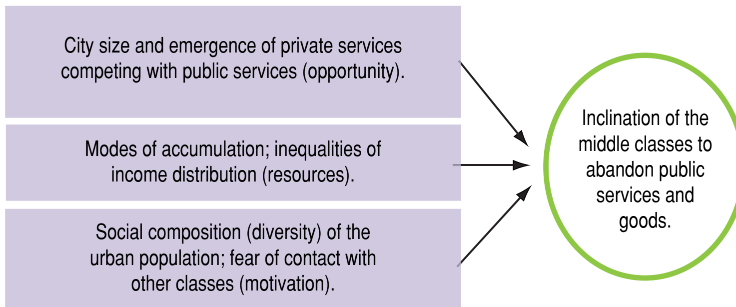
Besides the quality of service and the symbolic gratification of participating in socially prestigious institutions, people may choose private services as a result of exacting calculations of their practical value as sources of social capital, for face-to-face social interaction in the settings where services are provided —whether they be schools, exclusive recreational facilities or other venues— can generate information and contacts that are useful in other contexts.

A fourth aspect of the decision to abandon public services is the desire to avoid contact with those social groups that are benefiting from the expanding coverage of these services. Some of this aversion to contact may reflect sociocultural differences between long-standing urban dwellers and newer residents. The greater these differences, the greater the probability that the old urban classes will construct stigmatised images of new working-class sectors. These images in turn feed feelings of fear and threat about physical proximity with the new residents of the city. Such situations are frequent in cities experiencing large migrations from rural areas or smaller towns, and reflect a country's regional inequalities and diversities. The greater a country's inequalities and diversities, the more the migrants' habits and orientations will differ from those of a city's long-time residents. The presence of newcomers with "exotic" behaviours in places where public services are provided can induce some middle-class sectors to avoid these places as soon as they find accessible alternatives for obtaining the services that they need.

Recognition of these problems helps to understand the challenges facing efforts to collectively construct modes of harmonious coexistence in contexts of inequality, to address the profound problems of assimilation that migrants face and to deal with middle-class resistance to recognizing the new urban residents as citizens with equal rights.

Figure II.2

Factors affecting the disposition of the urban middle classes to abandon public spaces



Source: Prepared by the author.

(b) The pace of urbanisation

In assessing the possible effects of these processes on social cohesion, it is also important to consider the pace of urbanisation. The speed with which cities are growing shapes at least two phenomena that can affect the social fabric. On one hand, the faster the growth, the narrower the margin that major actors have to adjust welfare systems to the new risk patterns of the migrant population. In connection with the discussion in the above section, it should be stressed that very rapidly expanding demand for services can exceed municipal government's institutional capacity to maintain the quality of public services. At the same time, the speed of urbanisation can hinder the orderly and peaceful transformation of the conventional patterns of urban coexistence needed to create space (physical and figurative) for the new residents.

3. Effects of service segmentation on social cohesion

(a) The commitment of the middle classes to public goods

One consequence of the circumstances described above is that when the supply of private services in a city coincides with purchasing motivation and means, a portion of the middle class will abandon public services. They

thereby avoid exposure to the common problems that arise when shared spaces mean interaction between classes. In time, their interest in maintaining and developing services that they no longer use is bound to diminish. Parents who send their children to private schools will have little incentive to invest time and effort in improving public schooling. Public hospitals and transportation suffer from a similar indifference, and public security is likely to as well, to the extent that households and families resort to private security services. Generally speaking, it is reasonable to expect the abandonment of public services by the urban middle classes to erode their commitment to maintaining and improving public goods —a situation that obviously has consequences for social cohesion in the city.

(b) Differences in the quality of services, and diminishing opportunities for interaction between people of disparate social status

Lack of support for public goods by those who have a "voice" contributes to disparities of quality between public and private services. These gaps have been the subject of substantial research, particularly in the area of education. The results of academic aptitude or achievement tests consistently show that, controlling for other factors, private school students have higher scores than their public school peers.[9]

As to opportunities for interaction between members of different urban classes in educational settings, studies show that a majority of private school students come from middle class and wealthier households, while the great majority of those attending public schools come from lower-income households. Moreover, some findings suggest that the attendance of middle- and upper-class children in public education increases as attendance by children of lower-income families decreases. The proportion of lower-income students in public education is smallest at the primary level and greatest at the tertiary level —a phenomenon that is quite evident in those of the region's countries that have free public tertiary education.

The effects of educational segmentation on opportunities for interaction with people of other socioeconomic groups, and on the quality of services available to different groups, are mirrored in other basic urban services such as health, transportation, security and recreation.

[9] See, among others: Contreras, Corbalán and Redondo (2007) and Mizala and Romaguera (1998) for Chile; Cervini (2002) and Gertel, Giuliodori, Herrero and Fresoli (2007) for Argentina; Mizala, Romaguera and Reinaga (1999) for Bolivia; and Miranda (2008) and Benavides (2008) for Peru.

(c) Attitudes and orientations to action

As to the effects of service segmentation on social cohesion in the urban setting, the isolation that it produces tends to generate orientations to action that are different in the middle classes from what they are in the lower classes.[10] Major impacts for middle-class residents include effects on their sense of empathy and moral responsibility vis-à-vis the working class, on their readiness to value the intrinsic virtues of working class people and on their willingness to make efforts to understand unfamiliar codes of interaction and avoid stereotyping and stigmatising lower-income residents with categorical terms such as *rotos* (Chile), *planchas* (Montevideo) or *villeros* (Buenos Aires). Other important factors are tolerance (or intolerance) of inequality, willingness (or unwillingness) to pay taxes for redistributive purposes, and support of (or opposition to) politicians who are committed to advancing equity, protecting the weakest and maintaining the quality of services available to all.[11]

All of these mindsets are magnified as the intensity and frequency of informal contacts with people from different socioeconomic strata increase, but weakened when not activated through such contact on a regular basis.

Among the lower economic strata, meanwhile, the absence of venues for interaction with members of other social strata encourages mindsets that may include resentment, mistrust, and rejection of the middle class as a source of role models. A lack of opportunities for interaction also generates discouragement about the possibility of social mobility and about the possibility of acquiring a place in the city's modal economic and cultural circuits.

In short, all cities and times have had economic elites that favour private services. As long as their numbers are small, the phenomenon may not affect public spaces in a way that noticeably damages the social fabric. However, when substantial portions of the middle class flee public venues, the social fabric rapidly deteriorates. Given their relative weight and the significance of their "voice" in maintaining and developing collective goods, a lack of commitment to public services on the part of the middle classes weakens the mechanisms that preserve these public goods, and that ultimately underpin the social fabric of the city.

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[10] In considering possible ways of reversing segmentation in services, it is important to know the composition of user populations. Members of the general population can be expected to be less affected by segmentation than members of the policy community. The key question is to what extent public officials are capable of supporting the quality of public services that they and their families do not use. In an email, the Argentine journalist and historian Martin Caparrós asks whether this is not like asking whether a life-long Pepsi Cola drinker would make a likely candidate for CEO of Coca Cola.

[11] Certainly, the middle classes' level of aversion to inequality is not the only factor in positive attitudes among them towards urban equity. Fear of externalities caused by a deteriorating quality of life and a deterioration of the services used by the great majority also plays a role —externalities that can take the form of political instability, erosion of the legitimacy of institutions, the difficulty encountered by elites in attempting to mobilise collective support for their projects, and, to an increasing extent, threats to public security.

Table II.2 shows a wide range of dimensions and indicators of service segmentation. As in the case of workplace segmentation, incorporating this issue in multidimensional models of social cohesion requires a “short list” of indicators, for which purpose the following two indicators of educational segmentation are suggested:

- Difference between the average educational level of young members of households that are in the income first quintile (or educational environment) and the average educational level of young people in households in the bottom two quintiles. This indicator directs attention to the gaps or differences associated with educational segmentation.
- Difference between the proportion of the school-age population in the two lowest quintiles in terms of income (or educational environment) that attends public educational establishments, and the corresponding proportion of the upper quintile. This indicator is a proxy for opportunities for interaction between children from households of different social strata in educational establishments.

Table II.2

Suggested indicators for measuring the segmentation of urban services as a variable related to social cohesion

Nature	Determinants	Consequences
• Correlation between household income level (or educational environment) and (i) attendance at public/private educational establishments; (ii) use of public/private health care facilities; (iii) use of public transportation versus individual or family means of transportation; (iv) use of private security services; (v) attendance at soccer stadiums; (vi) attendance at pop concerts; (vii) access to services provided in hyperspace. • Proportion of public-use spaces in cities (pedestrian walkways, sidewalk width, streets closed to vehicles, public-access beaches, parks and plazas, number and size of collective recreation areas. Quality and scope of public transportation).	• City size. • Pace of urbanisation (rates of urbanisation at different time periods). • Inequality of household income distribution. • Sociocultural composition of the city's population in terms of ethnicity and length of time living in the city. • Social spending on education, health, public transportation and police, as a percentage of gross municipal product.	Effect on middle and upper classes in comparison to effect on lower classes: • Level of tolerance of inequality. • Sense of obligation and moral responsibility. • Perception of risk to physical integrity or possessions associated with proximity of lower class. • Levels of stigmatisation. Perceived degree of adherence to work ethic. Attribution of “doubtful morals” (“would take advantage of me if they could”). • Attitudes and behaviours reflecting solidarity with the needy. • Perceived viability of political parties based on cross-class alliances. Effects on urban lower classes in comparison with middle and upper classes: • Levels of mistrust and resentment. • Perceived viability of political parties based on cross-class alliances. • Strength of perceived barriers preventing access to quality education, health services and social security.

Source: Prepared by the author.

D. Residential segregation

1. The nature of the phenomenon

A city's level of residential segregation is one of its attributes. Using this as an analytical category, one can identify spatially segregated ethnic, racial, religious, socioeconomic and national (international migrant) groups, assessing the distance between their places of residence and the areas where the rest of the urban population lives. The variable can also be used to describe the social structure of a city, making it possible assess the more or less segregated nature of a city in comparison with others at given times, or in comparison with itself at different times. In either case, one must explicitly define the social category, group or class that is the unit of observation.

In general, sensitivity to residential segregation in their cities on the part of academics and the policy community is a function of the significance that these people assign to the effects of segregation on the life opportunities available to groups that are vulnerable to poverty or exclusion, and the significance that they attribute to the effects of segregation on the social fabric of the city. In the former case, attention is focused on the spatial concentration of the poor as it effects their ability to escape poverty, to avoid falling into worse poverty and to prevent the intergenerational reproduction of poverty. In the latter case, the dominant factor is an interest in the effects of residential segregation on the crystallisation of urban inequalities, on the general atmosphere of sociability and on inhabitants' readiness to cooperate and resolve conflicts peacefully.

2. The nature of the population agglomerations to which the notion of residential segregation is applied

Various population categories can be used as units of observation to identify processes of residential segregation. Most large cities have neighbourhoods where international or domestic immigrants, specific ethnic or racial groups, religious groups or social classes are over-represented. Since all of these groups tend to be over-represented in some part of the urban territory, they are likely to experience some degree of social isolation from other groups. For various reasons, however, the term "residential segregation" is inadequate to describe the reality of all these situations.

First of all, most families prefer to live near communities with which they identify, and where they feel free to engage in their particular forms of sociability, which may involve shared languages, lifestyles, political beliefs, religious practices and cultural customs. Secondly, it is common for

neighbourhoods where certain groups are over-represented to establish formal or informal barriers to residents or visitors who do not belong to the majority group. In the third place, although the territorial concentration of a uniform sector of the population can cause some isolation in terms of primary contacts with other sectors, the isolation in most cases is counterbalanced by factors such as participation in the work world, in social, cultural and political institutions, in recreation and sports, and in other areas of life. In addition, it may be mitigated by a perception of free exercise of citizenship and/or by the conviction of being well represented in the society by leaders of the same religion, ethnicity or nationality.

On the other hand, the notion of residential segregation may have negative connotations either because the choice of living place is due not to preference but to constraints (formal or informal barriers that limit the physical location of homes and/or the free circulation of certain people), or because the spatial isolation is not offset by participation in other spheres that enhance a sense of identity and belonging.

The growing interest in problems of urban residential segregation on the part of researchers of Latin America's changing social structures has focused precisely on these negative features of the phenomenon, and particularly on the relationship of these features to the nature of the new urban poverty. In other words, it is in neighbourhoods with concentrations of people whose ties to the labour market are particularly weak that the perverse aspects of residential segregation in cities stand out.[12]

3. The nature of the perverse aspects of residential segregation

Three conjectures are current regarding the perverse aspects of residential segregation. The first is that, once established, residential segregation causes segmentation of essential services for users who live in the territorial proximity of the establishments that provide the services —a common situation in the case of education and health services. Thus, even when services are not segmented by their public- or private-sector nature, they may be highly segmented simply because of the territorial distribution of socioeconomic classes in the city.

The second conjecture is that the effects of spatial segregation and segmentation on services work together to entrench poverty, strengthening

[12] According to Rodríguez and Arriagada, one of the main perverse effects of segregation is on the assets of poor families, in that segregation "limits the networks in which poor people participate to the poor, weakening ties and bridges between classes, and creating neighbourhoods where the possibility of social mobility through work is regarded with scepticism, a factor that increases the likelihood of behaviours that impede the accumulation of human capital and erode young people's capacity to generate work income" (Rodríguez and Arriagada, 2004, p. 18).

mechanisms of intergenerational reproduction, and to weaken patterns of harmonious coexistence and generally foster inequality in the urban environment.

The third conjecture is that the determinants of these processes may be inherent in the functioning of the new modes of economic growth and accumulation. If this is so, stable, long-range policies will be needed to stave off a worrisome scenario with spiralling indices of spatial segregation, along with the socially undesirable consequences that this would entail.[13]

4. Differences between the old residential segregation and the new

As research findings and informed thinking about residential segregation provided a more solid basis for these conjectures, and refined their scope, the idea took hold in some of the region's academic circles that better understanding of the major social issues of the region's cities called for much more attention to the changing social environments of poor residential settings than these had previously received.[14] Obviously, however, the spatial segregation of poverty is not a new phenomenon in Latin America, but has played a central role in the history of many cities. What, then, makes it worthy of more extensive and detailed examination today than it was in the past?

At least three important differences are evident in the situations confronting the old and new urban poor: (i) the increasingly homogeneous social composition of poor residential neighbourhoods; (ii) significant changes in the frames of reference by which the poor perceive their own situation; (iii) changes in the behaviour of middle- and upper-income sectors, leading, as noted above, to the abandonment of public spaces, but also to changes in patterns of residential segregation. We now turn to each of these trends in more detail.[15]

[13] The increasing income inequalities that accompany globalisation do not automatically translate into growing spatial segregation, because in addition to cultural and topographical factors, the State and other major social actors (unions, political parties, NGOs, cooperatives, real estate agents, and others) play important roles in the spatial distribution of the population within the city.

[14] Over the last decade, many studies have been published in Latin America on residential segregation trends in large cities, as well as on the effects of the social composition of neighbourhoods, census divisions, cities and municipalities on residents' opportunities to assure their own welfare and on the effects of these factors on risk behaviours.

[15] For a review of research on the nature of the new urban poverty, see Tironi (2003), Kessler and Di Virgilio (2008), and Wormald, Cereceda and Ugalde (2002), among others.

(a) The increasingly homogeneous social composition of poor residential neighbourhoods

This trend is difficult to discern if observers fail to adjust their focus to the changing geographical scale of urban fragmentation.[16] Once the adjustment has been made, what becomes evident is growing disparities between the patterns of assets prevalent in different neighbourhoods. This is the result of two main trends. First, the socioeconomic composition of lower-class neighbourhoods is becoming more homogeneous as this population's occupational skills are devalued in the new economic environment. The homogeneity is intensified as families with opportunities for upward mobility leave and households driven from central urban areas by high costs enter an area.[17] Meanwhile, as the territorial concentration of the poor increases, middle- and upper-class households move to gated communities or other exclusive neighbourhoods. All of these changes increase the homogeneity of each neighbourhood, and in so doing contribute to the fragmentation of the city's social fabric.

(b) Significant changes in the frames of reference by which the poor perceive their own situation

The second new feature of today's residential segregation has to do with the urban poor's prospects of social integration. In the middle of the last century, a major proportion of the urban poor were migrants from rural areas, and many settled in the urban periphery in slums known variously as *favelas, callampas, cantegriles, villas miseria*, or other such terms. The economic scenario in which these migrations took place was dominated by import substitution, which drove industrialisation, and State-provided services were on the increase. Urban immigrants encountered work and opportunities for consumption associated with the expanding domestic market, as well as access to social services and housing through the State, that were far beyond what had been available to them in their rural places of origin. The circumstances fostered a climate of hope, and the pace of progress that these city dwellers were experiencing amply justified their expectations of upward mobility.[18]

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16 This is because there are ongoing changes in the scale at which aggregations of socially homogeneous populations develop, due to the activity of real estate agents, the residential strategies of the poor themselves and residential strategies in other sectors.

17 This "skimming" of poor neighbourhoods may be exacerbated by a vicious circle, or feedback loop, in which the increasing territorial concentration of households with unmet basic needs leads to the presence of more disruptive behaviours, which in turn impels more families to leave the neighbourhood if they can.

18 The pace of urban growth in some Latin American cities in the mid-twentieth century was unprecedented, and migratory movements accounted for a great deal of this. According to Latttes (1995), rural migration accounted for 45.2% of urban growth in Latin America in the 1950s, and according to the United Nations (1981) migration was responsible for an estimated 39% of urban growth in the 1950s and 35% in the 1960s.

Data from the 1980s on suggest a quite different picture. Economic changes made it more difficult for unskilled workers to maintain stable ties with the labour market and to enjoy the social protections that had been associated with work. This gradually eroded their hopes of achieving better living conditions through their own efforts. Economic conditions led to the displacement of some groups from central urban areas where formal housing arrangements prevailed to peripheral areas where major portions of the population were often housed in irregular settlements. All of this occurred against a backdrop of shrinking possibilities for upward mobility and growing threats of social exclusion —a starkly different situation from that encountered by the poor who migrated to the cities around mid-century.

While job uncertainty increased for low-skills workers, the mechanisms that had fed their expectations of growing material and symbolic participation in their societies remained active —a disparity that increased their frustration. The following are a few of the many processes that fed, and continue to feed, that frustration:

- As urban immigrants from rural areas assimilated, their places of origin began losing meaning as frames of reference by which to assess their current conditions. The old frames of reference were gradually supplanted by the models that dominated the new urban context, exacerbating a sense of relative deprivation.
- The educational levels of the urban poor continued to rise, but at a pace that did not compensate for the devaluation of their educational attainments in the new globalised markets. As a result, their aspirations grew without a corresponding improvement in their welfare.
- The mass media multiplied, penetrating households of very different economic capacities to an equal degree, and disseminating models of consumption that were beyond the means of disadvantaged groups.
- The consolidation of electoral democracy and the growing place that social rights assumed in the political discourse contributed to growing expectations of citizen participation —which remained, however, unsatisfied.
- During the import substitution period, the working class's expectations in some cities were fostered by unions that promoted an awareness that collective action could improve workers' power and relative income. Increasing informality, and the tertiarisation of low-skills workers, led, among other things, to a relative decline in union membership. This in turn meant fewer opportunities to make demands through collective action.

For today's urban poor, these factors constitute a situation that is substantially different from that facing the urban poor of the mid-twentieth century. For today's poor, the gap between goals and fulfilment is greater than it was for their predecessors, and it is increasingly difficult for them to develop viable ways of autonomously improving their living conditions. It is the spatial concentration of people facing these problems that generates the perverse features of residential segregation in today's urban environment.

(c) The emergence of gated middle-class communities in proximity to poor communities

Driven by more mature and concentrated real estate capital that swept away the "factors that limited private projects for isolated elites to high-rent enclaves", gated communities are being created in parts of the city traditionally occupied by working class sectors. Thus, some of the region's cities are experiencing a transformation of their traditional patterns of urban segregation (Sabatini and Cáceres, 2004).

This phenomenon raises serious doubts about hypotheses to the effect that household income distribution trends are ultimately reflected in the physical distances separating different types of residential neighbourhoods. It also raises again the issue of the advantages and disadvantages for the poor of being physically close to other populations when circulation between the two environments is impeded by physical obstacles (walls and fences) or by security forces monitoring entrances.[19]

According to some analysts, the presence of gated communities in the midst of working-class areas only represents a change in the scale of residential segregation, without affecting its negative character. Others maintain that such locations do represent a change, and one for the worse, while yet others see more benefits than drawbacks in the new trends —both for the poor in whose neighbourhoods the gated developments are located, and for the social fabric of the city, in that patterns of coexistence are improved. Despite their differences, these divergent views share the virtue of casting light on the social consequences of an unanticipated aspect of the logic of the real estate market as it has played out in practice.

Various questions emerge from the debate about how those "further down the ladder" are affected by increased physical proximity with gated middle-class communities. Do opportunities for interaction across class boundaries increase or diminish? Do perceived social differences increase or decrease?

[19] It could be argued that this situation is not terribly different from that seen in a majority of apartment buildings, where doormen or systems of a mechanical or electronic nature monitor those entering. However, unlike interior spaces, streets are traditionally perceived as public areas freely open to all.

What mindsets are created: resentment, envy, aggressiveness and a sense of impotence, or satisfaction with new job opportunities, a rise in neighbourhood status with a concomitantly enhanced self-image, improved infrastructure (electricity, pavement, and the like), and more opportunities for access to public and private services that are attracted by the presence of the middle classes? In general, does the presence of gated communities in working-class parts of the city contribute to the social integration of the poor or not? Does it or does it not contribute to the health of the city's social fabric?

Certainly, the relative importance of the new features of spatial segregation —its intensification, its changing significance for the poor and the recent emergence of new scales of spatial segregation— vary from city to city, probably reflecting differences in the cities' paths of growth, their history of spatial segregation by class and ethnic group, and the contents of the sociocultural matrices that shape the way in which those who have more and those who have less share the urban space.

5. Indicators of residential segregation

The specialised literature includes many indices for measuring residential segregation, each stressing different aspects of the phenomenon.[20] Below, we review the features of the most commonly used ones.

- **The Duncan dissimilarity index**. This index measures the uniformity with which groups are distributed in a territory. Values close to 0 mean that the distribution of a population with a given attribute in the subunits is similar to the mean value of that attribute in the higher-level agglomeration. Values approaching 100 represent situations of maximum segregation in which subunits have no mixture of populations with different values of the attribute being examined. The value of the index represents the percentage of the population that would have to be relocated to achieve equal distribution of the different groups over the city's geographical units. Duncan's index is a synthetic indicator of the relationship between the composition (social, labour-related, racial, or other) of territorial subunits and the social composition of the higher-level territorial unit (city or urban agglomerate). When these two levels differ in their composition, residential segregation is present, since the distribution of social groups among the territorial subunits

[20] In the methodological debate on the virtues and limitations of the best-known indices of residential segregation as applied to Latin America's cities, the work of Francisco Sabatini (1999, 2004) and Jorge Rodríguez (2001) stands out. These authors have published critical reviews of these indices as they apply to Latin American urban research, and both offer extensive arguments supporting their preferences for certain indices.

does not correspond to the groups' representation in the city or other higher-level unit as a whole. The value of the index ranges from 0 (no segregation) to 100 (total segregation —that is, no mixed composition in any subunit).[21]

- **Variance analysis**. This is another measure of the uniformity with which different population groups are distributed throughout a territory. The total variance of the variable examined is broken down into two components: an intra-neighbourhood one and an inter-neighbourhood one. When the variance between subunits explains a major portion of the total variance, there is more *homogeneity within* the units, and more *heterogeneity between* units.[22]
- **The index of interaction** (or isolation) measures the extent to which the members of group X are exposed to members of group Y in different territorial subunits. A value of 0.2, for example, means that, on average, in a unit that includes a member of group X two members out of ten belong to group Y. Hence, situations of acute segregation generate small values (Martori and Hobert, 2004). While the dissimilarity index is relatively independent of the size of the group being considered, the index of exposure is not, because the greater the size of the group as a proportion of the entire city population, the fewer will be its members' opportunities for interaction with other groups, and the lower their probability of sharing a neighbourhood with other groups. At the opposite extreme, if a group is very small, the probability of its interacting with members of other groups will be greater —a fact that will not necessarily affect the index of dissimilarity.
- **The Moran index**. This measures the proximity of territorial units that have similar populations. In other words, it indicates whether the distribution of data in the space shows autocorrelation, and thus a non-random pattern. In other words, the index tells whether or not the values of the variable being studied in a territorial unit are similar to the values of the same variable in adjacent units. A positive correlation indicates

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21 The index is determined by the following equation:

$$D = \frac{1}{2}\Sigma\left[\frac{N_{1i}}{N_1} - \frac{N_{2i}}{N_2}\right]$$

where N_{1i} = the population of group 1 in the low-level territorial subdivision, N_{2i} = the population of group 2 in the low-level territorial subdivision, N_1 = the total population of group 1 in the higher-level agglomeration and N_2 = the total population of group 2 in the higher-level agglomeration.

22 The **residential segregation** index shows the proportion of the total variance that is explained by the variance between territorial subunits.

$$ISR = \frac{s_n^2}{s^2} * 100$$

where $\sigma^2_{n\,=}$ the variance between n territorial subunits and $\sigma^2_{\,=}$ total variance.

the presence of spatially contiguous units with similar values, while a negative correlation indicates that high values in one subunit correspond to low values in a neighbouring subunit (or vice versa). When the index approaches 0, there is no spatial correlation, and hence the distribution of the value's variable in the units is random. It is important to remember that the Moran index describes a city as a whole, and thus facilitates comparison with other cities, or of a single city at different times.

- **The LISA index.**[23] The LISA index makes it possible to decompose larger-scale indicators such as the Moran index. It is particularly useful when the assumption of internal homogeneity within each of the spatial units in the Moran index does not hold. Strictly speaking, the LISA coefficient is equivalent to the Moran index for each of the spatial subunits. This makes it possible to assess the statistical significance of the correlations between neighbouring subunits in local groupings. As both indices are coefficients of spatial self-correlation, they imply the notion of adjacent units (Anselin, L., 1995).

Without entering into more detail about these measures of segregation, let us simply say that the capacity of each should basically be considered in terms of two criteria: its adequacy in the context of the characteristics of the social categories whose spatial segregation one wishes to capture, and —closely related to this— its adequacy for the analytical purposes of the research being conducted. For example, if one wishes to test the hypothesis that certain ethnic minorities have a greater or lesser propensity than others to territorial agglomeration, variance analysis will be of interest, or it will be useful to apply the index of dissimilarity to the distribution of each of the minorities in the urban territory. If, on the other hand, the objective is to determine whether the poor are more or less isolated from the rest of the population than in the past, it will be more useful to make an intertemporal comparison of indices of exposure, highlighting the potential opportunities for interaction between the two groups or population categories at the different times in question. Depending on the significance that the researcher attributes to the geographical scale at which the isolation is detected, it may also be possible to use clustering or spatial contiguity indices, which reveal changes in the size of an socioeconomically or ethnically homogeneous area.

Looking beyond these indices, it is —as the discussion in the foregoing sections demonstrates— desirable to have simpler indicators directly related to territorial isolation at the poles of the pyramid of a city's social stratification. One such indicator is the size of the population living in precarious settlements as a proportion of the entire poor population and as a proportion of the

[23] Local indicator of spatial association.

city's overall population. Another is the size of the population living in gated communities as a proportion of the middle class and as a proportion of the city's overall population (distinguishing the cases where these neighbourhoods are contiguous with poor neighbourhoods).

6. Geographical scale

One of the common problems confronting research on residential segregation is how to determine what territorial scale is most appropriate for studying the type of behaviour that one is attempting to explain. Jorge Rodríguez (2001, p. 15) emphasises that a researcher must "explicitly define the attribute differentiating spatially separated groups, and segregation must be defined in terms of a given scale of analysis".

Again, it is futile to weigh the adequacy of different scales if the purpose of the research is unclear. To understand what this means, it will suffice to reflect on how the nature and boundaries of the spaces in which significant things happen change as people move from one stage to another of the lifecycle and/or shift their activity from one sphere to another.

Generally speaking, it is reasonable to assume that the degree to which people are sensitive to what occurs in their residential environment is related to the importance that they attribute to that environment as a source of assets —social capital in particular. Thus, one would expect workers with stable integration in the labour market and/or a high level of participation in organisations such as unions, churches, political parties and sports groups to respond more to behavioural expectations arising in those contexts than to those presenting themselves in their neighbourhoods. At the other extreme, people with unstable integration in the labour market and little or no institutional participation will be more sensitive to influences in the area where they live.

In some cases, however, the gravity of local problems affecting the entire neighbourhood make collective sensitivity to the immediate environment almost inevitable. A residential neighbourhood located in a flood zone, for example, faces the threat of a type of disaster that affects all residents. Such situations foster the emergence of relationships around the problems that affect all. The same can be said of neighbourhoods that are deficient in infrastructure, general services or local job opportunities, that are unsafe, or that have transportation problems. A sense of territorial limits shared with neighbours can also be imposed from outside —for example, when employers avoid hiring people who live in stigmatized neighbourhoods.

Finally, it should be noted that all the indices mentioned in section 5 are likely to assume different values according to the geographical scale that is used

to define the area considered significant for the residents.[24] As a general rule —by way of summary— a researcher must formulate an operational definition of relevant geographical scale, considering the advantages and drawbacks of different boundaries as a function of the features of the available data and the analytical purposes of the proposed study.[25]

7. Principal determinants of residential segregation by socioeconomic grouping, and possible indicators

Levels of residential segregation reflect patterns of determinants, each of which assumes different values and weights in different cities.

Various types of factors are at work here: historical (for example, the inertia of the traditional patterns by which social classes are distributed in cities); cultural (for example, the relatively hierarchical or egalitarian nature of relations between those in the upper social strata and those in the lower, the importance that the middle and upper classes assign to spatial patterns as a social symbol, or the zeal with which they preserve the frontiers of their social world); topographical (for example, a city's general flatness or hilliness); social (for example, the importance of processes of upward or downward mobility in a city); demographic (for example, differences in fertility rates between classes, migratory flows and levels of skills among rural-urban and inter-urban migrants); economic (for example, trends in average urban land prices and their dispersion, changes in a city's productive structure and labour market, and the degree of inequality of household income distribution); political (for example, the existence of rent subsidies and public guarantees for housing purchase or sale, the relative role of social housing in housing solutions for the urban working class, the level of political and administrative tolerance of squatting and the presence of precarious forms of land tenancy).

Forms and levels of residential segregation are heavily determined by their historical inertia in the city, which is related to the type of trajectories conventionally designated as highly path-dependent.

[24] Gated middle-class neighbourhoods built near poor neighbourhoods are one of the social phenomena that most clearly show the importance of taking geographical scale into account in studying residential segregation.

[25] The most important sources of available information are government censuses and household surveys. Given the limitations of these sources, it is often questionable how far theoretical and methodological discussion of the advantages and drawbacks of different scales of geographical aggregation can be pursued before it loses all relevance to the available empirical data. In general, census information has the advantage of making it possible to compare the characteristics of population units at very low scales of territorial aggregation, and the disadvantage of being too limited in thematic scope to provide means of testing many of the hypotheses regarding residential segregation that appear in the literature today. For the latter purpose, some of the region's national household surveys have the advantage of being more frequent and therefore providing information that is more current, as well as covering more subjects and thus providing more analytical ammunition. However, their sample size makes it difficult to identify characteristics at the level of territorial disaggregation required for this purpose without losing statistical representativeness.

8. Effects of residential segregation on social cohesion in cities, and possible indicators

In a dialectical relationship where the elements of the system function alternatively as causes and as effects, spatial segregation and physical isolation between the classes are obstacles to the creation and functioning of the mechanisms on which social cohesion in cities is built.

In fact, the frequency and quality of contacts between members of different classes are correlated with with people's inclination to work together and their exposure to opportunities for constructing ways of negotiating conflicts. On the other hand, physical isolation increases the likelihood that each class will develop imaginary profiles of the others quite independent of the intrinsic virtues of those being imagined. The greater and more abiding the isolation between the classes is, the more rigid the mutual stereotypes will become, and the more difficult it will be to change them.

Since the attitudes and motivations behind these dispositions vary from class to class, the following discussion treats them separately for the different socioeconomic groups.

(a) Middle-class residential segregation and behaviours that affect social cohesion

Physical isolation fosters the development of mindsets that affect the contribution that the middle classes can make to the health of the city's social fabric —in particular, thresholds of tolerance of inequality and poverty, feelings of moral obligation towards others, and fear of the proximity of working-class sectors.

The notion of tolerance of inequality helps to understand the stability of some indicators of social inequality.[26] There are profound mental structures that predispose people to act in a way that activates homeostatic mechanisms when indicators of inequality and/or poverty exceed certain levels.[27] These homeostatic behaviours may range from electoral support for initiatives that protect the weakest and preserve the quality of universally available services,

26 One study comparing income distribution data between countries and over time finds income inequality relatively stable on both counts, in marked contrast with the behaviour of GDP growth rates, which change rapidly (Liu, Squire and Zou, 1995).

27 Homeostatic mechanisms are self-regulatory mechanisms that tend to keep an organism's internal conditions and composition relatively constant.

to acceptance of higher taxes for redistributive purposes.[28] [29] The aversion to inequality can also activate mechanisms of self-control in the middle classes with respect to consumption, particularly consumption of highly visible products or services that can create resentment among the less well-off.[30]

Aversion to inequality and feelings of moral obligation in the middle class vis-à-vis those who have less are essentially based on empathy —the ability to put oneself in the place of the other. Residential segregation impedes the generation and reproduction of this ability, which depends on frequent informal contact between individuals of different socioeconomic strata.

Another feeling that functions as an important cause and consequence of distance between the middle classes and working classes is fear of contact. Physical isolation seems to generate fear of contact in two ways. First, it makes mutual familiarity unlikely. Second, it encourages the emergence of behaviours in the lower classes that are disruptive of social order, and which the middle classes consider threatening.

The central phenomenon in the factor of mutual unfamiliarity is the middle classes' difficulty in understanding the codes of communication that lower-class sectors develop in their territorial isolation. The consequent constraints on communication produce insecurities and mistrust, which in turn accentuate the threatening qualities of the unfamiliar other, intensifying sensations of menace and fear.

The important factor in regard to disruptive behaviours is the middle classes' shrinking from proximity to anomic behaviours (drug dependence, violence, crime and marginality), which tend to emerge as disruptive correlates of concentrated and segregated poverty.

In short, isolation feeds fear, and fear feeds isolation, in a spiral that no doubt contributes to the current tendency of the middle classes to distance themselves from lower-class areas, to live in socially homogeneous areas and/ or to take measures to protect their places of residence.

[28] As Barry points out, acceptance of high taxes not only makes it possible to raise the quality of public services, but reduces the money available to higher-income groups for private services. This inhibits the abandonment of public spaces (Barry, 1998, p. 23).

[29] The contribution of the middle and upper classes to maintaining the public spaces that make cross-class interaction possible is certainly not based alone on their aversion to inequality. It is also driven by fears of the externalities that tend to accompany worsening majority conditions —externalities that may include political instability, erosion of the legitimacy of institutions and consequent difficulty for elites in mobilising collective will for projects of change, and, increasingly, public insecurity affecting the quality of life.

[30] Small and very culturally homogeneous countries create realms of closeness that tend to inhibit the differentiation of the elites, since the community is more able to sanction those who move too far from majority habits and lifestyles.

(b) Residential segregation and urban working class behaviours that affect social cohesion

For urban working class sectors, geographical isolation can in various ways reduce the inclination to cooperate and to negotiate peaceful resolutions of conflicts with other classes. The factors involved include a scarcity of opportunities to learn the codes of communication employed by members of other classes, resentments associated with frustrated expectations of material and symbolic participation in society, and obstacles to effective collective action.

The first two of these factors have been discussed above. The third —obstacles to effective collective action— is a central variable for understanding how segregated working classes can contribute to the construction of patterns of coexistence in contexts of inequality, and to the establishment of rules for peaceful conflict resolution. Thus, it is worth examining how neighbourhoods can function as an important source of identity and socially integrating ties.

(c) The territory as a source of identity, and as a source of ties that encourage social integration

One thing that stands out in many instances of successful construction of patterns of urban coexistence under conditions of inequality is the development of collective actors who represent and articulate the interests of major working-class sectors —unions most notably. Today, daily work experience often does not function as an effective channel for social integration for less skilled workers. This forces them to seek alternative contexts in which to construct their identities, integrate with their community and have experiences in which they can exercise their rights as citizens.

Although, for those who have lost (or never had) regular opportunities for sociability and interaction in the workplace, a place of residence can be one of the few alternative areas to construct identity and a sense of belonging to a community, some conditions seem to be necessary for this.

The first has to do with whether residence in a neighbourhood is voluntary or involuntary. There are arguments for the notion that the poor choose to live among their socioeconomic peers. First, in cities with marked class differences, it is understandable that the lower-income population should prefer to live where their habits and customs do not expose them to stigmatisation or contempt, and where they feel free to express themselves spontaneously and show themselves ingenious, attractive and entertaining to their peers (Charlesworth, 2000). Another argument specifically relates to poor populations of shared ethnic, racial or regional/national origin, suggesting

that such groups prefer to live with their fellows for the easy contact that this provides with a community that shares cultural traditions and lifestyles, and, in many cases, for the opportunity to join networks that provide social capital and thereby facilitate integration in the labour market. A third argument stresses a desire to live close to workplaces and fellow workers. This attitude seems to have arisen in the context of industrial experience and the composition of working-class neighbourhoods.

The second condition required for poor neighbourhoods to become sources of identity and a sense of belonging is that residents of an area in fact have a desire to construct social capital with their neighbours, as well as the resources to do so. Social capital usually resides in reciprocal networks whose members behave according to norms defining rights and obligations. There are many examples of local organisations emerging in neighbourhoods with highly homogeneous poverty to solve specific problems affecting a majority of residents, which then become social networks facilitating the articulation of new collective goals, and mobilisation to achieve them.

A challenge to these arguments is that the resources that people need to select a place of residence, or to contribute to maintaining networks of reciprocity, are precisely those dependent on stable ties with the work world. People who experience recurrent unemployment, or who have only informal employment, have little freedom to choose among residential alternatives, or to build and maintain networks of reciprocity.

In short, the very features of the new urban poverty make it difficult for some of the positive factors that promote feelings of identity and belonging to emerge in the neighbourhoods where this poverty is concentrated, for, paradoxically, the ties that residents have with the work world are one of the elements that determine whether local community life can function as a platform for such positive developments.[31] This is why de-industrialisation leads to the decay of communal institutions in urban working class neighbourhoods, rather than revitalising them.

Table II.3 shows a wide range of dimensions and indicators of residential segregation. As in the cases cited above, incorporating this problem in multidimensional models to explain social cohesion requires a "short list" of indicators. We suggest the following two:

- **Variance analysis**. This makes it possible to compare differences between variations of social composition within and between a city's units of territorial aggregation. Levels of residential segregation are

[31] One dynamic that is activated in these contexts is excellently illustrated in the Argentine film. Avellaneda was formerly a heavily industrialised Buenos Aires neighbourhood. The film depicts the relationship between the area's de-industrialisation and the collapse of a neighbourhood club.

directly proportional to the social *homogeneity within* neighbourhoods (or other geographical units, such as municipalities, census divisions, and so on) and the *heterogeneity between* neighbourhoods (or other such units).

- **Clustering indices** (LISA and Moran). These add to the above information on the geographical scope of residential segregation.

Table II.3

Suggested indicators of residential segregation as a variable related to urban social cohesion

Nature	Determinants	Consequences
Dimensions of the territorial distribution of a population group: • Dissimilarity index (Duncan index); • Exposure index; • Variance analysis; • Index of concentration; • Clustering indices (Moran, LISA). • Population living in precarious settlements as a percentage of all poor and as a percentage of the entire population. • Application of segregation indices to the territorial distribution of precarious settlements. • Middle class in gated communities as a percentage of the whole middle class population and as a percentage of total city population. • Application of segregation indices to the territorial distribution of gated communities.	Historical indicators of how long a city's residential segregation has been an established reality. • Qualitative indicators of the relative importance of hierarchies and inequalities in interaction between people of unequal socioeconomic status. • Indicators of the symbolic social meaning that place of residence has for the middle and upper classes. • Indicators of the zeal with which the middle and upper classes preserve the boundaries of their social life (income requirements for membership in certain clubs). • Topographic indicators of urban geography. • Social mobility indices —general trends. • Fertility rate differences between classes. • Pace of urban growth. • Contribution of migratory movements to urban growth. • Immigrants' average skill levels. • Changing land prices —average and dispersion. • Sectoral composition of workforce. • Level of household income inequality. • Indicators of the quality of subsidies and guarantees for housing rental/purchase. • Indicators of social housing as a proportion of all housing solutions for the poor. • Indicators of levels of political and administrative tolerance of squatting and other precarious land tenancy.	• Correlation between urban residential segregation and labour-market segmentation. • Correlation between urban residential segregation and educational segmentation. • Opinions regarding degree of understanding of other classes' codes of communication. • Degrees to which members of other classes are trusted. • Levels of tolerance of inequality and poverty among middle- and upper-class sectors. • Feelings of moral responsibility towards those "beneath oneself" among middle and upper class sectors. • Fear between and within classes. • Stereotypes of other classes (all people, most, some, few). Stigmas. • Relative weight of behaviours disruptive of social order in the different classes (drug dependency, crime, marginality). • Indicators of the effectiveness of social norms in working-class neighbourhoods (graffiti) sidewalk trash containers, public and/or private equipment broken or in poor condition, relations between adults and young people, control of the streets). • Level of malaise in working classes. Indicators of anomie.

Source: Prepared by the author.

E. Concluding observations

Ascertaining the relationships between urban segmentation (levels and types) and inhabitants' inclination to participate actively in creating patterns of peaceful collaboration and negotiated conflict resolution is a highly complex challenge. One reason for this is that the concepts of segmentation and social cohesion are still immature. In other words, these phenomena have not yet been clearly defined in terms of unique causes and consequences. Another reason is that it is difficult to identify and corroborate hypothetical microsocial mechanisms connecting the two phenomena.

This conceptual ambiguity is reflected in the fact that it is difficult to develop good instruments to measure the phenomena —and using poor instruments, of course, only adds to the conceptual confusion. Strictly speaking, the social sciences appear to be entangled in the complexities that attend efforts to analyse the current transformations of urban social structures in various dimensions. The best strategy in these cases seems to be attempting to sketch a general picture of the jigsaw puzzle, so to speak, using working hypotheses regarding causal relationships between elements. In a recent article, De Hoyos and Lustig (2009) address similar problems in constructing a model with variables for different levels and spheres of action that efficiently explains changes in inequality, income distribution and poverty. "In practice", the authors say, "such a model does not exist and perhaps never will. Therefore, full knowledge of a subject —as opposed to simply answering increasingly specific questions about it— becomes a jigsaw puzzle complicated by the absence of pieces, and by the fact that the available pieces do not all come from the same source or fit together properly. Continuing with the metaphor, we must ask what pieces are available, and which are least explored by current research".

At the risk of grossly simplifying these phenomena, I would venture to share an impression that the historically unprecedented state of opportunities for developing harmonious modes of coexistence in contexts of inequality arises from the convergence of three trends. Each may have been present at some time in urban history, but it is their convergence that makes for a scenario offering significantly different opportunities to construct stable patterns of urban coexistence.

1. The abandonment of public services by the middle classes

The health of cities' social fabrics and the functioning of their mechanisms of social solidarity tend to work against a society's "elite" isolating itself. Of course, elites have always resorted to private services. However, ruptures in

the social fabric quickly become visible when a major portion of the middle class abandons public services.

2. The weakness of the lower socioeconomic strata's ties with the labour market, and the concentration of these strata in certain neighbourhoods

The spatial concentration of households that suffer from serious material deprivation and have little hope of advancing significantly through work fosters the emergence of the most disruptive elements of poverty. Those who have the means to leave these neighbourhoods will, and therefore interaction becomes increasingly limited to residents whose skills, habits and lifestyles are more associated with failure than with success, and whose networks are poor sources of contacts or information for obtaining jobs or training. The very instability of jobs and incomes makes it difficult to create and maintain local institutions that can provide certain fundamental informal controls. Children and young people lack exposure to and contact with role models —people who move effectively in their city's main social and economic circles.

3. The urban working class's growing expectation of enjoying their full rights as citizens

An explosive feature of today's situation is that while labour market ties are weakening, services segmenting and spatial segregation increasing, the sources of social aspirations and the factors reproducing them remain operative. The coverage of education and the penetration of the mass media increase, while globalisation and the consolidation of electoral democracy continually swell the numbers of people exposed to discourses that create expectations of full access to social rights. However, experience daily gives the lie to the idea that these rights can be effectively exercised. All of this makes the areas in which the new urban poverty is concentrated quintessential foci of anomie, the presence of which contributes heavily to eroding the quality of social relationships in the cities.

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Chapter III

Institutions, welfare and social cohesion: indicators of their functionality

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A. Introduction

One ongoing concern of the Economic Commission for Latin America and the Caribbean (ECLAC) has been to forge a view of development that goes beyond economic growth and is based on the guiding principles of equity and social integration. Despite recent efforts and progress, the region has not succeeded in putting itself firmly on a path of sustained growth with equity. Fajnzylber (1992) described this difficulty as the problem of the "empty box" in Latin America. It is a central challenge, rendering it essential to systematically make the problem of inequality and its relationship with the characteristics of social and productive structures a focal point of development strategy.

Beyond the normative discussion that arises around this issue, the economic literature since the 1990s has begun to focus on inequality and, more broadly, on social cohesion, as factors that shape growth. Societies with high levels of inequality tend to suffer from chronic conflict, and large segments of their populations have but a limited ability to invest in human capital. Thus, high levels of inequality in themselves are an obstacle to development.

From a broader perspective, ECLAC has been developing a research programme that aims to incorporate social cohesion in the development agenda. This flows from a recognition that social cohesion depends on

the cooperation and communication that make it possible to create social spaces for interaction —spaces that, in turn, are necessary to processes of development. The sheer presence of high levels of inequality undermines the material basis of such social interaction, but the functioning of institutions also plays a role.

Despite all of this, the concept of social cohesion is far from enjoying consensus in academic and policy circles. ECLAC (2007) approaches social cohesion as the dialectical interaction of mechanisms of social inclusion and exclusion and citizens' perceptions of and responses to the way in which such mechanisms operate. This approach facilitates analytical connections between elements that have usually been considered in isolation, such as equity (in a broad sense), political legitimacy, values of solidarity and cooperation, social policy and institutional environments. It views the relationship between these elements as essentially dialectical and systemic, and does not recognise unidirectional relations of causality. Rather, it posits that such configurations can be understood only from an integral, interconnected point of view.

Incorporating social cohesion in a systemic conception of development requires creating systems of indicators with which to monitor comparative progress in social cohesion. In principle, the system must specify minimum standards for spheres that are essential in assuring basic social functionings. Since social cohesion presupposes certain standards of societal performance, the system of indicators must be able to identify patterns of discrimination and exclusion. Finally, it must throw light on the role of public policy in supporting welfare and social cohesion.

In the spirit of the Laeken indicators constructed by the European Union, and as a step towards defining a system of indicators that is coherent and can support comparative assessments of cohesion in the region, ECLAC (2007) has proposed a preliminary set of interconnected indicators to monitor social cohesion. This chapter is a part of that process. Specifically, it aims to provide support for designing a subset of indicators that capture the institutional component of social cohesion.

In a broad sense, access to welfare depends on the relationships among the social institutions that facilitate access to the various components that ensure the quality of life. The literature recognises households, markets and the State in particular as central institutions for access to welfare. The connectedness and complementarity of these institutions constitute a central determinant of welfare and social cohesion. Where public policy is concerned, the indicators must reveal the ways in which the State affects this institutional configuration. Their capacity to describe welfare regimes is relevant in that these regimes influence social cohesion.

The present work proposes a tentative set of indicators to monitor the degree of articulation between the different institutional spheres involved in providing social welfare. We therefore begin (section B, below) with a brief discussion of the institutional mechanisms involved in providing welfare and the connections between them. Section C discusses the relationships between welfare regimes and social cohesion as construed in the analytical framework proposed by ECLAC. The discussion then turns (section D) to the difficulties involved in isolating the specific roles of the institutional spheres and describing how they interact to provide social welfare and support social cohesion. The chapter concludes with a presentation of the proposed indicators (section E).

B. Institutions and social welfare

Barr (1998) identifies five possible forms of welfare provision: (i) the market; (ii) occupational welfare; (iii) voluntary provision through non-market networks and forms of exchange; (iv) types of private provision that even out income over the life cycle to allow for contingencies; (v) policies of monetary or in-kind transfers of goods and services.

The principal source of welfare in modern economies is the resources that citizens obtain in the market —principally the labour market. The *functioning of markets* determines people's ability to find work and obtain the income needed to achieve ends that are of value to them and their surroundings. Some households also draw on resources from other markets, depending on their particular physical and financial assets. The process of price formation in turn shapes people's ability to acquire private goods and services. The importance of the market as a source of welfare in modern economies can hardly be overestimated. The overall functioning of the economy and market dynamics are a first-order determinant of quality of life.

However, the importance of the work sphere cannot be reduced to its role as a source of income. Many businesses provide benefits that affect employees' present or future welfare (childcare systems, health care programmes, supplementary pension programmes, and so on), in some cases voluntarily, in others because legal frameworks so mandate. The importance of these forms of *occupational welfare* varies markedly between societies, although they are clearly more extensive in the developed countries.

Thirdly, much welfare derives from community relationships or solidarity (*voluntary provision*). Families are a typical mechanism for the provision of welfare, distributing resources of different types and assigning roles that affect the relative welfare of their members. Intergenerational transfers

within families, in particular, affect the quality of life at different stages of the lifecycle. However, voluntary provision goes beyond family relationships to other relationships of solidarity and cooperation.

Fourthly, welfare is the result of decisions that people make to distribute the risks that they and/or their families face throughout the lifecycle by availing themselves of various market mechanisms —for example, saving and accumulating assets, purchasing life insurance or annuities and the like (*private provision*).

Finally, public policy can bring basic goods and services to citizens directly (education, health care, housing, food) and provide mechanisms to maintain income through contributory and non-contributory systems of protection. Other social services of less general coverage are also common, such as active employment policies and mechanisms to serve populations that are particularly vulnerable (homeless, orphaned children, victims of natural disasters, and others).

Note that there is no unequivocal relationship between these sources of welfare and the action of the several institutional spheres (family, market and State). The fact is that forms of private provision, both within households and through the market, depend crucially on the action of the State. Markets do not operate in an institutional vacuum, but are influenced by regulatory frameworks that affect the allocation of resources, the relative prices of goods and services, employment levels, wage structures, and so on. The distribution of resources within households, and their members' allocation of time to different tasks, depend on regulations regarding paid parental leave, pension system coverage, the features of primary and secondary educational systems, and other such factors. In many countries, the law requires individual businesses or businesses in certain sectors to provide services of specific kinds to their workers, and workers must contribute to insurance plans for retirement or health care.

Nor can the State be considered the ultimate cause of private provision arrangements. Public institutions are shaped by political processes that are a function of societal characteristics. Public policy in less integrated societies where certain groups are in a better position to "capture" the benefits of State action are likely to provide less general coverage. Policy in a number of the region's countries has regressive features and does not reach the neediest sectors. Thus, a political economy perspective warns against thinking of the State as an independent agent that can design policies exclusively on the basis of equity and efficiency.

The ultimate effect of public policy on the level and distribution of welfare is shaped by the State's emerging action as it affects each of these spheres. Assessing the State as a mechanism for desirable ends —poverty

reduction, distributive justice, social cohesion, economic growth— requires analysing the State's interaction with the spheres and ascertaining how it shapes both private provision (family and market) and public. In short, the action of the three institutional spheres is far from independent.

Various academic studies have attempted to describe modern societies as a function of the way in which the market, the family and the State as institutions relate in the provision of welfare. The most influential classification in the Welfare State literature is that developed by Esping-Andersen (1990, 1996), who uses differences in national constellations of institutional mechanisms —political, economic and social— as a criterion to distinguish *different welfare regimes*. The public institutions of Welfare States are described in terms of three dimensions: (i) State-market relationships; (ii) degree to which entitlements are stratified or universal; (iii) degree to which access to the components of quality of life or welfare are mercantilised.

These regimes affect a society's distribution of welfare and its degree of social cohesion. The most cohesive societies feature institutional arrangements in which the State successfully reduces the disparities generated in the private sphere.

In the post-war period, the most advanced capitalist societies consolidated what came to be known as "Welfare States". The term refers to a broad and comprehensive range of connected social protection policies to reduce citizens' exposure to social vulnerability, provide coverage for various risks and ensure access to basic goods and services. More generally speaking, the policies that constitute the Welfare State —especially in those countries where the system was designed to provide universal coverage for a broad range of needs and risks— arose from an underlying concern for equity and social cohesion.

Despite these common threads, the notion of the Welfare State is a diffuse one. No commonly accepted definition indicates precisely what the Welfare State includes or what its specific functions are. In practice, the term usually refers to the types of policies designed to ensure *basic functionings*[1] for citizens: access to resources through contributions-based or other monetary or in-kind transfers, access to knowledge through education, health care, decent housing, and so on. In other words, the role of the Welfare State is to ensure that individuals enjoy a basic standard of living in line with the state of development of the society of which they are a part.

As a social construction, the Welfare States are configurations arising from a variety of historical processes that led to rather diverse institutional

[1] This text uses the expression *functionings* in the sense that Amartya Sen has given it in his evaluative approach to welfare.

arrangements and policies consisting of different sets of benefits, channels of access to benefits, and funding mechanisms. Behind this diversity, obviously, do lie some central features that merit treating the Welfare State as a cohesive category.

In Western societies, there is a degree of basic consensus on the ends that the Welfare State should pursue, regardless of what policies are employed to achieve them. The central purpose of the Welfare State, in this common view, is to prevent extreme poverty, ensuring that all enjoy at least a threshold standard of living that the society considers minimally acceptable. Secondly, Welfare State policy should provide protection from the risks that people face in the course of a lifetime, which typically include unemployment, illness and the growing difficulty of generating an autonomous flow of income in old age. A third, more general, but no less essential, goal is to achieve a more equitable distribution of income and wealth than what emerges in a market economy without State intervention. This becomes the main channel through which the State promotes social integration and cohesion.

The importance of this particular objective —ensuring basic welfare independent of individual circumstances— underlines the fact that distributive justice and equity are the fundamental criteria for the design of this subset of State policies. Thus, the State functions to redistribute a portion of the resources generated in a market economy to groups that are *a priori* more vulnerable.[2]

C. Welfare regimes and social cohesion

The importance of social cohesion in the design of welfare policy in the European integration process is quite clear. In 1997, the Council of Europe identified social cohesion as a central objective, and in 2000 in Nice it agreed on the design of a system of indicators to monitor social inclusion. The Laeken meeting of 2001 officially adopted the system.

Policy design should take account of the performance of different institutional contexts and individuals' ability to gain access to basic functionings in the private sphere (family and market). Reducing disparities in essential areas of social life in countries like Latin America's, where not only private-sector distribution of resources but also access to public institutions is profoundly unequal, requires giving public policy a central role. Monitoring the States' capacity in this sense means creating an adequate system of indicators that

[2] Despite the importance of these human goals, such normative arguments are not the only rationale for welfare State policy. There are also sound reasons having to do with economic efficiency for designing and creating solid public institutions to correct market inefficiencies, particularly in areas such as education, health, housing and pensions (Snower, 1993).

fits into a broader matrix designed to capture the dynamics of cohesion in the region.

Indicators can be constructed to quantify the specific roles of these spheres, but evaluating them *requires normative frameworks that spell out a desirable pattern of provision*. Thus, approaches based on the premise that individuals or families bear the primary responsibility for providing welfare will allow room for public policy to cover the needs of those families that cannot obtain the necessary resources through their own members or from intergenerational solidarity within the household. From this point of view, households capable of providing for older adults should not receive aid from the State, which should devote itself to covering the minimum requirements of people who have no other mechanisms to resort to. This residual view of the State contrasts with normative approaches that consider, for example, that the care of older adults is a societal responsibility, and that leaving protection to families is a way of reproducing poverty, since families' ability to bear such responsibilities depends crucially on young adults' assets.[3]

It should be noted that the relationship between the Welfare State and social cohesion depends on the normative framework underlying public policy. The closer the welfare regime is to the residual paradigm, the less it will function as a mechanism to promote social cohesion, since the assumption will be that the distribution of social resources is determined in the private sphere. In contrast, universalistic policies are based on the notion that basic welfare must be provided for all citizens as the foundation for an integrated society in which all enjoy at least a minimum standard of living. From a process perspective, universal schemes require the State to implement strong redistributive mechanisms, which implies institutionalising solidarity (transfer of resources from the most to the least advantaged strata) as a social value.

It is important to remember that some of the normative justification that supported the design of the most generous Welfare States in Europe in the post-war period arose from the need to rebuild relationships of solidarity and solidify citizenship as a political and social concept. Hence, social cohesion, both in its aspect of material equity and as entailing a sense of political and social belonging, is strongly rooted in the justifications of the Welfare States. As T. H. Marshall said in 1950, civil and political rights have a fully democratic meaning only if they are complemented by the exercise of basic social rights. The sense of belonging and equity on which integrated societies are based requires the consolidation and articulation of democracy, and the presence of a Welfare State to guarantee the exercise of these basic rights (Esping-Anderson, 2003).

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3 In addition to normative rationales, of course, there are efficiency factors behind the design of social security systems (see, for example, Feldstein and Liebman, 2002, and Modigliani and Muralidhar, 2005).

Defining a normative criterion for the impact of welfare institutions on social cohesion is not enough, however. There must also be an assessment of the degree to which a sense of belonging and pertinence are present. While a matrix of public policies established in certain historical contexts may have played a key role in promoting welfare and social cohesion, it may not function in that way given major changes of social and economic context. In other words, even under regimes designed with a view to universal welfare, historical changes can undermine the ability of public institutions to support social cohesion.

Indeed, the debate in the developed countries today systematically points to a loss of functionality by public policy in this area. The Welfare States were built on the assumption of a relatively stable nuclear family able to provide welfare for its members throughout the lifecycle, and on the assumption of a full-employment economy. Demographic changes (the ageing of the population and the instability of family arrangements), cultural changes (in terms of gender roles) and economic transformations (global competition, de-industrialisation, technological change and so on) undermined not only the economic viability of post-war welfare policies, but their ability to promote social cohesion. Thus, increasingly unwieldy State institutions fail to promote social cohesion (Hemerijck, 2002).

Latin America differs from the developed countries in its institutions (the degree to which the Welfare State is consolidated), demographics and economics. The region's Welfare States are usually described as incomplete, since they have not succeeded in consolidating schemes of universal benefits, and major segments of the population are left out or participate only marginally. Although institutional deficiencies limit progress in constructing policies to promote cohesion, they may also be a comparative advantage. It is difficult to change institutional structures, and economic policy problems create challenges for reform, but the fact that the region has yet to address the challenge of social protection as a foundation for cohesion means that there is an opportunity to design systems based on the distribution of social risk in the new economic conditions generated by the region's integration in the global economy. Also, although important changes in family structures are in progress, the region's demographic structure is still skewed towards the young end of the spectrum. This demographic bonus gives the region the opportunity to design institutions for cohesion that will be sustainable during the coming demographic changes.

If the central components of social cohesion are equity and a sense of belonging, the connections between the three priority spheres of provision —State, market and family— will function in support of that objective, provided that they promote equity and that institutions can attract full

participation. Societies where the State's role is residual tend to fragment access to basic goods and services —wealthier households purchasing them in the marketplace while poorer households obtain them from institutions designed for them alone. This is ultimately detrimental to the sense of belonging, since participation in the society's institutions is fragmented. That is not to say, of course, that targeted policies are dysfunctional for purposes of social cohesion. If their objective is to promote equity and ensure poor sectors of access to basic functionings, they may very well foster greater cohesion. The problem appears to arise when their implementation involves heavy segmentation and specialised provision —a configuration that is harmful to social cohesion.

Our objective here is not to discuss the reforms needed to ensure that public policies function as engines of cohesion. As the above discussion makes clear, however, a system of indicators must include explicit normative frameworks to evaluate the social and political functionality of public policy from the perspective of social cohesion —a perspective that is significantly broader than poverty reduction alone.

D. Households, markets and the State: methodological challenges to describing their interaction

Describing the roles of different institutional spheres in providing social welfare, and the degree to which they are articulated, is not simple. Some of the difficulty derives from the issues outlined above, in that the role of the private sphere (families and markets) and that of the State are not independent of each other, and that a normative framework is needed in order to establish desirable ways of generating welfare in all three institutional spheres.

A second difficulty in defining the specific roles of the different spheres derives from the fact that welfare provision and funding modalities vary. In some cases, the public sector acts as a direct supplier of services, without any specific monetary counterpart requirement. This is true, for example, in most public education systems for children and adolescents (which are government-funded). In other cases, services are funded by the State but provided by the private sector (subsidised health, for example), or beneficiaries receive public funds that they then use to pay providers of their own choice. In yet other institutional arrangements, the State mandates contracts between private parties to ensure coverage in certain areas (mandatory individual capitalisation pension systems are an example of this) without public funding entering the picture at all.[4]

[4] In these extreme cases, the expenditures associated with implementing the policy are not reflected in the public accounts.

The public policy instruments used to ensure social welfare are also diverse. A scheme described by Barr (1992) classifies them in four major groups: (i) public regulation; (ii) price subsidies; (iii) income transfers and (iv) public production.

Regulation affects the functioning of markets, whether by controls on prices (such as minimum wage policies), quantities (such as population groups and businesses required to contribute to insurance schemes) or quality (as in the case of food safety regulations). Price subsidies for certain goods may be either universal or dependent on membership in certain social groups. Transfers may be nominally associated with a certain type of spending (as in the case of instruments designed to pay for food only) or may allow recipients to spend funds as they choose (monetary transfers). It should be noted that these three types of instruments address people's budgetary constraints and affect relative prices, but do not sidestep the market as a mechanism for provision. In contrast, instruments of public provision give the State a role as supplier —in some cases monopoly supplier— of certain services. The difficulty lies in how to assign specific roles to the private sphere (families and markets) and the public, since provision may take place through relationships between private parties but may still be governed by legal frameworks. Assessing the importance of the Welfare State and the extent of its effects calls for criteria that include or exclude each of these modes of provision and instruments of welfare policy intervention.[5]

A third difficulty in attempting to describe these processes is lack of information. In particular, an accurate assessment of the role of families as providers of welfare requires information on how households internally allocate resources and assets. This difficulty is particularly relevant to some dimensions of quality of life. For example, the variable generally examined in assessing access to resources is the amount of income that households receive through various channels. Most studies of inequality assume that the resources received by households are distributed equitably among their members, and focus on the variable of per capita income or income adjusted according to scales of equivalence (that is, as a function of the needs of different household members).

However, for reasons having to do with the reproduction of certain norms and customs, or the fact that different household members have different levels of decision-making power regarding the use of resources, this assumption is far from a natural starting point for analysis. Accordingly, the literature agrees

[5] In reality, the ambiguity in the definition of the limits of the State as a provider of welfare goes deeper. Practically the entire constellation of public policies affect the level and distribution of welfare. Environmental, urban development and public security policies are undeniably important determinants of welfare. It is thus far from obvious what criteria should be used to classify the different areas of State action.

that the assumption of equitable distribution within the household is not supported empirically. The members of a household do not equally benefit from either the resources or functionings that they obtain for the household (Burton and others, 2007),[6] and there is little information on intra-household resource allocation, since most household surveys do not systematically explore this. Even when specific statistical instruments are designed for the purpose, the ability to capture inequalities of this nature is limited.

Furthermore, limited information makes it impossible in some cases to distinguish welfare provided by the family from that obtained in the marketplace. Although the proportion of goods and services that households purchase in the market and the proportion that they receive in the form of public transfers can be calculated, it is impossible to ascertain how these resources are allocated within the household. Thus, we shall specify indicators in the two spheres that generate welfare —State and private— but without disaggregating family and market within the private sphere.

E. Indicators of institutional functioning[7]

The research programme instituted by ECLAC calls for a system of indicators that can describe the degree of social cohesion in the region as a basis for discussing and formulating public policy. The objective of the present work is to propose a tentative set of indicators for monitoring the degree to which the different institutional spheres that provide welfare (State, market and family) feature the sort of articulation outlined above. Based on our examination of welfare provision mechanisms and the concept of cohesion proposed by ECLAC, we attempt to construct a set of indicators that simultaneously captures the relative importance of these spheres, the extent to which they are articulated, and their segmentation or specialisation to address the needs of different sociodemographic groups.

A system of indicators should have certain basic properties that facilitate interpretation and monitoring. As Atkinson and others (2002) put it, it must follow certain principles. Some of these apply to the characteristics of individual indicators, others to the "portfolio" of indicators as a whole. The following properties or principles apply to individual indicators:

[6] This reasoning also applies to other dimensions of welfare. For example, when care is provided within the household, some members must devote resources such as time to it. Identifying care providers and recipients within the household is essential for understanding how the provision of welfare functions in that sphere. Time use surveys provide elements for such analysis, but regular such surveys are not sufficiently widespread in the region to allow us to track indicators based on them.

[7] A previous version of this work proposed a substantially larger group of indicators. Comments at the regional seminar "Alcanzando convergencias en la medición de la cohesión social" ("Reaching convergences in measuring social cohesion") held by ECLAC in Santiago, Chile on 31 August and 1 September, however, persuaded us to reduce the number of indicators significantly in pursuit of parsimony, and in light of the fact that the central objective here is monitoring social cohesion in the region.

- **They identify the essence of the problem**. Success in this depends on the presence of a clear and accepted normative interpretation. The methodology used should be comprehensible to the society at large.
- **They offer robustness and validity**. Marginal variations in how calculations are performed should not substantially change an indicator's pattern, and all indicators should be based on statistically reliable information.
- **They are sensitive to policy interventions**. An indicator should capture the impact of public policy. Furthermore, it should be relatively impervious to manipulation, since otherwise policy can be diverted to affect the indicator rather than attack the substantive problem.
- **They should provide for comparability**. Indicators should provide for comparability among the countries that are part of the information system, and should be comparable with international standards to the extent possible. This means that countries must make efforts to develop statistical information based on common conceptual frameworks.
- **They should be reviewed periodically**. Indicators are not absolute standards, but responses to certain stages of development. Hence, they require periodic review, and adjustment in light of central objectives on relevant dimensions.

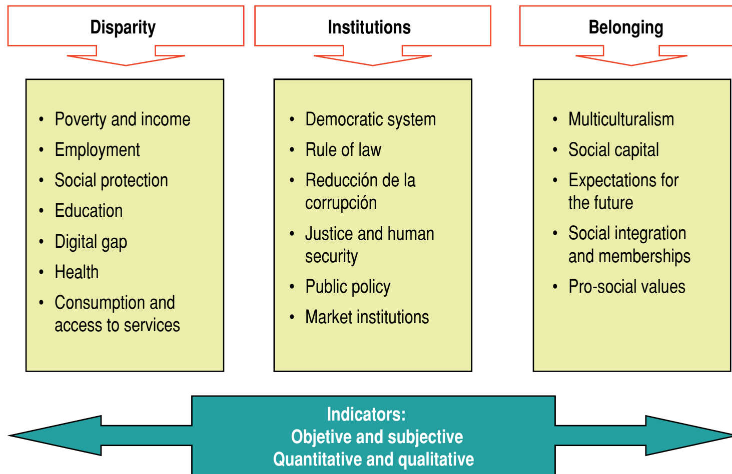
The dimensions of the system as a whole must be properly balanced, and the dimensions must be mutually consistent. In addition, the system must be transparent, and accessible to any citizen of the region interested in the issues.

The set of indicators proposed below attempts to meet these requirements, balancing precision and completeness with parsimony. The availability of statistics in the region must also be considered, so that most of the countries can participate in the resulting information system.

Our methodological approach is based on the system initially proposed by ECLAC, which has three components —disparities or gaps, institutions and sense of belonging— plus a set of factors describing social cohesion on each of these dimensions (see figure III.1). Although the specific objective here is to create a system of indicators for the institutional component, the above discussion suggests that a broader view must come into play, for the disparities are the result of how the various spheres of welfare provision interact, and therefore the system of indicators must reflect the specific roles of public policy, families and markets in shaping the disparities. Accordingly we propose, in addition to indicators of institutional functioning, supplementary indicators of disparities, with focuses on inequality and poverty, education and the digital gap.

Figure III.1

The architecture of the system of social cohesion indicators proposed by ECLAC



Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Cohesion: Inclusion and a Sense of Belonging in Latin America and the Caribbean* (LC/G.2335/Rev.1), Santiago, Chile, 2007.

This proposal therefore proceeds in two stages. First, it suggests an initial set of indicators to capture the role of institutions in various areas of social life. The emphasis here is on describing the functioning of public policy in each pillar or component of social cohesion, according to its coverage and the stratification mechanisms that affect access to benefits. These indicators measuring the relative effort of each institutional sphere in providing welfare address the "institutions" component in the ECLAC scheme. Second, it suggests supplementary indicators to identify both the institutional origins of what has been achieved in each dimension and the remaining disparities or gaps (more precisely: the capacity of institutions, and of the State in particular, to reduce the gaps).

1. Institutional indicators

As indicated above, the institutional indicators attempt to capture the relative contributions of the public sphere and the private (families and markets) to the provision of welfare and the reduction of social disparities, since this in turn provides support for social cohesion. This means that the indicators must provide a way to (i) analyse the role of the social protection system as a mechanism for access to resources in addition to incomes and other resources that households obtain as a result of their activity in the labour

market; (ii) monitor the roles of institutions as providers of health, housing and educational services (the emphasis in these areas being not on identifying disparities, but on a basic description of the institutional scaffolding that makes access possible) and (iii) capture the degree to which different demographic groups participate in public institutions.

2. Access to resources: State, market and family

Table III.1 shows the indicators designed to measure the role of the State as a provider of income. Identifying gaps between quintiles makes it possible to quantify the extent to which the social security system is stratified and fragmented throughout the income distribution. The information is disaggregated by age groups (under 18, 19-64 and 65+) to determine the coverage of transfers over the course of the lifecyle. The literature recognises a certain shift in protection systems. These originally focused on retirement for older adults, but changes in the distribution of vulnerability have led to a structure of social risk that centres more on the younger population, putting new demands on policy. Indicators of instruments specific to particular age groups and of their coverage make it possible to analyse the degree to which protection systems are adapted to today's emerging realities.

Table III.1

Scope of the social protection system: primary indicators

State			
Public institutions of social protection: primary indicators			
Total	Existence of non-contributions-based benefit system (Yes/No)	Percentage of households covered by non-contributions-based public transfers	
	Existence of contributions-based benefit system (Yes/No)	Percentage of households covered by contributions-based public transfers	
Gap between quintiles 1 and 5	Existence of contributions-based benefit system (Yes/No)	Percentage of households covered by contributions-based public transfers	
Under 18	Existence of non-contributions-based benefit system (Yes/No)	Coverage of each programme as percentage of target population	Percentage of beneficiaries of this type of programme
Active age	Existence of non-contributions-based benefit system (Yes/No)	Coverage of each programme as percentage of target population	Percentage of beneficiaries of this type of programme
65+	Existence of non-contributions-based benefit system (Yes/No)	Coverage of each programme as percentage of target population	Percentage of beneficiaries of this type of programme

Source: Prepared by the author.

Note: The indicator of coverage will coincide with the indicator of the percentage of beneficiaries only in the case of universal services for each age group.

In summary, the proposed primary indicators attempt to show to what extent a country has a social protection system focusing on the sectors that most lack access to the contributions-based system. Analysis of the system's coverage in this way shows the degree to which the system is capable of promoting policies that guarantee greater equity.

We also propose secondary indicators of the legal status of contributions-based and non-contributions-based benefits. The purpose of analysing the legal architecture is to ascertain to what degree it either reproduces the segregation observed in the society or achieves greater integration through a single coordinated set of institutions. It should be noted that identifying non-contributions-based benefits provided under regulatory frameworks that can be easily reversed has led to some of the region's non-contributions-based transfer experiments being dismantled. Thus, the legal level at which an entitlement is guaranteed is an indicator of the policy's stability.

Table III.2

Scope of the social protection system: secondary indicators

State			
Public institutions of social protection: secondary indicators			
Total	Legal status of contributions-based systems (Constitutional, statutory, executive-branch decision)	Mechanisms for selecting beneficiaries (required contributions, universal entitlement, means-tested assistance, positive discrimination)	Management of benefits (social security institutions, ministries, specialised public agencies to provide services)
Under 18	Legal status of non-contributions-based systems (Constitutional, statutory, executive-branch decision)	Mechanisms for selecting beneficiaries (required contributions, universal entitlement, means-tested assistance, positive discrimination)	Management of benefits (social security institutions, ministries, specialised public agencies for the purpose)
Active age	Legal status of non-contributions-based systems (Constitutional, statutory, executive-branch decision)	Mechanisms for selecting beneficiaries (required contributions, universal entitlement, means-tested assistance, positive discrimination)	Management of benefits (social security institutions, ministries, specialised public agencies to provide services)
65+	Legal status of non-contributions-based systems (Constitutional, statutory, executive-branch decision)	Mechanisms for selecting beneficiaries (required contributions, universal entitlement, means-tested assistance, positive discrimination)	Management of benefits (social security institutions, ministries, specialised public agencies to provide services)

Source: Prepared by the author.

Finally, we propose indicators to capture the relative importance of State transfers and of the resources that economically active household members obtain in the labour market (either formal or informal). The dependency ratio is also included as a reflection of the relative effort required for families to provide welfare for their inactive members (basically children and older adults not entitled to social security benefits) (table III.3).

Table III.3

Relative importance of the state, the market and the family as sources of income

	State	Market	Family	
			Primary	Secondary
Overall	(a) Percentage of per capita income derived from public transfers	(a) Percentage of households with members receiving income from the formal sector (b) Percentage of households with income only from the informal sector	Dependency ratio	(a) (children under 18) / (number or recipients) (b) (adults over 65 who do not receive pensions) / (number of recipients) (c) Percentage of adults over 65 who do not receive pensions
First quintile	(a) Percentage of per capita income derived from public transfers	(a) Percentage of households with members receiving income from the formal sector (b) % of households with income only from the informal sector	Dependency ratio	(a) (children under 18) / (number or recipients) (b) (adults over 65 who do not receive pensions) / (number of recipients) (c) Percentage of adults over 65 who do not receive pensions
Fifth quintile	(a) Percentage of per capita income derived from public transfers	(a) Percentage of households with members receiving income from the formal sector (b) Percentage of households with income only from the informal sector	Dependency ratio	(a) (children under 18) / (number or recipients) (b) (adults over 65 who do not receive pensions) / (number of recipients) (c) Percentage of adults over 65 who do not receive pensions

Source: Prepared by the author.

3. Education, health and housing

Table III.4 shows the proposed indicators for education, health and housing. They are designed to reveal the institutional articulation of the State and the private sphere in providing welfare, not their impact on equality or inequality in those areas. Following the ECLAC (2007) scheme, the supplementary indicators that reflect the disparities in each dimension are categorised under the "disparities" or "gaps" component.

Table III.4

Institutional indicators associated with access to education, health and housing

	State	Private sphere
Education	(a) Percentage of children 6-15 who attend public school (b) Percentage of individuals 16-18 who attend public school (c) Percentage of individuals 19-24 who attend public school	(a) (private educational spending per primary school student) / (public educational per primary school student) (b) (private educational spending per secondary school student) / (public educational per secondary school student)
Health	(a) Percentage of population with public health care coverage (b) Percentage of population with subsidised private health care coverage (c) average per capita spending in the public sector (d) average per capita spending in the subsidised sector	(a) Percentage of people with private coverage (b) average per capita spending in the private sector
Housing	Percentage of housing loans granted by the public sector	Percentage of housing loans granted by the private sector

Source: Prepared by the author.

4. Institutional integration

Finally, we use two common social categories —gender, and ethnic or racial group— to analyse the extent to which the structure and decision-making of public institutions takes account of traditionally neglected gender and ethnic groups. ECLAC has proposed three operational components for the concept of social cohesion: disparities, institutions and sense of belonging. The indicators proposed in table III.5, although applying to the institutional component in that they refer to the presence of different groups in public institutions, also bear a relation to the belonging component, since they reflect different groups' access to the institutions.

Table III.5

Indicators of institutional integration

	Primary	Secondary
Ethnic or racial groups	(Percentage of ethnic group i in parliament) / (Percentage of people belonging to ethnic group i in the population)	(a) (Percentage of ethnic group i among executive branch officialsa) / (Percentage persons of ethnic group i in the population) (b) (Percentage of ethnic group i sitting on supreme court) / (Percentage persons of ethnic group i in the population)
Gender	(Percentage of women in parliament) / (Percentage of women in the population)	(a) (Percentage of women I executive branch officials) / Percentage of women in the population) (b) (Percentage of women sitting on supreme court) / (Percentage of women in the population)

Source: Prepared by the author.

[a] "Executive branch officials" refers to ministers.

As a primary indicator, we use the ratio of the proportion of members of an ethnic or racial group in parliament to the proportion of the group in the population as a whole. It seems reasonable to assume that institutions that provide equal access to the population will have indices close to unity. As secondary indicators, we propose the ratio of the proportion in ministerial posts and supreme courts to the proportion in the population as a whole.

5. Indicators of the institutional capacity to reduce disparities

Any system of indicators designed to measure access to resources related to social cohesion must include the element of inequality and the State's ability to reduce it. Accordingly, we suggest supplementing the basic ECLAC scheme with indicators that reflect the State's role in reducing disparities —for example, indicators of poverty, poverty gap, indigence and inequality before and after non-contributions-based transfer policies and taxes. This would throw light on the role of public policy in reducing social inequality and deprivation (table III.6).

Table III.6

Indicators of the state's capacity to reduce disparities

	State	Private sphere
Incidence of poverty	Poverty after non-contributions-based transfers and direct taxes	Poverty before non-contributions-based transfers and direct taxes
Poverty gap	Poverty gap after non-contributions-based transfers and direct taxes	Poverty gap before non-contributions-based transfers and direct taxes
Incidence of indigence	Indigence after non-contributions-based transfers and direct taxes	Indigence before non-contributions-based transfers and direct taxes
Ratio of average income in wealthiest quintile to average income in poorest quintile	After non-contributions-based transfers and direct taxes	Before non-contributions-based transfers and direct taxes
Gini	Gini after non-contributions-based transfers and direct taxes	Gini before non-contributions-based transfers and direct taxes

Source: Prepared by the author.

Satisfying household members' needs for care is an important component of welfare, for both caregivers and recipients. One problem in this area is that when public institutions have no care mechanisms, families bear practically exclusive responsibility for care. In higher socioeconomic strata, this problem is generally solved through the market (daycare centres, nursing homes, domestic help), while in less well-off families the responsibility falls on household members of economically active age —generally women— who must abandon other areas of activity to provide care (table III.7).

The proposed indicator here focuses on the provision of childcare (average % of children under 5 who receive care in different institutional contexts in quintiles 1 and 5). Care issues involving older adults can be captured by indicators in the ECLAC system of social cohesion indicators that show the scope and magnitude of pension systems, and also by indicators of access to social protection proposed in sections above.

Table III.7

Indicators of the state's capacity to provide care

	State	Market	Families
Overall	Percentage of children under 5 who receive care in public institutions	Percentage of children under 5 who receive care in private institutions	Percentage of children under 5 who do not receive institutional care
First quintile	Percentage of children under 5 in quintile 1 who receive care in public institutions	Percentage of children under 5 in quintile 1 who receive care in private institutions	Percentage of children under 5 in quintile 1 who do not receive institutional care
Fifth quintile	Percentage of children under 5 in quintile 5 who receive care in public institutions	Percentage of children under 5 in quintile 5 who receive care in private institutions	Percentage of children under 5 in quintile 5 who do not receive institutional care

Source: Prepared by the author.

6. Capacity to reduce the digital gap

The inclusion of the digital gap as a dimension of the region's social disparities is an innovative contribution by ECLAC. To supplement the ECLAC scheme in this respect —which includes "children's and young people's access to a computer and the Internet at home and at school"— we propose indicators showing how important a role the State plays in reducing the digital gap, and the scope of its action in this area as compared with the private sector.

Table III.8

Indicators of the state's capacity to reduce the digital gap

	State	Market	Families
Overall	• Percentage of individuals under 18 who use computers in public programmes • Percentage of individuals under 18 who access the Internet through public programmes	• Percentage of individuals under 18 who use computers in the private educational system • Percentage of individuals under 18 who access the Internet through the private educational system	• Percentage of individuals under 18 who use computers at home • Percentage of individuals under 18 who access the Internet at home
First quintile	• Percentage of individuals under 18 who use computers in public programmes • Percentage of individuals under 18 who access the Internet through public programmes	• Percentage of individuals under 18 who use computers in the private educational system • Percentage of individuals under 18 who access the Internet through the private educational system	• Percentage of individuals under 18 who use computers at home • Percentage of individuals under 18 who access the Internet at home
Fifth quintile	• Percentage of individuals under 18 who use computers in public programmes • Percentage of individuals under 18 who access the Internet through public programmes	• Percentage of individuals under 18 who use computers in the private educational system • Percentage of individuals under 18 who access the Internet through the private educational system	• Percentage of individuals under 18 who use computers at home • Percentage of individuals under 18 who access the Internet at home

Source: Prepared by the author.

G. Final comments

As part of a programme of research to incorporate the issue of social cohesion and promote a more comprehensive concept of development, ECLAC is working to create a coherent system of indicators that permits comparative evaluation of cohesion in the region. Accordingly, it has proposed a preliminary set of indicators for monitoring cohesion. The present document fits into that process by providing an initial proposal for a set of indicators to capture the institutional component of social cohesion.

A basic conceptual ingredient that should be borne in mind in studying this proposal is that it considers households, markets and the State as central institutional channels for access to welfare. Thus, the connectivity and complementarity of these institutions is a central determinant of welfare and social cohesion. From a public policy perspective, the indicators must capture the way in which the State is capable of influencing this institutional configuration, and thus it becomes important to describe the impact of welfare regimes on social cohesion.

Accordingly, this article has proposed a tentative set of indicators to monitor the articulation of the different institutional spheres in which welfare is provided, including some addition ones to those proposed by ECLAC, in order to capture the State's capacity to reduce social disparities. It also includes indicators that focus on how basic institutions —State, market and family— function as mechanisms for the provision of welfare.

Like any preliminary proposal, this one calls for further work. Conceptually, it must establish what additional categories are needed and which ones may be redundant; operationally, it must work with the information actually provided by national statistical systems.

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Chapter IV

Building bridges between sustainable development and social cohesion

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A. Introduction

This article seeks to build conceptual and empirical bridges between social cohesion and the environment in the Latin American and Caribbean context. It is but a beginning, and discussion is needed to enrich both the conceptual views and the potential indicators that it proposes.

The article should be seen in the broad context of attempts to ascertain how sustainable the region's processes of social development are, and to advance comprehension of them. It enlarges on and aims to complement the conceptual scheme of components and dimensions put forth in the ECLAC (2007) proposal for a system of social cohesion indicators.

Some central premises regarding the relationship of the environmental and social spheres are at work here. One is that the natural patrimony must be recognised as a vital determinant of the sustainability of economic and social development. This is the rationale for exploring some environmental

issues complementary to the dimensions and indicators proposed by ECLAC in its approach to social cohesion.

We also suggest that social-environmental conflicts are an important horizontal component, since they drive the processes and shape the results of social inclusion and exclusion, and since they influence and alter institutional mechanisms and forms of belonging that are critical for social cohesion in the region's countries.

Finally, based on this analysis of the various components of the environmental dimension of social cohesion, we propose a series of environmental indicators as a way of monitoring factors that play a direct role in social cohesion.

B. Relations between social cohesion and environmental sustainability

The modified version of the European Union's concept of social cohesion emphasises examining the social and institutional relationships needed to ensure the welfare of a society as a whole. It reflects the European social model, which seeks economic growth compatible with social justice. Social cohesion is seen as a society's capacity to ensure the welfare of all of its members, minimising disparities and preventing polarisation (European Committee for Social Cohesion, 2004).

From a regional perspective, following the concept proposed by ECLAC (2007), one can understand social cohesion as a dialectic between the institutional mechanisms of inclusion/exclusion and the responses and perceptions of a society's actors. Considered from this point of view, cohesion can be seen to include three interrelated components, each of which has specific effects on cohesion: (i) disparities or gaps; (ii) institutional mechanisms of inclusion/exclusion, and (iii) a sense of belonging. Various relationships linking the three in different directions can be identified, and they may vary over time and in different contexts.

Social cohesion policy in Latin America and the Caribbean is an important element of governmental agendas in the region, and one that takes shape as a function of the region's particular characteristics, driving the construction of both concepts of cohesion and mechanisms to measure it. In this process, discussion of the ecological and ecosystemic bases of social development becomes vitally important.

From this point of view, it is not only possible, but essential, to broaden the concept of social cohesion to include the dimension of environmental

sustainability. There is also a basis for this in the Council of Europe's proposal, which "contains theoretical elements focusing on rights, social capital, social inclusion and social protection" (ECLAC, 2007, p. 17).

1. Environmental sustainability and social cohesion

The Latin American and Caribbean debate on what it means for development to be sustainable is wide-ranging and rich. Given the features and diversity of the region's ecosystems, its productive dynamics and its social and cultural dynamics, the meaning of the "environmental sustainability of development" differs with country, context and type of institution (academic, governmental, international organisations, civil society, and so forth).

In its most comprehensive and complex form, the concept of the sustainability of development is clearly relational. In other words, it involves links between economic dynamics (extraction of resources, processing, distribution, consumption, waste disposal, human settlement) and the dynamics of the ecosystems in which these processes unfold —i.e., their ecological resilience.

Thus, the sustainability of development depends on economic processes' taking from and putting into ecosystems in such a way that (i) levels of natural resources and environmental quality are preserved; (ii) the intensity and duration of economic activities allow ecosystems to be restored, so that their current and future potential is preserved, and (iii) the future of the natural patrimony, the environment's biodiversity and the production of environmental services are ensured.

The sustainability of the social and economic dynamics that generate given degrees of social cohesion is related to the environment's capacity to maintain the conditions needed for medium- and long-term development. Underlying the analytically distinguishable notions of sustainable development and the sustainability of development, then, is the idea that a process of development can continue over time, while preserving the integrity of ecosystems and allowing non-human species to survive.

Considerable analytical and epistemological challenges are involved in comparing extraction/replacement with absorption/waste-generation, since describing these processes adequately —let alone translating them into public policy— requires systemic, multidisciplinary and dynamic tools of analysis and quantification capable of dealing with the growing complexity of various systems (economic, social, ecological) that are in a state of permanent interaction and change.

Given this complexity, the sustainability of development in any particular locale or territory is shaped by a series of conditions (including, among others, relationships of magnitudes or intensities, and relationships between extraction/resilience and waste generation/absorption/decomposition/dilution).

Applying this conceptual perspective to the sustainability of development at the regional level, assessments agree that the principal problems or tensions that development poses for the dynamics of the region's ecosystems include over-exploitation and exhaustion of natural resources (including soils, coastal areas and oceans, forests, freshwater resources), and that loss of biodiversity is a central problem. Growing air, water and soil degradation and contamination are also evident as a result of intensive industrial processes, urbanization and the continuing presence of precarious human settlements.

To recapitulate, the notion of sustainability implies maintaining a given dynamic over time. Thus, for development to be sustainable (whether simply in the sense of greater production, or in the sense of better distribution of the efforts and fruits of the development process), it must unfold in a way permitted by the natural patrimony's availability and renewability, and the resilience of ecosystems.

2. Environment and social cohesion: an integrative approach

(a) Central premises regarding the interrelation of the environmental and social spheres

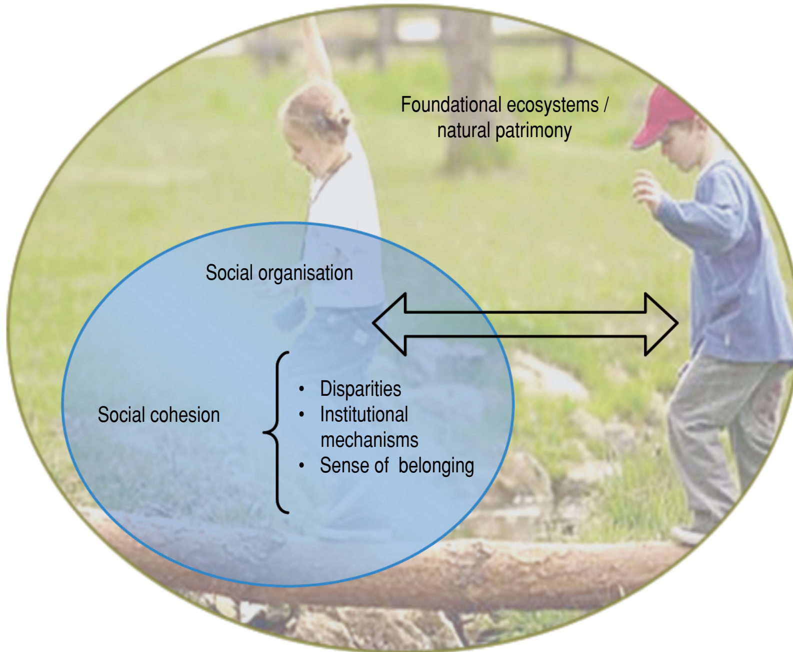
Any conceptual approach that proposes relationships among notions, systems and processes as broad as social cohesion and the environmental sustainability of development must make its central premises explicit. The premises at work here are the following:

- From a systemic point of view, two permanently interacting and mutually modifying subsystems can be posited. One of the components of this ongoing interaction is the natural system, the other human society, each of which, despite their interaction, is driven and shaped by its own determinants.
- Humanity —its social and economic organisation— is an open system, sustained by ecosystems that feed and cleanse it. This is evident at all scales, from individual localities and villages to cities, provinces, countries, supranational regions, and ultimately the planet as a whole.

- Analysis shows that the costs and benefits of using and appropriating territory, environmental space and natural and economic resources are distributed in a way that makes for an inequitable, ethically unacceptable world in which those with more power and economic resources leave a much greater ecological footprint, do far more damage to the quality of the environment and leave fewer resources for more vulnerable groups to use.
- Thus, dealing with social issues —and society's intertemporal distribution of income, poverty and employment in particular— also means considering the ecological base on which the production of economic goods and services depends, as well as its relationship to the social fabric and human processes.
- Social cohesion plays a central role in a society's ability to take action regarding the elements needed for sustainability. The greater its social cohesion, the more able a society will be to make relevant information available to all and agree on policy to preserve the natural patrimony. This, in turn, will create better conditions under which to deal with natural phenomena and perturbations of nature caused by human activity.
- At the same time, social cohesion requires preserving the natural patrimony and its diversity, and maintaining the quality of the environment across space and time.
- Equity is central to the sustainability of human processes across space and time. It implies equality of opportunity, as well as equitable distribution of resources and rights across territories, human groups in or across societies, countries, and present and future generations.
- Clearly, dealing with these elements is central when addressing social cohesion in Latin America and the Caribbean. The region's economic axes and engines of development are based on an increasing exploitation of natural resources and on the environmental services flowing from the environmental patrimony.

■ **Figure IV.1** ■

The ecosystems and natural patrimony that provide the foundation for social cohesion



Source: Prepared by the authors.

(b) Proposed model: the relation between environmental sustainability and social cohesion

The following is a conceptual approach devised to relate the processes of social cohesion with the dynamics of the environment in a way consistent with the ECLAC (2007) approach to social cohesion.

This model links social cohesion and environmental sustainability, broadening the concept of social development to include sustainable improvement of the population's quality of life, on the thesis that the two processes are linked by a continuous feedback loop. Accordingly, insofar as the dynamics of the three components of social cohesion work to increase cohesion, they also benefit environmental quality. Environmental sustainability, in turn, favours social cohesion, as our initial premises indicate.

Following the premises and the above line of thought, the model distinguishes the following elements:

- Ecosystems / natural patrimony as the foundation for human dynamics, organisation and processes, including social cohesion. The

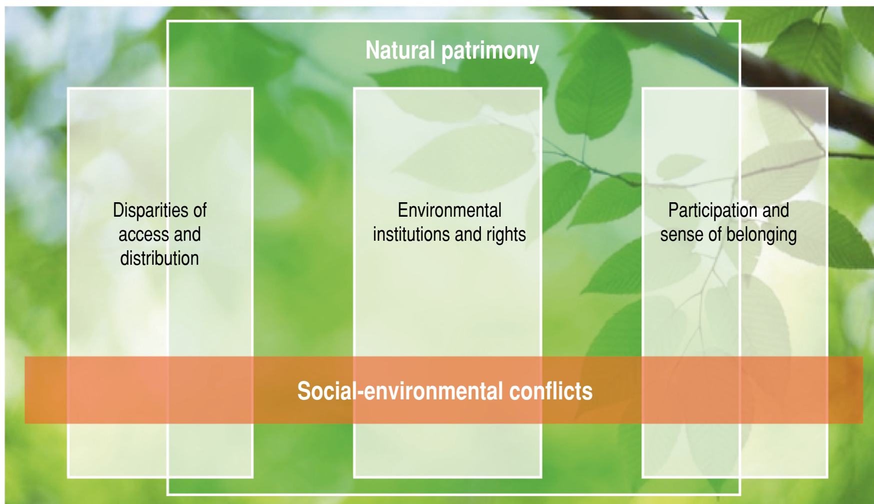
three following dimensions also merit attention as central elements for analysing the relationship between cohesion and social and environmental sustainability;

- Disparities or gaps in the availability of environmental patrimony and services to different social groups;
- The mechanisms and institutional aspects of the environmental sustainability of social cohesion.
- A component of belonging and participation, which includes aspects of life in different territories, processes of participation, environmental information and elements such as environment-friendly values, attitudes and behaviours.
- Finally, as a dynamic traversing the three components, closely related bi-directionally with each of them and with the patrimony that sustains them, the model considers social/environmental conflicts as processes and opportunities for achieving environmental sustainability and social cohesion.

Figure IV.2 presents the proposed scheme in summary form. Each component here is analysed in terms of the relationship between environmental sustainability and social cohesion.

Figure IV.2

Scheme for analysis of environmental issues in relation to social cohesion



Source: Prepared by the authors.

Each of these components and its multiple manifestations affect social processes and degrees of social cohesion, as well shall attempt to describe in the following sections.

(c) Components of the environmental sustainability of social cohesion

(i) The natural patrimony: support and container of the human

One of the elements that make it possible to address environmental issues and social cohesion simultaneously is the fact that human societies in any territory are based on the territory's natural patrimony, which serves as the ecological and ecosystemic foundation for social development, and both directly and indirectly affects a society's capacity to progress with increasing cohesion. Ecosystems contain and support all life on the planet, including human society. Economic production —and hence also the distribution of income and opportunity— depends on environmental patrimony in individual territories. Nor can greater social cohesion be studied without considering the natural patrimony and environmental services that are taken for granted and assumed to be stable, even though they depend on the rhythm, size and persistence of the human footprint in the planet's ecosystems.

The sustainability of development is in jeopardy from the current deterioration of ecosystems, which are vital support systems for societies. This loss of natural patrimony reduces our potential to generate human welfare responsibly and sustainably. From a comprehensive, intergenerational perspective, the natural patrimony is the *sine qua non* of any process of welfare and social cohesion.

Thus, given its ecological impact, today's economic pattern of extracting/harvesting and returning resources to ecoystems cannot continue to expand indefinitely, for the planet is finite and subject to certain rhythms, which determine how quickly natural resources, materials and energy can be replaced. The planet can dilute, absorb and recycle societies' wastes only at limited pace.

- Limits on economic growth, and the need for global and national redistribution

The limits of economic growth have been discussed for decades with different focuses. Of particular relevance here is the Club of Rome's emphasis on the exhaustion of natural resources at the global level. Although fossil fuels and other obviously non-renewable subsoil resources have not yet been exhausted, their use increases global warming. The costs associated with contamination from these fuels have led the developed nations to make a formal international commitment to reducing emissions (Kyoto Protocol to the United Nations Framework Convention on Climate Change) by taxing and limiting their use, while creating incentives to replace them by clean, renewable energy.

Such normative, and even moral, limits on certain industries and activities have always existed. However, physical laws —which no human technology or ingenuity can circumvent— also clash with pretensions (whether implicit

or explicit) of unlimited economic growth. The law of gravity reigns on our planet, as elsewhere, and we know thanks to thermodynamics that matter and energy are a constant and that life forms, including human beings, cannot add to that quantity. Human beings must meet their needs —and figure out how to live with dignity— within this constraint.

If any social arrangement or economic approach to organizing production and distributing wealth involves activity that challenges nature's physical and biotic limits, ecosystems will suffer, and the sustainability of economic and social dynamics will suffer along with them.

It is crucial to realise that human pressures have already exceeded what the resilience of some ecosystems can bear. Resources have been exhausted and the environment has been considerably damaged. Human use of environmental space has been unequally distributed among countries and individuals. A comparative examination of ecological footprints —that is, the use of environmental space to sustain life styles— is revealing: the average ecological footprint of a resident of the United States, at 9.4 hectares per person, is three times that of a resident of Mexico (3.4 hectares) and over tenfold the footprint of a resident of India (0.9 hectares).

Countries with under-used environmental space must import space in the form of environmental products and services from other countries, which in the process mortgage their future capacity for development by reducing their own environmental patrimony. As a rough estimate, if the planet's usable land were distributed equitably among its 6.5 billion human inhabitants, each human being would have approximately 2 hectares to subsist on.

- Size and intensity do matter

Size and intensity matter when analysing sustainability. There is a recycling of the natural patrimony and the services based on it. The components move, are replaced and evolve at a rhythm set by nature, which the pace of human greed most often exceeds. Thus, the size, intensity and persistence of human intervention in certain territories (and its impact on certain ecosystems) can affect human cultures and social fabrics in different ways and with different intensities.

For a local community, or for the cultural tradition and social cohesion of an ethnic group or indigenous people, socially and environmentally responsible tourism does not have the same impact as a continual invasion of tourists who exploit, prey on, and sully everything in their path, leaving the profits of their activity in the pockets of operators based in the cities. And megaprojects to extract resources from particular territories can have adverse effects on social fabrics and ecosystems.

(ii) Component 1. Social/environmental disparities

Unequal distribution of natural patrimony and environmental services among different population groups, and the relationship of these inequalities to social cohesion, are an important subject of study.

A population's welfare is very closely connected with its local environmental conditions, and with its access to natural resources and environmental services. Social/environmental inequalities consequently arise when populations are distributed unevenly over different territories, and when environmental resources and services vary across territories and populations. Social/environmental inequality is also affected by the disparate impact that environmental degradation has on different social groups (classes, age brackets, ethnic groups, genders). The result of all of this is a persistent pattern of social inequality in which the wealthy consume and pollute disproportionately, while it is other groups that mostly feel the effects of their activity.

Social/environmental disparities can be identified and analysed by comparing generations (present and future), geopolitical areas, continents, countries, cities, towns, basins or ecosystems, urban and rural areas, or segments within human settlements. Obviously, these ways of considering inequality are interconnected and interact in a very complex way.

As the following table shows, the relationship between social/ environmental disparities and social cohesion can be examined in terms of at least four major dimensions.

Table IV.1

The organisation of social-environmental disparities

Dimensions	Categories	Examples of elements that can be compared to reveal social/ environmental disparities
Scale	Scales of analysis: Global Regional Subnational	Developed versus developing countries One subregion or country versus another Urban versus rural areas One urban area (e.g., neighbourhood) versus another One city or town versus another
Time	Intergenerational	Present generations versus future generations
Object	Access, use and enjoyment of resources by different populations (in terms of analytical categories) with respect to:	Elements of the relationship between society and environmental patrimony/services Natural patrimony Environmental services Contamination Basic infrastructure and services (water, sewage services, electrification, health, etc.)
Social group	Gender Ethnicity Socioeconomic bracket	Men versus women Indigenous groups and groups of African descent versus the rest of the population Higher- versus lower-income (more vulnerable) groups

Source: Prepared by the authors.

Clearly, thinking about any particular combination of dimensions and analytical categories as a way of describing social/environmental disparities requires considering additional dimensions and categories, even though this complicates the challenge.

An initial territorial approach would have to examine inequalities from the spatial point of view, considering what the inhabitants of a territory have or lack, enjoy or suffer, in comparison with the inhabitants of another. Thus, for example, one can compare the developed countries with the developing countries, urban areas with rural, or a country's wealthier cities and towns with their poorer counterparts.

A second approach focuses on the object of analysis, or on the central categories in which access is an issue. Thus, it examines problems of unequal access to elements of the natural patrimony such as natural resources, safe territory, environmental services, and so on.

Yet another possible approach is to analyse disparities between yesterday's generations, today's and tomorrow's as regards their use and enjoyment of the various elements of the environment. This approach constructs a diachronic view of human groups, looking not only at current social inequalities, but at intergenerational inequalities generated by people's considering present needs more important than those that will confront citizens ten or twenty years from now.

Finally, one can look at the different social groups that are affected by social/environmental disparities or inequities.

- A look at some social-environmental disparities

Since disparities and inequities can be revealed by superimposing the dimensions on the categories and their central issues or objects, as well as on temporal and spatial variables, let us examine major inequities or disparities of access to natural patrimony and environmental services as they relate to various clusters of problems that may be important for Latin America and Caribbean countries.

- Disparities of environmental resources and services

Disparities of environmental resources and services are persistent in the region. As people with relatively abundant economic resources consume environmental resources disproportionately and unsustainably, generating environmental deficits, ecosystems lose their ability to produce environmental services. This deepens gaps between social groups, provoking conflict in communities and compromising social cohesion. Diminishing and deteriorating environmental services in areas such as hydrological cycles, climate regulation, and dilution of contaminants, affect population groups differently. The result

is that the most vulnerable are increasingly excluded from exercising their environmental right to a productive and safe environment.

Inequalities of environmental impact are cumulative. The results are clearly visible today, as those places, ecosystems and populations that have suffered most continue to take the brunt of further deterioration. This phenomenon is evident in all territories, and the resulting inequalities are reflected in the region's environmental and sustainability assessments. Loss of habitat and biodiversity is increasingly apparent in Latin America, as are the overuse and degradation of natural resources that are economically vital both today and in the future —forests, soils, water, coastal resources, fisheries biomass and so on.

Access to and consumption of natural resources is also unequal within the region. Water, for example, is unevenly distributed between and within territories. As a whole, Latin American and the Caribbean are rich in water. Although the region represents but 15% of the planet's land mass and contains merely 10% of the world's population, approximately, it has close to 40% of the world's freshwater reserves (FAO, 2009). There are pronounced differences in water reserves and availability within the region, however.

- Disparities of exposure to environmental risk

The concept of risk implies inequality, because it involves not only *threat* but *vulnerability* to threat. While threats can be due to natural phenomena (rain, earthquake, and so on) or human ones (such as chemical spills or rupture of dykes), not to mention concatenations of different types of threats (see Lavell, Allan and others, 2007), vulnerability is a function of the conditions in which a given population lives. It is due to social decisions that themselves are shaped by inequalities, as well as by a territory's conditions and institutions.[1]

Thus, although all socioeconomic groups in all countries are exposed to natural threats, wealthy countries and higher-income groups are able to take measures and invest in mechanisms to reduce their vulnerability. They are thus less exposed to risk in the end. Another factor is the natural risks that affect the fragile urban terrain where low-income populations typically live.

If vulnerability is a component of risk, society bears responsibility for disasters. Hence, we speak of disasters of societal or social/natural origin.

- Disparities of access to a healthy environment

Not all populations have the same access to a healthy environment free of contamination, because environmental residues and contaminants are distributed unequally among territories and social groups as a result of

[1] Wilches-Chaux (1993) speaks of an "overall vulnerability" that is a conjunction of social, institutional, cultural, physical, locational, political, physical and economic vulnerabilities, among others. From any perspective, however, vulnerability always reflects societal conditions, and is thus attributable to human action.

the social and economic features of human communities. These inequalities can be analysed with respect to different types of air, water and solid waste contamination.

- Disparities related to climate change

The pace of climate change has accelerated radically in the last century, and it now affects not only current life on the planet, but life for future generations. Greenhouse gas emissions are the principal reason for the acceleration, and it is primarily the industrialised societies, with their deep and extensive carbon footprint, that are responsible for the emissions. The developed countries account for approximately 70% of emissions due to the burning of fossil fuels.

Per capita carbon emissions in the developing countries of Latin America and the Caribbean continue to rise, essentially varying as a function of the pace of national growth. However, emissions in 2000 were still far below the levels seen in the developed countries (ECLAC, 2005).

Although it accounts for but a minimal portion of carbon emissions, climate change is already affecting many countries. This has very significant socioeconomic impact, and affects human health and welfare enormously. Land productivity is diminishing, and environmental degradation and desertification are on the increase. Fisheries biomasses are also affected, as marine ecosystems change due to increasing temperatures. Meanwhile, rising sea levels are affecting tourism and the coasts of the region's small island developing states.

- Urban-rural and inter-urban social/environmental disparities

Unequal access to environmental services such as clean air, and to environmental sanitary services such as access to potable water and sewage systems, is the salient urban-rural disparity. Rapid and uncontrolled growth in the region's cities has exacerbated urban-rural inequalities, as plant cover diminishes, deteriorates and disappears. Forests are most affected, but wetlands and other natural areas, as well as cultivated areas, also show the impact.

Environmental disparities or gaps in cities relate directly to large-scale patterns of residential segregation. These patterns are evident in various Latin American cities, where rich and poor, living in clearly separate areas, are subject to quite different environmental conditions and problems, and have access to quite different urban amenities (Sabatini, 2001). The areas where the poorest groups live are poorly equipped and lack commerce. They are most often near sources of contamination, and in many cases are vulnerable to natural risks. All of this affects the general quality of life (Sabatini, F, Cáceres, G., Cerda, J., 2001).

Clearly, then, the potential scope for analysing disparities as a way of exploring the relationship between environmental sustainability and social cohesion is unlimited. Narrowing the focus requires specifying the conceptual and empirical bridges in that relationship, which in turn requires a methodological design.

(iii) Component 2: Environmental institutions and rights

Environmental institutions and rights can contribute to social cohesion in Latin America and the Caribbean. Understanding this component requires analysing the opportunities for such development, as well as the problems involved.

It is increasingly obvious that a deregulated market cannot generate either economic stability or sustainable social development, since development is based on the natural patrimony, and this means that infinite economic growth is impossible. Public policy and regulatory instruments are thus needed to distribute economic advantages and burdens, ensure sustainability, promote social equity and develop cohesion.

Distributing the fruits of growth more equitably, distributing the present and future costs of the welfare so generated, and gaining the support of a nation's society for such distribution requires an intent —and an appropriate course of action— to regulate the way in which development unfolds, the types of productive activity involved, and its location.

As a minimum, regulation must enforce existing national legislation in the areas of labour, social assistance and the environment. To create incentives and ensure that minimum standards are met in these areas requires funding and human resources. At best, the State and its governing groups can actively direct a country's development towards objectives of welfare, equity and environmental quality, as defined by policy makers, in accord with values expressed by citizens in the electoral process.

Social cohesion in this context develops as a result of a society's ability to construct a legitimate structure to distribute its socio-economic, socio-political, socio-cultural and socio-environmental resources. Distributing socio-environmental resources means providing universal access to basic environmental rights and services that improve the quality of life in a sustainable fashion (Ballón, J. 2008).

- The elements of environmental institutions and rights
- Environmental rights, institutions and policy

Since the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, the region's countries have formulated their development objectives with a view to environmental sustainability.

Governments have dedicated financial, technical and economic resources to creating institutions, legislation and instruments that promote the conservation of natural resources and protect the quality of the environment. Almost without exception, the region's countries now have basic environmental legislation that governs policy and often shapes environmental management. Most have an environmental agency and basic mechanisms for environmental management, such as licensing (based on impact assessment), and have developed environmental regulations and other instruments in both substance and form.

The majority of the region's national constitutions also set standards for the State's environmental responsibilities, consolidating a third-generation human rights approach (Londoño, B., 1998) according to which people have a right to a healthy and ecologically balanced environment, to development and to peace.

In creating institutional structures for environmental policy-making and management, the region's countries have been guided by a principle that emerged from the United Nations Conference on the Human Environment in Stockholm according to which national institutions are responsible for planning, managing and monitoring the use of the State's environmental resources (United Nations, 1972).

Many countries have created or strengthened ministries of the environment, and some have also established environmental units in sectoral agencies. This latter mechanism makes multiple institutions responsible for protecting natural resources and environmental services, thus creating additional oversight and enforcement of environmental policy.[2]

Although this would seem to be an auspicious scenario, the region's national environmental institutions are highly vulnerable, because they depend on how much stress their heads of State place on environmental issues. Their legitimacy also suffers from the fact that their areas of responsibility and functions exceed their capacities. This makes it difficult for them to plan, to establish priorities and goals and to monitor and assess environmental management.

In fact, the region's ministries of the environment generally lack the autonomy needed to exercise their authority, since they are part of the executive branch, which is responsible for economic and social development. This diminishes their ability to effectively promote environmental sustainability.

2 A number of countries in the region have created sectoral environmental units to integrate sectoral policy, planning and programming with environmental policy. Examples are Colombia (Ministries of Transport, Mines and Energy, Agriculture), Chile (Ministries of Public Works, Housing and Urban Affairs, Agriculture) and Peru (Ministries of Energy and Mines; Industry, Tourism, Integration and International Trade Negotiations; Health).

The formulation of national environmental policy in Latin America and the Caribbean has concentrated on explicit environmental policy developed by central environmental agencies (Giglo, 1997). Such arrangements are reactive, since they are designed to counter problems due to production and consumption —deforestation, soil erosion, contamination from mining and so on. This sort of policy has had little success, since it has proven ineffective in penetrating those sectors of the economy that exploit natural resources and produce goods and services.

More integrated environmental policy-making is still an incipient phenomenon in the region. Environmental institutions have little effect on implicit environmental policy —that is, decisions made in other policy areas, or by productive sectors, that affect the transformation of natural resources and the provision of environmental services. Successful strategic partnerships between productive sectors and governmental entities around environmental policy goals are rare, as are efforts to create links between environmental management and other areas of public policy that are especially compatible with environmental efforts, such as potable water and basic sanitation, among other (Rodríguez-Becerra and Espinosa, 2002).

The region also suffers from poor compliance with environmental legislation, and from insufficient monitoring and enforcement mechanisms. Environmental legislation and regulations must be consistent with the institutional capacity of the agencies responsible for enforcement, so that the agents to which the standards established in such legislation apply are credible targets. The operational, technical, financial and institutional capacity to enforce environmental provisions and obligations, and to exercise functions of control and oversight is inadequate, and true political will to support standards is lacking. This has impeded effective enforcement of environmental law in Latin America (Rodríguez-Becerra and Espinosa, 2002), affecting citizens' environmental perceptions and the value that they place on environmental issues —factors that in turn impact efforts to advance social cohesion.

- Environmental management mechanisms and instruments

Public environmental spending

Environmental ministries are a recent development, and are relatively weak, since their authority, installed capacity and funding fall short of the ideal.

Although institutions such as the World Bank advise developing countries to invest between 1.4% and 3% of GDP in environmental management, the figures in the region's countries have been on the order of 0.70% of GDP (Acquatella and Bárcena, 2005). Environmental funding as a component of national budgets advances very slowly. Indeed, the trend was downward in most of the countries as of 2003, as these authors point

out, and as the weakness of the States' environmental institutions reflects. Cooperation between environmental institutions and ministries in other areas is lacking as well. This is of particular note in relation to ministries of finance, due to their role in resource allocation and in dismantling fiscal mechanisms —measures sometimes useful in reducing subsidies that have adverse effects on the environment, or on populations in territories where productive activities occur.

- Market instruments for environmental management

Economic instruments can be a useful environmental management tool, and the region's countries have used them as a complement to command and control instruments. This has helped generate funding for environmental institutions in a context where such funds are difficult to obtain.

The countries have generally emphasised subsidised credits and tax exemptions for environmental investments, with special attention to investment in tourism, industry, small-scale mining and efforts to eliminate fluorocarbons. Specific major initiatives have focused on reducing contamination or incorporating clean technologies (Brazil, Mexico, Colombia), on tourism (Barbados), on reforestation (Chile, Colombia) and on controlling mercury discharges in small-scale mining (Ecuador) (World Bank, 1998).

Other initiatives have charged companies for using natural resources to produce minerals and hydroelectric power. The money thus generated has been used to fund regional environmental agencies and to compensate municipalities where the activities take place. Mexico, Colombia, Brazil and Ecuador have taken advantage of economic instruments such as water use and pollution fees, though pressure from actors in the relevant sectors has succeeded in reducing and eliminating such charges.

Conventional taxation has also been used. In Colombia, a percentage has been added to the property tax levied on regional autonomous corporations (Canal and Rodríguez, 2008), and Brazil has imposed a green value-added tax.

Finally, the region's countries have urged businesses to implement environmental management systems (EMSs) in order to promote self-regulation and harmonise environmental management standards under ISO 14000.

(iv) Component 3: Participation and sense of belonging

Social cooperation, a society's ability to resist fragmentation and its ability to move towards full social inclusion and cohesion depend on the sense of belonging. Belonging, in turn, is closely associated with the development of individual and collective identity in groups that share cultures, values and principles that foster social relations, although

peculiarities and differences in the sense of belonging are also seen (Sabatini, 2008). A recognised collective identity is essential to personal welfare, social cohesion and environmental protection.

In the context of environmental sustainability, belonging consists of people's manifestations of feeling connected to and identified with a geographical area and with a variety of cultural dynamics that place value on the environment and its conservation —not as an economic issue, but as a social phenomenon of respect for the natural system of which a human group living in a territory is a part. In other words, environmental sustainability depends on the extent to which people are able to value their environment[3]—something that varies from place to place and over time.

Collective identities can be territorially specific or horizontal. They develop over time, reflecting a group's collective experience as it lives together and constructs its collective imagination, interpreting past experience and re-creating it in memory. Groups have origin or founding myths that distinguish them from others, and shared visions of the future. As a group lives together in a physical setting, it constructs social relationships whose meaning is shared (culture), and defines the bounds of its specific territory or environment (Sabatini, 2008).

- Components of participation and the environmental sense of belonging

- Territorial identity

Human beings construct their identities in a matrix of relationships (family, ethnic group, religion), some of which involve ties with a territory.[4] In communities whose economic base and world view are intimately tied to a territory, the territory serves as the foundation for social processes that reproduce culture, identity and the local way of life.[5] It constitutes a space in which different actors can organise to influence decisions[6] designed to protect the environment or promote sustainable development, among other things.

Identities and the sense of rootedness can be of various types and intensities, depending on a community's fundamental interests, and on its isolation from or integration with the larger society. Sabatini (2000) points to these two elements in defining a territorial community as a "human group that shares a territory in which it interacts on an ongoing basis, giving rise to

3 European Union. Agriculture: rural development. Leader+ initiative.

4 Boisier, Sergio, 2005, "Crónica de una muerte anunciada. Globalización, estrategias globales y estrategias locales", *Polítika, Revista de Ciencia Política*, no. 1, December.

5 Arocena, J. (2001), *El desarrollo local: un desafío contemporáneo*. Montevideo: Taurus.

6 Klein, J. L. (1997). "L'espace local à l'heure de la globalisation: la part de la mobilisation sociale." Cahiers de géographie du Québec, 41, 114, pp. 367-377.

a system of living composed of social, economic and cultural relationships that on one hand tend to generate traditions, community interests and feelings of rootedness, and on the other signify variable degrees of integration or isolation with respect to the larger society." The interests on which a territorial community is based fall into two categories: interest in the habitat as the basis for the quality of life, and interest in maintaining systems of living and local customs. Territorial identity, feelings of rootedness and the sense of belonging that occur in a community are of key importance in generating environment-friendly values and attitudes, social cooperation and a capacity to defend the community's environmental rights and resolve environmental conflicts.

- Environment-friendly values and attitudes

People have differing attitudes to environmental subjects and problems. Individuals may be predisposed in favour of the environment and support specific initiatives to protect it, such as measures to preserve biodiversity or recycle waste.

Knowledge of environment-friendly attitudes and values is important in designing and evaluating both general environmental policy and interventions to change patterns of natural resource management in specific communities. It is sometimes useful for environmental intervention policies or programmes to focus on changing environmental values and attitudes.

Progress in measuring environmental attitudes and behaviours in Latin America is important, for the region lacks the information needed for comparative purposes.

- Citizen participation and environmental governance

Promoting social cohesion means strengthening institutional instruments of social integration and encouraging collective action. The participation of citizens around individual and collective rights is essential to generating social cohesion, resolving environmental conflicts and achieving sustainable development.

Citizen participation can take place in different contexts, two of which are of special interest here. First, it can take the form of membership in environmental organisations and social networks that defend environmental interests. Actors come together in these contexts to exchange resources, negotiate priorities and make decisions that promote common objectives. A proliferation of environmental organisations, producers of goods and services and professionals in Latin America now defend public interests, vying with agencies that until recently seemed to have a monopoly in this area. There is a window of opportunity for society here, and in it are appearing social networks where actors who share an interest in an issue can coordinate horizontally, negotiate and agree on solutions (Messner, 1995). This process depends on a collective identity based on shared values, interests and motivations.

Second, participation can take the form of collective mobilisation around a given environmental conflict that affects a community, even if the community is not organized beforehand. Writing on popular mobilisations around environmental conflicts, Sabatini (2004) notes the temporary and instrumental nature of citizen participation. In general terms, such movements unfold in a political context, representing popular interests or particular sectors through strategies such as demonstrating, publicising problems and creating conflict (Santana Cova, 2005).

The processes of social cohesion cannot be consolidated without active participation by public and private actors to ensure the integrity of the environmental patrimony.

(v) Horizontal component: Social/environmental conflicts and social cohesion

We now turn to the relationship between social/environmental conflicts and social cohesion. Our central assumption here is that the handling of conflicts affects social cohesion, since conflicts generate change in societies by changing individuals, their forms of organisation and a society's institutions.

Social/environmental conflicts arise from human relationships and from people's relationship to nature. Human beings' relationship to nature includes their management of natural resources and the environment, and it can be such as to jeopardise not only social cohesion but the very presence of life on the planet.

Until a few decades ago, efforts to address environmental conflicts focused on developing governmental standards and agencies. Conflict has increased, however, with shocks due to scarcity of natural resources, problems of unequal distribution and a deteriorating natural resource base. In this context, society has lately developed conflict resolution mechanisms based on a new type of environmental governance.

Participatory forms of environmental conflict resolution have emerged and constitute a significant advance. As people gain access to information and their views are considered in decision-making, their sense of social belonging increases and social gaps can diminish. On the other hand, essentially formal and instrumental mechanisms of participation[7] can have negative effects, separating communities from their government rather than bringing them together.

[7] Chile's environmental impact assessment system has been variously criticized on this account.

- The relation between social cohesion and conflict

Promoting social cohesion requires reducing economic, social and political disparities by strengthening institutional mechanisms of social inclusion —ideally, promoting a sense of belonging in the process. In other words, social cohesion is accompanied by reduced levels of conflict in a society.[8]

Note that there are positive and negative conceptions of conflict. One view is that conflict is dysfunctional and should be eliminated, or that proper conflict management leads to the disappearance of conflict. The contrasting point of view, based on various psychological, social and political theories, is that conflict is an engine of social and personal development.[9] Without conflict, in this positive view, societies would not develop and generate new institutions, and groups and individuals would be unable to respond to new social demands.

From this perspective, not only cooperation, but conflict between groups with different interests, is essential in understanding the dynamics of social change. It is precisely the existence of these interests and the conflicts between them that shape the social world. No solution to a social conflict totally solves the conflict or fully satisfies the parties to it. The social dynamic produces cycles: solutions have life cycles, conflicts evolve, new conflicts arise.

- Dimensions of social/environmental conflict

Given globalisation, and an age that stresses the recognition of diversity, it is important as a starting point to take account of the fact that environmental conflicts interact with the factors that shape them and make them complex, namely, historical, cultural, economic and social factors, management of knowledge and institutional and political dynamics.

From a historical point of view, environmental conflicts arise from how a society organises its territory. Depending on social relationships, these patterns can foster either deterioration or conservation. Latin American societies show different tendencies in this respect. Some societies live harmoniously with the cultural practices of indigenous peoples, while others, which industrialised early, have only minimal populations of indigenous or African descent. Conflict between Eurocentric lifestyles and lifestyles of indigenous or African origin are a salient feature of yet other societies, which

8 The question of integration and conflict was a major focus of sociological debate. One work on conflict theory that played a key role in attempting to get beyond this debate was Coser Lewis's *The Functions of Social Conflict* (Free Press, 1956), which sees conflict as positive for society, since it has benefits such as bringing adversaries together.

9 A multidisciplinary synthesis of the different approaches and types of conflicts can be found in Redorta, Joseph, *Como analizar los conflictos*, Editorial Paidós, Buenos Aires, 1956.

tend to be destructive of indigenous and African-based forms of social organisation and life.

Culturally speaking, coexistence and conflict persist between world views that regard nature differently. Some of these centre on economic growth, while others express themselves in protests by ethnic groups. Groups and countries adopt their own educational and cultural policies to address these problems, as a function of their realities and level of growth. Conflicts range from differences over customs and world views to disputes over territory and over the recognition of rights, including indigenous rights, and the rights of communities more broadly.

Economically speaking, styles of production, consumption and trade are a function of national norms and international factors, which shape forms of trade and financing. These styles affect the maintenance of the natural resource base. Economic and financial globalisation has increased environmental conflict in the region, which arises around megaprojects in forestry, farming, mining and infrastructure construction.

As a function of its **management of knowledge**, each group, institution, country and region has developed its own knowledge and information, and has created nodes of knowledge creation and distribution in a way that facilitates or impedes good decision-making regarding the management of social-environmental conflicts. The creation of knowledge for conflict management, and access to the knowledge, are essential not only for dealing with conflicts, but for establishing abiding mechanisms that create a sense of belonging. Creating and providing access to such knowledge depends on appropriate institutions and mechanisms, which are not equally developed in Latin America's different countries.

Each country's environmental dynamics have led to **environmental institutions** and conditions that place constraints on the public, private, domestic and international sectors as their activity relates to the environment. It is these dynamics that generate capacities to react, anticipate, prevent and manage social-environmental conflict.

Finally, environmental decisions are made in a context of **political give and take**. Pressure groups and social actors exercise their rights and seek to further their interests by fighting for resources via democratic, pseudo-democratic and participatory means, as well as through social pressure.

Developing a conceptual framework to deal with the relationship between social-environmental conflict and social cohesion clearly requires exploring these different dimensions, taking account of the fact that two or more are at work in some territories.

(d) Proposed indicators of the environmental sustainability of development and social cohesion

Both progress and major challenges in regard to sustainability in Latin America and the Caribbean must be taken into account in defining the area in which indicators must be developed if they are to capture the specifics and the overall patterns of environmental sustainability as it relates to social cohesion.

In practice, tools for measuring progress or deterioration in the sustainability of development have not derived from academic or philosophical agreement, or even from recommendations by indicator experts. Rather, they have emerged as a sort of "bottom line reality" phenomenon, a response to the actual availability of more or less reliable statistics from the countries. Statistics in this area have arisen as sporadic occurrences without organic integrity, normally evolving over time towards systems of environmental statistics that are integrated with the region's national statistical systems.

With a few exceptions, environmental statistics[10] are still an incipient phenomenon in the region, covering only a part of the broad spectrum of dynamic, complex and changing environmental phenomena present around the region's territories. As of 2009, what is available is rather simple basic statistics, plus a few indicators that can be calculated systematically by a significant number of the region's countries. These indicators generally concern environmental conditions and trends, and are not necessarily capable of capturing even partially the environmental sustainability of development.

With a sustained process of capacity building in the region, it will eventually be possible to combine these existing basic environmental statistics and indicators with economic, social and demographic statistics, providing more complex information that is capable of throwing light on the sustainability of development in the region.

Thus, thinking through environmental indicators relating to social cohesion is a challenge in light of the relevance and importance, not to mention urgency, of the phenomena of sustainability that are major factors in the region.

Below, we present a very synoptic view of a limited number of indicators designed to provide a window on social cohesion in a way that includes minimum considerations of environmental sustainability.

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[10] The term "environmental statistics" is used here in its broadest sense, i.e., to include basic statistical series, indicators and integrated economic environmental accounts.

Given their aim, the proposed indicators have been subjected to an exhaustive review to determine their statistical viability. The resulting preliminary list is consequently usable immediately in a significant number of the region's countries. Further indicators will require time and work before they can be systematically implemented by national governments. These will appear on a second list.[11]

Metadata on the indicators proposed below appear in other publications by ECLAC and in the United Nations Statistics Division. Where this is not the case, we have explained how the indicators are calculated.

(i) Environmental patrimony and social cohesion: assessing the loss of natural resources and biodiversity, and levels of waste matter and contamination

As mentioned above, a number of major sustainability problems affect social processes in the region. They can be classified in two broad groups: relationships that arise from the appropriation of natural resources and environmental services by human societies and economies (hence, the importance of attempting to capture the dynamics of changing resources), and relationships that result when human societies put solid, liquid and gaseous wastes from production back into the environment.

Of course, the principal problems and possible indicators to monitor them should be related in a way that is directed at the sustainability of the natural patrimony and the environment as these affect the process of fostering social cohesion. Given the need to select a very limited number of indicators, a group of three is proposed to throw light on the principal challenges to the sustainability of the natural patrimony, which is a *sine qua non* for human processes and social cohesion.

Proposed indicators

1. Proportion of surface covered by forests (MDG indicator 7.1)
2. Energy intensiveness of GDP
3. Renewability of energy supply

[11] The statistical viability is the result of years of work in which the ECLAC Division of Statistics and Economic Projections has provided technical support and worked with the region's countries to build their capacities through various initiatives. These include REDESA, BADEIMA, work on the supplementary MDG7 indicators, technical assistance for the ILAC indicators of the Forum of Ministers of the Environment of Latin America and the Caribbean, and statistical work for the interagency MDG7 report on Latin America and Caribbean that is currently coordinated by ECLAC.

(ii) Disparities of access and distribution

This component includes indicators of very different kinds, designed to measure inequalities in various areas: access and use of natural resources, access to environmental services, concentration of contaminants and environmental quality. Each of the proposed indicators compares territories in different world regions, countries, subnational regions, and urban and rural areas, or in different municipalities within metropolitan areas. Ideally, some indicators should also reflect the distribution of poverty, contrasting the poorest and richest quintiles.

We also propose to incorporate **ecological footprint**[12] in measuring disparities, as an indicator of inequality between developed and developing countries in terms of their consumption of natural resources, and their impact on the planet's environment as a whole.

Proposed indicators

1. Ecological footprint by country and subnationally
2. Energy intensiveness of GDP
3. Green areas per capita in major urban areas (map showing contrasts, and index consisting of the ratio of green area per capita in the municipality with the least green area to the green area per capita in the municipality with the most)

Note: We also suggest investigating the possibility of processing the potable water and sanitation indicators that are suggested as indicators of social cohesion, to show their Q1/Q5 (highest to lowest quintile) ratios.

(iii) Environmental institutions and rights

The indicators for this component are designed to measure the opportunities and challenges involved when the region's countries develop environmental institutions and make efforts to guarantee the exercise of environmental rights in the context of improving social cohesion. They reflect the level of development of the various environmental institutional structures designed to enforce environmental rights; the States' capacity to make policy and plan, and to establish standards and regulations for environmental preservation; compliance with and enforcement of the countries' existing environmental legislation, and the States' capacity to monitor environmental conditions.

Another important factor to explore is the countries' institutional mechanisms for consolidating processes that further environmental

[12] The method of calculating ecological footprint was developed in 1996 by Mathis Wackernagel and William Rees.

sustainability, for making use of environmental management instruments, for ensuring that businesses meet their environmental responsibilities and for funding environmental public spending.

In light of the need to reduce the number of indicators to a minimum, we propose an indicator analogous to social public spending —one that measures public-sector spending to protect and manage the environment at the national level. Although this indicator has only recently been created in a few of the region's countries, its use is spreading, and we may expect to see it become an official statistic in an increasing number of nations.

Proposed indicator

1. Environmental public spending as a proportion of GDP

(iv) Participation and sense of belonging: instruments to measure environment-friendly knowledge, attitudes and behaviours

The last three decades have seen the construction and testing of various scales designed to investigate environmental attitudes and behaviours, and to explore the relationship of these factors to values, behavioural predispositions and other mediating factors. Nearly all of these instruments have been created by researchers in developed or industrialised countries —Spain in a number of cases.

Our review found no instruments specifically designed to measure environmental attitudes in Latin American or Caribbean countries, and the existing survey instruments contain items that must be adapted to be useful for the region. If, even after such adaptation, these scales should prove inadequate for measuring environment-friendly knowledge, values, attitudes and action in Latin American populations, it would suffice to perfect the language of the questionnaires and adopt the appropriate regional or national syntax and vocabulary, and then pre-test the instrument a number of times to ensure that informants understand everything fully. More important than this issue, though, is the fact that the coverage and thematic emphasis of the existing instruments is inadequate for our regional setting.

Latin America's environmental problems have their own intensity and nature. Presumably, environmental perceptions, awareness, attitudes and behaviours in the region are also distinctive, particularly given the probable relationship between socio-demographic factors and the information that people have, as well as the values and cultures in the midst of which individuals in our countries live. Consequently, an original, or ecometric, Latin American instrument is needed. Developing one obviously requires a

programme of research to construct, validate and pilot test an instrument at the regional scale.

The main issues on the environmental agenda in Latin America and the Caribbean concern the over-exploitation of resources, with the resulting harm to biodiversity and the resulting degradation or exhaustion of a variety of natural resources, plus some issues of urban contamination and the fact that populations in precarious settlements are particularly vulnerable to natural disasters. In addition, lifestyles and styles of development in North and South are markedly different. Consequently, questionnaire items exploring behavioural intentions in a three-dimensional model of attitudes, if they are to provide significant information, must be designed to include elements that have meaning in the everyday life of the groups being studied. For example, questions about heating in our countries should focus on what fuels are used (kerosene, wood, gas, and so on), rather than on the intensity of the heating (usually central heating), which is more relevant in the developed countries.

Similarly, responses in our region on intended or reported behaviour, as well as on people's information, knowledge, beliefs and values, can be expected to correlate with material poverty and unequal access to information and opportunity. This poses major methodological challenges for the construction of questionnaire items, for in answering questions on what fuel they use, Latin American informants are more likely to be influenced by their monthly budget than by their attitudes or feelings about the environment (or even about their own health).

Therefore, after analysing the possibilities of the existing instruments and the obstacles to their use, an original instrument should be designed and implemented that can better describe and measure environmental attitudes in Latin American countries, as difficult as it may be to design and validate such an instrument.

Proposed indicators

Neither our countries nor the region regularly measure pro-environmental behaviour, attitudes and the like —or even participation in environmental activity— so pending further developments, it is impossible to propose a list of statistically viable indicators in this area.

At the global level, however, a new indicator has recently been developed that could be used —although in a very limited way— to measure the sense of identity, belonging and participation in relation to the environment and quality of life. This is the Happy Planet Index (HPI) developed by the New Economics Foundation.

The HPI combines human welfare with environmental impact, as a way of measuring the environmental efficiency required for long and happy living. The index does not measure happiness, but the relative efficiency with which a nation converts the planet's natural resources into long and happy lives. The nations with the highest scores demonstrate that it is possible to live long and happily without over-stressing natural resources.

As a measure of efficiency, the HPI quantifies level of satisfaction per unit of environmental impact. It is calculated on the basis of three indicators: life expectancy, the satisfaction with life that the citizens of a country express and their ecological footprint.

$$\text{Happy Planet Index:} \quad \frac{\text{Well-being * life expectancy}}{\text{Ecological impact}}$$

We recommend adopting this indicator for the Latin American countries, and comparing it overall with that of the European Union countries.

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Chapter V

The feasibility of constructing a synthetic index of social cohesion for Latin America

Roxana Maurizio

A. Introduction[1]

Synthetic indices of inequality, poverty and multidimensional welfare have become increasingly popular, both in academia and among policy makers. This has been accompanied by a broad-ranging debate about how to use multi-dimensional approaches to design a synthetic index that effectively describes the multiple dimensions which affect levels of deprivation, poverty and welfare.

Kolm (1977) formally proposed multidimensional analysis of inequality as an approach stemming from a set of generalisations of the Pigou-Dalton transfer principle and applying them to the multivariate context. Following this line of thinking, Atkinson and Bourguignon (1982) developed dominance criteria to identify the conditions on the basis of which a given multivariate distribution is more (or less) egalitarian than another.

However, empirical findings indicate that the dominance criterion is not always met in the multidimensional context, which leads to an incomplete ordering of the distributions. Synthetic indices accordingly become more

[1] Ana Paula Monsalvo collaborated in producing this document, which also reflects the valuable and much appreciated comments of Luis Beccaria, Juan Carlos Feres, Pablo Villatoro and Arturo León, as well as those of the participants in the experts' workshop entitled "Towards a synthetic index of social cohesion in Latin America?", which was held on 2 September 2009 at ECLAC headquarters in Santiago, Chile.

important in such cases, since they ensure a complete ordering by reducing to a real number all the information contained in each distribution of the attributes considered.

Constructing an index of this sort entails a series of important methodological decisions that can significantly affect the results of the process. Consequently, the literature on this subject agrees that such construction must obey rigorous technical criteria as well as be based on a solid and explicit theoretical foundation.

There are currently a number of strategies for the conjoint analysis of multiple dimensions. They vary in how they aggregate, transform and weight the attributes considered. From different perspectives, but generally based on Sen's capacities approach (1985, 1987), they have created indicators that attempt to assess degrees of inequality, poverty and social exclusion from a multidimensional point of view.

Along this line, some international and regional organisations, such as the United Nations Development Programme (UNDP), Inter-American Development Bank (IDB) and European Commission, have urged the use of some composite indicator of human and social development. In Latin America and the Caribbean, there have been initiatives to conceptualise and measure social cohesion. ECLAC, in particular, has developed a concept of social cohesion that takes account of the complexity of the phenomenon, defining it as the dialectic between mechanisms of social inclusion and exclusion, and citizens' responses and perceptions to the way in which these mechanisms operate (ECLAC, 2007).

As that ECLAC publication mentions, globalisation, and factors such as technological change and the demands of competitiveness, have heavy economic, social and cultural impacts at the national level, and can undermine the foundational elements of social cohesion, aggravating social inequalities and gaps, as well as the very sense of social belonging and affiliation. This places more of a burden than ever on policies to increase social cohesion: they are not only more important, but must be more complex.

Relevant and timely information based on rigorous methodological criteria is one of the starting points for designing measures and making good decisions in this area. It is with this in mind, and with support from the EUROsociAL program of the European Commission, that ECLAC has constructed a system of indicators for monitoring social cohesion in Latin America. The core of the system has three dimensions, or pillars: (i) disparities, or gaps, (ii) institutional mechanisms of inclusion/exclusion and (iii) the sense of belonging. These three pillars, which in turn are based on a conceptual scheme that includes the objective processes of inequality and exclusion as well as the perceptions and responses of actors to these processes.

The "disparities" component is designed to provide information on the objective gaps that are symptoms of social exclusion in the region. Specifically, this dimension reflects the material living conditions of groups who are excluded from access to resources and opportunities, to basic social activities and who are prevented from exercising their basic rights. These conditions represent disparities with respect to groups that are not excluded, or with respect to normative thresholds. As we shall see, some of the dimensions of such disparities are employment, poverty, income, social protections, education and health.

The "institutional mechanisms" component includes the actions of institutional actors that can have an intentional or unintentional impact on the processes of social inclusion and exclusion. The functioning of the democratic system and the rule of law are important here, as are public policy and the functioning of the market.

Finally, the "belonging" pillar is composed of the various ways in which citizens identify with, and have ties with, the larger society and the groups making it up (ECLAC, 2007). Factors here include multiculturalism, non-discrimination, social capital, expectations for the future and sense of integration, among other indicators.

There are various kinds and directions of relationships among the system's different components and variables, and they can change over time. The selection of indicators presented here is based on the relevance, quality, availability and cross-country comparability of information on such relationships.

Our aim in this chapter is to assess the feasibility, relevance and importance of creating a synthetic index of social cohesion for Latin America and the Caribbean, using this system of indicators for the region's countries as a framework. In doing so, we must bear in mind that, as mentioned above, the conceptual and empirical problems involved in constructing multidimensional indices have not been fully solved. Pending issues include the selection of dimensions, the indicators' construction and means of measurement, and how they are to be aggregated and weighted. While the first two of these issues are relevant even to one-dimensional indices, the latter two are specific to multidimensional analysis, and it is on them that we shall focus here.

Approaching this problem requires taking account of the complexity of the concept of cohesion itself, and considering whether a broad set of data can be included in a single composite indicator without losing valuable information. The validity and relevance of such an index as a support for social policy-making is also subject to debate.

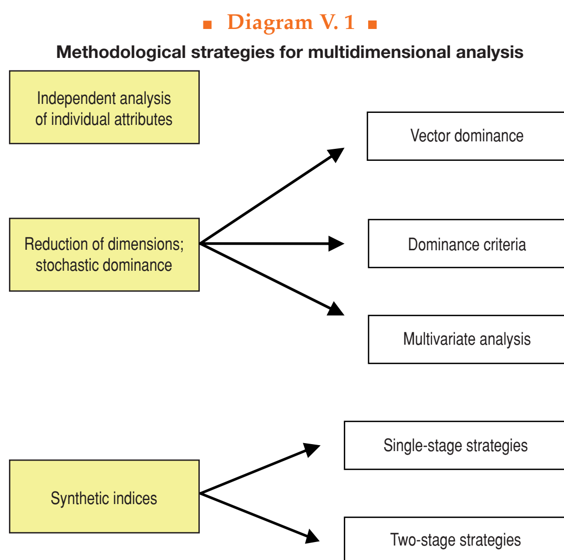
Below, we examine different methodological approaches to multi-dimensional studies. Section B focuses on conceptual issues in constructing synthetic indices of social and human development. Section C broaches the construction of a synthetic cohesion index based on the ECLAC indicators, evaluating different methodological strategies for the purpose, and the robustness of their results. Section D brings all of this together to discuss what possibilities, advantages and limitations could come into play in attempting to reduce the multiple dimensions of social cohesion to a representative and comparable synthetic index for the region's countries. Section E presents final conclusions.

B. Alternative approaches to the conjoint analysis of multiple dimensions

The international literature offers a variety of methodological strategies for the multidimensional analysis of inequality, poverty and welfare. According to Brandolini (2007), they can be classified according to the degree to which they aggregate the multiple dimensions being studied —ranging from those that analyse each attribute separately, to those that bring all their information together in a single synthetic index. The following diagram represents these different approaches schematically.

■ Diagram V. 1 ■

Methodological strategies for multidimensional analysis



Source: Prepared by the author on the basis of Andrea Brandolini, "On synthetic indices of multidimensional well-being: health and income inequalities in France, Germany, Italy, and the United Kingdom", *Working Papers*, No. 07/2007, Centre for Household, Income, Labour and Demographic economics (CHILD), 2007.

Three specific types of strategies can be identified, based on their levels of aggregation: (i) strategies that analyze each of the univariate indicators independently; (ii) intermediate strategies that reduce the number of dimensions or employ dominance analysis, and (iii) complete aggregation strategies. We now turn to each of these.

1. Independent analysis of individual attributes

This type of strategy independently analyses each of the characteristics of the dimension being studied (e.g., inequality or poverty). Thus, it does not attempt to reduce the number of variables. One important aspect of these strategies is that they can analyse patterns of positive or negative correlation between individual attributes, and between the attributes and other variables associated with, though not a part of, them (e.g., a country's level of economic development).[2]

As Brandolini (2007) explains, the advantage of this type of approach is its methodological simplicity. It does not require *a priori* assumptions about behaviours or patterns, and does not involve any loss of information. The disadvantages are a lack of synthesis, which becomes more severe as the number of dimensions being considered increases, the possibility of overlaps or redundancies of the information contained in the indicators and the difficulty of arriving at clear conclusions when working with many indicators and/or when attempting to compare a large number of countries.

This type of analysis, along with, for example, analysis of distribution functions or conjoint density functions, can be a first step in creating a synthetic index, for it generates valuable information about the behaviour of the different attributes considered.

2. Comparison of vectors, reduction of dimensions and stochastic dominance

This group of strategies can be construed as an intermediate level of aggregation that does not attempt to entirely reduce all of the dimensions into a single index. These strategies cover a range that includes one-to-one comparison of vector elements, the extension of dominance criteria for the multidimensional context, and different statistical techniques of multivariate analysis.

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2 Sen (1985 and 1998) and Fahey and others (2005) provide examples of this strategy.

(a) Vector dominance

The vector dominance strategy is based on an element by element comparison of the vectors corresponding to the different dimensions under consideration. In comparing the achievements of two individuals, for example, vector A dominates vector B if, for each of its elements, $a_j \geq b_j$, with j = 1,2,…k being the k attributes under consideration.

The advantages of this method include zero information loss, minimal constraints on data, and the fact that it is simple to use. The most significant drawback is that, like any ordinal indicator, it does not always ensure complete ordering, especially if the set of attributes is large. Gaertner (1993), for example, notes that in his multidimensional study of 130 countries, vector dominance is present in at most 25% of the comparisons between pairs of countries previously grouped according to national political or economic features.

(b) Dominance criteria

This method is a more sophisticated version of vector dominance. It extends Lorenz's dominance criterion to the multidimensional context along lines explored by Kolm (1977), Atkinson and Bourguignon (1982, 1987), Atkinson (1992), Jenkins and Lambert (1993) and others. There have recently been important advances in constructing a test of stochastic dominance for the analysis of multidimensional poverty (Bourguignon and Chakravarty, 2003; Atkinson, 2003; Duclos and others, 2006) as extensions of the techniques developed for the one-dimensional context by Atkinson (1987) and Foster and Shorrocks (1988a and 1988b).[3]

The advantage of this type of approach is that it takes account of the structure of the correlations between the different dimensions, which explicitly differentiates it from univariate techniques. However, the cost of the low information requirement, as with vector dominance, is the possibility of an incomplete ordering.

(c) Multivariate statistical analysis

In the context of concern to us here, these techniques are used primarily to help interpret multiple attributes, either by using statistical tools to reduce the number of dimensions, or by creating relatively homogeneous groups in the dimension of interest. Multivariate techniques take account of the structure of correlations between the different attributes. Thus, even in

[3] Tests of statistical inference associated with tests of stochastic dominance have also been developed. Some of these are based on the classic asymptotic theory, while others use the non-parametric bootstrap technique.

an exploratory phase, they can streamline the construction of a synthetic index. The multivariate techniques most commonly used for this purpose are cluster analysis, principal components techniques, correspondence analysis and factor analysis.

Cluster analysis is generally used to relate observations in homogeneous groups, but it can also be used to associate variables in order to reduce dimensions. Using it requires making three important decisions. The first is to select a measure of distance or similarity between the objects or variables being considered. (If the variables are quantitative, they constitute a correlation matrix; if categorical, a chi-square distance matrix). Secondly, one must decide what method to use for the clustering. One may begin with a certain number of clusters and then group them in a way that is, from a chosen point of view, optimal, or one may do the reverse —begin with a single cluster and divide it repeatedly until the optimal number is reached. Finally, one must define the scale of "tolerance" to distance that determines the final number of groupings considered.

The principal components (PC) technique makes it possible to determine whether it is feasible to use a smaller number of components to represent the information contained in the k dimensions. This is the first step in identifying latent variables and ultimately transforming the original correlated variables into a smaller number of uncorrelated variables. A similar technique that applies to qualitative data is correspondence analysis, which summarises the information in a contingency table. In other words, it represents the variables in a space of fewer dimensions. This procedure is analogous in a sense to the principal components approach, but it defines the distance between the points in a way that is consistent with the interpretation of the data.[4]

Finally, there is factor analysis (FA), which identifies latent or unobserved variables (called factors) based on the observed dimensions. Although this technique shares some aspects of PC, there are also important differences between the two. The most significant is that while PC is constrained by the nature of descriptive statistical techniques, FA assumes a formal statistical model. The main advantage of the latter approach is that it reduces the number of dimensions, making it easier to understand the object being studied through a small number of new variables deduced by using statistical correlation structure techniques. The main problem with factor analysis is that it does not always generate a clear and direct economic interpretation.

4 Specifically, rather than using the Euclidean distance, it uses the chi-square distance.

3. Multidimensional synthetic indicator

Finally, strategies to associate a real number to a multivariate distribution fall into two categories, depending on which of two methods they use. The first —the single-stage method— directly assesses an entire population's welfare, inequality or poverty, without prior assessment at the individual level. As Brandolini (2007) mentions, this research area has recently growth rapidly. Examples can be found in Tsui (1995, 1999), Bourguignon and Chakravarty (2003), Atkinson (2003) and Maasoumi (1999), among others.

On the other hand, the distinctive feature of the second approach is its two-stage process for constructing the index. First, one obtains the composite indicator for each individual, and then one uses traditional univariate techniques to obtain the multidimensional indicator of inequality or poverty for the entire population. Maasoumi (1986) provides one example of this, using information theory to define the functional form of the welfare indicator. An alternative formulation by Bourguignon (1999) provides a further example.

These methods have the clear advantage of permitting a complete ordering. What distinguishes them is that the second has to initially specify the welfare indicator at the individual level, and only then apply some univariate technique to the distribution of the variable, while the first uses multidimensional indicators without aggregating attributes at the individual level. Thus, they avoid specifying the indicator's functional form.

It is important to understand, then, that the first method directly constructs a multidimensional indicator of inequality or poverty, while the second applies an index of one-dimensional inequality or poverty to a multidimensional measure constructed at the individual level.

To conclude, let us note that the initial task in studying multiple dimensions is to define whether all the information is to be collapsed into a single value, or whether the dimensions that make it up are to be kept separate. As mentioned above, each of the strategies has advantages and disadvantages. On one hand, aggregation mechanisms may involve a loss of information, and they are affected by a certain arbitrariness in the selection of the mechanism. On the other hand, a synthetic indicator may be a very effective way of bringing together a number of dimensions and complex processes. This makes it easier to communicate findings, and facilitates decision-making for policy-makers.

Taking all of these considerations into account, the next section focuses exclusively on the conceptual and methodological issues of constructing synthetic indices in multidimensional contexts.

C. Methodological issues in constructing synthetic indicators of social and human development

Suppose that our objective is to analyse the multiple dimensions that are determinants of inequality, poverty, welfare or human development in a society composed of i = [1,2….., n] individuals, regions or countries, where j = [1,2,…..K] are the attributes that constitute the multidimensional indicators. According to Decancq and Lugo (2007), it is possible in formal terms to define a multidimensional indicator for each individual (or region, country, etc.) as:

$$S_i(X|\beta) = \frac{\left[w_1 I_1(x_1)^{\beta} + \ldots\ldots + w_K I_K(x_K)^{\beta}\right]^{1/\beta}}{w_1 + \ldots\ldots + w_K} \qquad [1]$$

where x_k represents the value that dimension j assumes, with k = 1,…..,K for individual i, w_k are the weighting factors assigned to each dimension (which are not negative, and which are generally assumed to sum to unity, so that the denominator = 1) and β is the parameter that governs the degree of substitution between the attributes.

The multidimensional indicator $S_i(X|\beta)$ is thus defined as the weighted sum of order β of certain transformations $I_j(x_j)$ of the attributes being considered.

Clearly, constructing such an indicator requires defining (1) the transformation function, (2) the degree of substitution between each pair of dimensions and (3) the weighting structure. Below, we analyse each of these components in detail.

1. Transformation functions

As Decancq and Lugo (2008) explain, a transformation function in the multidimensional context should satisfy two minimum requirements. First, since the attributes are measured in different units, they must be translated into a common scale for aggregation. Second, the functions should avoid assigning high relative importance to extreme values if the original distribution has extreme values.

Expression [1] can be used to construct a multidimensional indicator either of welfare or of poverty. In the former case, the transformation function $I_j(x_j)$ represents the achievements attained in dimension j, while in the second case it represents the deficits. In the latter case it will also be necessary to establish a specific poverty line for each dimension.

The most important and commonly used transformation methods include standardisation based on range, on the normal distribution function (or p-score), on distance from the attribute's mean and on distance from the optimal value achieved by the attribute, as well as logarithmic transformation. The UNDP Human Development Index (HDI) uses the first of these methods. This means that the index varies from 0 to 1, which makes it easy to interpret accurately and facilitates temporal and spatial comparison.[5] Below, we detail some of these methods.

Method	Formula
By z-score	$I_{ij} = \frac{x_{ij} - \bar{x}_j}{S(x_j)}$
based on the range	$I_{ij} = \frac{x_{ij} - \min(x_j)}{\max(x_j) - \min(x_j)}$
In relation to best performance	$I_{ij} = \frac{x_{ij}}{\max(x_j)}$

The important thing to bear in mind here is that, on one hand, there is no normative guideline to help decide exactly what method of transformation is most appropriate, and on the other, different methods can produce different results, especially if the objective is to order countries or individuals.

2. Degree of substitution between attributes

Parameter β in [1] captures the extent of substitution between the dimensions considered. Based on this, the elasticity of substitution is given by:

$$\sigma = \frac{1}{1-\beta}$$

5 The HDI measures the average level of human development for each country as the simple average of three dimensions: the logarithm of per capita GDP, life expectancy at birth and educational level, the latter in turn being a weighted average of adult literacy test findings (2/3) and combined gross matriculation rates for primary, secondary and tertiary education (1/3). Income is considered logarithmically in order to reflect decreasing marginal yields when income is transformed into human capacities (Anand and Sen, 1994).

As can be seen, the smaller the value of β the lower the elasticity of substitution. In particular:

if $-\beta \to -\infty$, then $\sigma \to 0$, i.e., there is no substitution between pairs of attributes, and the function is a Leontief function, with an L-shape indicating perfect complementarity between the two members of the pair, so that in this case the only attribute that matters in S_i is that of the worst performance;

if $-\beta = 0$, then $\sigma \to 1$, i.e., the elasticity of substitution is 1 between all pairs of dimensions, and thus S_i is a Cobb-Douglas function, and specifically [1] becomes the geometric mean. We assume here that a 1% reduction in an attribute can be compensated for by an increase of the same percentage in any other attribute;

if $-\beta = 1$, then $\sigma \to \infty$, and S_i is a linear function of all the attributes (their arithmetic mean), indicating that they are perfect substitutes. This assumes that one attribute's low value can be totally compensated for by a high value in another.

In general terms, in the case of the welfare indicator, if $\beta \leq 1$, then the index is represented by a convex function, reflecting a certain preference for more equally distributed "baskets of attributes". By the same logic, the equivalent for the case of a poverty indicator would be $\beta \geq 1$.

In empirical analyses, especially those that seek to establish a ranking of countries or other units of analysis, one generally specifies $\beta = 1$ for the sake of simplicity. The HDI is an illustration of this. As we mentioned, however, this constraint is based on the "strong" assumption that the attributes that make up the level of development or welfare are "interchangeable", so that, for example, a low educational level can be compensated for by a higher income level. Clearly, this assumption becomes even more questionable when, for example, variables designed to measure institutional functioning or other variables related to people's perceptions are incorporated into the analysis —as would be the case of a social cohesion index.

3. Weighting structure

In addition to the two parameters we have just analysed, the structure of the weighting factors of the different attributes that make up a multidimensional index are very important. It must be borne in mind that any weighting scheme involves a trade-off among the dimensions considered, and hence represents an implicit value judgment regarding the elements that determine (and to what extent they determine) the numeric value of the synthetic indicator being analysed.

As Brandolini (2007) explains, the practical importance of the weighting factors depends on the level of positive or negative correlation between the components. As their positive correlation increases, their importance diminishes. The literature offers different weighting strategies, which are outlined below.[6]

(a) Equal weighting for all attributes

The simplest strategy is to weight all attributes equally. This can be justified from an "agnostic" perspective that attempts to reduce interference from the researcher to a minimum. Thus, it simply considers all the attributes equally important —or, alternatively, it reflects a judgment that available information or consensus is insufficient to justify assigning them different levels of importance.

Despite its popularity, this alternative has been strongly questioned. Its pretensions of "impartiality" ignore the fact that any weighting scheme represents a position with respect to trade-offs between attributes. Equal weighting has the obvious disadvantage of not distinguishing the effective roles of each dimension, and leading to "double counting" in cases where data on two or more attributes overlap. Thus, as Decancq and Lugo (2008) point out, equal weighting is as much a weighting scheme as any other, but with the disadvantage of being rather unattractive from a normative point of view.

Nevertheless, a study by Chowdhury and Squire (2006) shows that this approach is widely accepted. The authors surveyed international experts on inequality and poverty about the weighting structure that they would assign for the HDI. The findings are notable, in that the experts' weighting schemes were very close to giving equal weight to the three dimensions composing the HDI —a demonstration, as the authors mention, of the wide support that the HDI enjoys despite criticism of its weighting structure. In any case, we shall not explore here whether this consensus is based on real acceptance of equal weighting, or merely on the fact that the information needed for another approach is unavailable.

(b) Weighting based on the data

A second way of weighting is to "let the data speak for themselves." Such strategies are based on the relative frequency of the attributes, or on more sophisticated mechanisms that draw on multivariate techniques or regression analysis.

[6] Here, we follow the classification that appears in Brandolini (2007) and Decancq and Lugo (2008).

- In the first case, the weighting factors are computed as a function of the attributes' relative frequency. In some cases, more weight is assigned to certain deprivations if relatively few individuals are subject to them. The rationale here is that the lack of an attribute is important in inverse relation to its prevalence in the population (Desai and Shah, 1988; Cerioli and Zani, 1990). This criterion has been criticised (e.g., by Brandolini and D´Alessio, 1998) on the basis that the resulting structure can be highly unbalanced when the lack of different attributes in the population is very uneven. On the other hand, Osberg and Sharpe (2002) assign greater weight to dimensions in which a smaller percentage of individuals have a deficit.
- Another alternative has been proposed by Jacobs and others (2004), who suggest assigning less weight to dimensions for which the quality of information is low, or where there is a high percentage of non-response. The advantage of this approach is that the resulting indicator is based on high-quality information.
- Both strategies, however, raise the question of what justifies using the relative frequency of attributes to determine their relative importance in the composite index.
- Some authors propose a third alternative: assigning each individual the weighting factors that are endogenously determined to be most favourable, i.e., that maximise the individual's welfare. Specifically, the greatest weight is assigned to the attribute in which the individual is most favoured, though to prevent the entire weight from being assigned to the best attribute, some additional constraints are imposed.

  The disadvantages of this approach are, first, that such multiple weighting complicates comparisons between individuals, and second, that the results depend on the additional constraints imposed. Finally, as we have noted in other cases, such mechanisms do not guarantee reasonable trade-offs, since there is no *a priori* rationale for assuming that the dimension in which an individual obtains the best results contributes most to his or her general welfare.
- A procedure different from all of the above is the use of multivariate techniques such as clusters (Hirschberg and others, 1991) or principal components (Klasen, 2000; Noorbaksh, 1998). The rationale behind these techniques is that they prevent double counting, since they take the correlation between different attributes into account when determining weighting. They do this by considering uncorrelated dimensions, or by giving them less weight than those that are correlated (Nardo and others, 2005).

An alternative method is to employ latent variables models, which assume that the variables observed (the attributes under consideration) are

a construction based on a certain number of latent (unobserved) variables. As we have mentioned, the most commonly used of these approaches is factor analysis, where the dimensions considered are interpreted as different manifestations of a composite latent index. This technique has been widely used in welfare analysis (examples include Maasoumi and Nickelsburg, 1988, and Nolan and Whelam, 1996). More complex latent variables models incorporate other exogenous variables that are not among the attributes being studied, but that may influence the latent variable.[7]

As in the previous cases, however, multivariate techniques have some disadvantages for the type of work we are discussing. In particular, they can lead to results that are inadequate from a normative point of view (e.g., in principal component analysis, some studies come up with negative weights). As Decancq and Lugo (2008) mention, the object of multivariate techniques is to reduce the number of dimensions under analysis, and to do so in a statistically valid way. It does not follow, however, that an adequate weighting structure can always be obtained.

As Schokkaert and Van Ootegem (1990) mention, factor analysis is a way of reducing data, and the relative weights assigned to the data represent only the data's role in the variability of the dimension being examined —not in the dimension itself.

(c) Weighting based on market prices

Another alternative is based on market prices. The obvious problem with this approach is that not all attributes are associated with market prices —and even if they did, prices are not always an appropriate way of comparing welfare, as Foster and Sen (1997) have pointed out.

(d) Weighting based on a normative approach

Finally, weighting can be based on a normative criterion. The problem here is that there are no "ethical" criteria to indicate how to weight the different dimensions. One strategy, as mentioned above, has been to consult members of the population (or of a subgroup —in particular, experts or policy makers) on the weight that they would assign to each of the dimensions being studied. Another is based on hierarchical analysis, in which individuals are asked to compare pairs of dimensions, and then a matrix is constructed with weighting factors based on a multidimensional scale of measurement (Nardo and others, 2005).

In concluding this section, it is important to reiterate that the weighting structure for each attribute, its degree of substitution and its transformation

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[7] The MIMIC (Multiple Indicator Multiple Causes) model and SEM (Structural Equation Model) are examples.

function reflect alternative value judgments regarding the notion of poverty and welfare, or regarding the composite index itself, and that, in addition, these factors can have major impacts on findings. The situation is further complicated by the lack of any procedure indicating how to weight the different dimensions —nor is there a single criterion by which to establish the value of the other two parameters in the multidimensional context. Moreover, additional decisions are at issue in the one-dimensional context, e.g., the selection of indicators (the evaluation "space"), their measurement and, in the case of inequality, the degree of aversion to inequality.

Faced with the difficulty of finding a rationale for a single set weighting structure, some authors, such as Foster and Sen (1997), suggest establishing "ranges" of reasonable weighting factors. The problem with this is that it is likely to produce an incomplete ordering of distributions. Of course, the practical importance of this constraint increases with the amplitude of the range and decreases with the degree of correlation between the attributes.

Finally, a reflection on the conjoint interpretation of parameter β and the weighting factors is in order. As mentioned earlier, the first of these establishes whether the attributes are mutually "interchangeable", and to what extent such "interchange" can be carried out. The latter define the relative importance of each attribute in the overall index. The important point here is that both factors are ultimately fundamental in determining the magnitude of the impact that a small change in the value of an attribute has on the composite indicator. In particular, as Decancq and Lugo (2008) show, that depends on (1) the attribute's relative weight (the greater a dimension's weight the greater the impact that changes in it will have on the overall index); (2) the derivative of the transformation curve with respect to the attribute (the greater the derivative, the more impact change in the attribute will have), and (3) the value of $[I_j(x_j)/S(X)]^{\beta-1}$, i.e., the ratio of the value of the transformation of the attribute to the value of the overall index.

This last factor suggests that for $\beta < 1$, if the individual (or region, or country) has a lower value on the dimension considered than in the overall indicator, an increase in the former will have an important impact on the latter. Therefore, this parameter (like the weighting factor) makes it possible to increase an attribute's relative impact on the overall index. In particular, the smaller the value of β, the more sensitive the index will be to the dimensions that show the worst findings. The logic is that the "value" of the attributes increases as a function of their scarcity. In the case of $\beta = 1$, the value of the ratio is equal to 1, and the effect of a change in an attribute depends only on (1) and (2) (Decancq and Lugo, 2008).

We must remember that this is the case of the HDI, where $\beta = 1$ suggests perfect substitution between the three attributes considered. This, added to the logarithmic transform of income, means that it will not always

be possible to obtain results that evoke full consensus. For a given value of the education index and the HDI, for example, a reduction in life expectancy should be accompanied by a certain percentage increase in income. This clearly means that the implicit value assigned to the extension of life expectancy in wealthier countries is greater than in lower-income countries. In other words, due to decreasing yields, as GDP grows more income will be necessary to acquire the other components of well-being.

D. By way of exploration: constructing a synthetic index of social cohesion in Latin America based on the ECLAC indicators

As the foregoing sections demonstrate, a plethora of methodological decisions must be made in constructing a synthetic index, and there is a wide range of possibilities for each. In addition, their effects on results may not be neutral. Nevertheless, it can be argued that the empirical importance of these questions is ultimately small, and that the range of results that one obtains by modifying these choices is in practice minimal.

In order to evaluate this argument, we now examine different exercises in estimating the degree of social cohesion in Latin America, not neglecting to analyse the sensitivity and robustness of findings in a wide range of available alternatives. The objective here is not to conduct an exhaustive analysis of degrees of social cohesion in individual countries (or differences between countries in this respect), but simply to evaluate the range of results obtained and the country ranking that results in each case.

For this purpose, we have used the variables associated with the ECLAC social cohesion indicators, for which complete information is available from all countries. In other words, variables for which any country does not have data have been eliminated. After standardising the variables, those where the index moved inversely to cohesion were transformed (in the case of the range, by subtracting one from the value obtained, while in the case of the z-score, the figure was multiplied by -1). Annex I contains a complete list of the variables in the system.

1. Descriptive analysis

So as to obtain a first set of descriptive data from the variables that make up the system of social cohesion indicators, table V.A-2 (see annexes) shows the matrix of Pearson correlations, which measure the linear relationship between each pair of attributes.

In the first place, as regards the "disparities" variables, we can see that there is a high positive correlation between those that measure poverty and those that measure inequality (variables a-11 to a-16). In all of these cases, the correlations are in excess of 50%, and even close to 90% in many cases. There is also a high correlation between the poverty indicators as a whole and the health and education indicators, suggesting close links between the countries' more structural conditions. However, no significant positive correlation between the unemployment rate and the other variables in this set is in evidence (indeed, in some cases the correlation is negative).

As to the institutional variables, there is scant correlation between the democracy index (variable b-11, the Freedom House Index) and citizens' perception of the level of democracy (b-12) and their degree of satisfaction with democracy (b-13). There is a significant correlation between these last two as well as between the two of them and the poverty level. In other words, countries with less poverty seem also to have higher indices of democracy and citizen perception of democracy.

Finally, as regards the variables associated with the sense of belonging, the correlation is significant in only one case (where it is negative, however) —the variables representing expectations for the future and expectations of social mobility (c-31 and c-32).

Thus, on one hand, we see highly correlated variables, and on the other, linearly independent —or even inversely related— ones. All of this information is very important, not only for understanding patterns and correlations in the variables, but to move towards some strategy that can reduce the number of variables.

2. Multivariate analysis: country clusters

In order to generate some additional results before constructing the synthetic index, we conducted a cluster analysis on all the variables in the system. As we have mentioned, this is a multivariate technique designed to group variables so as to maximise homogeneity in each group and differences between groups.[8]

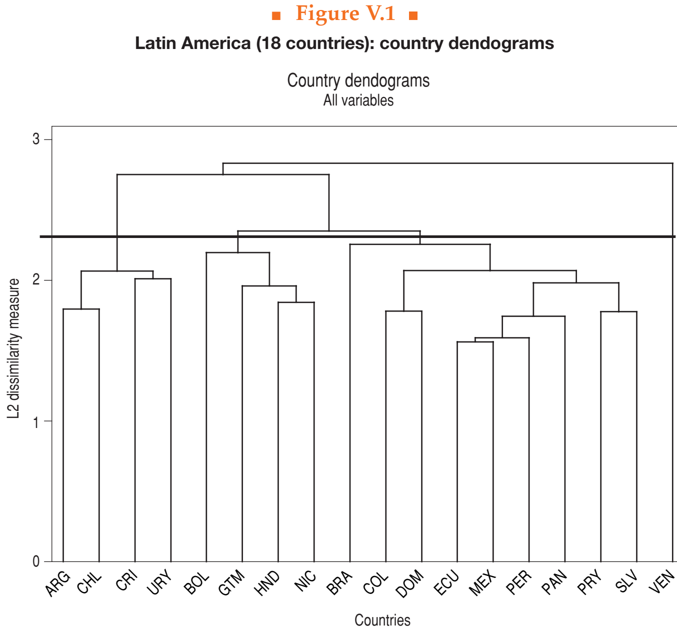
A *dendogram* is a graphic representation that helps to interpret the results of an analysis by showing the formation of the clusters and the distances between them. Below, we present a dendogram for the analysis of all the variables. The horizontal axis shows the countries, while the vertical axis represents the distance on the basis of which the number of clusters is

8 A cumulative hierarchical algorithm was employed.

defined. In other words, different numbers of groupings will be produced by different "tolerances" within the clusters. For example, the horizontal line in the top part of figure V.1 shows the distance between the countries based on which four groupings are defined.

Figure V.1

Latin America (18 countries): country dendograms



Source: Economic Commission for Latin America and the Caribbean(ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

As may be seen, the most distant value observed is for Venezuela, since that is the last country to be incorporated in the final cluster. On the other hand, the observations that are closest to each other (the ones forming the first group) are for Ecuador and Mexico. Figure V.1 also shows how the clusters are composed for each distance or tolerance criterion.

A Duda and Hart test (1973) shows that the optimal number of groups is four or five. In each case, the groups are composed of the following countries:

Table V.1

Latin America (18 countries): country grouping

Country	4 Clusters	5 Clusters
Argentina	1	1
Chile	1	1
Costa Rica	1	1
Uruguay	1	1
Bolivia (Plurinational State of)	2	2
Guatemala	2	2
Honduras	2	2
Nicaragua	2	2
Brazil	3	3
Colombia	3	4
Ecuador	3	4
Mexico	3	4
Panama	3	4
Peru	3	4
Paraguay	3	4
El Salvador	3	4
Dominican Republic	3	4
Venezuela (Bolivarian Republic of)	4	5

Source: Economic Commission for Latin America and the Caribbean(ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

We see here that the Bolivarian Republic of Venezuela remains alone in both cases. Also, in the four-cluster grouping, Argentina, Chile, Costa Rica and Uruguay form one group, Bolivia, Guatemala, Honduras and Nicaragua another, and the rest of the countries the final group. In the five-group configuration, Brazil is separated from the other countries.

Thus, this method can be very useful in revealing how the countries are distributed in terms of achievements in the different dimensions analysed without making *a priori* assumptions or imposing strong constraints.

3. Construction of a synthetic index of social cohesion

Finally, we proceeded to construct a synthetic index based on the HDI methodology, but allowing different degrees of substitution between attributes considered, and using different weighting systems. Specifically, we conducted various exercises to analyse the countries' ranking as a function of changes in:

- The transformation function. In particular, we standardised (1) by range (as in the HDI), (2) by z-score and (3) based on the maximum value that the variable had in the sample.

- The substitution parameter. The following values were tested: -3, -2, -1, 1/3, 1/2 and 1. (As mentioned above, this last case is the one of the HDI).
- The weighting structure. We used three different schemes: (1) constant weighting (as in the HDI), (2) structure based on principal component analysis and (3) structure based on analysing clusters of variables.

Before examining the results, we must note that for each dimension there is information at the national level, and thus the unit of analysis is the country. Since we do not aim here to produce any regional result, the strategy will be a single-stage one, where $S_i(X|\beta)$ represents the level of social cohesion in each country, as measured by an average of the values of the attributes considered.

E. Findings

1. Changes in the transformation function

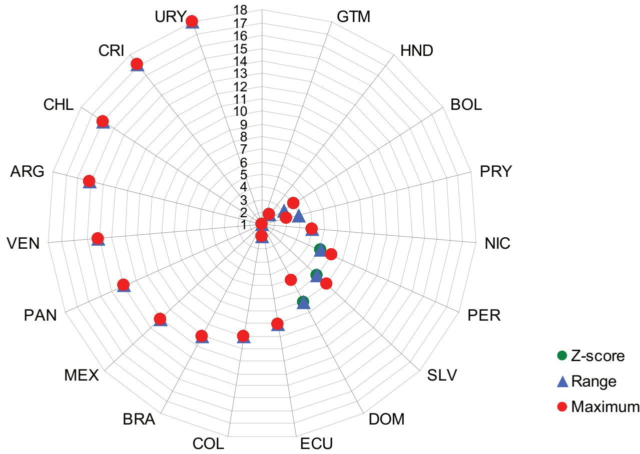
Figure V.2 shows the ranking of countries resulting from three methods of standardising the variables, assuming $\beta = 1$ and equal weighting for all the variables. The ranking was organised in such a way that the degree of cohesion increases clockwise. Thus, Uruguay is the country with the most cohesion in the region, followed by Costa Rica, Chile and Argentina. At the other end of the scale are Guatemala, Honduras, Bolivia, Paraguay and Nicaragua.

This finding seems consistent with the cluster analysis, where the former four countries were in one group, and Guatemala, Honduras, Bolivia and Nicaragua in another. Only for Paraguay do the findings not coincide precisely, since the general ranking shows Paraguay as one of the countries with least cohesion, just before Nicaragua and after Bolivia, while the cluster analysis identifies it as one of the countries with most cohesion. In the rest of the cases, the two rankings coincided precisely, suggesting that multivariate analysis is a relevant and valid preliminary step in constructing a synthetic index.

Figure V.2 superimposes points showing how the countries' relative positions vary with different standarization schemes. The results change little using alternative.

■ **Figure V.2** ■

Index of social cohesion: sensitivity to the transformation function



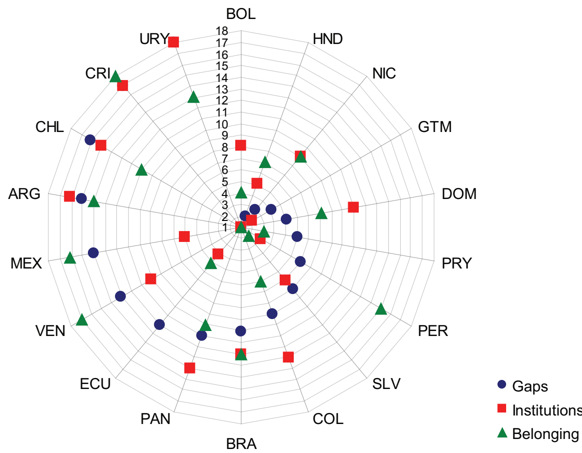
Source: Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, A System of Indicators for Monitoring Social Cohesion in Latin America (LC/G.2362), Santiago, Chile, December 2007.

This same information appears in annex table V.A-3. Gray indicates countries that change position if the alternative transformation functions are applied. As can be seen, the changes are not numerous, occurring in only 4 of the 18 countries considered, and the variations only shift the countries one or two positions up or down in the ranking.

Thus far, our analysis has covered all the variables in the system. However, given the heterogeneous nature of the variables, we provide figure V.3 and annex table V.A-4, which show the same analysis separately for each of the three major components: disparities, institutions and belonging. As will be seen, figure V.3 shows more “disorder” than does the preceding figure, indicating that the countries’ relative positions shift very substantially according to which dimension is being analysed.

Figure V.3

Index of social cohesion by component (standardised by range)



Source: Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

The last columns in annex table V.A-4 show the specific changes of position. Given the heterogeneity of each country's performance on the different dimensions, nearly all change position according to what component is considered. Moreover, some countries change drastically —e.g., Peru (which is sixth in the general ranking, 7 in the gaps ranking, 3 in the institutions ranking and 15 in belonging), Mexico, Ecuador, Bolivia and Colombia. The countries best positioned in the general index change less, as the cases of Uruguay and Costa Rica illustrate.

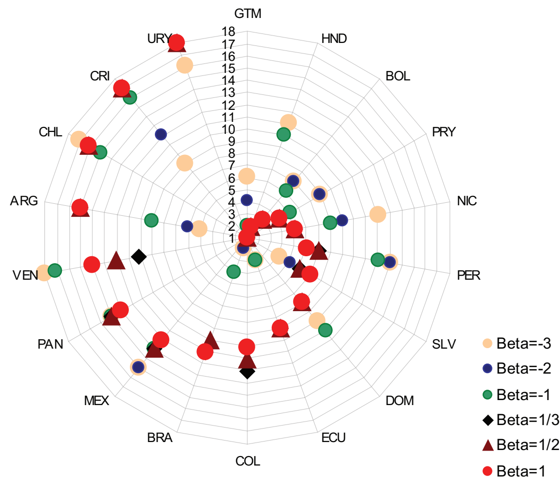
This suggests that the general ranking represents an average of situations that are very heterogeneous in terms of achievements on the different dimensions. This raises questions about the validity and relevance of the general average for evaluating social cohesion in the region.

2. Changes in the value of the substitution parameter

Figure V.4 and annex table V.A-5 show the results of the overall index with changes in the value of the substitution parameter (β), assuming equal weighting for all the variables, and using range as the standardisation method. As may be seen, the positive or negative value of this parameter produces substantial changes in the country ranking.

Figure V.4

Index of social cohesion: sensitivity to beta value



Source: Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

As indicated above, the difference in final results with changes in the beta value clearly demonstrates the role that this parameter can play in increasing or reducing the relative impact of one dimension on the composite index. In particular, the lower this value, the more sensitive the index is to the dimensions with the worst results. Therefore, countries with a very low level of some variable are heavily penalised. This occurs, for example, with Argentina, which moves from fifteenth place with a beta value of 1, to fifth place with a beta value of -3. Honduras is an example of a country in the opposite situation, and Uruguay's place remains practically unchanged, as does Chile's.

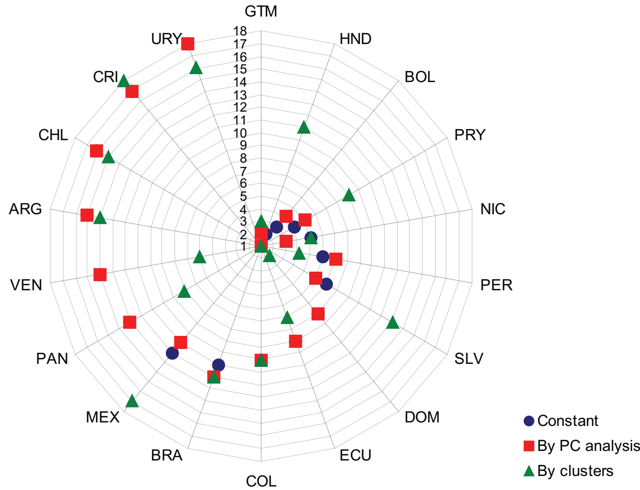
The great variability that emerges when the value of the substitution parameter is changed is particularly important, since the habitual practice of assigning it a value of 1 does not seem to work well for social cohesion. In particular, the possibility of "interchanging" dimensions and compensating for low levels of one attribute with high levels of another seems to contradict the very idea of cohesion, which incorporates not only objective disparities but perceptions of them.

3. Changes in the weighting structure

Finally, figure V.5 and table V.A-6 show the results of the overall index with changes in the weighting structure, assuming $\beta = 1$, and standardising by range.

■ **Figure V.5** ■

Index of social cohesion: sensitivity to weighting factors



Source: Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

As we have mentioned, this compares ranking based on constant weighting (as in the previous cases) with the structure that emerges when we use the principal component (PC) method and with the structure produced by using clusters as variables. In the case of PC, as is usual in these cases, the weighting factors chosen were the elements of the eigenvector associated with the maximum eigenvalue (principal component). In the case of the clusters, following Hirschberg (1991), the variables were weighted on the basis of the calculation:

$$w_j = \frac{1}{m_c n_j} \qquad [2]$$

where m_c is the number of clusters, and n_j is the number of variables in the same clusters as variable j. The analysis produced five clusters.

The results indicate that the strongest changes in position as a function of what weighting scheme is used emerge when weighting by cluster, since the variations are smaller in the other case.

These findings suggest some reflections. On one hand, they are indeed highly sensitive to methodology, and the countries' positions in the ranking changes drastically as a function of methodological decisions. The choice

of the value of the substitution parameter seems to be the most critical, since it generates more scatter in the results. On the other hand, the results do not seem to be highly sensitive to alternative standardisation schemes for the variables.

All of this is more important yet if we consider that there is no normative guideline to help select among the available alternatives. As pointed out by Decancq and Lugo (2008, p. 21) in connection with the choice of weighting system, "Ultimately, the definite test for any weighting scheme should be in terms of its reasonability in terms of implied trade-offs between the dimensions. As long as there is no widely accepted theoretical framework how to set these trade-offs, the researcher has no choice than to rely on her common sense and to be very cautious in interpreting the obtained orderings of the well-being bundles. In all cases, robustness tests to determine whether results are driven solely by the specific value of weights selected, should be called upon". If this statement is true, it would prove difficult for ECLAC to construct a synthetic index of social cohesion.

Finally, the empirical results shown suggest that, as a minimum, the three pillars included in the index should be analysed separately, since performance with respect to the different pillars is so divergent in each country that the ranking changes substantially from one pillar to the other, significantly diminishing the usefulness of the aggregate index.

F. Advantages and limitations of an index of social cohesion for Latin America and the Caribbean

Based on all the preceding analysis, this section attempts an overall evaluation of the advantages and limitations that would accompany an ECLAC index of social cohesion for Latin America and the Caribbean.

Although the previous sections provide valuable elements, there are at least three additional important matters to consider. First, the region has very high levels of inequality and polarisation, both within and between countries. Second, the concept of social cohesion is extremely complex, and the multiplicity of factors that determine it very large. Finally, ECLAC is an influential international organisation in the region, a factor that must not be taken lightly when deciding whether to publish an indicator of this sort.

Before setting out the advantages and limitations of a composite index, it may be helpful to recall the sequence of tasks involved in constructing a relevant and technically rigorous index of this type, which include the following.

1. Defining a theoretical framework

The first step in constructing a composite indicator is to define and specify the object of study, and to recognise the effort involved in reducing a multiplicity of determinants to a single dimension. As we have mentioned, ECLAC has taken important strides in defining the concept of social cohesion.

2. Selecting indicators and considering the availability of information

Each indicator selected should be closely tied to the dimension being studied, the information needed to measure it should be available and of acceptable quality, and the indicator should be easy to interpret and to relate with the other indicators. ECLAC already has a proposed system of indicators for monitoring social cohesion in the region.

3. Exploratory descriptive and multivariate analysis

As preliminary steps, before actually constructing the synthetic index, it can be very useful to analyse correlations and bivariate density functions, and to conduct a multivariate "dimension reduction" analysis. These exercises help to get a handle on the patterns in the dimensions being studied, and on their interrelationships, and the results can serve as input to improve the specification of the composite index. Cluster analysis of variables also can identify similarities and common patterns among them, and make it possible to reduce some redundancies. Applied to countries, cluster analysis can help to form groups of relatively homogeneous countries, which is important input in analysing the rankings produced by the synthetic index. These exercises could also prove a valuable end in themselves if the decision is made not to proceed with constructing a synthetic index, since they provide a wealth of information on various dimensions related to the number and composition of groups of similar countries.

4. Standardising the indicators, weighting structure and substitution parameter

We have discussed these issues in detail, explaining the wide range of options available in each case, and —perhaps more important— the fact that the choice made may affect findings in non-neutral ways.

5. Analysing the sensitivity and robustness of findings

Thus, given the multiplicity of value judgments and arbitrary decisions inherent in the process of constructing a synthetic indicator, it is indispensable to conduct various explorations of sensitivity in order to assess the range of variability of findings.

6. Degree to which the index is accepted and used, is transparent, and evokes consensus

One of the important conditions for the acceptance and widespread use of the index is that its procedures be transparent, as well as easy to communicate and understand —not only for academics, but for policy makers. Thus, consensus during the earlier steps in the process, and regarding the results of the process, are essential to the index's being accepted and used over time. This is particularly important when the index is designed to produce a ranking of countries in terms of their social cohesion.

With these factors in mind, and touching on some issues that we have described before, let us summarise the advantages and disadvantages of any synthetic index:

Advantages

- **Synthetic indices reduce the multiplicity of information**, making it easier to interpret the dimension being studied.
- **Overlaps of information are reduced or eliminated.**
- **Comparability between countries, regions, etc.** is enhanced, and the identification of patterns over time is facilitated.

Disadvantages

- **Valuable information may be lost.**
- **There may be some arbitrariness in the choice of parameters,** with very significant impact on findings. Normative frameworks are not always available to provide the rationale for these decisions, and it can be difficult to achieve consensus on them.
- **In constructing the index, one may confront a trade-off** between rigour and the ease of communicating findings.
- **The "dilemma of the average"** arises with any synthetic index. When components of an index behave similarly, the aggregate indicator based on them may have relatively little to contribute (although it obviously facilitates comprehension). To make matters worse, when the components behave differently, the aggregate or average measure becomes even less useful.

Two additional considerations —one conceptual, the other empirical— can be added to these general considerations. These would seem particularly relevant in the case of an indicator of social cohesion for the region:

(i) The conceptual issue involves the very complexity of the concept of social cohesion, which can only be represented by including a large number of indicators. A number of questions arise as a result of this. To what extent can the indicator of cohesion as defined by ECLAC

be reduced to a single dimension? How is the dialectic between mechanisms of inclusion and exclusion expressed in an average? Are not the very contradictions between the progress made on each pillar, as well as between pillars, an essential part of the indicator? To what extent can the deficit of an attribute be totally or partially compensated for by better performance in another attribute, so that the average reflects "some degree of cohesion"?

Considering the nature of the concept, and the results of the broad analysis provided here, it wouldn't seem workable for a synthetic index that averages progress in various diverse dimensions to faithfully reflect the realities of social cohesion in the region's countries, or to serve as an adequate basis for policy-making decisions. In particular, a single synthetic indicator would seem inadequate to describe something as complex and multidimensional as social cohesion. This means that to properly understand what factors determine the relative position of each of the countries, we must go through the construction of the index in reverse, so to speak, identifying the individual behaviour of each variable in each country.

(ii) All of this becomes even more complex if empirical questions are incorporated in the evaluation. On one hand, it is difficult to reduce all of these dimensions and interpret the result of the synthetic indicator, given the very divergent patterns of its components. On the other hand, the results are sensitive to alternative constructions of the index, which produce different country rankings. This is more important yet considering the great number of decisions to be made in constructing the indicator, and the diversity of opinions available in each case.

All of these elements are essential in evaluating the importance, relevance and utility of a synthetic index of social cohesion for the region that attempts to facilitate country comparisons. Such indicators should not only be based on a solid theoretical framework and be constructed rigorously, but should accurately reflect the nature of the phenomenon being studied and provide robust results. As we have mentioned, it is essential to consider that widespread use of this type of index by the countries depends on consensus about it, which will be based, among other things, on the extent to which four requirements are fulfilled. Although the first two seem to be met, since ECLAC has developed a theoretically rigorous approach and a proposed system of indicators based on it, the second two requirements do not seem to be met, and this raises doubts about the appropriateness of constructing a composite indicator of this sort.

In this connection, it should be noted that one of the reasons for the popularity of the HDI is the consensus that exists around the idea that

income patterns over time are not associated only with social and human development, and that thus a more complex analysis involving a greater number of dimensions is required (Sen, 1999). Another reason the popularity of the HDI is its simplicity of construction and the fact that it is easy to interpret. Finally, the availability of information at the national level facilitates its ongoing use. Despite these advantages, nevertheless, the HDI has not been exempt from criticisms along a different line.

As Brandolini (2007) mentions, the HDI is a simple example of the problems that can arise in constructing an index based on complete aggregation. As he shows based on two-dimensional iso-HDI curves of per capita GDP and life expectancy (with a set value for education), a single HDI value for 2002-2003 is consistent with very different values of its components. For example, the values for Argentina and Hungary are virtually identical (0.863 and 0.862, respectively), but life expectancy in Argentina is 1.8 years greater, while its per capita GDP is 17% lower. If the weighting structure were not the same for all the attributes —if, for example, life expectancy had three times the weight of income— Argentina would beat Hungary, with 0.867 versus 0.856. These results not only show the importance of the weighting structure, but reveal a loss of valuable information, since the synthetic indicator can hide very significant differences in its components. All of this becomes even more important when comparing and ranking countries.

Finally, our analysis to this point suggests that a decision on moving toward constructing a synthetic index of social cohesion should be based on a theoretical and empirical assessment of such an index's pros and cons. The difficulty of attaining a thorough understanding of the region's countries on the basis of a single indicator, the arbitrary decisions that go into constructing it, the lack of complete normative guidelines and the pronounced volatility of results, which leads to very different rankings of countries, do not seem to be compensated for by the "communicational" advantage of a synthetic indicator of this sort.

G. Final reflections

Multidimensional approaches to human and social development are receiving increasing attention, both in academia and in the public policy sphere. These efforts have led to various indicators of inequality, deprivation, exclusion and social cohesion that take account of the multi-faceted nature of these phenomena.

The results have not been uncontroversial, however, and consensus has not been forthcoming. From an empirical point of view, it is clear that

assumptions about the different parameters (particularly the weighting structure and the elasticity of substitution between attributes) are not neutral for findings, while the lack of a complete normative framework prevents reducing the options.

The questions that arise, given all of this, are: What usefulness would an index of social cohesion for the region have? What is the final aim of creating such an index? Is the objective to influence decision-making? How can valid policy recommendations be made on the basis of a single synthetic indicator?

Another issue that must be borne in mind if the decision is made to create a composite indicator involves the steps entailed in creating it and assuring that it will be widely used. In particular, it seems unadvisable to advance in such an undertaking without a broad consensus in the region's countries about the concept of social cohesion itself, its importance and the dimensions that constitute it.

Given the countries' needs, then, it would seem best for ECLAC to work towards national studies of social cohesion rather than towards a composite index. This can serve not only to provide in-depth analysis of all the factors associated with social cohesion, but to put the issue on the public agenda in a way that contributes to good decision-making, and ultimately to the general population's welfare.

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Annex

Table V.A-1

ECLAC system of indicators of social cohesion

Codes	Indicadors
Gaps	
a11	Poverty
a12	Poverty gap coefficient
a13	Indigence
a14	Indigence gap coefficient
a15	Income quintile ratio (Q5/Q1)
a16	Gini coefficient
a21	Open urban unemployment rate
a22	Persons employed in low productivity sectors
a23	Male/female ratio of urban wages
a24	Under-employment rate
a31	Women's participation in non-agricultural wage work
a32	Employed persons contributing to social security
a33	Working-age population contributing to social security
a41	Complete secondary education
a42	Net pre-school matriculation rate (pre-primary education)
a43	Illiteracy rate in 15+ population
a44	Access to preschool: quintile ratio (Q1/Q5)
a45	Complete primary education in 25+ population
a51	Infant mortality rate
a52	Life expectancy at birth - year olds with measles vaccine
a53	Percentage of 1
a54	Births assisted by specialised health workers
a55	HIV/AIDS mortality rate (cases per 100,000 inhabitants)
a61	Percentage of population with less than the minimum food energy consumption
a62	Population with access to improved sanitary services
a53	Population with sustainable access to improved sources of drinking water
Institutions	
b11	Democracy index (Freedom House)
b12	Citizen perception of level of democracy in country
b13	Satisfaction with democracy
b14	Citizens with positive attitudes towards democracy
b21	Index of perceived corruption (Transparency International)
b22	Perceived advance in combating corruption
b23	Citizen evaluation of performance of judiciary
b24	Persons stating that they have been victims of a crime in the last year
b31	Tax burden as percentage of GDP
b32	Confidence that tax monies will be well spent
b33	Public spending on education as percentage of GDP
b34	Public spending on health as percentage of GDP
b35	Social public spending as percentage of GDP
b41	Index of labour productivity (1980=100)
b42	Median real wages
b43	Employed persons worried about losing job
b44	Private educational spending as percentage of GDP
b45	Household out -of-pocket expenditure on health care as percent age of total health care spending
Belonging	
c11	Ethnic population
c12	Population that feels mistreated because of face or skin colour
c13	Proportion of seats in nacional legislatura held by women
c21	Confidence in State institutions and political parties
c22	Votes in parliamentary elections as percentage of total voting - age population
c23	Political activism index
c31	Percentage of citizens who believe that their children will live better than they
c32	Percentage of citizens who believe that the social structure is open and egalitarian
c41	Rate of mortality due to suicide and self - inflicted injury
c42	Homicide rate

Table V.A-2

Matrix of pearson correlations

	a11	a12	a13	a14	a15	a16	a21	a23	a31	a41	a43	a45	a51	a52	a53	a54	a55	a61	a62	a63	b11
a11	1																				
a12	0.9829*	1																			
a13	0.9557*	0.9841*	1																		
a14	0.9231*	0.9758*	0.9791*	1																	
a15	0.6383*	0.7071*	0.7082*	0.7285*	1																
a16	0.5439*	0.5785*	0.5678*	0.5555*	0.8796*	1															
a21	-0.2079	-0.1973	-0.2189	-0.215	0.1533	0.1008	1														
a23	-0.2006	-0.1702	-0.2023	-0.1689	0.1198	0.2239	0.0332	1													
a31	0.1658	0.1422	0.1545	0.0963	-0.0112	0.0388	-0.2631	0.2962	1												
a41	0.5796*	0.5676*	0.5987*	0.5429*	0.2557	0.1631	-0.4996*	-0.2168	0.0944	1											
a43	0.7222*	0.7120*	0.7127*	0.6372*	0.4402	0.429	-0.3183	-0.0511	0.3967	0.7158*	1										
a45	0.8548*	0.8491*	0.8353*	0.7912*	0.5668*	0.4777*	-0.3609	0.0866	0.3566	0.6644*	0.8924*	1									
a51	0.7569*	0.7619*	0.7519*	0.7286*	0.7202*	0.5545*	-0.0066	0.1153	0.1973	0.3353	0.4446	0.6865*	1								
a52	0.7378*	0.7388*	0.7100*	0.6837*	0.6640*	0.4897*	0.0392	0.1329	0.1108	0.2837	0.5190*	0.7191*	0.9292*	1							
a53	-0.0949	-0.087	-0.0369	-0.0316	-0.1385	-0.4227	-0.0354	-0.4618	-0.0559	-0.1239	-0.2472	-0.1794	0.0481	0.0987	1						
a54	0.6996*	0.7161*	0.7330*	0.7021*	0.4828*	0.4746*	-0.5048*	0.186	0.3869	0.4965*	0.6885*	0.8235*	0.6579*	0.6602*	-0.0501	1					
a55	0.2015	0.2029	0.2143	0.1862	0.2579	0.1505	0.5271*	-0.2521	-0.2008	0.1414	0.2352	0.1876	0.223	0.1955	-0.0889	-0.0311	1				
a61	0.6460*	0.6199*	0.6093*	0.5520*	0.4582	0.3157	0.0855	-0.1197	0.5155*	0.2461	0.5754*	0.6146*	0.6813*	0.6309*	0.0099	0.4921*	0.3794	1			
a62	0.6830*	0.6852*	0.6777*	0.6490*	0.5033*	0.3017	-0.0955	-0.0624	0.5116*	0.2245	0.4800*	0.5667*	0.6986*	0.6923*	0.2555	0.5145*	-0.0596	0.7344*	1		
a63	0.6607*	0.6482*	0.6120*	0.6062*	0.1607	0.0171	-0.2133	-0.3211	0.245	0.2162	0.385	0.4794*	0.4486	0.5019*	0.2654	0.3934	-0.0836	0.4175	0.7374*	1	
b11	0.6927*	0.6281*	0.5888*	0.5449*	0.2985	0.2024	-0.2301	-0.3559	0.1187	0.308	0.468	0.5519*	0.5494*	0.6342*	0.4208	0.5313*	0.0746	0.4656	0.6049*	0.5786*	1
b12	0.6045*	0.5556*	0.5101*	0.4743*	0.2336	0.4224	-0.4092	0.0443	0.0423	0.1445	0.3734	0.5188*	0.3947	0.4171	-0.3056	0.5477*	-0.1347	0.1616	0.2829	0.5242*	0.4305
b13	0.4366	0.4197	0.3606	0.381	0.285	0.5023*	-0.2616	0.123	-0.0295	-0.097	0.0943	0.279	0.2776	0.2312	-0.3543	0.3939	-0.1661	-0.007	0.1562	0.3858	0.2476
b14	0.5624*	0.5431*	0.5047*	0.4885*	0.3625	0.5040*	-0.3161	0.0479	-0.0801	0.2449	0.4621	0.5767*	0.3241	0.3774	-0.2342	0.5621*	0.1168	0.0401	0.1295	0.3899	0.4237
b21	0.6320*	0.5853*	0.5441*	0.5150*	0.3536	0.2922	-0.1133	-0.3867	0.1476	0.2756	0.3897	0.4087	0.5690*	0.5342*	0.1813	0.3953	0.2312	0.5592*	0.6139*	0.5097*	0.7931*
b22	-0.0397	-0.024	-0.0374	-0.0176	-0.1176	0.1685	-0.164	0.0934	-0.1323	-0.2107	-0.0926	-0.0913	-0.0777	-0.1029	-0.3721	0.1167	-0.0333	-0.3142	-0.2563	0.0971	-0.1082
b23	0.1979	0.2033	0.1708	0.2115	0.0689	0.2861	-0.254	-0.0119	0.0787	-0.2797	-0.0461	0.044	0.1599	0.0627	-0.2839	0.2743	-0.1324	0.1719	0.0536	0.1718	0.1002
b24	0.0265	0.0609	0.0083	0.1067	-0.0572	-0.1335	-0.1476	0.1044	-0.1589	-0.1799	-0.1741	-0.0098	0.0716	0.192	0.3531	0.0527	-0.3359	-0.3613	0.0321	0.2591	0.3638
b31	0.4306	0.3482	0.3588	0.303	-0.0088	-0.0736	-0.3099	-0.354	0.0047	0.2734	0.1954	0.3741	0.2514	0.1586	0.1337	0.2725	0.3134	0.359	0.1235	0.2125	0.4325
b32	0.4222	0.3975	0.3523	0.3424	0.4396	0.5597*	-0.2761	0.1555	0.3349	0.1264	0.2777	0.3679	0.3899	0.2585	-0.3585	0.4135	-0.1398	0.362	0.3895	0.1725	0.2297
b34	0.2516	0.2594	0.1845	0.266	0.2236	0.0291	0.2139	0.0673	0.212	-0.2861	-0.1067	0.0883	0.3915	0.357	0.2864	0.048	0.0952	0.4103	0.5197*	0.4199	0.3593
b35	0.4945*	0.4102	0.365	0.3281	-0.0219	0.0117	-0.2395	-0.2675	0.0939	0.2898	0.4034	0.5074*	0.1591	0.136	-0.1467	0.26	0.3527	0.3495	0.0181	0.2513	0.4044
b43	0.5006*	0.438	0.3635	0.3376	0.3896	0.3421	-0.0644	-0.1095	0.1819	0.2065	0.4366	0.5269*	0.4178	0.4019	-0.0127	0.2118	0.3015	0.4447	0.3634	0.3661	0.4734*
b45	0.5098*	0.4467	0.4504	0.3815	0.052	0.1304	-0.5832*	-0.1764	0.4483	0.5848*	0.5622*	0.5701*	0.3809	0.2642	0.0021	0.5605*	0.1068	0.3335	0.2873	0.3449	0.5635*
c12	0.0774	0.0858	0.0534	0.0616	0.4127	0.4647	-0.0751	0.5787*	0.2636	-0.115	0.0736	0.2115	0.5225*	0.5069*	-0.0784	0.4774*	-0.2076	0.297	0.2632	-0.1534	0.1427
c13	0.2493	0.2078	0.2184	0.13	0.2771	0.3291	0.1562	0.014	-0.0997	0.1506	0.2257	0.2227	0.3257	0.3971	0.0886	0.2544	0.1406	0.1325	0.1608	0.1525	0.2332
c21	0.5477*	0.4707*	0.4051	0.3671	0.1234	0.3586	-0.3986	-0.1077	0.1923	0.2337	0.3634	0.4102	0.2775	0.2088	-0.4615	0.353	-0.2069	0.2991	0.1908	0.3047	0.3399
c22	0.2256	0.2125	0.2475	0.2275	0.1506	-0.0553	0.0096	-0.6088*	-0.3154	0.0768	0.0221	0.1184	0.1349	0.1787	0.6766*	0.0053	0.2669	0.0021	0.1046	0.2458	0.5385*
c23	0.1969	0.2172	0.2587	0.2283	0.1125	0.2193	-0.2524	-0.0303	-0.0376	0.241	0.3703	0.3056	-0.0296	-0.0506	-0.5545*	0.1423	0.1074	0.1444	-0.1547	-0.1465	-0.2286
c31	0.3903	0.3808	0.3995	0.3673	0.1089	-0.1677	-0.0649	-0.5722*	-0.0853	0.5751*	0.5025*	0.4421	0.2105	0.2471	0.2049	0.1336	0.5486*	0.4834*	0.1842	0.2161	0.3104
c32	-0.2048	-0.1762	-0.1924	-0.1671	-0.1503	0.0565	0.3037	0.352	-0.3348	-0.313	-0.264	-0.2575	-0.1654	-0.0907	-0.4584	-0.2057	-0.0878	-0.4374	-0.4089	-0.1292	-0.4355

Table V.A-2 (conclusion)

Matrix of pearson correlations

	b12	b13	b14	b21	b22	b23	b24	b31	b32	b34	b35	b43	b45	c12	c13	c21	c22	c23	c31	c32
b11																				
b12	1																			
b13	0.8705*	1																		
b14	0.8453*	0.7493*	1																	
b21	0.3449	0.3213	0.2347	1																
b22	0.5580*	0.7060*	0.4647	0.1297	1															
b23	0.6174*	0.6935*	0.3566	0.2751	0.6483*	1														
b24	0.1556	0.193	0.1928	0.1137	0.2064	0.0771	1													
b31	0.415	0.2231	0.383	0.2886	-0.0898	0.2244	-0.1711	1												
b32	0.4353	0.6151*	0.2585	0.5531*	0.2881	0.4281	-0.201	0.0978	1											
b34	0.0815	0.0986	0.0758	0.286	-0.2342	0.1907	0.3234	0.1863	-0.025	1										
b35	0.4837*	0.285	0.5143*	0.2204	0.0137	0.2721	-0.036	0.8237*	0.0668	0.1813	1									
b43	0.414	0.2802	0.5576*	0.3643	-0.1421	0.0705	-0.0109	0.4791*	0.2598	0.4634	0.6171*	1								
b45	0.4525	0.2684	0.4603	0.5587*	0.2106	0.2391	0.0939	0.4891*	0.3132	0.0559	0.5467*	0.4624	1							
c12	0.1335	0.1615	0.077	0.1594	-0.0112	0.251	0.0248	-0.1955	0.408	0.2127	-0.272	0.1078	0.0571	1						
c13	0.2675	0.0353	0.4297	-0.0737	-0.1691	-0.1665	-0.1407	0.0856	-0.2729	0.1238	0.0485	0.343	0.0694	0.2553	1					
c21	0.7040*	0.6360*	0.3944	0.4415	0.3716	0.6530*	-0.018	0.3202	0.6150*	-0.0681	0.5067*	0.2831	0.4856*	0.1006	-0.1224	1				
c22	0.0279	0.001	0.2106	0.3331	-0.1358	-0.2079	0.2931	0.4294	-0.1166	0.0421	0.2849	0.3151	0.1692	-0.3327	0.0532	-0.1453	1			
c23	0.3228	0.1584	0.1777	-0.1485	0.2014	0.371	-0.3507	0.2814	0.1377	-0.4091	0.3776	0.0025	0.0701	-0.181	-0.2055	0.4566	-0.1733	1		
c31	-0.1556	-0.3778	-0.0658	0.3309	-0.3858	-0.2772	-0.2622	0.436	-0.0877	-0.0876	0.4323	0.2792	0.2459	-0.3292	-0.1015	0.0062	0.4286	0.2798	1	
c32	0.2125	0.2164	0.14	-0.4908*	0.4604	0.2084	0.2158	-0.3657	-0.3754	-0.1267	-0.1544	-0.3549	-0.3535	-0.0804	0.2092	0.0387	-0.4301	0.1838	-0.5127*	1

Source: Prepared by the author on the basis of System of Indicators of Social Cohesion (ECLAC/SEGIB, 2007).

*Indicates statistical significance.

Table V.A-3

Changes in transformation function

Country	Transformation function		
	Range	z-score	Maximum
GTM	1	1	1
HND	2	2	2
BOL	3	4	4
PRY	4	3	3
NIC	5	5	5
PER	6	6	7
SLV	7	7	8
DOM	8	8	6
ECU	9	9	9
COL	10	10	10
BRA	11	11	11
MEX	12	12	12
PAN	13	13	13
VEN	14	14	14
ARG	15	15	15
CHL	16	16	16
CRI	17	17	17
URY	18	18	18

Source: Prepared by the author on the basis of System of Indicators of Social Cohesion (ECLAC/SEGIB, 2007).

Table V.A-4

Ranking by component

Country	Gaps			Institutions			Membership			Change in ranking		
	Range	z-score	Maximum	Range	z-score	Maximum	Range	z-score	Maximum	Inst.-Gaps.	Bel.-Gaps.	Bel.-Inst.
GTM	1	1	2	8	8	8	4	5	3	7	3	-4
HND	2	2	1	5	5	5	7	7	9	3	5	2
BOL	3	3	3	9	9	9	9	8	13	6	6	0
PRY	4	4	4	2	3	3	1	1	1	-2	-3	-1
NIC	5	5	5	11	11	11	8	9	8	6	3	-3
PER	6	6	6	1	1	1	3	3	4	-5	-3	2
SLV	7	7	9	3	2	2	15	15	15	-4	8	12
DOM	8	9	7	7	7	7	2	2	2	-1	-6	-5
ECU	9	8	8	13	13	15	6	6	5	4	-3	-7
COL	10	10	10	12	12	12	12	14	7	2	2	0
BRA	11	11	11	14	15	14	10	11	10	3	-1	-4
MEX	12	13	12	4	4	4	5	4	6	-8	-7	1
PAN	13	12	13	10	10	10	17	18	14	-3	4	7
VEN	14	14	14	6	6	6	16	16	17	-8	2	10
ARG	15	15	15	16	16	13	14	12	16	1	-1	-2
CHL	16	16	18	15	14	16	11	10	12	-1	-5	-4
CRI	17	18	16	17	17	17	18	17	18	0	1	1
URY	18	17	17	18	18	18	13	13	11	0	-5	-5

Source: The author, based on System of Indicators of Social Cohesion (ECLAC/SEGIB, 2007).

Table V.A-5

Changes in substitution (beta) parameter

Country	Value of beta parameter					
	–3	–2	–1	1/3	1/2	1
GTM	6	4	2	1	1	1
HND	11	10	10	2	2	2
BOL	7	7	6	3	3	3
PRY	8	8	5	4	4	4
NIC	12	9	8	5	5	5
PER	13	13	12	7	7	6
SLV	4	5	7	6	6	7
DOM	10	11	11	8	8	8
ECU	3	3	3	9	9	9
COL	1	1	1	12	11	10
BRA	2	2	4	11	10	11
MEX	15	15	13	13	13	12
PAN	14	14	14	14	14	13
VEN	18	17	17	10	12	14
ARG	5	6	9	15	15	15
CHL	17	16	15	16	16	16
CRI	9	12	16	17	17	17
URY	16	18	18	18	18	18

Source: Prepared by the author on the basis of System of Indicators of Social Cohesion (ECLAC/SEGIB, 2007).

Table V.A-6

Changes in weighting structure

Country	Weighting		
	Constant	By PC analysis	Byclusters
GTM	1	2	3
HND	2	1	11
BOL	3	4	1
PRY	4	5	9
NIC	5	3	5
PER	6	7	4
SLV	7	6	13
DOM	8	8	2
ECU	9	9	7
COL	10	10	10
BRA	11	12	12
MEX	12	11	17
PAN	13	13	8
VEN	14	14	6
ARG	15	15	14
CHL	16	16	15
CRI	17	17	18
URY	18	18	16

Source: Prepared by the author on the basis of System of Indicators of Social Cohesion (ECLAC/SEGIB, 2007).

Chapter VI

Towards a nucleus of key indicators of social cohesion: one step back, two steps forward[1]

Juan Carlos Feres, Pablo Villatoro

A. Introduction

One of the main challenges relating to social cohesion is to place the issue high on the national agenda of the countries of Latin America and the Caribbean. This endeavour is by no means straightforward since one of the features of this region is the coexistence of sharply differing realities and institutional capacities. Moreover, Latin American and Caribbean nations, unlike their European counterparts, are not bound by supranational consensuses or commitments to monitor a set of common social development targets as part of a regional integration effort.

The difficulties referred to above manifest themselves in a number of ways. Different interpretations of the concept of social cohesion have emerged from the various consultations organized by ECLAC,[2] and one problem, among others, is the lack of clarity in terms of the boundaries

1 This article was based on the valuable inputs produced by Andrés Palma, relating both to the systematization of consultations of experts from different international cooperation agencies and to the evaluation of indicators of cohesion contained in the first proposal developed by ECLAC.

2 For more detail, see the website of the project entitled "Measuring social cohesion in Latin America"; [online] http://www.eclac.org/deype/.

between the components and what the different indicators are being used to measure. All these factors make it difficult to use the social cohesion approach to monitor the public policies implemented by countries.[3]

This chapter seeks to define, in public-policy terms the conceptual approach that ECLAC has developed for measuring social cohesion. It proposes a selection of key indicators of cohesion for Latin America, retaining the central elements of the original ECLAC approach, but attempting to achieve more simplicity and usability. Thus, it begins with some reflections on the concept of social cohesion, continues with a re-definition of the pillars or components of cohesion and then proposes a list of key indicators. It concludes with reflections on the challenges that need to be addressed in order to move forward with the measurement of social cohesion in the countries of the region.

B. The concept of social cohesion and the pillars on which it is based

ECLAC (2007a) initially defined social cohesion as *the dialectic between established mechanisms of social inclusion and exclusion, and citizens' perceptions and reactions with respect to how these mechanisms operate (belonging)*. This definition brings together and relates various elements that are important in the development of Latin American societies, such as the dynamics of inclusion and exclusion and the perceptions and reactions of social actors. It constitutes a starting point for creating a more comprehensive approach to the dynamics of social development in the region. The novelty of this approach is that it incorporates subjective information to supplement the traditional kinds of data used by ECLAC.

Overall, the ECLAC definition is a description of the mechanisms involved in the dynamics of social transformation. The conceptual approach of ECLAC identifies the pillars that are most important for development in the regional context (inclusion and a sense of belonging), and emphasises the relationship between them as the key issue. Some examples of relevant questions that emerge from this analytical perspective are: How will citizens perceive, and react to, mechanisms of exclusion that deepen social gaps? How will citizens perceive the implementation of institutional reforms (e.g., increased tax burdens) designed to close these gaps?

[3] Nevertheless, some countries have given some very encouraging signs. For example, the Office of the Comptroller General of the Republic of Colombia, and in particular the Directorate of Sectoral Studies of that office used the approach developed by ECLAC for measuring social cohesion in its social report entitled "Inclusión y exclusión social en Colombia (salud, educación y asistencia social): mercado y política social".

Here, one might ask whether, in order to encourage a greater focus on cohesion in public policy, we need to define an explicit *development horizon*. In principle, the answer is affirmative, since normative thresholds fulfil essential functions in public policymaking, orienting action (and hence policy design) and facilitating the follow-up and evaluation of outcomes. Clearly, this goes well beyond a purely analytical role.

In terms of horizons, the countries of the region should take steps to reduce social exclusion; institutions, especially those directly involved in designing and implementing public and social policy, would need to have the necessary capacities to achieve that purpose. Naturally, not all exclusions will be targeted by public policy. An ordinary citizen may find it galling not to be accepted in "The Sphere"[4] (a social network notable for its extreme luxury), for example, but such exclusions are not of interest for public policy-making.

One of the ways of operationalising the concept of exclusion in the region is through the notion of social gaps —the socioeconomic disparities and deficits in the countries as a result of which some groups are unable to exercise their basic rights, and are deprived of opportunities to develop their potential. These disparities, which should be a public-policy objective, may be (i) *absolute*, which is to say measured against a normative benchmark, or (ii) *relative*, in other words, defined on the basis of differences in income distribution between groups (ECLAC/EUROsociAL, 2007). The concept of social disparities goes beyond the notion employed in many developed countries (European countries in particular), which use a notion of relative deprivation. Since both relative and absolute deprivations are present in Latin America, both types of disparities are meaningful objects of consideration here.

One argument that could be used to reduce the number of pillars of social cohesion is that it will be sufficient to monitor disparities, since existing disparities will be approximate reflections of institutional capacities to reduce them. However, this fails to take account of the fact that comparable institutional performances can generate different outcomes in terms of social disparity, and, moreover, that they may be perceived differently by the public. Thus, retaining the institutional pillar makes for greater analytical richness, since it provides ways to identify factors associated with reducing or aggravating disparities and designing policy responses. Furthermore, various indicators of institutional functioning are relevant in themselves to those interested in monitoring policy —for example, indicators of public social spending and indicators of changes in taxation.

[4] The applicant seeking to enter this network must go "through a careful selection process conducted by a strict committee." After passing through the initial filter, those interested must pay an entry fee of three thousand euros. The network's web address is https://www.the-sphere.com/user_session/new.

The situation of the *belonging* component is more complex than that of the disparities and institutions pillars, for a number of conceptual, methodological and practical reasons, for the belonging pillar includes aspects of reality which are present at different levels, and the measurement of which requires different sorts of methodological operations. To be precise, the subjective elements captured by this pillar include not only direct perceptions of how institutions operate and of how extensive social disparities are (the surface level of subjectivity), but also underlying issues such as ties and values of solidarity, which can be expected to influence the disposition of actors with respect to the *res publica*.[5]

However, a number of problems arise in conceptualising and measuring these "deeper" aspects of the problem. The first is that "belonging" involves different degrees of membership in groups, which may or may not be related with people's views of institutions.[6] Indeed, very high levels of a sense of belonging to particular groups may be associated with negative attitudes towards other groups and towards institutions. Something similar is true of social ties. There is no unequivocal answer to the question of what ties need to be strengthened, and to what degree. The issue is even more complex if a desired outcome is not clearly defined (it is one thing to strengthen ties as a way of combating poverty, and another to do so in order to increase citizen support for consensus around inclusion). Nor is it clear whether belonging and social ties actually constitute a "subjective" dimension. There is, after all, an entire line of research that deals with material issues such as the structure and density of social networks.[7]

Incorporating belonging, ties, and even values, expands the universe of dimensions that can be observed in a case where data is not easily obtained. As ECLAC (2007a) points out in reference to Latinobarómetro, which is the principal source of subjective data for the system of social cohesion indicators, this instrument was not designed to investigate complex dimensions of perception and feeling such as solidarity or the sense of belonging. The document goes on to note the need for "theoretical discussion of the content of these attitudes, values or predispositions and … deployment of numerous methodological procedures and of statistical tools that can ensure

5 For example, ECLAC suggests that "while cultural changes encourage greater individualism... [t]he primacy of the private sphere over the public sphere, and of personal autonomy over collective solidarity, is a product of both the economy and the media culture, as well as the heightened role of consumption... [T]hese phenomena coincide with the decline of utopias, collective endeavours and the sense of belonging to a community. These trends have led to a search for ways to recreate social ties, from small family circles to society at large... From that perspective, working to achieve social cohesion means working to recreate social ties…" (ECLAC, 2007a, p. 22)."

6 In recent years, the citizens of Latin American countries have shown high levels of mistrust in the institutions of government, but at the same time high levels of identifying with or having a sense of belonging to the nation-State.

7 See, for example, the study by Stone (2001).

the validity and reliability of the measurements (ECLAC, 2007a, p. 76). In addition to these problems of quality, there are constraints in terms of available information, which led the initial ECLAC proposal for indicators of cohesion to use "objective" proxies (ECLAC/EUROsociAL, 2007). This creates confusion, since in that very document ECLAC defined *belonging* as *a subjective component* composed of attitudes, perceptions and values.

This does not mean that the quality of ties and the sense of belonging have nothing to do with citizens' predispositions towards the *res publica*. Certainly, social cohesion in a broad sense is not limited to the relations between "public opinion" (or the aggregates of individual responses that make it up) and institutions. Clearly, then, a sustained effort must be made to pursue a research agenda that explores the relationship between phenomena such as, on the one hand, senses of belonging and conflicts between groups at different levels, and, on the other, social cohesion in the aggregate, or between, on one hand, the articulations between certain structures and qualities of social ties and, on the other, people's values.

At this stage of the discussion, it will be useful to return to the original proposal set forth in ECLAC (2007a), where the interest and usefulness of demoscopic data are primarily a result of capturing perceptions that reflect the degree of trust in, adherence to and support of a political system and socio-economic order. Strictly speaking, "long-term policies that seek to level the playing field require a social contract to lend them force and staying power, and such a contract must have *the support of a wide range of actors* willing to negotiate and reach broad agreements" (emphasis added) (ECLAC, 2007a, p. 19). Up to this point, ECLAC is speaking simply of citizens' reactions to and perceptions of institutional operations, and of their support for the legitimation of agreements to reduce social gaps.

Thus, what is of primary interest is information on the subjective elements that reflect the state of citizen support for institutional action and for social agreements to reduce disparities. Here, we invoke the notion of the state of support because it is not clear from the outset that social agreements require massive consensus by citizens in order to work. Strictly speaking, it is plausible for these social contracts to be "underwritten" by certain stakeholders (sections of the elites in particular), though even then public opinion remains a relevant input, especially in democracies that are not yet very strong, as is the case in a number of the region's countries. Moreover, the state of citizen support is easy to measure with surveys.

In short, this review of the ECLAC approach to social cohesion suggests a series of proposals regarding the concept of cohesion. These include defining a normative horizon, retaining the disparities component as well as the institutional one, and further circumscribing the concept of the belonging component. In this way, social cohesion can be understood as the capacity

of *institutions to sustainably*[8] *reduce social gaps with citizen support (belonging)*. Such a definition lies within the tradition of the ECLAC approach to social cohesion, but more clearly indicates the divisions between the pillars and ties them in together in the form of public policies.

Reformulating the meaning of cohesion in this way from the public-policy perspective also aligns the concept more fully with the debate that is in progress in the region, which focuses on what institutional configurations are best for promoting social protections and reducing social disparities, and on the need to achieve citizens' covenants oriented towards these objectives. Moreover, the proposed reformulation facilitates measurement, interpretation of findings and their dissemination, since it makes it easier to attribute numerical values to the different pillars of cohesion, and to communicate findings. Thus, more citizen support, greater institutional capacity and reduced disparities *in combination* will indicate more social cohesion. The reformulation also preserves the possibility of exploring relationships between the different pillars of cohesion —the approach's principal analytical "value added".

C. Re-defining the frame of reference

The concept of social cohesion that we have reviewed here in terms of public-policy aims (the ability of institutions to reduce social disparities with citizen support) can be decomposed into three interrelated pillars to generate processes and results of cohesion in the region's different countries. The pillars are (a) social gaps, (b) institutional capacity and (c) citizen support. The first two constitute the "objective" or material components of social cohesion, while the third includes aspects of subjectivity which are directly linked to the way institutions function and to the spread of social disparities.

The *social gaps* pillar includes the material living conditions of groups and communities deprived of access to their basic rights and of opportunities to develop their potential. These gaps may be relative (in comparison with other social groups) or absolute (measured against normative thresholds of access to resources). The areas in which social disparities are seen include employment, income and poverty, social protections, education, health, consumption and access to basic services.

Our normative thresholds of access to resources reflect various of the goals defined at the Millennium Summit of the United Nations, but adapted to the regional context —which means that the horizons are more ambitious. One example, which we shall examine in more detail in the section

8 For more detail on the notion of sustainability, see the article by Canal and others in this book.

on indicators, is that we use poverty rather than indigence as a criterion for establishing absolute income gaps. Also, relative disparities by sex, ethnicity and area of residence are treated as dimensions that cut across the various areas of observation. In practical terms, this means that for each area of disparities, the feasibility of disaggregating by sex, ethnic group and/or area of residence was a criterion in selecting the indicators.

In any case, a more rigorous set of standards for the ECLAC approach to social cohesion remains to be developed, with reduction goals ideally based on regional commitments. Discussion is also in progress on incorporating other areas of social disparity, such as residential segregation, the environment[9] and the new information technologies. The general reasons for not including these factors for observation at this point are conceptual, methodological and related to the availability of data (for more details, see the final section E of this chapter, entitled "Summary and major challenges").

The *institutional* pillar includes the actions of the various institutional players, which may affect the structure of opportunities and the processes and results of inclusion/exclusion. Here, we give priority to initiatives explicitly designed to reduce social disparities, although activities not explicitly designed with that intention can also affect inclusion and exclusion. The areas that this pillar addresses are the functioning of the democratic system, the rule of law, public policy and dynamics that are strictly economic and market-driven. We also include one area of observation not considered in the initial proposal —the family.

Certainly, the process of defining the areas to be observed as a part of the institutional pillar —as with the other pillars— is not complete. For example, the institutional pillar does not take account of civil society institutions or non-governmental organisations, which may play a crucial role in reducing social disparities by providing services directly to the most vulnerable populations, by conducting campaigns to promote awareness and foster solidarity, or simply by monitoring public programmes. As in some cases mentioned above, these factors are not included because of the lack of statistical information. However, this is a temporary situation, and as the region's statistical systems develop, such factors will be incorporated.

The citizen support pillar includes perceptions that reveal the extent of *adherence to the political system and socioeconomic order, and social actors' trust in and predisposition towards institutional initiatives to reduce social disparities.* Given this definition, the short list should include indicators that provide information on (i) citizens' support of the democratic system; (ii) perceptions of

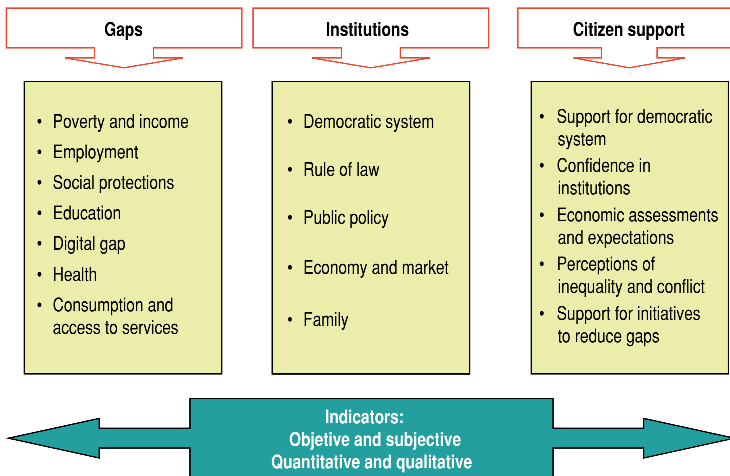
9 For more detail, see the articles by Kaztman and Canal/Rodríguez in this book.

existing inequality in a country; (iii) economic assessments and expectations; (iv) confidence in the institutions of the State, and (v) citizens' willingness to fund and support action to reduce social disparities.

Redefining the subjective pillar of the system of social cohesion indicators means omitting areas such as social capital, values of solidarity, and a sense of integration and social belonging. This does not imply a major loss of information —either because some of the indicators were originally included in this pillar to measure citizens' perceptions and opinions of institutions and were retained for that reason, or because very few direct indicators of social ties, belonging and values of solidarity were initially included since there were problems of availability and because most such indicators have not been tested for validity and reliability.

Diagram VI.1

Pillars and areas of observation



Source: Prepared by the authors, on the basis of Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

D. Towards a nucleus of key indicators of social cohesion

Constructing a list of key social cohesion indicators requires more rigorous analysis of the yardsticks considered in the original ECLAC/EUROsociAL (2007) proposal, so as to assess more thoroughly the relevance of the different pillars and areas of observation that constitute the system's architecture. Accordingly, this exercise does not take account of the targeting of technical assistance, since selecting the "best" indicators produces a bias towards the types of measurement for which national statistical systems have the least need

of technical assistance (which is not to say that the measurements should not be verified). We should note that the final list incorporates some indicators not included in the initial ECLAC (2007b) proposal. This is due to the fact that we have had access to series of survey data not available in 2007, which has facilitated somewhat stronger data analysis.

1. Criteria for the selection of indicators

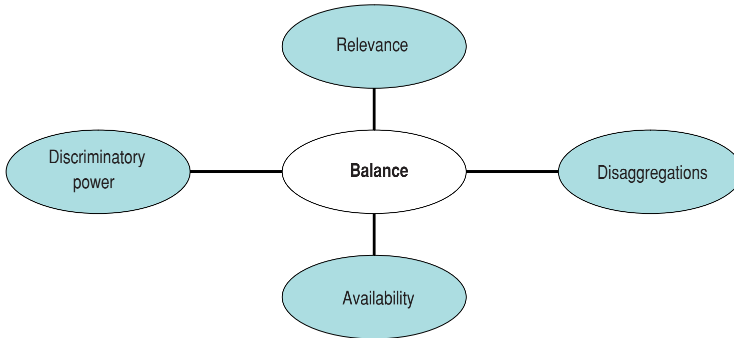
The indicators were selected on the basis of a number of criteria, which were not always applied in the same way. This is because situations vary substantially from one pillar, area of observation and corresponding data source to another (the sources generally being household and public opinion surveys). Thus, the weight that each of the criteria had in making the selection depended on the specific context in which the choice was made. Faced, for example, with two indicators with similar data availability but different explanatory power, explanatory power prevailed. The criteria used to select the short list of indicators were:

- **Balance between the different areas of observation included in the system**. To maintain the balance between the different areas, we opted to include in the short list at least one indicator per dimension within the pillars, and no more than three per dimension.
- **Relevance**. The degree to which proposed indicators would reflect the area of observation and the component or pillar in question was taken into account. This criterion is close to the notion of the validity of content, which refers to the extent to which a type of measurement is a true conceptual reflection of the phenomenon that one wishes to measure.
- **Discriminatory power**. This refers to an indicator's explanatory power or sensitivity in the regional context —a property that determines the extent to which it successfully captures differences (especially social gaps) between and within countries.
- **Disaggregated information**. The extent to which published information is available to facilitate detecting relative gaps. In this case, we considered socioeconomic disaggregations (by income quintiles or deciles) as well as disaggregations by sex, area of residence and ethnic group.[10]
- **Availability**. Geographical and temporal coverage of published information on the indicator.

[10] We are not judging the actual "disaggregability" of the indicator here.

Diagram VI.2

Criteria for the selection of key indicators of social cohesion



Source: Prepared by the authors, on the basis of Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

Certainly, this list of criteria for selecting indicators is far from optimal, since it fails to take account systematically of at least two properties that merit consideration in a later exercise, namely, harmonisation/comparability and reliability. The present indicators also (though not in every case) were evaluated for their degree of political/institutional legitimacy.

Harmonisation/comparability is the extent to which the concepts and instruments that different countries use to gather statistical information are equivalent. This criterion was not included in all cases, simply because studies or information were not available with good coverage of the different areas of observation that the system of indicators includes.

Reliability is the extent to which an indicator measures what it sets out to measure and has internal consistency, equivalence and stability. *Internal consistency* here is the extent to which the different questions in an instrument point in the same direction, *equivalence* the degree to which the different parts of an instrument can substitute for each other, and *stability* the extent to which an instrument produces equal results in a given population under different conditions and at different times.

The criterion of *political acceptability* was used systematically in the "institutions" and "citizen support" pillars. Since one of the purposes of the system of indicators is to provide information that will be used by those involved in public policy, we attempted to avoid indicators that are controversial because of their patently normative character, or that could provoke controversies that work against incorporating social cohesion on the countries' agendas.

2. Key indicators of social gaps

One thing that is not sufficiently explicit in the initial ECLAC proposal (ECLAC/EUROsociAL, 2007) is the general normative perspective that it uses to select indicators of gaps, for the parameters involved should not only permit monitoring and evaluation, but should represent relevant social development goals (and ones that can effectively be demanded) in most of the region's countries. Since there is no regional integration strategy incorporating social cohesion in Latin America that is binding on the countries, there is a risk that the information provided by the indicators of cohesion will be underused.

The starting point for selecting the indicators of gaps came from the United Nations Millennium Summit (2000), where some countries committed themselves in writing to efforts to improve their population's living conditions. The human rights approach provides a framework of principles for development, and paves the way for national and international accountability mechanisms (Abramovich, 2006). Here, we have opted for a version adapted to the regional context, in light of the need (expressed in ECLAC, 2002) to define common denominators that represent the principal challenges facing the countries of Latin America and the Caribbean, and that make it possible to incorporate more ambitious targets in the Millennium Development Goals in matters that are critical for the region's development.

The discussion of what common denominators represent the principal challenges —in this context, the social gaps that it is most urgent for the countries' social policy to address— should be seen as a process still unfolding. ECLAC, along with other international cooperation agencies, has done a great deal of work on proposals to enlarge or adapt the Millennium Development Goals to the regional context, and the present work builds on that. This approach facilitates synergy between work in different thematic areas and by different divisions within the institution, prevents overlaps and extra burdens for national statistical systems, makes indicators more relevant, and also produces progress in terms of entitlements, both by reducing disparities and by making information available to monitor them.

The basic questions that can be answered by indicators of gaps have to do with the *impact* of institutional action on a population's material living conditions. It will be recalled that gaps can be either absolute (as in the case of unmet basic needs) or relative (as in the case of disparities of material welfare between different social groups). Generally speaking, the gaps included here relate to *access* to given goods and services, but may also have to do with *outcomes* (such as finishing certain levels of schooling). Even where disparities in the acquisition of *capacities* or skills are very important, we do not include indicators to measure them directly, because information with adequate

coverage and comparability for a sufficient number of countries and years is lacking. However, some indicators of results can be used as approximate indicators of capacities.

The arguments for selecting a list of key indicators for the "gap" pillar are developed with a considerable amount of detail in the previous document (ECLAC, 2007b), which distinguished between primary and secondary indicators. It emerges from this classification that the selection of key indicators of gaps is a *subset* of the long list originally developed by ECLAC. The table below sets out the long list and explains the thinking and criteria that governed the selection of each of the yardsticks chosen as key indicators.

Table VI.1

Indicators of gaps: long list

Area to be observed	Primary indicators	Secondary indicators
Poverty and income	1. Percentage of population under poverty line. 2. Poverty gap. 3. Inter-quintile ratio.	15. Percentage of population under indigence line. 16. Indigence gap. 17. Gini coefficient.
Employment	4. Open unemployment rate. 5. Urban workers employed in low-productivity sectors. 6. Long-term unemployment rate. 7. Male/female wage ratio.	18. Modified open unemployment rate. 19. Underemployment rate. 20. Women's participation in non-agricultural wage work.
Access to social protections	8. Employed persons contributing to pension/ insurance plans.	21. Working age population contributing to pension/ insurance plans.
Education	9. Percentage of population with complete secondary education. 10. Net pre-school matriculation rate. 11. Illiteracy rate in 15+ population.	22. Ratio of access to preschool by income quintiles. 23. Percentage of population 25+ with complete primary education.
Health	12. Infant mortality rate. 13. Life expectancy.	24. One-year-olds with measles vaccination. 25. Births attended by specialised health personnel. 26. HIV/AIDS mortality rate.
Consumption and access to basic services	14. Undernourished population.	27. Population with adequate access to improved sewage systems. 28. Population with access to improved potable water supplies.

Source: Economic Commission for Latin America and the Caribbean (ECLAC)/EUROsociAL, *A System of Indicators for Monitoring Social Cohesion in Latin America* (LC/G.2362), Santiago, Chile, December 2007.

Table VI.2
Key indicators of social gaps

Area to be observed	Indicators
Poverty and income	1. Percentage of population under poverty line. 3. Inter-quintile ratio.
Employment	3. Open unemployment rate. 4. Urban workers employed in low-productivity sectors. 5. Wage ratios by sex and educational level.
Access to social protections	6. Employed persons contributing to pension/insurance plans.
Education	7. Percentage of population with complete secondary education. 8. Net pre-school matriculation rate.
Health	9. Infant mortality rate. 10. Life expectancy.
Consumption and access to basic services	11. Undernourished population. 12. Population with access to healthy drinking water.

Source: Prepared by the author.

For poverty and income, we opted for the *percentage of the population under the poverty line*, because this is more relevant than indigence for monitoring policies in most of the region's countries, which generally target overall poverty, not solely indigence. (This amounts to the implicit use of a Millennium Summit conceptual framework that is enlarged, or adapted to the regional situation, as mentioned above.) Practically speaking in the regional context, moreover, the poverty rate has more explanatory power than the indigence rate, since indigence affects a very small portion of the population in some of the region's countries.

For detecting gaps in the "poverty and income" area, we chose the *ratio between income quintiles* over the Gini coefficient. As indicated in ECLAC/EUROsociAL (2007), the latter is more sensitive to changes in the mean distribution, and less sensitive to changes in the groups at the extremes of the continuum, which makes it less valuable as a measure of exclusion, while the inter-quintile ratio is a better way of determining gaps or disparities between groups, because it measures only the variations at the extremes.

In the labour dimension, we opted for three indicators that reflect the quantity and quality of available jobs, and the relative gaps in labour markets by sex. For quantity, we use the *open unemployment* rate, the great advantage of which is its availability (ample coverage in different countries and over time). To measure quality, we opted for the *percentage of workers employed in low-productivity sectors*, which provides an assessment of the incidence of informal-sector work.[11] For the third objective, we chose the *wage ratios by sex and educational level*. This indicator detects gaps in wages by sex, controlling for the variability related with schooling.

11 Some indicators, such as the under-employment rate and long-term unemployment, although relevant from the point of view of cohesion, were not included in the short list because they have problems of harmonisation and availability.

Access to social protection refers to the extent to which the population has resources to prevent and respond to the different types of risks that arise in the course of the human lifecycle. There are few alternatives for indicators here, given criteria such as the availability of data over time and the geographical coverage of information published by governments. We therefore selected *percentage of employed persons who contribute to pension and insurance plans*, an indicator that is disaggregated and is available for a good number of the region's countries.

The selection of an indicator that only measures protection from the risks associated with ageing leaves us without information on risk exposure for other age groups. In this respect, Arim and Vigorito indicate that with recent changes in the distribution of vulnerability in the region's countries, the structure of social risk is skewed to the younger age brackets. This not only puts new demands on policy, but makes clear the need for indicators that capture risk for these age groups.

For education, we opted for the *percentage finishing secondary school* as an indicator for the short list, since it has more relevance and explanatory power in the regional context than does primary schooling. As various international studies and reports have documented, completion of primary school is nearly universal in Latin America. Hence, there is room for more ambitious goals. The criteria of relevance and explanatory power were also decisive when we included the *net pre-primary matriculation rate* on the short list, both because matriculation at this level is associated with substantial life-long benefits and because pre-primary matriculation is still low in many Latin American countries.

Access to and completion of the different levels of schooling will not be sufficient if educational services are not of adequate quality, since children will not learn and acquire the skills they need to participate effectively in social life. However, we did not include indicators of learning on the short list, due to lack of data (both in terms of country coverage and in the form of time series), as well as because of problems of the comparability of international studies. However, we do not dismiss the possibility of including some indicator from the Second Regional Comparative and Explanatory Study (SERCE)[12] implemented by the UNESCO Regional Office for Education in Latin America and the Caribbean (OREALC) and the Latin American Laboratory for Assessment of the Quality of Education (LLECE) from 2003 to 2006 in a substantial number of the region's countries.[13]

[12] For more detail, see http://llece.unesco.cl/proyectos/2.act?estado=En%20Curso.

[13] In this research, learning achievements for third- and sixth-grade students were established in the areas of language, mathematics, natural sciences and life skills. It is not clear at this point whether this research is comparable with the 1996 OREALC-LLECE study.

In the area of health, although *infant mortality* in Latin America's urban areas has declined, and socioeconomically determined gaps in mortality have been reduced, indigenous populations remain the most disadvantaged group. Another argument for including this indicator is that the alternatives, such as percentages of one-year-olds vaccinated for measles, and births attended by specialised health workers, measure institutional performance rather than gaps in health outcomes. Disparities of *life expectancy* also persist in the region as a function of the countries' level of development. Thus, this indicator continues to be relevant and has explanatory power in the region. In addition, both general data and time series on infant mortality and life expectancy are sufficiently available.

Lastly, where access to goods and basic services is concerned, food consumption is an important variable to monitor, both because of the rise in food prices over the last few years and because the most vulnerable populations in terms of food security are more likely to be members of indigenous peoples and to live in rural areas. The indicator selected here is the *percentage of the population that is undernourished*—which is to say individuals whose energy consumption is regularly less than the requirements for leading a healthy life under conditions of light physical activity.[14] It is important to realise that this indicator is based on food available to households, and does not reflect inequalities of food distribution within families. For its part, the indicator "population that has healthy potable water" has the advantage of permitting the detection of gaps in access in rural areas and precarious urban areas. Moreover, data on this are widely available.

3. Key indicators of institutional capacity

Various conceptual, methodological and practical dilemmas must be dealt with in selecting a group of key institutional indicators. The first is the problem of establishing *normative standards*. This may be necessary to interpret the values of institutional indicators without referring to a gap, or in contexts where correlations between institutions and gaps are not clear. Establishing standards is more complex for institutional parameters than for gaps. For example, science can determine how many calories a person needs to function in daily life, but determining what institutional configuration is required for a population of millions to have access to the food needed to meet the standard over time is less simple.

The question of standards is a problem not only in measuring the capacity of institutional mechanisms designed to reduce gaps (e.g., social

14 For more detail, see http://www.fao.org/faostat/foodsecurity/index_es.htm.

policies), but also in assessing the operation of institutions indirectly associated with these outcomes, such as the institutions of democracy and the rule of law. For example, in the area of democracy, the equivalent to the debate between universal or residual welfare schemes is the tension between minimalistic (procedures-oriented) approaches and those that emphasise participatory or direct democracy. This latter difference becomes even more complex when designing indicators, especially when the indicators are based on a normative perspective that is biased towards one of the approaches that are in tension.

One possible strategy is to begin with a desirable minimum guarantee, and raise the bar until it reaches a threshold of political-institutional tolerance (or viability). This produces a pattern of provision needed for inclusion and social cohesion that should not be incompatible with a country's institutional conditions, and that should be politically acceptable. In the area of democracy, for example, the threshold is defined by the fact that a democratic regime will always be preferable to an authoritarian one. The construction of indicators to capture specific democratic configurations will therefore not be relevant, since is any form of democracy is above the threshold of political-institutional tolerance.

In addition to the problem of standards, there are a number of methodological restrictions. One difficulty is that the reduction of gaps will be due to action by more than one institution (State, market, civil society, family). It is very difficult to isolate these institutions or study their interactions.[15] Another problem is lack of clarity about what is measured by some indicators that can be used for the institutional pillars. This raises questions about distinguishing gaps from institutions. For example, some indicators can be used as measures of institutional reach, but also as means to estimate the population's access to certain institutional services. A typical case is school matriculation, which has been used as a measure of access to education, but also as an indicator of the coverage of the educational system.[16]

What emerges as central from the revised definition of social cohesion is the capacity of institutions to reduce social gaps. Indicators must therefore be selected to provide information on institutional actions and mechanisms that can both indirectly and directly affect the structure of opportunity and the results of inclusion/exclusion. Thus, indicators of impact, which measure institutional capacity to diminish gaps (for instance, by comparing levels of inequality before and after public transfers and taxes) will be preferable to proxies. However, given the fact that there are very few such direct measures,

[15] For more detail, see Arim and Vigorito in this book.

[16] See, for example, Guadalupe (2002).

we must employ indicators of *institutional commitment to reducing gaps, as well as the sufficiency and quality* of institutional functioning (which is to say institutional capacity as power to impact, not as action).

The initial indicators of institutional capacity proposed by ECLAC/EUROsociAL (2007) included both objective measures, which principally reflected commitment to institutional action (such as public spending as a percentage of GDP, or tax burden) and subjective indicators, which measured citizens' evaluation of institutional action. Given changes in the concept of social cohesion and in the frame of reference, the list of institutional indicators proposed here *is not a subset of the set initially developed by ECLAC*. Accordingly, it automatically excludes measures of public opinion, since the institutional pillar is one of the "objective" components of the system of indicators.

In the area of the *democratic functioning*, one of the measures most used in comparative international studies is the Freedom House index, which has advantages such as broad availability and harmonised information. However, it exceeds thresholds of political-institutional tolerance because of its heavily normative approach based on a minimalistic concept of democracy that focuses on guaranteeing basic civil and political rights. The heavy normative approach is also a problem with alternatives such as the Economist Intelligence Unit's Democracy Index (for further details, see ECLAC, 2007b) and the democracy-autocracy scale developed by the Center for Systemic Peace and the Integrated Network for Societal Conflict Research (INSCR).[17]

One indicator apparently without such normative problems is the number of valid votes in parliamentary elections as a percentage of the voting-age population. ECLAC considered this in its original proposal (ECLAC/EUROsociAL, 2007) as a part of the "belonging" pillar, on the rationale that voting in parliamentary elections reveals citizens' participation and interest in public affairs. However, comparing simple averages of voting in parliamentary elections between 1950-1970 and 1985-2005 in Latin America shows an increase from 47% to 63%, which would indicate that citizen participation, and consequently the region's democracies, are considerably healthier than a great deal of the literature suggests.

Figure VI.1 shows the relationship between voting in parliamentary elections and mistrust of political institutions, taking as a benchmark the averages for both variables in the 2000-2005 period. The correlation for all the countries is -0.34, a figure without much statistical significance. However, the correlation does have some conceptual plausibility, since, as mistrust in political institutions increases, voting in parliamentary elections

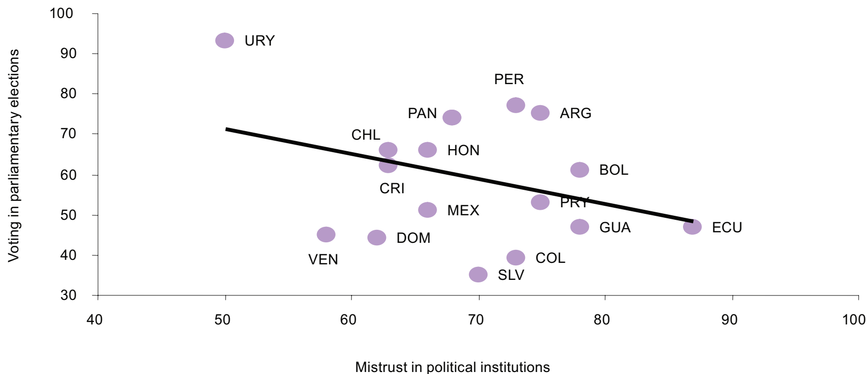
17 See http://www.systemicpeace.org/polity/polity4.htm.

decreases. This would imply that the indicator of voting in parliamentary elections is something more than a reflection of the reach of the electoral process. Without Uruguay, however, the correlation plunges to -0.05, which suggests that for at least 16 countries this indicator says little about the quality of democracy.[18]

Figure VI.1

Latin America (17 countries): voting in parliamentary elections in relation to mistrust of political institutions, 2000/2005

(Values expressed as simple averages)



Source: Prepared by the authors, on the basis of special tabulations of Latinobarómetro surveys from 2000 to 2005 and International Institute for Democracy and Electoral Assistance (IDEA), “Voter Turnout” [online] http://www.idea.int/vt/index.cfm.

Thus, the best option is to use the *percentage of women in parliament* as an indicator, since this approximates the capacity of the democratic system to include and represent the interests of groups that until fairly recently were excluded from political life.[19] In fact, Inglehart and others (2002) found correlations between women’s participation in parliament and normative measures of democracy. They believe that modernisation leads both to greater democratisation and to increased participation by women in public life. And beyond the question of whether the co-variation of democracy and women’s participation signals a syndrome of post-materialist values association with modernisation,[20] what matters here is that the proportion of seats in the legislature occupied by women can be used as a proxy for the

[18] There is a sort of paradox in the presence of a greater reach or quantitative penetration of democracy at the same time as citizens distance themselves from the institutions of democracy.

[19] Unfortunately, owing to a lack of indicators of the extent of representation in parliament of other groups in the region, such as indigenous peoples and Afro-descendants, which traditionally suffer exclusion, these groups are not taken into account in this proposal.

[20] The expansion of democracy and of women’s participation are presumably the result of a broad cultural change (characterised by the emergence of post-materialist values such as freedom of expression, tolerance and subjective well-being) related with economic development and constituting a new type of modernising dynamic (Inglehart and others, 2002).

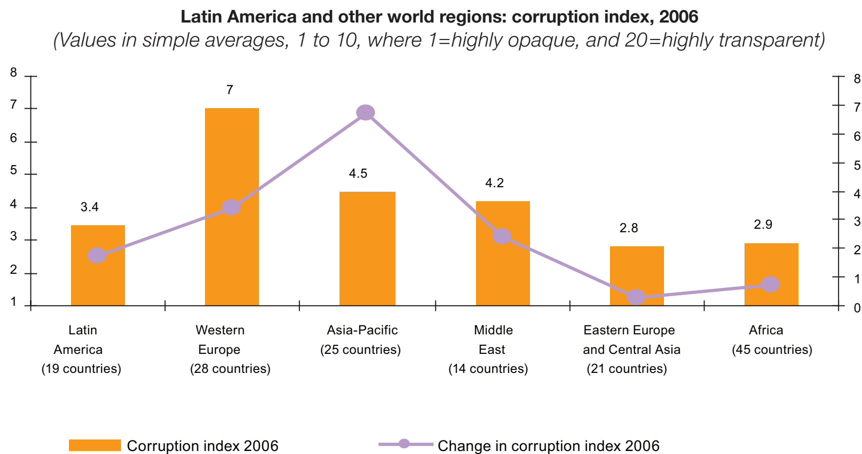
quality of democratic functioning. This circumvents the problems associated with normative indices of the quality of democratic institutions.

To measure the *rule of law*, we have chosen the *corruption index* developed by Transparency International. Although based on *perceptions*, this measure is not an indicator of public opinion, since it reflects the views of experts and is designed to provide an assessment of the corruption "objectively existing" in the countries, which cannot be measured directly. Latin America's levels of institutional transparency are far from having reached desirable thresholds (see figure VI.2). The problem is aggravated by the scope of social gaps in the region. In a study of 129 countries in different world regions, Yong Sung and Kaghram (2005) observed that inequality is related to corruption through various material and normative channels, and with different cause-effect relationships. Thus, for example, in an institutional framework of great opacity, the poorest groups will be vulnerable to extortion and there will be little possibility of their demanding transparency from their institutions.

Figure VI.2

Latin America and other world regions: corruption index, 2006

(Values in simple averages, 1 to 10, where 1=highly opaque, and 20=highly transparent)



Source: Prepared by the authors, on the basis of Transparency International [online] http://www.transparency.org/.

To evaluate the operation of the institutions that implement public policy, and social policy in particular, as Arim and Vigorito indicate elsewhere in this book, it is desirable to have indicators that directly measure the impact of public transfers, and this means comparing household incomes before and after transfers, discounting taxes. However, as ECLAC/EUROsociAL (2007) points out, a substantial number of countries do not yet have the relevant data or time series. Thus, *for the time being*, we have chosen *per capita social public spending*, which provides a rough approximation of the sufficiency of social spending (including social security and assistance, education, health, housing,

and so on). This indicator replaces "social public spending as a percentage of GDP", which only provides information on institutional commitments to social policy.

As indicated in ECLAC (2007a), funding State action requires mechanisms of solidarity, and this in turn calls for transfers to redistribute from those who have more to those who have less. Tax burden becomes relevant in such cases, since taxes are governments' principal source of funds. One indicator of a country's capacity to fund policies of inclusion and to absorb gaps is *tax burden as a percentage of GDP*. This figure is low today in the region in comparison with more developed countries and regions, and provides a rather minimal funding floor for policy implementation. Meanwhile, *tax burden* as an indicator approximates the distributive impact of taxes, given the regressive nature of indirect taxes and the progressive nature of direct taxes. Our short list includes the tax burden simply as a reflection of policy priorities.

As to the functioning of economic institutions, GDP and inflation are determinants of social gaps both instantaneously and diachronically. As various editions of the *Social Panorama*[21] have documented, GDP growth is associated with a reduction in poverty and indigence, while increased inflation is associated with greater levels of deprivation. These indicators are also relevant in considering the sustainability of action designed to reduce such gaps, since heavily expansionary fiscal and monetary policy, although it may reduce poverty and inequality in the short term, fuels inflation in the medium term, reducing the population's purchasing power, and widening social gaps.

The family as an institutional category is new since the 2007 ECLAC proposal. Problems related to gender gaps and women's rights are salient factors here. ECLAC (2006) identifies a series of changes in family patterns and gender roles, including (1) growth of single-parent families (especially those headed by women) and of unmarried couples, (2) spread of contraceptive methods and low fertility rates and (3) changes in gender roles, whereby men have gradually ceased to be the exclusive source of household income, and women have become important providers as well.

Despite this progress, the region's countries still face major challenges in freeing women from the domestic activities of reproduction and care, and allowing them to participate more in the labour market. One indicator that provides an approximation of the persistence of traditional gender roles in the family is the percentage of women exclusively devoted to household work.

[21] See http://www.eclac.org/dds/.

This indicator is based on the universe of women 15 years old and older, and is available for 16 countries, with data series covering the 1994-2007 period. However, it is only computed for urban areas, and is not disaggregated by income quintiles or poverty. For these reasons, it is included in the short list only on a preliminary basis.

By way of summary, table VI.3 shows the key indicators of institutional capacity disaggregated by area of observation. The list naturally can and should be enlarged by incorporating supplementary indicators, because, as mentioned above, the redesigned architecture of the system of social cohesion indicators no longer includes a long list of institutional indicators.

Table VI.3

Key indicators of institutional capacity

Area of observation	Indicators
Functioning of democracy	1. Percentage of women in parliament
Functioning of rule of law	2. Corruption index
Public policy	3. Per capita social public spending 4. Tax burden as percentage of GDP
Economy and market	5. Per capita GDP 6. Inflation (annual change)
Family	7. Percentage of women 15 and older exclusively devoted to household work

Source: Prepared by the authors.

4. Key indicators of citizen support (subjective component)

One practical consequence of the revised definition of social cohesion from the public-policy viewpoint , which makes citizen support the subjective pillar, is that the short list now includes indicators of citizens' confidence in and support of the political system and socioeconomic order, as well as the predisposition of social actors vis-à-vis institutional initiatives designed to reduce social gaps. The revision also excludes by definition indicators of social capital, values of solidarity and a sense of social integration, which were originally used as indications of the sense of belonging.

Before presenting the indicators of citizen support included on the short list, we must explain their methodological peculiarities, which come from the fact that they are based on public opinion surveys. In the first place, public opinion is highly associated with the mass media, and is shaped by the information that citizens consume on a daily basis. Secondly, these data are not normative and do not all refer to the same unit. Hence, they must be put in context if they are to be understood, and comparability is a

problem.[22] Thirdly, public opinion studies measure use few questions to study many variables, which makes it difficult to measure complex variables such as attitudes.[23] Fourthly, there is little information based on Latin American samples to determine the validity and reliability of the information obtained from these sources and questions.

Table VI.4 presents the short list of citizen support indicators, which draw solely on the Latinobarómetro survey for their data. In this case, we do not present the original list proposed by ECLAC/EUROsociAL (2007), because the belonging component there included measures of social capital and sense of social integration and non-discrimination, which are automatically eliminated by the revised concept and pillars of cohesion. Some of the indicators on the earlier list were categorised with the institutional component. Here, we shall begin with a short explanation of the arguments that governed the selection of the citizen support pillar indicators, which, as in the case of the institutional pillar, *are not a subset* of the initial list.

Table VI.4

Key indicators of citizen support

Area to be observed	Indicators
Support for the democratic system	1. Percent of support for democracy
Confidence in institutions	2. Confidence in governmental institutions and political parties.a
Economic expectations	3. Percentage of population that believes that their children will live better than they have
Perceptions of inequality	4. Percentage of population that believes that the distribution of income is very unfair
Support for initiatives to reduce gaps	5. Perception of tax burden 6. Confidence in the quality of spending of tax revenues

Source: Prepared by the authors.

[a] A composite index constructed as follows: (1) individual scores from responses to questions on confidence in the executive branch of government, the legislature, the judiciary and political parties are summed; (2) total scores are divided by 4 to standardise them to the scale used for the original responses (1=a lot; 2=somewhat; 3=little; 4: not at all), and (3) the scores are recoded, so that those that average scores between 3 and 4 are classified as having little or no trust in political institutions, while those with averages between 1 and 2 are classified as trusting a lot or somewhat.

The indicator of *support for democracy* is available in a harmonised form (the same question for all the countries) from 1996 to 2008 for 18 Latin American countries. This measure is less sensitive to economic performance than the indicator of satisfaction with democracy, showing that it has more to do with the population's support for the democratic system than with a country's economic situation. This question also has explanatory power in the framework of the ECLAC proposals regarding the creation of social

[22] This is a problem for public opinion poll data, since they are based on the classic theory of measurement, where the relation between the expected value (Y) and the attribute (A) is linear, i.e., Y = A+e, e being the error. In practice, two procedures are used to control for this: randomisation (R), which some opinion polls use, and standardisation (S), which is not used. (We do not refer here to standardisation in the sense of using the same questions.) In the absence of R and S, values of Y can be due to informants' external or internal conditions.

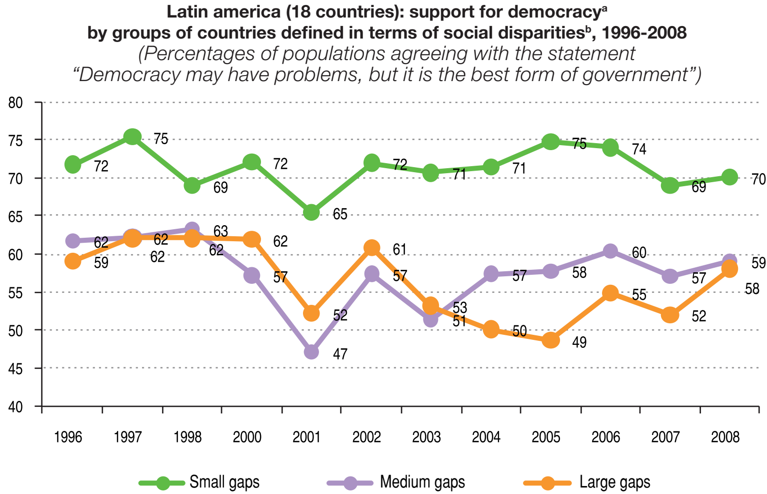
[23] For further details, see ECLAC (2009).

protection pacts that substantiate citizen support for closing social gaps. As figure VII.3 shows, support for democracy was systematically greater between 1996 and 2008 in countries with less poverty and inequality.

Figure VI.3

Latin america (18 countries): support for democracy[a] by groups of countries defined in terms of social disparities[b], 1996-2008

(Percentages of populations agreeing with the statement "Democracy may have problems, but it is the best form of government")



Source: Prepared by the author, on the basis of special tabulations of Latinobarómetro surveys from 1996 to 2008 and Economic Commission for Latin America and the Caribbean (ECLAC), "CEPALSTAT" [online database] http://websie.eclac.cl/sisgen/ConsultaIntegrada.asp?idAplicacion=1.

[a] The question used by the Latinobarómetro study is "With which of the following statements do you agree most? (1) "Democracy may have problems, but it is the best form of government", (2) "In some circumstances, an authoritarian government can be preferable" or (3) "It's the same to us whether the government is authoritarian or democratic."

[b] The countries were classified on the basis of a non-hierarchical cluster analysis, using 2007 values of the following variables: (1) percentage of the population under the poverty line, and (2) ratio of first-quintile to fifth-quintile incomes. This generated the following classification: *countries with small gaps:* Uruguay, Costa Rica, Argentina, Chile and the Bolivarian Republic of Venezuela; *countries with medium gaps:* Brazil, Mexico, Colombia, Panama, Peru, Dominican Republic, El Salvador and Ecuador; *countries with large gaps:* Plurinational State of Bolivia, Guatemala, Honduras, Paraguay and Nicaragua.

The *index of confidence in governmental institutions (which reflects feelings about all three branches of government) and political parties* was based on inquiring about citizens' confidence in the executive, legislative and judicial branches of government, as well as the political parties. Responses are available for every year in the 2002-2008 period, with coverage for 18 countries from 2004 on. In general, the index seems to meet the requirement of being one-dimensional,[24] and it shows adequate internal consistency. For example, as table VI.5 shows, the questions on confidence in the institutions of the three branches of government, as well as the political parties, point to a single underlying

[24] In any case, note that principal component analysis does not provide the strongest tests of a measuring instrument's one-dimensionality, above all because of the problem of common variance.

dimension that persists through the years and across different sample sizes.[25] The alpha coefficients of the confidence questions (see table VI.6) indicate internal consistency between acceptable and good, with different sample sizes and different years.[26]

Table VI.5

Latin America (18 countries): one-dimensionality of questions on confidence in governmental institutions and political parties, 2002-2008

(Explained variances of factors and correlation matrix of factors and variables)[a]

FACTORS	2002-2006		2007		2008		2008[b]	
	I	II	I	II	I	II	I	II
Percentage explained variance	41.3%	12.8%	40%	14%	43.9%	13.1%	43%	13%
Legislature	0.789	0.117	0.797	0.131	0.845	0.116	0.840	0.118
Judicial branch	0.737	0.199	0.747	0.190	0.807	0.183	0.766	0.222
Political parties	0.730	0.050	0.675	0.226	0.766	0.111	0.724	0.157
Executive branch	0.728	0.109	0.753	0.098	0.640	0.257	0.715	0.166
Armed forces	0.493	0.451	0.301	0.680	0.505	0.482	0.444	0.520
Police	0.585	0.349	0.448	0.524	0.421	0.538	0.449	0.466
Television	0.225	0.612	0.306	0.407	0.151	0.740	0.245	0.666
Church	-0.021	0.839	-0.119	0.819	0.047	0.746	-0.031	0.823
Sample sizes		80530		16339		16442		836

Source: Prepared by the authors, on the basis of special tabulations of Latinobarómetro surveys from 2002 to 2008.

[a] Principal components model with rotation of the maximum variation. Figures (or correlations with the factor) of at least 0.4 are acceptable. For more detail, see Straub and others (2004).

[b] Estimate based on a simple random sample of 5% of the total 2008 sample.

Table VI.6

Latin America (18 countries): internal consistency of questions on confidence in political institutions, 2002-2008

(Values in Cronbach alpha coefficients)[a]

Countries	2002-2006	2007	2008	2008[b]
Total alpha coefficient	**0.775**	**0.773**	**0.801**	**0.795**
Alpha coefficient upon elimination of the question on:				
Confidence in the legislature	0.695	0.681	0.703	0.696
Confidence in the judicial branch	0.719	0.712	0.731	0.734
Confidence in the political parties	0.734	0.750	0.759	0.762
Confidence in the executive branch	0.737	0.725	0.809	0.780
Sample size	89517	18885	18823	952

Source: Prepared by the authors, on the basis of special tabulations of Latinobarómetro surveys from 2002 to 2008.

[a] The alpha coefficient varies between 0 and 1. The closer to 1 it is, the greater the internal consistency of the measurement. George and Mallery (2003) suggest the following criteria for interpreting the alpha values: > 0.8 = good; > 0.7 = acceptable; > 0.6 = questionable; >0.5 poor, and < 0.5 = unacceptable.

[b] Estimate based on a simple random sample of 5% of the total 2008 sample.

[25] Various hypotheses could be tested regarding the cognitive mechanisms involved in the covariance of confidence in different institutions. One is that a halo effect is in operation —in other words, a bias in which people evaluate unfamiliar objects on the basis of how they categorise objects with which they have a closer relation. Another is that there is a summary construct of confidence in institutions, which would imply that the subjects process and store fragments of information on institutions on a second-order cognitive level, which would explain their responses to stimuli related to the institutions. For more details on these hypotheses as they apply to studying the effect of country image on consumer behaviours, see Min Han (1989). This assumes an absence of measurement errors generated by the sequence and syntax of survey questions.

[26] The values of the alpha coefficient are sensitive to sample size, the number of items in the questionnaire and the way in which they are presented, as well as the specific areas being explored, among other factors. For more details, see Vos and others (2000) and Iacobucci and Duhachek (2003).

Information on the population's expectations is also relevant, since expectations can erode social cohesion, either by being particularly low or by being excessively high. For example, in societies with high levels of exclusion, individuals may cease to believe in social mobility. This increases the gap between expectations and aspirations, which can generate frustration and aggressive behaviour. At the same time, very high expectations of social mobility (which can be provoked by the consumption of cultural contents associated with the spreading availability of new information technologies) may be beyond the system's capacity to provide social mobility. Thus, in this case, we have opted for an indicator of expectations of intergenerational mobility: the *percentage of the population that believes that their children will live better than they have*.

One area not considered in the initial ECLAC/EUROsociAL (2007) proposal is perceptions of inequality. This is an area in which both theory and measuring instruments are in a very early stage of development. In any case, it is important to have information on this, since it is connected with the legitimacy of a given socioeconomic, cultural and symbolic order. We have opted for an indicator of *citizens' perceptions of the present fairness of income distribution in their country*, since some previous research has found sharp differences between the countries in the three years for which information is available. The differences seem to be associated with factors that go beyond the strictly economic, ultimately relating to issues around the distribution of symbolic goods such as dignity, recognition and the possibility of exerting more influence (ECLAC, 2009).

As noted, perception of inequality is a developing field, and certainly has room for measures of perceived discrimination in relation to ethnic groups and gender (to mention only two factors) —which have not been included in this short list, primarily because of problems with the availability of data. Similarly, ECLAC (2007a) has posited that one of the problems for social cohesion is the existence of a gap between formal equality under the law and the actual heavy asymmetries of access to justice. Nevertheless, although the Latinobarómetro survey includes a number of questions about equality under the law, changes in how the question is formulated and in the options for answers offered create difficulties when it comes to selecting an indicator.[27]

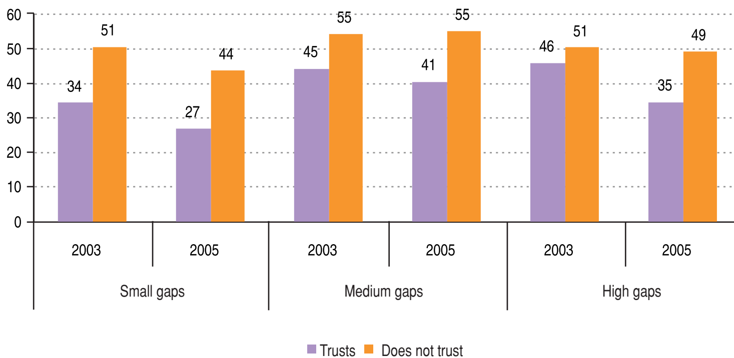
[27] For example, the 1996-2000 rounds included the question "Is there equality under the law or not?" with the response options "Yes, all are equal under the law" and "No, there is not equality under the law." The 2000 and 2007 rounds asked about equal opportunity for access to justice, again with two response options: "All have equal opportunity" and "Not all have equal opportunity." The 2003, 2004 and 2005 surveys used an ordinal scale (a lot, a fair amount, little, not at all), where the question was "How much equality is there under the law?" In 2008, the ordinal response was used again (a lot, a fair amount, little, not at all), but the question was "Would you say that [the citizens of your country] are equal under the law?" It should be noted that, at least in aggregate terms, the results are fairly comparable, since, in each case, one question or another detects percentages of the population between 68% and 78% that believe that there is not equality under the law, or that there is not equal access to justice, or that there is little or no equality under the law.

Thus, we have opted to leave pending the inclusion of some measure of perceived fairness of the justice system.

Lastly, the need to fund public policy by increasing the tax burden makes citizen support all the more important, and this requires reducing hostility to taxes, which is still very high in the region. Doing this depends in turn on citizens' feeling that the State will make good use of the resources it obtains through taxes (see figure VI.4). In this respect, the Latinobarómetro indicators, which inquire into these issues, and for which data series are available, are: the *proportion of people who have confidence that the money obtained from taxes will be spent well by the State*, and the *percentage of individuals who believe that the tax burden is high or very high.*

Figure VI.4

Latin america (18 countries): population that believes that the tax burden is very high, broken down by confidence in spending of tax monies, and by social gaps in the countries,[a] 2003 and 2005



Source: Economic Commission for Latin America and the Caribbean (ECLAC), *América Latina frente al espejo. Dimensiones objetivas y subjetivas de la inequidad social y el bienestar en la región*, Santiago, Chile, in press, 2009.

[a] The questions used in the Latinobarómetro are: "Everything considered, do you think that the levels of taxes paid in [country name] are very high, somewhat high, somewhat low or very low, or that they are fine?" and "Are you confident that the money from taxes will be spent well by the State?".

E. Summary and major challenges

Table VI.7 shows the list of key indicators of social cohesion. Besides the fact that the list represents a substantial reduction from the proposal that ECLAC put forth in 2007,[28] this exercise made it possible to analyse in more depth the concept and frame of reference that ECLAC had developed, and which it used as a starting point to select indicators of social cohesion in Latin America. Thus, it offers a revised concept of cohesion and a new list of the components of cohesion (which have been renamed "pillars," adopting

[28] The original ECLAC list had 59 indicators.

the metaphor proposed by Rodrigo Márquez in a previous chapter). The result is that the boundaries between the pillars have been modified, that the notion of "belonging" has been put in parentheses, so to speak, and that citizen support has been designated as the subjective pillar of cohesion in the specific area of public policy.

Table VI.7

List of key indicators of social cohesion

Gaps	Institutional capacity	Citizen support
1. Percentage of persons under the poverty line	1. Percentage of women in parliament	1. Support for democracy
2. Ratio between extreme income quintiles	2. Corruption index	2. Confidence in the institutions of the State and the political parties
3. Open employment rate	3. Per capita social spending	3. Perceived fairness of income distribution
4. Urban workers employed in low-productivity sectors	4. Tax burden as percentage of GDP	4. Perception of tax burden
5. Wages as a function of gender and educational level (ratios)	5. Per capita GDP	5. Confidence in quality of public spending
6. Employed individuals contributing to pension/insurance plans	6. Inflation rate	6. Percentage of population that believes that their children will live better than they have
7. Percentage who have completed secondary school	7. Percentage of women 15 and older devoted exclusively to household tasks	
8. Net pre-school matriculation rate		
9. Infant mortality rate		
10. Life expectancy		
11. Undernourished population		
12. Population with access to improved supply of healthy drinking water		

Source: Prepared by the author.

Certainly, the conceptual, methodological and practical challenges that must be met to advance in measuring social cohesion in a more or less reliable way while putting the issue on the agendas of the region's countries are still myriad. Below, we sketch them briefly, beginning with the conceptual and methodological issues, and concluding with a discussion of the strategy that will be required if social cohesion is to attain an important place on public policy agendas in the Latin American countries. More than answers, this summary of points should be considered a list of questions remaining to be answered.

Is social cohesion "a complex characteristic of societies" (León, 2009) that can be reduced to a single dimension? (On this question, see the paper by Roxana Maurizio in this book.) Can social cohesion be seen as a latent factor that

explains the variability in gaps, institutions and citizen support? Of course, it *can* be thought of and modelled that way, like any other multidimensional construct of development. The question is whether there is a solid basis for such a conceptual approach, aside from the rating points that could be gained from the "creative destruction" of quality by a numerical value.

The first thing that must be reiterated is that social cohesion as defined in this article is both a normative formulation and a metaphor[29] that provides a vision of the collective effort needed to reach certain standards of development (reduced gaps). It is desirable —leaving aside the conceptual problems and data constraints— for institutions to reduce gaps with support (and even a sense of belonging) on the part of citizens. But there is a considerable distance between this expression of good intentions and the statement that social cohesion is a characteristic or property of social societies or systems.

It is not that the normative nature of the concept of social cohesion *a priori* excludes the possibility of a numerical synthesis. Science constructs theories that model relationships between data that are representations of different aspects of reality. Doing so in this case, however, requires some plausible theory regarding the relations between the pillars of cohesion that can be modelled conceptually and tested empirically. Thus, the best approach would seem to be to continue to strengthen and validate the pillars before putting forth any conceptual scheme to describe their relationships at the aggregate level.

Is a notion of cohesion sustainable that translates into a simple sum —or weighted sum— of the values its components, or pillars? Such linearity, which could be appropriate in the case of the relationship between institutions and gaps, will not necessarily work once the subjective pillar is added to the mix, even if only the most easily observable aspects are involved. What does the little evidence available in Latin America indicate? It indicates, for example, that perceptions of distributive justice are not correlated with the Gini coefficient, and that hostility to taxation is not associated with actual tax burden. Moreover, it suggests that some relationships between subjective and objective factors may not be linear (for more detail, see ECLAC, 2009).

Along this line, efforts must continue to attempt to *validate the subjective indicators and advance in understanding their relationships with objective measures.* To date, there has been virtually no strong research validating the indicators of the subjective pillar, and there is little chance under current conditions that "the market will provide". This is a serious problem, for a decision maker is at considerable risk in considering an item as an indicator of "a" when it actually

[29] In a way, this is an analogy between society and the human body, since it refers to the contribution of the parts to the whole. Here, we might invoke Oedipus's answer to the Sphinx's riddle: It is a man!

measures a*b*c. At the same time, specifying *a priori* a set of dimensions to be evaluated entails the risk of artificially *creating* an attitudinal domain or field that does not actually exist. Validating the subjective indicators is a necessary condition for constructing a theory that opens the door to understanding the relations between the subjective and the objective. If we do not have a clear understanding of what "something" is, it will be difficult to know how it relates with another "something."

Another challenge that must be faced is how to conceptualise and measure *belonging*. Although the theme's relevance and appeal are undeniable, the available conceptual frameworks do not provide clear answers to the questions regarding "belongings" at different levels and their relationship with cohesion. Moreover, belonging is not consubstantial with subjectivity, because social ties and relationships also have material expressions. This means that more efforts will be needed to improve the conceptual frameworks and the indicators of belonging.

In addition to the problems of reduction, there are the requirements to *incorporate new thematic areas into the system of indicators* —for example, the environment and sustainable development, urban residential segregation and the types of segmentation associated with it, and the new information and communication technologies. The decision to integrate these new ingredients has been postponed, since it involves various difficulties that have yet to be dealt with. In the case of the environment, the problems are conceptual. Despite the fact that the article by Canal and others in this book states that social cohesion and the environment are two "interacting and mutually modifying subsystems", social cohesion, as the diagram in figure V.1 shows, is a part of the more general reality of the ecosystemic base. Naturally, the perspective underlying the relationships between the two systems creates room for a set of pigeonholes in the system of social cohesion indicators. However, it is also plausible that the subject of the environment itself could be fertile ground for a special system of indicators.[30] The problems with the subjects of urban residential segregation and new information and communication technologies are basically data problems.

As indicated earlier, the main challenge is to design and implement a *strategy that allows us to advance significantly in putting social cohesion in a central place on national agendas.* The strategy followed to date has placed priority on creating the conditions for creating an aggregate regional view. This has involved activities to validate conceptual and operational frameworks with

[30] Strictly speaking, what the work of Canal and others does is to produce the scaffolding for a special system of indicators in a field that could be called environmental cohesion. In fact, the idea of differentiating different areas of cohesion has been followed up in various recent pieces of work in Europe, for example, Gallina and Ferrugia (2007) and Maier (2008).

the participation of various actors. Although there was a rationale for such an approach in the first phase of the effort to put the subject on the agenda in Latin America, today there is a need for mechanisms by which the actors involved in national policy can move from being spectators to taking a much more protagonistic and autonomous role.

One possible strategy to achieve *greater appropriation of the ECLAC approach to social cohesion on the part of national social policy actors* is to conduct systematic activities to create awareness and provide technical assistance, so as to ensure that the basic competencies needed to monitor social cohesion within the countries are present, and to ensure that national actors can develop their own *national reports on social cohesion* in a sufficiently autonomous way. A strategy of this type would make it possible to translate into action the principal strength of the ECLAC approach to social cohesion, which provides a conceptual and methodological toolkit for exploring and relating different dimensions of development (its dialectic) in a way that addresses national realities.

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