LC/G.2175-P — April 2002

United Nations Publication

ISSN 0251 - 2920 / ISBN 92-1-121364-9

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Annual subscription costs for 2002 are US\$ 30 for the Spanish version and US\$ 35 for the English version. The price of single issues is US\$ 15 in both cases.

The cost of a two-year subscription (2002-2003) is US\$ 50 for the Spanish-language version and US\$ 60 for English

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ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN

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CEPAL

REVIEW

NUMBER[]76

APRIL[]2002

SANTIAGO,[]CHILE

OSCAR ALTIMIR

Director of the Review



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The transformation of

collective action

in Latin America

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We are witnessing the disappearance of the traditional paradigm that viewed the structural position as the determining factor in shaping collective action and social actors. Because of the structural and cultural changes that have occurred in the world and the region -the transformation of Latin America's weak national Statecentred industrial society and the break-up of the traditional relationships between State and society- collective action is tending to take shape mainly along four axes: political democratization; social democratization or the struggle against exclusion and for citizenship; the reconstruction and international reintegration of national economies or the reformulation of the economic development model, and the redefinition of a model of modernity. As a result, social actors are becoming less wedded to single causes, more concerned with sociocultural issues than politico-economic ones, and more focused on demands concerned with quality of life and inclusion than on projects of broader social change.

I

Analytical approaches

For decades, collective action and social actors in the region were dominated by a theoretical and practical paradigm that closely matched the predominant paradigms of the social sciences throughout the world. What it affirmed was, firstly, that there was a unity or correspondence between structure and actor; secondly, that the structure prevailed over the actor, and thirdly, that there was a central axis constituted by structures and the processes arising from them, which acted as the underlying principle behind all collective action and the development of social actors.

Both theoretically and practically, in other words, the traditional paradigm for social actors and collective action gave precedence to the structural dimension. This was the "hard" component of society, while actors and collective action were the "soft" component.

There is a widespread conviction that this paradigm no longer matches today's reality. This is because, firstly, huge structural and cultural transformations have taken place, producing a different societal type. Meanwhile, new forms of social action and new actors have appeared, at the same time as the lines of action taken by traditional social actors have been changing. In the realm of analytical thinking about actors and forms of collective action, a number of milestones can be identified in the overthrow of the classical paradigm.¹ From the point of view of social phenomena themselves, meanwhile, human rights movements and democratic movements under dictatorships, ethnic movements like those of Chiapas or the networks of social organizations and experiments with neighbourhood citizenship associations in Peru, to name some emblematic examples, seem to us to have distanced themselves from what we have called the traditional paradigm of collective action, although they incorporate and redefine many of its elements, something that can be seen even more clearly in the Landless Workers Movement in Brazil.

In what follows, we shall attempt to schematize some of the analytical approaches that are helping to shape what may be the beginnings of a paradigm for actors and collective action in Latin America.² The idea is to go beyond a universal type of structural determinism and to get past the notion of an abstract, essentialist correlation, defined once and for all, among politics, the economy, culture and society, i.e., the belief that a particular political or cultural form necessarily corresponds to a given economic system, or vice versa.

Thus, in a given society it is possible to discern levels or dimensions and spheres or ambits of social action. The levels or dimensions, which intertwine while remaining independent of one another, are: individual behaviour and the interpersonal relationships that define what are called "worlds of life", the organizational and institutional levels corresponding to the world of instrumentalities, and the historico-structural dimension, that of the projects and counter-projects determining what some term "historicity". 3 As regards the spheres or ambits of action, these are the way the material needs of society are met, known as the economy; the formulas and institutions governing life in society, conflicts, stratification or hierarchization that determine the social structure or organization in a broad sense; the configuration of the power relationships

[☐] This article is based on *Cambios sociales, actores y acción colectiva* (Garretón, 2001b). It draws heavily on material developed in other publications, particularly "Social movements and the process of democratization. A general framework" (Garretón, 1995b). Two recently published books (Garretón, 2000a and 2000b) recapitulate many of the works that we have drawn upon here.

¹ The most important and decisive is Alain Touraine's work on social actors and the political system. The first systematic formulation in *Actores sociales y sistemas políticos en América Latina* (Touraine, 1987) was further developed in *Política y sociedad en América Latina* (Touraine, 1989). The same line of thinking was followed a decade earlier by Zermeño (1987) in *México: una democracia utópica. El movimiento estudiantil del 68.*

² These ideas are dispersed around a number of the author's works, particularly "A new socio-historical 'problématique' and sociological perspective" (Garretón, 1998), *Hacia una nueva era política. Estudio sobre las democratizaciones* (Garretón, 1995a) and "¿En qué sociedad vivi(re)mos? Tipos societales y desarrollo en el cambio de siglo" (Garretón, 1997a). The most recent formulation, from which some elements are drawn here, was *Política y sociedad entre dos épocas. América Latina en el cambio de siglo* (Garretón, 2000a).

³ We have redeveloped the categorization proposed almost three decades ago by Touraine (1973).

concerned in the general running of society, known as politics; and models of ethics and knowledge and their application, conceptions of time and nature, symbolic representation and socialization, which are what we call culture. The system of determinations among these spheres and dimensions is flexible, changeable and historical.

Likewise, a given society is defined by the particular configuration of the relations between i) the State, ii) the political regime and parties, and iii) civil society or the social base. This historically delimited relationship is what makes it possible to talk of a sociopolitical matrix. The concept of a socio-political matrix, or matrix of constitution of society, refers to the relationship between the State, or the moment of society's unity and direction; the party political structure or system of representation, which is the moment of aggregation of general demands and political claims by social subjects and actors, and the socio-economic and cultural base of these, which constitutes the moment of participation and diversity in civil society. The institutional mediation among these elements is what we call the political regime.

The perspective described throws the weight of the analysis on actors, their constitution and interaction. When we speak of a subject-actor, we mean an embodiment (with a material or cultural basis) of individual or collective action that is actuated by principles of structuring, conservation or change in society, has a certain historical density, is defined in terms of identity, alterity and context and is involved in projects and counter-projects, and in which there is a permanently unresolved tension between the subject or vital constitutive principle of a given historical action and the particularity and materiality of the actor invoking it. Not everything that moves or acts in a society is an actor in the sociological sense of the term; the term agent might be used instead. Nor does what

we call an actor always embody a high degree of historical density.

In a given society, then, a twofold matrix of actors can be identified. One is the socio-political matrix, the one that constitutes or gestates subjects and that refers to the relationships mediated by the political regime among the State, representation and the socio-economic and cultural base. The other is the matrix which shapes social actors, and in which each of these occupies a position in the dimensions or levels and in the spheres or ambits referred to earlier.

When we consider political processes of social struggle and change, the subject of social actors overlaps with that of social movements, defined as collective actions with a certain stability over time and with some degree of organization, undertaken with a view to changing or preserving society or some part of it. The idea of the Social Movement tends to oscillate between two poles: the immediate response to a particular situation or problem, and the embodiment of the sense of history and social change. From our perspective, the two poles can be seen as two dimensions of social movements. On the one hand, the Social Movement (upper case, singular) oriented towards the historico-cultural level of a given society and defining its central conflict. On the other, social movements (lower case, plural), concrete actors that move in the worlds of life and instrumentalities, whether organizational or institutional, and that are oriented towards specific goals and have problematic relationships, whose exact nature depends on the particular society and point in time, with the Central Social Movement. Social movements are one type of collective action but not the only one, and they have to be distinguished from at least two other forms of collective action that are important in societies in flux, namely demands and mobilizations.⁵

⁴ Regarding the subject-actor, see Touraine (1984 and 2000). See also Dubet and Wieworka (1995).

⁵ For a definition and classification of social movements, see Touraine (1997). Other viewpoints will be found in Gohn (1997) and Touraine (1989). A conception that differs from the one put forward here is that of McAdam, McCarthy and Zald (1998).

II

Collective action in the traditional matrix

In general terms, we can say that the Latin American socio-political matrix, for which we will use the terms "traditional", "politico-centric" and "national-popular" without distinction, and which prevailed from the 1930s until the 1970s with variations by period and by country, was created from the fusion of different processes: development, modernization, social integration and national autonomy. Any collective action was cut across by these four dimensions and all the different conflicts reflected these fusions.

In typico-ideal terms, the main characteristic of the national-popular matrix was the fusion among its components, i.e., the State, political parties and social actors. This meant that each individual component had little autonomy, with two or three of them intermingling while the rest were subordinated or suppressed. The particular combination among them depended on historical factors and varied from country to country. In any event, the favoured form of collective action was politics, and the weakest part of the matrix was the institutional link among its components, i.e., the political regime, whence the fluctuations or repeated cycles from democracy to authoritarianism and back again.

In this traditional matrix, the State played a referential role for all collective actions, be they development, social mobility and mobilization, redistribution or the integration of disadvantaged sections of society. But it was a State that had little autonomy from society and that was the focal point for all pressures and demands, whether internal or external. This intermingling of State and society meant that politics played a central role; but other than in exceptional cases, it was a politics of mobilization more

than of representation, and representative institutions were generally the weakest part of the matrix.

It can be said, again in schematic and typico-ideal terms, that alongside the traditional socio-political matrix there was a central social actor that may be defined as the National-Popular Movement, which brought together the different social movements, despite their peculiarities. This means that every one of the particular social movements was at the same time, and to differing degrees, developmentalist, modernizing, nationalist and social change-oriented, and identified itself as part of the "people". The "people" was regarded as the only subject of history. The paradigmatic social movement or actor of the National-Popular Movement was usually the workers' movement, but at different times this leadership was called into question, and as a result other actors such as peasants, students or party vanguards were drawn in instead.

Thus, the main characteristics of this social actor or Central Social Movement were, firstly, the combination of a very strong symbolic dimension oriented towards broad social change with a dimension of very concrete demands. This meant the implicit or explicit assumption of the revolutionary approach, even when the actual movements concerned were very "reformist". The second characteristic was the way the State was looked to as the interlocutor of social demands and as the *locus* of power over society. This meant an omnipresent and complex relationship between the social movement and politics, involving perhaps complete subordination to parties, the manipulation of parties, or a more independent style of action. Thus, the weakness of the social movements' structural base was compensated for by ideology and politics.

Cavarozzi (1996) and my own definition in Garretón (1995a and 1995b) and elsewhere.

⁶ Concerning the term "national-popular", see Germani (1965) and Touraine (1989). We shall take some of the characterizations used in the latter work. The term "State-centric matrix" is found in

III

The dismantling of the national-popular matrix

The effort made by the military regimes of the 1960s and 1970s to dismantle the traditional or politico-centric matrix, and certain institutional or structural transformations that also took place in other countries in the 1980s without this type of authoritarianism, had some profound consequences for social actors and forms of collective action.

On the one hand, there are two meanings intertwined in the action of any particular social movement or actor under authoritarian systems. One is the reconstruction of the social fabric destroyed by authoritarianism and economic reforms. The other is the orientation of action, in the case of authoritarian regimes, towards the ending of these regimes, which politicizes all sectoral demands that are not specifically political to start with.

On the other hand, the repressive nature of authoritarian or military regimes, and the effort to dismantle the developmentalist State as a whole, which also took place in cases where there was no military regime, have meant that expectations of the State and links with politics have been changing dramatically for particular social actors, becoming more autonomous, more symbolic and more oriented towards identity and self-reference than towards instrumentality or protest.⁹

During the most repressive stage in the early days of authoritarianism, the main orientation of any collective action tended to be self-defence and survival; i.e., the central issue is life and human rights. ¹⁰ When the authoritarian or military regime showed its more foundational aspect, movements diversified in different spheres of society and became more oriented towards cultural or social issues than economic or political ones. Lastly, when a regime began to break up and it seemed a real possibility that it would come to an end, social actors tended to become oriented towards politics and towards an institutional transition formula that subsumed and took up all the different manifestations of collective action that had gone before.

Where particular social movements were concerned, the authoritarian effort to change the role of the State, and the changes that took place in the economy and in society, transformed the spaces in which these were constituted, chiefly by weakening their institutional and structural underpinnings through repression, marginalization and the informalization of the economy. Instead of organized movements, most collective action during dictatorships came from social mobilizations that tended to emphasize their symbolic dimension more than the aspects of protest or instrumentality. The symbolic leadership role achieved by the Human Rights Movement is significant in this respect. It was the germ of what we might call the Central Social Movement of the period during which the national-popular matrix was being broken up under authoritarianism: the Democratic Movement.

⁷ Concerning authoritarianisms and military regimes, see the now classic *The New Authoritarianism in Latin America* (Collier, ed., 1979) and the works of O'Donnell (1999) in his anthology *Contrapuntos*. For a general discussion of socio-economic changes inspired by neoliberalism, see Smith, Acuña and Gamarra (1994). ⁸ Concerning the resurgence of civil society under authoritarianism, see Nun (1989). See also the collective works: Eckstein, coord. (2001c), Escobar and Alvarez, eds. (1992) and Slater, ed. (1985).

⁹ For the meaning and development of social movements under military regimes, see Garretón (2001a). In the same volume, see also the articles of Eckstein (2001b), Moreira Alves (2001), Navarro (2001) and Levine and Mainwaring (2001). Regarding human rights movements and other types of resistance to authoritarianism, see the third part of Corradi, Weiss and Garretón, eds. (1992).

¹⁰ Jelin and Herschberg, eds. (1995).

IV

Globalization and the transformation of modern society

Two phenomena have significantly changed the issues for collective action in today's world.

One of them, known as globalization, has had a number of consequences insofar as it has penetrated societies or segments of them economically (markets) and in the field of communications (media, information, real and virtual networks, information technology) and cut across the independent decision-making of national States. 11 One of these consequences is the disintegration of the traditional actors associated with the national State-centred industrialized society model. Another, with its own dynamics over and above globalization, is the explosion of adscriptive or communitarian identities based on sex, age, religion as revealed truth and not as an option, a non-State nation, an ethnic group, a region, etc. A third are the new forms of exclusion that have affected masses of people by establishing a purely passive or media-based link between them and globalization. Lastly, there is the emergence of globalized actors, the anti-globalization movements, which in turn confront the de facto transnational powers.

Meanwhile, the societal type that has predominated in recent centuries is being fundamentally changed all over the world, and in Latin America with some special characteristics that we shall refer to. This change can be summed up as the phenomenon of amalgamation between the basic societal type that was the reference point from the nineteenth century onward, the industrial society of the national State, and another societal type, the globalized post-industrial society.¹²

The reference type of society in respect of which countries could be more or less advanced, the industrial

In the case of Latin America, which was defined less by a consolidated industrial structure and national State than by processes of social integration and of industrialization and the construction of national States, the organization of society and thus the emergence of social actors as well was based more on politics—be it of an autocratic nature, or based on patronage or a party system—than on work or production.

The new type of society, which we could term globalized post-industrial society and which only exists as a principle or as a societal type in combination with the older type, is based primarily on consumption and information and communication. By contrast with the industrial State societal type, there is no political system implicit in its definition.

Around the basic axes of this societal model -consumption and information and communicationnew types of social actors are coming into being, although of course they are intermingled or coexist with transformed actors from the industrial State model of society. Firstly, there are publics and networks of different kinds, which may be more or less structured, specific or general, but which are characterized by the lack of a strong, stable organizational density. Secondly, there are actors with greater organizational density such as non-governmental organizations (NGOs), which also constitute national and international networks. Thirdly, there are identity actors, particularly those whose main identity construction principle tends to be adscriptive and not acquisitive. Lastly, there are the de facto powers, i.e., bodies or actors that process the decisions corresponding to a political regime, regardless of the democratic rules. These may be extra-institutional, as in the case of local or transnational economic groupings,

society of the national State, had two fundamental axes: one was labour and production, the other was the national State, i.e., politics. As a result, social actors in this type of society were mainly actors associated with the world of work or production, i.e., having some relation with social classes and, at the same time, with the world of politics in the form of political parties or leaderships. The combination of the two is what we have called social movements.

¹¹ The widest-ranging work on this subject is that of Castells (1997). For a critical Latin American perspective, see Chonchol (2000), Flores Olea and Mariña (1999), García Canclini (1999) and Garretón, ed. (1999).

¹² There is a large literature dealing with the character of society and its impact on forms of collective action. For the purposes of this work, particular mention should be made of Castells (1997), Touraine (1997), Dubet and Martuccelli (1998) and Melucci (1996). For the more traditional view of social classes, see Wright (1997). My own ideas are to be found in Garretón (2000b).

corruption and drug trafficking, insurrectionary and paramilitary groups, foreign powers, transnational corporate organizations or the communications media. But there are also institutional actors with *de jure* powers that break away to assume political powers beyond those they can legitimately exercise, examples being international bodies, presidents ("hyperpresidentialism"), legal authorities, parliaments, constitutional courts and, in many cases, the armed forces.

All this is resulting in a transformation of the principles of collective and individual action. Despite the weakness of the industrial economic structure, the reference principles of actors in the traditional society that we have known and to which our generation in Latin America belongs are the State and the *polis* structured in the State. The reference principles of actors in the globalized post-industrial society are issues that go beyond the bounds of the *polis* or the national State (peace, the environment, globalist or holistic ideologies, gender). For identity actors, the main reference point is the social category to which they belong (they feel themselves to be young or women, Indian, elderly,

natives of such and such a region, etc., rather than nationals of a country, or followers of an ideology, or performers of some function, or members of a profession).

It is true that Latin America always experienced Western industrial modernity of the national State in a fitful way, and that this never became consolidated as the organizing rationality of these societies. But it is also true that this modernity was a reference point in our countries' history in the last century and that it was experienced in an ambiguous way and in composition with other models of modernity. All this makes the upsurge of the new societal type in our societies more problematic.

Examination of the new manifestations of collective action in Chiapas or Villa El Salvador in Peru, peasant movements linked with drug trafficking or more traditional struggles for land, ethnic and gender movements, mobilizations to protest against the economic model, the new expressions of student movements and so on shows that all of these share features of both models of modernity, combined with the collective memories of those involved.

V

The changing socio-political matrix

in Latin America

Alongside the transformations resulting from globalization, in which Latin American societies are participating with difficulty and on a basis of dependency, subject to external domination strategies and to the dynamics of a new societal type that is amalgamating with the old one, both of them poorly rooted in these societies, there have also been profound changes in different dimensions, which these countries have experienced to differing degrees and in differing circumstances.¹³

The first change has been the arrival and relative consolidation of politico-institutional systems that are tending to replace the dictatorships, civil wars and

Between them, these processes have led to the breakdown and disintegration of the traditional or "national-popular" matrix. It was this matrix and its type of State that was being attacked, of course, both

revolutionary methods of previous decades. The second is the running down of the "inward development" model, whereby the State played a leading role in industrialization, and its replacement by formulas that give priority to the role of the private sector and to participation in a globalized economy dominated by transnational market forces. The third is the transformation of the social structure, with rising poverty, inequality, marginalization and insecurity of employment structures. Lastly, the fourth change is the crisis of the traditional forms of modernization and United States mass culture prevailing among ruling elites, and the recognition and development of homegrown and hybrid forms of modernity.

¹³ For a general discussion of the issues faced by Latin America in the 1990s, see Reyna, comp. (1995) and Smith (1995), among others. For another viewpoint, see Sosa (1996).

by the revolutionary movements of the 1960s, which criticized its mesocratic aspect and inability to respond to popular interests, and by the military regimes that began in Latin America during those years. In turn, the democratic transitions of the 1980s and 1990s coincided with the realization that there was a gap where the old matrix had been, as military authoritarianism had broken it up without creating another stable, coherent configuration for State-society relations in its place. This gap has tended to be filled by different substitutes that have prevented the components of the matrix (State, political regime and actors, social actors and civil society) from strengthening or achieving autonomy or complementarity, and that have sought to replace or do away with one or another of them.

Three major tendencies –sometimes overlapping, sometimes intermingled, sometimes in a state of tension and struggle for partial hegemony among themselves—are trying to replace the matrix that is breaking up. There is neoliberalism, an effort to deny politics on the basis of a distorted, unilateral view of modernization expressed in an instrumental policy which replaces collective action with technocratic reasoning and in which the logic of the market seems to leave no room for any other aspect of society. This tendency has been accompanied lately by a view of politics that has helped to depoliticize society yet further by pronouncing that "resolving people's concrete problems" is its sole purpose.

Another tendency, which is a reaction to the above and to globalization, is represented by what is also a critical view of the State and politics, but one that has come out of civil society and that calls for this society to be strengthened, be it through the principles of citizenship, participation, empowerment or the different conceptions of social capital, or by invoking identity and community principles.¹⁴

Between these two positions —which are opposed to one another but which both tend to weaken the

legitimacy of the State and politics, the one by deeming them unnecessary and inefficient, the other by considering them elitist and unresponsive to new social demands and fields of action— there is the more institutionalist view that the role of the State and representative democracy should be strengthened to prevent society being destroyed by the market, de facto powers or the particularism of identity and corporate demands.

The gaps left by these three tendencies, each of which is incapable of constructing a new socio-political matrix, may leave room for the resurgence of nostalgia for populism, patronage, corporativism and partisanship and, in cases of extreme breakdown, neo-populist autocracies, but this time without the appeal of grand ideological projects or mobilizations capable of drawing in large sections of society. This type of nostalgia appears in rather fragmentary forms, often in parallel with elements of anomie, apathy or atomization, and in some cases of crime, as in the cases of drug trafficking and corruption.

Thus, the fundamental question is whether or not, looking beyond democratic transitions or the shift to an economic model based on transnationalized market forces, we are seeing the emergence of a new type of society, i.e., of a new socio-political matrix. The most likely thing is that the countries will follow different paths, experiencing in one way or another the major tendencies referred to. Although there is a risk of permanent breakdown or instability and crisis without a clear new standard for the relationship among the State, politics and society, it is also possible that some laborious headway may be made towards a new matrix of an open type, i.e., one that is characterized by the autonomy and complementary tension of its components, combined with subordinate elements of the traditional matrix now breaking up, and that reshapes traditional politics and cultural orientations.

The outcome of these processes cannot yet be predicted. It seems that the formal political framework will be democratic, but there is no guarantee of how important this will be in relation to de facto transnational and local powers.

¹⁴ In relation to citizenship and participation, see ECLAC (2000b). Regarding social capital, see Portes (1998) and Durston (2000). Regarding identities, see ILADES (1996).

VI

The new axes of collective action

Where collective action is concerned, the structural and cultural changes now affecting both the Latin American societal type and the traditional relationship between the State and society are resulting in a twofold paradigm shift. Firstly, collective action is being organized and social actors shaped less in terms of the structural position of individuals and groups and more in terms of the directional axes of this action. Secondly, the four axes of action that we shall define are not integrated into a single societal project that orders them among themselves and defines their relations, priorities and determinations in structural terms, but rather each of them has an equally high priority, has its own dynamic and defines actors who are not necessarily the same as in the other axes, as was the case with the fusion of the different orientations in the national-popular movement or in the democratic movement that followed it.

1. Political democratization

In recent decades, there have been three types of democratization processes, setting out from different authoritarian situations. The first type is foundational, i.e., the creation of a democratic regime in countries where no democratic system as such has ever existed, starting out from oligarchic or hereditary regimes or from situations of civil war, insurrection or revolution, this being the case mainly in Central America. The second type is the transition to democracy from formal military or civil dictatorships, chiefly in the countries of the Southern Cone. The third is the reform type, i.e., the extension of democratic institutions by the authorities themselves under pressure from society and the political opposition, as in the case of Mexico.¹⁵

The foundation of democracy, by its very nature, requires the presence of actors and institutions from within the country or elsewhere who can mediate between the sectors in conflict, and the transformation of these into political actors. Transitions do not operate

by overthrowing the old order but through negotiations within institutional frameworks, but their defining feature is that power changes hands, and they give a central place to political parties as key actors and to corporative groups that apply pressure to safeguard their interests in the process of ending dictatorships and in the regimes that will succeed them, subordinating the social movements that were important in triggering the transition. Reforms do not necessarily involve power changing hands, and it is hard to say when they are really complete. The interplay of political parties and actors at the highest level is essential to them, although it is civil society movements that keep up the pressure to prevent reform from losing momentum.

While it is true that each form of democratization has different implications for forms of social action and gives pride of place to particular social actors, it is possible to lay down a general rule, to which each case and subcase will bring its special features.

If we identified the National-Popular Movement as the subject or central constitutive principle of the traditional or politico-centric matrix, it can be said that the construction of political democracies meant that this shifted towards the Democratic Movement, i.e., towards a central actor or movement that, for the first time, was oriented not towards the specific interests of a social sector or towards radical, comprehensive social change, but rather towards a change in political regime. In such situations, authoritarian governments become the most important principle of opposition, and the ending of the regime and the introduction of democracy become the main goal of collective action. With this change, the Social Movement gains in instrumental terms, but the price that has to be paid is the subordination of particular demands to political goals. At the same time, leadership passes to political actors, chiefly parties. Negotiations and consensus at the level of leaderships and elites tend to replace social mobilizations during the democratic transition and the consolidation process.

In this way, political democratization tends to separate out collective action into three logics that transverse all particular social actors. One of these is the political logic oriented towards the establishment of a consolidated democracy as the precondition for any other type of demand. Another is the particular logic

¹⁵ In relation to transitions and democratization, see among many others Barba, Barros and Hurtado, comps. (1991), and for an updated assessment and review see Hartlyn (2000). My own views can be found in Garretón (1995a and 1997b) and in "Política y sociedad entre dos épocas" (Garretón, 2000a). The assessment presented here is based on the last-named work.

of each of the actors, whose objectives are concrete benefits in the form of social democratization as a precondition for actively supporting the new democratic regime. The final logic criticizes the inadequacy of institutional change and conceives of democracy as a deeper social change that extends to other dimensions of society. This logic, which plays a subordinate part during political democratization, is expressed subsequently through the other axes of collective action that we examine below.

The existence of ethical issues that remained unresolved during transitions or democratization, particularly violations of human rights under dictatorships, meant that human rights movements retained an important role at the beginning of the new democracies. But severe constraints were placed on them by the existence of other enclaves of authoritarianism, whether institutional or holding de facto power (the military, business, paramilitary groups), and particularly by the risks of a return to authoritarianism and of economic crises. This gave political actors, in government and in opposition, key roles in social action, and meant they could subordinate other actors' principles of action to their own logic. In turn, the tasks associated with the consolidation process initially gave the foremost place to the needs and requirements of economic adjustment and stability, discouraging collective action that was believed to jeopardize these. As a result, there was some tendency for social movements to break up and become inactive. But an even more important factor is that when the postdictatorial regimes were established, social movements were left without a compelling central principle.

The results of political democratization must be viewed as positive where transitions and the consolidation of post-authoritarian regimes are concerned, and as unsatisfactory, in general, as regards the democratic depth and quality of these regimes.

The fact is that the democratic regimes that have succeeded military or civilian dictatorships, while they are well consolidated, are either incomplete or weak. In other words, they are regimes that in some cases are basically democratic but still retain remnants of the old regime, what we have termed authoritarian enclaves. These are institutional (constitutions, captive legislative systems, etc.), ethico-symbolic (unresolved problems of truth and justice concerning crimes and human rights violations committed by the State), actoral (groups that seek to return to the old regime or do not follow the democratic rules fully) and cultural (inherited attitudes and behaviour that hinder citizen and democratic

participation). In other cases, recomposition of the system of representation in the democratic regime is a work in progress. Lastly, there is a group of countries in which the political system as a whole is breaking down to some degree, or in which those who hold the real power do not submit to the institutional ground rules or the citizenry has failed to constitute itself as such, making their democracies more or less irrelevant in the performance of the tasks that any regime has to deal with.

It is obvious that the issue of democratic quality and consolidation will give rise to a configuration of actors in which there is tension between those who are more politics- and State-oriented, whose concern will be for institutional reforms and the modernization of the State, and those who link together social and citizenship demands characteristic of the second axis that we referred to. Alongside its own quest for social integration, the Zapatist National Liberation Army (EZLN) in Mexico included the holding of clean elections among its earliest demands, while the indigenous movement in Ecuador also linked its own particular demands to a change of government.

2. Social democratization

The second axis around which collective actions and social actors are constituted is what may be termed social democratization. Among the different meanings of this concept, two are relevant for our purposes. The first is the redefinition of citizenship. The second is the surmounting of poverty and exclusion. ¹⁶

We are now seeing unprecedented growth in appreciation of the citizenship dimension, as manifested in the fact that virtually all demands and claims are made in the name of citizenship or citizen rights. It is true that many of these are confused with what are in fact social demands, so that the use made of the concept by NGOs and international organizations is sometimes mistaken and sometimes loses its specific sense of equal rights for individuals (citizenship) vis-à-vis the State polity which are guaranteed by particular institutions, and to secure which a body of citizens possessing such rights (citizenry) is organized.

¹⁶ For excellent analyses of these aspects, particularly exclusion, see Filgueira (2001) and ECLAC (2000a and 2000b). Concerning citizenship, see ECLAC (2000b), but also Hengstenberg, Kohut and Maihold, eds. (1999) and Jelin and Herschberg, eds. (1995). A very good national case study is found in López (1997). Concerning the weakening of civil citizenship, which we shall mention later on, see O'Donnell (2001).

Appreciation of citizenship stands in contrast, however, to the weakening of the institutions that traditionally served to express it, particularly in the field of civil rights.

There are actors who operate in this field of traditional demands, i.e., actors threatened by what they see as the loss of rights won in historical struggles because of the weakening role of the State and the institutions that guaranteed them. There are others whose struggles are against discrimination, i.e., whose aim is the extension of rights already enjoyed by integrated citizens to members of particular categories (gender, socio-economic level, ethnic group, region, etc.). In addition, though, in those fields of traditional citizenship where institutions exist, the issue now is one not just of access to or the coverage of particular citizen rights, but of the quality of the good being aspired to. This obviously depends on the nature of the group claiming it, which means that a universal right cannot have the same content for everyone (the demand for education or health care, for example). This limits the capacity for action, as the citizenry dimension is particularized.

Again, if it is citizenship that provides the basis for recognition and affirmation of a possessor of rights vis-à-vis a given authority, and if in the past that authority was usually the State, fields or spaces are now emerging in which people are doing something equivalent or analogous with citizenship. They want to exercise rights, but the authority from which they have to be won is no longer necessarily the State, or is only partly the State. One example are rights relating to the communications media, where people do not want the parameters of choice set for them during the large amount of their lifespan that they spend watching television, and would like to have some kind of citizenship. The environment is another sphere that has seen the emergence of power relationships, rights and a field of citizenship that do not relate exclusively to the State. The same is true of membership of more than one national community, as happens in border areas or when mass migration occurs.

Lastly, when citizenship is being redefined in this way, there are demands and struggles for rights that entail a revolution in the traditional principle of human or citizen rights, or the rights of the republican model. Two different dimensions come into play here. One is that of rights which are claimed in the name of an identity, and which cannot be extended to other categories (the rights of women, the young and the disabled), but whose possessors are still individuals.

The other dimension is that of rights whose possessors are not individuals but groups, as with the rights of indigenous peoples, and this is a reinvention of the concept of citizenship (Stavenhagen, 2000).

For all these new fields of citizenship, institutions either do not exist or are embryonic and partial. What there is in the place of institutions to regulate the rights and duties of those concerned, then, is a general demand where the adversary and the referent are diffuse.

The other face of social democratization is the effort to surmount the new forms of social exclusion deriving from the current socio-economic model.

In the period previous to military authoritarianism and "structural adjustments", forms of integration were associated with industrialization and urbanization, with the expansion of State services and with political mobilization. In each of these fields, it was possible to detect an inclusion-exclusion dialectic and a process in which excluded sectors organized to achieve integration.

Today, excluded sectors are separated from society, maintaining with it some form of purely symbolic relationship that appears to have nothing to do with the economy or politics. At the same time, they are fragmented and have no connection among themselves, which makes any collective action very much harder. Thus, besides the destructuring of political communities resulting from globalization and the explosion of identities unconnected with national States, a huge mass of people has been expelled from the little that remains of those political communities. The question is not just what economic model can integrate the excluded sector in the space of a generation, but what type of political system is capable of providing it with real, active participation without shattering and without resorting to manipulation or populism.

The incorporation of the excluded part of society, which in some countries may exceed 60% of the population, is now being considered in new terms: the excluded section is no longer an actor situated within a context of conflict with other social actors but, simply and tragically, a sector that it is believed can be discarded from society, that there is no need even to exploit.

An overview of the collective actions of the 1990s shows that the citizenship-exclusion axis has been one of the main constituents of action by the region's social actors, being a factor both in ethnic movements and in the new characteristics of settler movements, the demands of poor urban sectors, neighbourhood organizations and local or regional movements, youth

movements and mobilizations against company closures.

In general, it is around these issues of social democratization that the more political actors, such as parties moving towards what they call "people's concerns", or the more economic ones, such as sectors affected by economic crises and job losses, are repositioning themselves.¹⁷

3. The reconstruction of national economies and their re-entry into the world economy

The consequences of the transformation of the development model are the third axis of collective action. ¹⁸ The transformation of the old "inward" development model based on the State's action as an agent of development and the re-entry of national economies into the world economic globalization process on the basis of transnational market forces meant that the economy became less dependent on politics than it was under the inward development model, but left society entirely at the mercy of national and, particularly, transnational economic powers.

This transformation was effected in the main through adjustment or structural reforms of a neoliberal type. But neoliberalism has brought about only limited participation in the international economy and has resulted in certain sectors becoming newly dependent, so that a dual type of society is once again being created and the search for an alternative development model is under way. To put it another way, the neoliberal model served only as a break with the past and proved a total failure at establishing stable, self-sustained development.

Where issues associated with social actors are concerned, the new economic model that is taking hold worldwide has a number of consequences.¹⁹

On the one hand, the prevailing economic model tends to be intrinsically disintegrative at the national level and partially integrative, although obviously asymmetrical, at the supranational level. This implies the break-up of traditional social actors linked to the world of work and the State and makes it very difficult

for the new issues referred to (the environment, gender,

predominate, sometimes in the form of savage uprisings, sometimes through the mobilization of traditional actors linked to the State, in defence of their previous gains (public-sector employees, teachers or workers in formerly State-owned companies). Students are generally more concerned to defend course interests threatened by the privatization of higher education than to bring about deeper reform in the education and university system. Workers' struggles and demands aim to mitigate the effects of the model on their standard of living, employment and job quality, with the State invariably being called upon to intervene, and are not anticapitalist positions as such. Meanwhile, there is a double movement among business actors, who are split between the winners and losers from economic liberalization and globalization: the latter opt for defensive corporativization of a nationalist type, while the former seek internationalization of rules of action and a more aggressive internal dynamic, but without succeeding in turning themselves into a governing class.

4. The reformulation of modernity

The fourth axis, which can be seen as a synthesis of the others, but which has its own dynamic and specificity as a source of collective action, is the struggle over the model of modernity, identities and cultural diversity. Like all the others, of course, it is overlaid by struggles for citizenship.²⁰

Modernity is the way a society constitutes its individual and collective subjects. The absence of modernity is the absence of subjects. It needs to be remembered that, sociologically, we must speak not of "modernity", but of "modernities". Each society has its own modernity. The different models of modernity

urban security, local and regional democracy within a country, etc.) and the new social categories (age, gender and ethnic groups, different publics associated with consumption and communication) to become politically representable social actors. This breakdown of social actors is coinciding with the weakening of the State's capacity for action, which is a basic referent for collective action in Latin American society.

As a result, defensive struggles have come to predominate sometimes in the form of savage.

¹⁷ Escobar and Alvarez, eds. (1992), Eckstein, coord. (2001c), Calderón and Reyna (1995).

¹⁸ Regarding economic transformations, see Smith, Acuña and Gamarra, eds. (1994), Ffrench-Davis (2000) and ECLAC (1992).

¹⁹ Concerning the structural basis of social transformations, see Filgueira (2001). For their impact on social movements in the 1980s and 1990s, see Calderón, ed. (1986), Colegio de México (1994), Eckstein (2001a) and Stavenhagen (1995).

²⁰ For a general analysis of the subject of modernity, see Touraine (1992), ILADES (1996), García Canclini (1980), Garretón, ed. (1999) and Bayardo and Lacarrieu (1999). My own views can be found in Garretón (1994) and, more recently, in "La sociedad en que vivi(re)mos" (Garretón, 2000b).

are always a problematic combination of scientific and technological rationality, the expressive and subjective dimension (feelings, emotions, impulses), identities and the collective historical memory.

The particular form taken by Latin American modernity, based around what we have termed the national-popular matrix, has gone into crisis. What has been proposed in response to this is simply to copy the model of modernity identified with specific modernization processes in the developed countries, but with a special emphasis on the mass consumption and culture model of the United States. Neoliberalism and the so-called "new authoritarianisms", most of them military, identified their own historical project with modernity. The democratic transitions of recent years corrected only the political dimension, on which they put a democratic stamp.

In opposition to this model, there have arisen visions of Latin American modernity identified either

with a "deep", indigenously rooted Latin America, or with a single, homogeneous social base such as a racially fused population, or with a cultural and religious cement of Catholic origin. All these tend to define modernity or its alternative on the basis either of the externality of the subject, or of a transcendental essentiality, with the result that they fail to reflect forms of social coexistence in Latin America that combine – in a way that falls somewhere between confusion and creativity—the rational-scientific aspect, the expressive-communicative aspect and the collective historical memory.

This is probably the newest axis of the collective action seen in Latin America over recent years. It is especially visible in the new methods of indigenous action, in the sociability and political redefinition of the young, and in movements like that of Chiapas that combine different dimensions, including the ethnic, socio-economic and political dimensions.²¹

VII

Collective and political action

When we speak of actors and civil society, the reality we now have to deal with is quite a complex one, since what seems to be taking place is a general weakening of collective action and of social actors and movements and an alteration in the landscape of social actors.

The current situation is one of: greater individualization in the behaviour and strategies of the peasant movement, which are associated with migration and drug trafficking in some cases, with the probable exception of the Landless Workers Movement in Brazil; State legitimation and institutionalization of women's movements; the orientation of settler movements, formerly associated with land seizures, towards issues of urban security; workers' struggles against economic and labour policies and for a renewal of State intervention, more than against capital; guerrilla movements that are less focused on taking power than on negotiating a place for themselves in the institutional sphere; students who are more concerned to defend their gains and interests than to transform the education system; human rights movements that are more sporadic or ad hoc; the strengthening of politico-electoral actions and of citizen participation, rather than large movements for radical social change. Lastly, the most significant development seems to be the shift by ethnic actors towards struggles for principles of identity and autonomy from the national State.²²

The traditional actors have lost some of their social significance and are tending to become corporativized. Those that are emerging in response to new postauthoritarian issues have been unable to turn themselves into stable actors or a citizenry, but operate more in the capacity of publics or in ad hoc mobilizations. In situations like these, social actors as such are tending to be replaced by sporadic mobilizations and fragmentary, defensive actions, sometimes in the form of social networks that are significant but are not highly institutionalized and have little political representation, or by individual consumerism-type reactions or withdrawal. Another force, meanwhile, is that of individuals aggregated in the form of public opinion as measured by surveys and mediatized not by mobilizing or representative organizations but by the mass communications media.

 $^{^{21}}$ Escobar and Alvarez, eds. (1992), Eckstein (2001a) and Reyna (1995).

²² For an overview, see Eckstein (2001a). Regarding ethnic movements, see Stavenhagen (2001).

It is obvious that there are facets of the processes described which damage the quality of democratic life, by eroding the incentives for collective and political action, on the one hand, and by submitting the political process to pressures and bargaining by powerful corporate actors or to blackmail by large publics, de facto powers or the mass communications media, on the other. But it is also true that opportunities are opening up for more autonomous collective action and social actors.

The creation of actors in the style of the past can no longer be contemplated. It is unlikely that there can be a single subject or central Social Movement or social or political actor generating around itself a single field of tensions and contradictions that can link together the different principles and orientations of action arising from the axes of political democratization, social democratization, economic restructuring and identity and modernity.

Although it may well be that we are now seeing the end of an era characterized mainly by "inward" national development processes whose undisputed, unopposed agent was a mobilizing State, and the emergence of development processes that are caught up with transnationalized market forces, this does not mean that State action has lost its importance, but rather that changes are occurring in its organization and methods of intervention, and that its relations with other actors in society are being redefined.

Thus, and contrary to the optimistic or doomsday versions of globalization, the imperialism of the market or the resurgence of civil society, there is a paradox as regards the function of the State in a new socio-political model. If it is no longer possible to conceive of a State that is the exclusive unifier of social life, nor is it possible to dispense with State action to protect individuals and to create the spaces and institutions needed for significant actors to emerge independently of it. If the State and, in some cases, parties and the political class do not perform this function of re-creating the bases upon which social actors are formed, the social vacuum and crisis of representation will continue indefinitely.

All this means redefining the meaning of politics in democracy, because many of the criticisms levelled at recent democracies stem from a deeper questioning of the traditional forms of politics. Politics formerly had a double meaning in the social life of our countries. Firstly, the role of the State as the main engine of social development and integration meant that politics was seen as a way of gaining access to the State's resources. Secondly, politics played a fundamental role in giving meaning to social life and shaping identities, through projects and ideologies of change. This is why it was more of a mobilizing force and was more pervasive, ideological and confrontational than in other sociocultural contexts.

In the new situation created by the social, structural and cultural changes we have referred to, which are breaking up the unity of the society-polis, of the society built around the national State, the exclusive centrality of politics as the expression of collective action is tending to disappear. But it is acquiring a new, more abstract centrality, insofar as it has a responsibility to address itself to and create links among the different spheres of social life, without destroying their independence. Thus, there is less room for highly ideological, wilful or globalizing policies, but there is a demand being made on politics, the demand for "meaning", something that, on their own, market forces, the media world, particularisms or mere calculations of individual or corporate interest are unable to provide.

If the risk of traditional politics was ideologism, polarization and even fanaticism, the risk of today is banality, cynicism and corruption. As both traditional politics and authoritarian and neoliberal attempts to extirpate it have weakened, and as the inadequacies both of today's pragmatism and technocratism and of an exclusive reliance on civil society have become clear, the great task for the future is to rebuild the institutional space, the *polis*, in which politics regains its meaning as the link between strong, independent social actors and a State once again playing the role of development agent in a world that threatens to destroy national communities.

VIII

Parties and social actors

Military authoritarianisms sought to destroy any form of political action, and their main targets were political parties and organizations. Although they did not achieve their aim and these played a key role in democratization, the task of building up strong party systems remained. In some cases where the party system was completely destroyed, the task is to build parties. In other cases, it is to establish party systems by breaking the monopoly of the hegemonic party or a traditional two-party system, while in others again it is to rebuild the relationship among society, social actors and the party system. In short, there are countries that will have to deal with all or some of these tasks. Each country has a different problem, but all are engaged in one way or another in a complex process whose objective is a stronger party system capable of controlling a State which itself needs strengthening.

In general terms, there are at least three aspects of the party system that will have to be reviewed, to ensure that parties can perform their tasks of political leadership and intermediation between the world of social actors and the State.

The first need is for legislation to ensure that parties have status and financing, while at the same time establishing appropriate public controls over them. The second is for representation of the new types of fragmentation and conflict in society: if party systems are really to be a reformed expression of social demand in all its diversity, there will have to be innovation in the constitution of institutional spaces where they can encounter other manifestations of social life, as is illustrated by the legislation on popular participation in Bolivia, to cite one example. A third aspect, which will also determine the future of political parties, will be the ability to form majority coalitions to govern. As competitive multi-party systems are created, the most likely outcome is that there will be no party that can win a majority by itself and provide effective, representative government. This is already the central issue in Latin American party politics, and will continue to be so over the coming decades.

If party leadership appears to be challenged "from above" by the weakening of the State as a referent for social action, and "from the middle" by the problems inherent in reorganizing the party system, it can be said that, "from below", new social organizations appear to be reducing its role in society.

Among these, there is the so-called "third sector", constituted by NGOS, whose main role in the reconstruction of society is that of linking democratic elites of a professional, technocratic, political or religious nature with popular sectors, especially at times when politics is repressed by authoritarianism or society is atomized by the economic transformations imposed by the logic of the market. Actors of this type perform different roles in this respect. Firstly, they provide material support and organizational space to the poorer or weaker sections of society, particularly the most militant ones, when they cannot take direct political action. Secondly, they link these sectors with national and international human rights, economic, religious and political institutions through a cadre of social leaders and activists belonging to the social and political world, thereby providing a wider space for participation than the parties. Thirdly, some of them at least are forums for learning about what is happening in society and for devising social and political ideas and projects for change, so that they become centres of thought or leaders of public opinion.

But we need to avoid taking a naïve or exaggeratedly optimistic view of the relations between NGOs and other types of organizations or institutions such as political parties. The fact is that NGOs sometimes tend to replace political actors and promote their own particular interests, while at other times they tend to radicalize social and political action by calling for a type of direct democracy that may leave no room for institutional determinants. In turn, political parties cannot always resist manipulating these organizations, and tend to rule out actions that do not yield immediate political gains. Thus, the process of learning and mutual understanding takes a long time.

IX

Conclusion: the new matrices

of social action

What we have tried to suggest in this work is that we are faced with new forms of collective action that depend more on axes and processes of historical action than on structural positioning, although this does not mean that there are no major resistance and defensive movements that resemble the more traditional forms characteristic of the national-popular matrix. Even in these movements, however, there is a significant admixture of the new principles and forms of collective action.

As regards the matrix that shapes social actors (the relationship among the State, representation, the regime and the socio-economic and cultural base), with the breakdown of a particular relationship between the State and society which we have termed national-popular, and in which the political dimension was the most important in shaping social actors, what we are seeing is the disappearance of a central or structuring principle in the formation of the generality of these actors, who are coming to define themselves in relation not so much to a central social movement or project as to different axes constituted by political and social democratization processes, economic restructuring and the affirmation of identities and models of modernity.

As regards the configurative matrix (combination of levels and dimensions and of spheres and ambits in which the action or actor is situated), there would seem to be a tentative and ambiguous shift away from actors that are basically economic and political and centred on the historico-structural level of societies and towards actors that are defined socioculturally and by reference to the worlds of life (subjectivity) and to organizational and institutional instrumentalities.

This is not the place to analyse recent manifestations of collective action which, because of their complexity, would seem to contradict this analytical framework. Nonetheless, all of them (urban explosions such as those of Caracas or Ecuador and Bolivia, movements with a large ethnic component, such as that of Chiapas, citizen participation movements such as those of Peru, pickets in Argentina, workers' strikes again company closures, teachers' and public employees' movements, the Landless Workers

Movement in Brazil, human rights movements in Central American countries and the Southern Cone, students in Mexico and Chile and guerrillas in Colombia, to cite just some very well known examples), despite the huge differences between them, can be studied from the viewpoint sketched out here, i.e., as manifestations of the survival, breakdown and recomposition of this double matrix in a context of globalization and transformation of the development model and of institutional frameworks.

Changes in civil society have given rise to new types of demands and principles of action that cannot be captured by the old struggles for equality, liberty and national independence. The new issues, which are concerned with daily life, interpersonal relations, personal and group achievement, aspirations to dignity and social recognition, the sense of belonging and social identities, are situated rather in the dimension of what have been termed "worlds of life" or intersubjectivity, and cannot be replaced by the old principles. They no longer belong exclusively to the private domain and they exercise their demands in the public sphere. This new dimension does not replace the old ones, of course, but it brings more diversity and complexity to social action.

The main change that this dimension is introducing into collective action, apart from the fact that the old forms of organization (unions, parties) seem to be inadequate for these particular purposes, is that it provides a very diffuse principle of opposition and is based not only on confrontation but also on cooperation. Consequently, it is not directed against a clear opponent or antagonist, as was generally the case with traditional social struggles.

Whereas in the past we saw a central subject in search of social actors and movements that would embody it, the current situation seems to be more one of particular movements and actors seeking a central constitutive subject or principle.

What would seem to be the most likely outcome in the near future is a variety of forms of struggle and mobilizations that are more autonomous, shorter, less politically oriented, institution-related rather than extrainstitutional, and more oriented towards sectoral inclusion, partial modernizations and gradual democratization and social integration than towards radical, comprehensive change. The substance of these mobilizations will probably be split between concrete demands for inclusion and the search for a distinguishing meaning and identity in the face of the universalization of a "modernity" identified with the forces of the market and its agents. If these demands are not met, it is very likely that there will be some sudden explosions and rebellions, or a withdrawal into apathy, individualism or communitarianism, or some combination of these, rather than a resurgence of coherent, stable actors.

In summary, while it is true that there can be no return to traditional collective action (although many of its elements may survive), there is potential in the new situation, as identified in other sections, for a redefinition of citizenship and a new way of thinking about collective action. What still remains to be resolved is the relationship between these manifestations and political life. There seems to be a vital need for institutionalized spaces in which traditional forms can be expressed along with emerging ones. As we have said, the paradox is that this can only happen if the initiative comes from politics and political actors, however problematic this may be, and however much it may seem to go against the tide.

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The idea of citizenship in the Latin American debate

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Director, Costa Rica Office Latin American Faculty of Social Sciences csojo@flacso.or.cr This article looks at some of the most significant contributions to the contemporary Latin American debate on citizenship. The subject has taken on central importance in the justification of public policy throughout the continent, chiefly because it allows the approach taken to the social question to be based on active integration of economic, social and cultural phenomena, and makes it possible to address aspects of life in society -such as gender, ethnic and environmental conflicts- that pose major challenges for political regimes and for economic stability. Following an introductory section, the article reviews the conceptual underpinnings of sociological thinking about citizenship, examines the implications of globalization for the analysis and identification of problems associated with citizenship, summarizes some Latin American contributions that have helped to expand the explanatory capabilities and practical usefulness of the concept and, lastly, offers some final considerations.

I

Introduction

Sociological re-evaluation of the issue of citizenship was given a new impetus by the awakening of Europe from the authoritarian rigours of the Second World War. This historical point is important because it seems clear, as Escalante (1995) notes, that thinking about citizenship tends to take place cyclically, often in the wake of political traumas. In Latin America, the renewal of debate about the subject coincided with the democratic transition that began to take hold right across the region in the mid-1980s. Consequently, the first thing that can be said is that the issue of citizenship is closely linked to the more general one of democratic government. Once the terms of the pro-democracy political pact have been established, societies begin to debate the particular characteristics of this relationship between the individual and authority, between private interests and collective needs, between "ourselves" and "the others".

At the formal legal level, the question of citizenship is resolved by creating a prescriptive framework of rights and duties binding on all individuals included in a historico-territorial community, or what is called a nation. The rights pertaining to citizenship are thus expounded in the constitutional charter, which at the same time defines who citizens are and who benefits from and is bound by these rights and duties.

At the politico-ideological level, citizenship is reflected as the dominant self-awareness that is held to enshrine the integrative substance of society, often in an affirmation that does not admit of empirical confirmation. Thus, as Tenorio (1995) puts it, reviewing the exclusionary underpinnings of gestatory civic culture in the United States, "citizens are those who are citizens, who act in a citizen-like manner". Citizenship is an affirmation of community, largely based on the idea of the "other". A person is a citizen

in relation to those who are not. In the cold war world, ideological divisions made it easier to identify the citizenship of communities that in many cases were subject to authoritarian political regimes: socialists against imperialism, capitalists against communism. At present, this idea of citizenship seems to correspond to the formal idea of "nationality", because it is the common denominator that identifies the citizen community thus defined as a "nation". Nonetheless, there are still some politico-ideological considerations that go beyond this: religious denominations, to take the most dramatic example, tend to create communities that transcend national States. Ethnic differences, by contrast, yield before the affirmation of a dominant culture that is held to be the interpreter and guarantor of citizenship.

Sociological thinking is grounded more in the dynamic of social integration, or the identification of forms of exclusion within community environments that seem to be formally homogeneous. As Jelin (1993, p. 25) puts it, what this is about is not the ahistorical affirmation of a set of practices that define citizenship, but rather a sphere of relationships pertaining to "a conflictive practice linked to power, which reflects struggles over who can say what, by determining what the shared problems are and how they are to be addressed".

In what follows, we review some aspects of the conceptual discussion about citizenship and their implications for the political debate in Latin America. We first analyse the classical formulation of the concept in post-war British sociology. We then consider what the implications of globalization are for an idea that is strongly rooted in the specificity of the nation State, a *locus* that is in crisis in the age of transnationalization. Lastly, we touch on some contributions that have come out of Latin America's experience in the 1990s.

П

Marshall and the classical idea of citizenship

The modern conception of citizenship originates in the thinking of the British sociologist Thomas H. Marshall, set forth for the first time in a series of conferences held at the University of Cambridge in 1949 and published the following year under the rather misleading title Citizenship and Social Class. I say "misleading" because this author was not really trying to analyse the differential opportunities for understanding the problems of citizenship using a theory of social classes, noting rather that in a way the "logic" he was working from was a different one. Marshall believed that social classes could be understood on the basis of two analytical procedures: an approach, undoubtedly Weberian in origin, whereby class is seen as being based on a "hierarchy of status" sustained by law and custom, and a typology of social classes originating in the results of the linkage between the institutions of property and education and the workings of the production structure. In both these cases, the first of them referring to the stratification that predated capitalism and the second to more modern forms deriving from industrialization, the principles underlying citizenship and class are opposed. "Citizenship is a status bestowed on those who are full members of a community. All who possess the status are equal with respect to rights and duties... Social class, on the other hand, is a system of inequality. And it too, like citizenship, can be based on a set of ideals, beliefs and values" (Marshall, 1992, p. 18). The argument that follows seeks to answer the central question of how two opposing and "warring" principles flourished in Britain during the three centuries prior to the mid-twentieth century. Although the study is very local and may be criticized for numerous omissions, particularly in the light of the global changes at the end of the century, Marshall's definition is still useful for those considering the scope for consolidating democracy in societies that are only just becoming acquainted with civilian government or in others that, while they may not have suffered the rigours of civil war, have experienced the ravages of economic crisis and the no less stringent measures taken to stabilize their economies and re-establish growth.

Marshall breaks down the idea of citizenship into three elements: civil, political and social. He has been much criticized for settling on an excessively sequential chronological development. But once it is recognized that these developments do not take place in isolation only after the end of the preceding stage but, as he himself pointed out, are obviously overlapping, and once it is accepted that there can be progress and indeed reverses with any one of these elements, Marshall's analytical approach can be reconstructed with fewer misgivings. For him, civil rights are composed of "the rights necessary for individual freedom": freedom of expression, thought and religion, the right to private property, freedom of contract, and the right to justice. Political rights are related to the right to participate in the exercise of public authority, as a member of a body invested with political authority or as an elector of the membership of these bodies. The expansion of social rights, lastly, and the greater flexibility in their design necessitated by the variety of problems they may encounter, mean that they may range "from the right to a modicum of economic welfare and security to the right to share to the full in the social heritage and to live the life of a civilised being according to the standards prevailing in the society" (Marshall, 1992, p. 8).

One's first reaction is that while it does not seem too difficult to affirm and even identify civil and political rights, the third definition is extraordinarily broad. Consequently, it has to be recalled that Marshall is concerned to identify the institutional forms corresponding to the development of each of these rights. Indeed, it is to this that he devotes the rest of the work.

Thus, the institutions that guarantee and mould civil rights are courts of justice, and the attainment of civil citizenship rights has a great deal to do with the consolidation of procedures for administering justice and protection that are economically accessible to all. Individuals are the primary beneficiaries of these rights. In the eighteenth century, the courts played a crucial role in defending individual freedom, even against the public authorities. In the economic field, freedom of labour —what Marshall calls "the right to follow the occupation of one's choice in the place of one's choice, subject only to legitimate demands for preliminary technical training" (Marshall, 1992, p. 10)— was

essential to the development of industrial capitalism, as Marx recognized in the mid-nineteenth century. By the beginning of that century, individual economic freedom was regarded as axiomatic.

It is then, Marshall thinks, that it becomes possible for the formative period of political rights to begin. What this means is not expanding the civil equality already achieved by means of new rights, but extending it to larger and larger sections of the population. "In the eighteenth century," Marshall notes, "political rights were defective, not in content, but in distribution; defective, that is to say, by the standards of democratic citizenship." (Marshall, 1992, p. 12). Long tied to civil citizenship, political rights were the privilege of a powerful minority of wealthy white men. They were not so much a right as a "capacity" of certain holders of civil rights. In the twentieth century, political rights became completely independent, at least for men, because the financial restrictions on who could vote and be elected began to be abolished and the trend was clearly towards universal adult male suffrage. Institutionally rooted in parliaments and local councils, political rights are primarily collective.

The origin of social rights goes back to the midnineteenth century, with policies to protect the poor and regulate incomes, but with a peculiarity similar to that seen in the case of the first political rights. Social benefits were granted in the form of assistance to people who were not citizens. In other words, the social assistance that was the forerunner of social citizenship rights had its origins in a form of relief that denied citizenship: "The stigma which clung to poor relief expressed the deep feelings of a people who understood that those who accepted relief must cross the road that separated the community of citizens from the outcast company of the destitute" (Marshall, 1992, p. 15).

In today's Latin America this "exclusionary" application of social rights has found some new expressions, albeit certainly not institutional ones of the type Marshall was questioning. We shall be looking at this later on.

Marshall recognized that, in his time, the application and expansion of rights arising in this way had not yet contributed to a substantial reduction in inequality. The response that he ventures is closely linked to his assessment of how social rights had developed in the twentieth century. The social struggles of that century led to a profound change in the aspiration to social citizenship, the starting point being efforts to combat social deprivation by "raising" the floor of the building but leaving its structure intact. This was

succeeded by the aim of transforming the structure of the system, turning -in Marshall's words- "a skyscraper into a bungalow". This change, however, came up against "natural limits", prominent among them being the procedures designed to combine social integration efforts with the system of market pricing. Marshall concludes that extending social services is not necessarily a way of levelling incomes, but rather an instrument for "enriching the material substance of civilised life". In other words, the purpose of social security systems is not to do away with income differentials, as in the case of the abolition of social classes thus defined, but to do away with the differences in social status that might arise from income inequalities, among other things. Another limit is the availability of resources for satisfying individuals' growing expectations. Marshall recognizes that the "target is perpetually moving forward, and the state may never be able to get quite within range of it. It follows that individual rights must be subordinated to national plans" (Marshall, 1992, p. 35). This limitation is conditioned by the different strength of the competing demands, and does not mean that individual rights are defenceless: they can be defended in the appropriate legal setting, while collective interests originate and are aired in parliament and local government.

The argument moves on, lastly, to the affirmation of two paradoxes that illustrate how the principle of individual gain, which is the engine of the market economy, has been able to survive and develop strongly alongside a principle as contradictory as equality, which is sustained by the ideal of citizenship. In a paragraph as lucid as it is lyrical, Marshall says that:

"Social rights in their modern form imply an invasion of contract by status, the subordination of market price to social justice, the replacement of the free bargain by the declaration of rights. But are these principles quite foreign to the practice of the market today, or are they there already, entrenched within the contract system itself? I think it is clear that they are" (Marshall, 1992, p. 40).

The solution to this paradox lies in the fact that the institution of citizenship offers individuals rights but also imposes responsibilities, which become not a duty to submit to the absolute will of the State, but a permanent incitement to act in a way that furthers the welfare of the community.

The other paradox derives from the relationship between citizens and contracting parties in the market economy. Personal gain is the force that governs the liberal system of contracts, whereas public responsibility is the engine of social rights. In Marshall's thinking, the idea of citizenship draws on both principles. He suggests that the citizen is asked "to answer the call of duty", while at the same time room is left for motives of individual self-interest.

In summary, it seems to me that the way citizenship rights have developed from their civil origins into social rights is the result of an encounter between the individualistic ideals driving capitalism and many of the egalitarian values driving the creation of the democratic political system. This encounter, which Wolfe (1977) attributed to liberalism and democracy, Marshall sees as the positive forward movement of two opposing principles that work in harmony because they are mutually limiting. As Bryan Roberts puts it in an unpublished essay, Marshall defined citizenship as a principle of equality that coexists uneasily with the social inequality resulting from the play of market forces. He tends to see citizenship as being fully developed when the tensions of market-induced social inequality are mitigated by the stimulus of equal opportunities and social mobility (Roberts, ed., 1998, p. 3).

Ш

Citizenship and globalization

The main challenge in applying Marshall's thinking today, I believe, is to adapt its tenets to the changing conditions of the capitalist world in the post-cold war era. Its relevance is undeniable because, as Robert Moore suggests in his prologue to the work of Marshall's being discussed here, the idea of citizenship has emerged in the post-cold war world not as an expression of the liberalism that might have been its source in its mid-twentieth century version, but as a manifestation of resistance to a presumedly global and presumptuously universal liberalism which does not recognize the legitimacy of State intervention to regulate relationships between individuals and the market. In a way, this is the best legacy of the Marshallian idea of citizenship. There is no citizenship in an unalloyed market; consumers are not citizens because they have no rights. Their only duty is to realize individual gain.

In an essay to complement Marshall's study that his London School of Economics colleague Tom Bottomore wrote 40 years later, there is a thought-provoking review of the implications that the most significant global changes of recent years may have for Marshallian thinking about citizenship (Bottomore, 1992).

Global developments mean that a distinction needs to be drawn before consideration can be given to the three areas of citizen rights defined by Marshall. Bottomore follows up the suggestion made by other authors that a distinction should be made between formal citizenship, defined as membership of a nation

State, and substantive citizenship, which implies the possession of rights and the ability to exercise them, with some degree of participation in the public and private spheres, within the three areas defined by Marshall. Brubaker (cited by Bottomore, 1992) notes that formal citizenship is not a prerequisite for any kind of substantive citizenship, being neither a sufficient nor a necessary condition. It is not a sufficient condition because, as women and subordinated ethnic groups know very well, it is possible to belong to a national community while at the same time being excluded from the enjoyment of certain rights that are monopolized by others. It is not a necessary condition because it is possible to enjoy certain social, civil and even political rights without actually being part of a national community.

This contribution is very important because it means that the debate about citizenship can be removed from the conventional legal framework and placed on a strictly sociological level. According to Bottomore, the formal aspect of citizenship has been called into question because of the spread of three phenomena. Firstly, the growth of migration not only from peripheral countries to the developed powers, but among developing areas within the peripheries themselves, which has led to growing demands, for social rights in particular, that States cannot simply ignore even when those making them are not formally citizens. Secondly, a tendency towards the internationalization of legal working which necessitates favourable conditions for the movement and legal residence of foreigners. And

thirdly, the more general problem of the relationship between residence and citizenship, and the definition of "the nation" as the exclusive *locus* of citizenship.

Substantive citizen rights do not arise in a cumulatively and mechanically consequent way as Marshall might be thought to assert, at least on a hasty reading. The transformation of the socialist countries made it plain that social rights could be developed quite freely in situations where there was far-reaching repression of political and civil rights. Again, democratic reform opened the way to a rapid recovery of civil liberties and political rights in those countries, and at the same time to a gradual erosion of the achievements of social equality in the Marshallian sense, i.e., over and above incomes. Meanwhile, although a good deal of information is available about shortcomings in the attainment of objectives associated with social rights, there are gaps when it comes to civil liberties and political rights, and new areas of difficulty have emerged. The issue of intellectual property, it seems to me, is a good example of a field in which globalization is beginning to create serious conflict between individual interests and collective benefits. The intellectual property protection agreements adopted under the auspices of the World Trade Organization (WTO) have served to create global rights over knowledge and its distribution and commercial use. The leading holders of these rights are no longer individuals rooted in particular nations but corporations that act on the global stage.1 Purely by way of example, it is well known, and has been the subject of international criticism, that the traditional knowledge of native peoples concerning the curative uses of certain animal and vegetable species has ended up as the intellectual property of pharmaceutical multinationals. As Shiva (2000) points out:

"The competition is highly unequal not only because the corporations are powerful and the poor are not, but because the rules of free trade allow corporations to use the machinery of the nation-state to appropriate resources from the people, and prevent people from asserting and exercising their rights."

The issue of sustainable development, meanwhile, opens up a sphere in which the limits of individual freedom, the importance of the national and even the primacy of "the human" or "the social" as development factors are unclear. Van Steenbergen (1994) points out how little progress has been made in analysing the linkage between the issue of citizenship and "the environmental or ecological 'problématique'". He suggests that this subject can be approached in three ways. Firstly, by confronting the anthropocentric view of rights and expanding it to include the rights of animals or even those of unborn human beings, a particularly sensitive element in the "pro-life" struggle of anti-abortion organizations. Secondly, in the environmental approach to citizenship, by stressing people's "responsibility" to defend the natural world: this confrontation with "the primacy of society over nature" (ibid., p. 146) is unquestionably a key aspect in the North-South dialogue concerning development opportunities, as it implies a sort of penalization of social uses for territory and a diminution of the sovereignty of national States over natural resources. And thirdly, by seeing global ecological citizenship as the outcome of a comprehensive understanding of planetary resources, combining options based on the control and safeguarding of resources. The idea of control is related to the development of the technical, political and institutional tools needed to deal with the tasks of sustainable development. The idea of safeguarding, by contrast, involves looking at the earth as a habitat, an indissoluble relationship based on equality of rights for all living creatures.

The same is true of the known weaknesses of the democratic process, brilliantly set forth by Bobbio (1984) in his well-known work The Future of Democracy (Il futuro della democrazia). The limitations on the accreditation of individuals able to vote, the exclusion of sections of the population from the right to represent collective interests in the public sphere, the growing homogeneity of political offerings, which reduces the real scope for choosing among alternatives, and the curtailing of the sphere in which decisions are submitted to the electoral process; these are some of the limitations that daily thwart the full exercise of political citizenship rights, even if we follow Bobbio in understanding democracy in its narrowest sense as a decision-making procedure. It is in this sphere that the cultural issue has meant an ongoing redefinition of the diversity of situations to which globalization is exposing the traditional idea of citizenship. Habermas (1994, p. 25) frames it as an active view of citizenship whereby

¹ The Agreement on Trade Related Intellectual Property Rights (TRIPS) was conceived and shaped by three organizations: the Intellectual Property Committee, comprising 12 United States corporations; the Japanese Federation of Economic Organizations (Keidanren) and the Union of Industrial and Employers' Confederations of Europe (UNICE) (Shiva, 2000).

the organization of individuals does not give rise to a legal status vis-à-vis the State, a credential, since:

"...citizens are integrated into the political community like parts into a whole; that is, in such a manner that they can only form their personal and social identity in this horizon of shared traditions and intersubjectively recognized institutions".

The features of cultural integration that he refers to here are taking on renewed importance in the search to adapt the issue of rights to the social and political changes now going on. García Canclini's suggestion (1995, pp. 30 ff.) that the creation of post-modern identities is based on transferritoriality and multilingualism is thus an illuminating one.

"They are structured –these identities—less by the logic of States than by that of markets; rather than being based on oral and written communications covering personalized spaces and effected at close quarters, they operate through industrially produced and technologically conveyed culture and deferred, segmented consumption of goods."

These are integration patterns, then, that are well suited to this global stage where the relationship with the market also gives a sense of belonging and shapes a social community. Globalization thus has to be understood not only as a process whereby stock market and commercial transactions increase in scale and reach, or even -as Held and others (1999, p. 28) have notedas a shift in the centres of power taking them further away from the places experiencing their effects. What is proposed is the general adoption of an idea of consumption that goes beyond the logic of possessive individualism (McPherson, 1977) to the benefit of "collective appropriation, in relationships of solidarity with and consideration for others, of goods that provide biological and symbolic satisfactions" (García Canclini, 1995, p. 53).

Nonetheless, it may be thought that, where political and civil rights are concerned, globalization has manifested itself in a tendency towards uniformity, towards the definition of parameters that are universally acceptable over and above cultural or technical differences (as in the case of political systems). The same is not true of social rights, which are the most controversial, firstly because of the scope of the social

policies to which they are now giving rise, and secondly because of the effects that even defining them must have on the social structure.

This appreciation gives rise to an argument which is crucial for an understanding of the phenomenon of citizenship, and which Marshall did not explore. The definition of rights is a field of social struggle, an arena of political confrontation and class struggle. As the Sussex professor emeritus puts it:

"It is evident today that what have been called the rights of citizenship, which I now refer to in a broader context as human rights, are in a continuous process of development which is profoundly affected by changing external conditions (especially in the economy), by the emergence of new problems and the search for new solutions. One major, more or less constant, factor in this process, as I have emphasised, has been the antithesis between the inegalitarian structure and consequences of a capitalist economy and the claims for greater equality made by diverse social movements since the end of the eighteenth century. Within this general opposition of different interests and values the conflict between classes and classbased parties still plays a leading role as a principal source of policies intended to limit or extend the scope of human rights, and in particular the degree of collective provision to meet what are defined as the basic needs of all members of a society at various stages in its development" (Bottomore, 1992, p. 89).

Bottomore then goes on to recognize, somewhat reluctantly, that in the late twentieth century certain antagonisms that are not associated with production (such as those between the sexes or among ethnic groups) took on a central importance, although he hastens to point out that many of them originate partly in inequalities generated by capitalism. As we shall see later on, these antagonisms – which certainly cannot be understood in isolation from the capitalist sphere, but which are not peculiar to it- are essential to an understanding of the contemporary Latin American debate about citizenship. The crux of this contribution of Bottomore's, to my way of thinking, is that it identifies the centrality of social action in defining what a society understands by and defends as citizenship rights in a particular historical situation.

IV

Latin America and citizenship

We shall now review some contributions to the debate about citizenship in Latin America. The first thing to note is that the renewal of interest in the subject has much to do with the way political and academic sectors have become reconciled to a democratic form of political system. From being considered an expression of middle-class domination, a façade for class totalitarianism, democracy has become an unquestioned value. This does not mean, however, that there has been any relaxation of vigilance or willingness to overlook the failings of the recent democratization process in the region, particularly where social development is concerned. The search for ways of approaching this new relationship with democracy has led to the emergence of conceptual debates for which there was previously no place, and which have unquestionably enriched our knowledge of the region's political realities: the subject of governance, the issue of civil society and, more recently, thinking about comprehensive rights within the framework of the citizenship concept are all means towards this end. The subject of governance became important when the region's new democracies had to start dealing with the day-to-day problems of political management at a time when social demands were growing and the scope for a public-sector response was limited by the economic crisis and by stabilization and reform policies whose chief objective was to contain public spending.² The issue of civil society has provided the framework for new debates about social matters, and these debates have taken on particular importance now that the region has left behind it many of the political-military confrontations that had subjected the relationship between State and society to all sorts of rigid structural determinations. The debate about civil society, while it is still largely focused on taxonomic aspects, has allowed for recognition of the diversity of the social processes and subjective positions around which the contemporary movement of society hinges.³

The idea of citizenship is a relevant one for dealing with the socio-political challenges of Latin America, in my opinion, for two key reasons. Firstly because it sets out from a precept of equality which accords with the aim of democratic modernization even if it comes up against the effects of economic reform and the contemporary organization of the production system. Secondly because, as Roberts (ed., 1998) points out, it allows an integrated approach to be taken to political, economic and social matters, which may be the only way of dealing with a future situation in which it seems that the growth of companies will always be given precedence over the welfare of individuals. It offers a possible understanding of democracy that is not confined to the powers of the State, on the one hand, or the creation of freedom and wealth in the marketplace, on the other. It is an opportunity to recognize the liberating power of rights. As Touraine (1994) puts it:

"The subject of citizenship means the free, voluntary construction of a social organization that combines the unity of the law with the diversity of interests and respect for fundamental rights. Instead of identifying society with the nation, as in the most important stages of American independence or the French Revolution, the idea of citizenship gives a solid meaning to that of democracy: the construction of a truly political space that is neither the State nor the market."

The return to citizenship thus seems to be an opportunity to place social issues back at the centre of the analysis when studying the performance of political and economic systems. This overarching objective can be discerned in the diversity of Latin American studies dealing with the issue. In particular, though, it must be recognized that the subject of citizenship has been little addressed from a general standpoint, as far more attention has been given to analysing the problems of specific citizenships, if it can be put this way. National studies dealing with the subject emphasize particular

the Latin American debate on the basis of what he sees as the primacy of the Gramscian approach emphasizing popular struggle against the hegemony of the market and the State.

² See Camou (2000) for a conceptual analysis of governance that is sensitive to the peculiarities of the problem in Latin America.

³ Biekart's analysis (1999) of the construction of civil society in post-war Central America summarizes the most salient features of

aspects, such as the ethnic or cultural issue or political and social problems, but it is not common to find analyses that weigh up the question of citizenship in all its many aspects in particular societies. This shortage -so far as we have been able to ascertain- of comprehensive studies into the three dimensions of citizenship may be a clear indication that the problems of citizenship in Latin America do not centre to any large degree on issues of geopolitics and national States, because the processes that generate these problems are also understood to be situated at a transnational level. It is therefore understandable that the studies we know of should be largely confined to aspects associated with particular failings, deficient citizenships or certain subjectivities (such as women, ethnic groups, young people in deprived urban areas, etc.). In these cases, even when specific analyses are being undertaken, the explanatory presence of processes transcending national boundaries is recognized. To put it another way, the common denominator is that the criteria being worked with are those of substantive citizenship and not formal citizenship.

The subject of citizenship has been incorporated, from different analytical points of view, into thinking about the political performance of the Latin American democracies, some of which are confronted with the disintegrative tendencies of a culture of globalization that exerts a centrifugal force on the formation of national identities. From other perspectives there has been analysis of the impact of shifting production patterns on the consolidation of less deficient forms of social integration, and very particular attention has been paid to the characteristics of experiences of exclusion and deficient citizenships, especially those related to the concern of gender studies with the evolution of forms of discrimination against women. Much of the regional debate about citizenship, in fact, has its origins in the contributions of Latin American feminist thinking to our understanding of the limitations on full participation by women in the exercise of the citizen rights to which they are entitled.

Citizenship as identity has been very thoroughly discussed, as we noted earlier, by García Canclini (1995) in his study of cultural policy and consumption. His argument sets out from the homogenization effect that globalization has on national identities, which represent a sense of sameness but, even more, an awareness of difference: "Citizenship and rights are not just about the formal structure of a society; they also indicate the state of the struggle for recognition of others as possessors of 'valid interests, relevant values and

legitimate demands" (ibid., p. 21). García Canclini's argument postulates that the status of consumer is increasingly what integrates national communities, and that with globalization this status becomes detached from links of origin and is redefined:

"A nation, for example, is no longer much defined by territorial limits or political history. Rather, it survives as an interpretative community of consumers whose traditional habits—the food they eat, the languages they speak—mean that they have a particular way of relating to the objects and information that move around international networks. At the same time, we find international communities of consumers—we have already mentioned young people and television viewers—that provide a sense of belonging when national loyalties are diluted" (ibid., pp. 49-50).

The author concludes his reflections by wondering about the implications of these new bases of identity for the formation of citizenships in what he terms "increasing participation through consumption". He is aware that the rationality of individual benefit that guides consumption is not necessarily favourable to ideas of solidarity and the common good. Nonetheless, he recognizes that many antagonisms that are central at the national level are played out and aired in wider ambits that are better informed about what is happening around them. He thus proposes the restoration of "political" action to turn consumers into citizens through redefinition of the social role of the market and social integration based on "cultural subsystems" that are not defined in the national socio-territoriality.

The crux of his position lies in the understanding of the prerequisites for the transition from consumers to citizens and not, as might be affirmed, in the replacement of consumers by a lofty, utopian citizenry that gives precedence to collective interests over individual ones. There are three prerequisites for a sound link between consumption and the exercise of citizenship: i) easy access to a very large, diversified supply of goods and messages that are representative of the markets for these; ii) product quality control based on adequate information and the ability to withstand advertising, and iii) "democratic participation by the main sections of civil society in decision-making in the material, symbolic, legal and political spheres where consumption is organized, from sanitary certification of foodstuffs to the awarding of radio and television frequencies..." (García Canclini, 1995, p. 53).

I note in García Canclini's argument a commendable concern to identify mechanisms for constructing citizenship in an environment dominated by relationships of consumption (of goods, services and symbols) that have inflated the power of individualism and minimized the importance of national cohesion. Nonetheless, it may be said that factors apparently accounting for a widespread cultural situation may develop with different nuances in different dimensions. For example, it is obvious that communication flows, and thus the information available to guide citizens in their consumption, are much greater in urban areas than in rural ones, and although it is true that the region is urbanizing rapidly, some countries, such as those of Central America, are still predominantly rural. The creation of a culture of informal life, which results from the extension of non-mercantile networks of interchange and production, is placing a larger and larger proportion of the population in Latin America's cities outside the rationality of a consumption that, viewed from the logic of capital, only serves individual interests. The rigidity of labour markets has fostered the development of forms of social capital that do not relate production and consumption practices to individual gain and the ideal of competition, but rather to cooperative practices and solidarity networks, which create collective benefits far more than individual gain (Pérez Sáinz, 1996). It is a matter not so much of participation in alternative transnational flows as of a local strategy for the formation of social identities that allows for incorporation into the dominant networks of transnational culture.

Calderón, Hopenhayn and Ottone (1996) bring to the debate a proposal for extended citizenship that seeks to identify functional links between the requirements of economic development and the needs of social integration. Their contribution also addresses an issue that is central in defining the new outlines of a substantive citizenship consisting in the construction of identities based on a non-antagonistic understanding of otherness. Extended citizenship is no longer constructed through the affirmation of an identity that is contrary to "the others", but rather through an identity characterized by solidarity and cooperation. In their proposal, the idea of citizenship takes on "semantic complexity" and helps to extend the idea of social and political integration in three ways. These are, first and foremost, "greater productive equity", which refers to the scope for achieving participation in the dynamic components of economic growth and thereby changing access to the enjoyment of goods and services.

Secondly, "greater symbolic equity", which they, like García Canclini, understand as wider opportunities to obtain and handle information, and to participate in cultural consumption networks; this symbolic equity is crucial for the formation of diagnostic capabilities in relation to the citizenship deficit, for the formation of rights and for the enforcement of standards, and is indissolubly linked to the transformation of public spaces in the direction of good government: more transparency, more information and greater powers for the governed to hold those who govern them to account. The third and last element identified by the authors is greater equity in the exercise of rights in a context where the existence of other identities is recognized.

Calderón, Hopenhayn and Ottone (1996) recognize that progress with the social integration processes referred to at the extended citizenship level does not happen in a neat, sequential way. On the contrary, they note that there is a tendency towards an expansion of equity on the symbolic plane that is improving citizens' ability to scrutinize public administration. But this process of creating and increasing expectations is not matched by a tendency for productive inequity to decline. This same paradox can be identified when, in Marshall's terminology, progress with civil and political citizenship rights creates an awareness of the limitations of social citizenship. As these authors put it:

"In the coming years, the asynchrony between slower movement in the processes of socio-economic integration (driven by productive transformation and social rationalization) and more rapid integration at the symbolic and cultural level (driven by democratic political liberalization and the cultural industry) may become a core issue in the struggle for citizenship in many of the region's societies" (ibid., 1996, p. 78).

It is clear that a review of the issue of citizenship today needs to incorporate the effects of more advanced information and communication flows that give individuals greater opportunities to recognize and select policy or consumption options than they had in the past, when information and knowledge were subject to authoritarian centralization. Furthermore, a renewed sociological analysis of citizenship has to deal with a macrosocial and macropolitical environment that is undergoing profound changes, owing to the spread of democratic government in combination with an economic reform programme that is repositioning economies, the structural situations of individuals and the role of the State in relation to economic growth and

development. It is recognized that, where Latin America is concerned, these new factors are crucial for the restoration of the idea of citizenship.

Lying between these concerns and the experience of real life is a range of thinking about citizenship whose starting point is, firstly, the need for a "bottom up" semantic reconstruction and, secondly, criticism of curtailed rights and deficient citizenships.

Addressing the "bottom up construction" of citizenship, Jelin (1993) offers an interpretation of the concept that is rooted in two basic considerations: the social construction of rights and the "revolutionary" nature of these, insofar as they generate collectively understood responsibilities. Jelin notes that the essential right is "the right to have rights", which she takes from Arendt's position (1973). Further on, she maintains that this is indispensable if there is to be recognition of the plasticity of rights and the potential for application of an incrementalist logic.

In Latin America, the dynamic of the social construction of rights and duties has the peculiarity that its setting is the experience of democratic transition and that it is accompanied by sociocultural practices designed to preserve elements of collective identification in a politico-authoritarian environment. Consequently, the citizenship construction challenge seems to be associated, on one side, with State responsibility for the consolidation of democratic institutions and, on the side of society, with the gestation of new practices and the adaptation of old ones, whether rooted in authoritarianism or solidarity, to make them consistent with democratic ideals and their institutional aspects.

"Where the formation of subjects is concerned, the issue is the learning of reciprocal expectations in relations with others. What are my rights? What are my responsibilities? This involves a twofold process in which I simultaneously recognize what responsibilities the other has towards me (and what my rights are) and learn what my responsibilities towards the other are. And in addition to this learning of expectations and responsible behaviour, it also entails the ability to define the extent of each subject's responsibility" (Jelin, 1993, p. 34).

This process of identifying rights by clarifying one's own and others' responsibilities is central in the feminist reconstruction of the issue of citizenship which, as we have already noted, has provided the basis for most theoretical and empirical explorations of this concept in contemporary Latin America.⁴ Bareiro and Clough (1996, p. 29) maintain that the feminist approach to the question of citizenship has centred on two considerations: firstly, the design of strategies to enable women to participate in public life with full recognition of their traditional and specific rights (such as those related to sexuality, work and violence) and, secondly, an inquiry into the logics of the conquest of rights, of subjective formation (which involves reassessing the political agenda), of citizen participation, and of the subject of power.

These authors set out to review the origin of the concept of full citizenship as a contribution to the Latin American feminist aspiration of attaining it. On the basis of a position that they trace back to Talcott Parsons, they emphasize the importance of identifying the mechanisms that govern the process of bringing excluded groups into full possession of citizenship. This may occur through assimilation or inclusion. According to Bareiro and Clough, assimilation entails the homogenization of the group and, consequently, incorporation occurs once the excluded have taken on the characteristics of the included. Inclusion, by contrast, accepts the differences of members, who are integrated in all their diversity. Although the authors acknowledge the usefulness of this distinction between forms of social integration for the debate on difference, which is central to feminist political culture, they do not elaborate on it. Nonetheless, it is obvious that the respective consequences of the two mechanisms described are very different.

Let us consider some contemporary processes in this light. Social compensation measures, for example, tend towards income equalization, but do not include action to remove other inequalities that prevent women and men from exercising citizenship fully. Acceptance of diversity in the civil and political orders of citizenship, as may be seen in the incorporation of indigenous peoples into the political systems of election and government, does not include acceptance as regards their social rights. Or, as happens with women in the political sphere, acceptance of diversity where suffrage is concerned does not necessarily mean that the same inclusive intent exists as regards their right to participate in decision-making and in power structures.

⁴ For a sample of thinking about the subject of women and citizenship, see the compilation of papers presented at the "Mujeres, Participación Política y Ciudadanía" workshop organized by the Maestría Regional en Estudios de la Mujer (1997) of the University of Costa Rica. For the particular issue of the exclusion of political rights, see García Prince (1997).



Final considerations

Viewing politics in terms of citizenship, originally an aspiration of liberal analysts, is now, particularly in Latin America, a political demand in its own right. This means that citizenship is not so much an established practice as a social aspiration in a region where there are severe constraints on the full exercise of it, most acutely for women and ethnic minorities, but also for the population at large. It is not just social rights that are deficient, but it is clear that the formation of collective responsibilities for the construction of non-exclusionary social systems is an indispensable prerequisite for the consolidation of democracy. In other words, democratic development without social rights is possible but unsustainable.

The shortcomings of other kinds of citizen rights are glaring in political systems that are increasingly monochromatic and closed to public scrutiny. Freedom of enterprise or economic liberty, which is at the heart of civil rights in the social environment of capitalism, continues to be reserved to an elite. One of the most salient features of our times is that while the reorganization of production necessitated by globalization may perhaps not be generating greater absolute exclusion, since extreme poverty at least is showing no general tendency to rise, there is more and more evidence of its capacity to create inequality, and this results in situations of exclusion. The model citizens of globalization are "hyper-citizens" who do not subscribe to State-accredited national identities and whose element is the transnational flow of trade, information and capital. The remainder are left in a "pre-citizen" state in which identity is the product of common deprivation and of limited participation in the most elementary benefits of citizenship: the civil right to freedom of employment is no longer available to sections of the population who are permanently unemployed or are self-employed in subsistence activities; politically, they are invisible as subjects because they do not appear on election or candidate rolls; and socially, they are faced with the fact that, now as formerly, there is clearly no inevitable relationship between economic growth and social welfare. In the final analysis, however, what "hyper-citizenship" and "pre-citizenship" have in common is that they are cut off from public life, when this is synonymous with the life of the national State. The former is cut off because the accumulation flows of material and symbolic goods no longer pass that way, and the latter because what little still does depend on national volition is not beneficial to it.

The reconstruction of citizenship, therefore, requires social integration on a number of levels. It must be national and transnational, because there can be no hope of consolidating identities of isolation. The blurring of nationalisms, as the disarray of Eastern Europe shows, is a manifestation of the authoritarian imposition of formal citizenship. New identities have to involve the recognition of oneself and of the "others" in and outside of the national space. The new reconstruction also has to take place on both a socioeconomic and a political level: the rights to well-being cannot be divorced from freedom, and this cannot exist in a context of deprivation and desperate struggle for day-to-day survival. Full citizenship for men and women is indivisible, although it still makes sense to study individual shortcomings separately.

Lastly, any attempt to reconstruct the ideals of citizenship has to set out from recognition of its semantic heterogeneity and its connotation as a social construct. In other words, the struggle for citizenship means daily, unremitting action, conflict and social antagonism. Full citizenship is the utopia, and of course no-one has yet found More's island of dreams.

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Equity and exclusion

in Latin America and

the Caribbean: the case of

Indigenous and

Afro-descendant peoples

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The purpose of this article is to show and explore some basic aspects of the situation in which Indigenous and Afrodescendant peoples live in Latin America and the Caribbean. Factors such as racism and discrimination will be analysed in an effort to interpret the causes that have resulted in millions of people in the region, from a variety of ethnic and racial origins, living in poverty and marginalization. It is suggested that the way to deal with this problem is to transform systems of exclusion and discrimination (which are cultural, economic, legal and political in nature) at the root by designing strategies ranging from formal recognition of identities and collective rights to public policy-making, stronger regional and international cooperation programmes and far-reaching reform of the State. The active principle underlying the application of these measures should be a new "citizenship" based on the promotion of cultural diversity and difference.

I

Introduction

Discrimination and racism are an integral part of the problems afflicting Latin America and the Caribbean, and they have brought poverty, exclusion and inequality in their wake for millions of the region's inhabitants, mainly among Indigenous peoples and the Afrodescendant population. The aim of this article is to contribute to the debate by providing material for a discussion that should involve the whole of society. The causes and effects of racism and discrimination lie at the root of our Latin American societies and cultures; this is not just a problem for specialists or for those who are victims of or feel themselves to be affected by this scourge. Overcoming discrimination based on ethnicity and race is part of the task of building a citizenship option that can ensure respect for collective rights and bring better living conditions to over a third of the region's population. It is not too much to say that by jointly creating a future for Indigenous and Afrodescendant peoples that is based on equity and equality, society will also be determining the future prospects for regional integration and governance. The scale of the problems facing these populations is a source of challenges not just for the market, but also for democracy and State reform, which means there needs to be active commitment by the region's governments. For this reason, discursive analytical frameworks now need to make way for real debate and constructive proposals. This is part of what the present article attempts.

1. Analytical basis and framework

In this article, we shall look first at Indigenous peoples, namely those who are the direct descendants of peoples inhabiting Latin America and the Caribbean when Europeans arrived in the fifteenth century, who have their own language and culture and who share particular world views and ways of living that are different from those of the West. This definition does not mean we are unaware that there are now large conglomerations of Indigenous people, particularly in cities, who do not speak their original languages and who have adapted to or been assimilated into urban sociocultural practices. From a political point of view, the category of "Indian" is the extreme reflection of the situation of colonial

dominance to which a particular human group has been submitted. This category simultaneously combines biological (racial and racist) aspects and cultural aspects. Being "Indian" can be seen as a reflection of the subordination and denial of one human group in relation to another, self-constructed group that holds itself up as superior (Bónfil, 1991 and 1992).

The main reason for taking an overview that includes both Indigenous and Afro-descendant peoples is that from the point of view of equity, these populations suffer similar problems of economic, social, cultural and political inequality, chiefly when they are compared with other social groups, especially those who are white. Ethnic and racial origin apparently has a major influence on people's position in the social structure, discrimination and exclusion being the mechanisms through which a dominant group maintains and justifies the social and economic subordination of others, reproducing and perpetuating inequity.

At present, the Indigenous population makes up between 8% and 15% or so of the region's total population, while those of African descent (black or mulatto) account for 30%. Irrespective of the exact figures, the problem for these peoples is that after centuries of exclusion and denial they are still being treated as minorities, even though in many cases they are not. 1 Most people of African descent live in poverty and have been denied the right to an education that takes their cultural, linguistic and religious specificities into account. In many cases they have lost their main means of subsistence (such as land, territory and natural resources), and for decades they have been forced to emigrate to large urban centres where they engage in insecure, poorly paid, low-quality work. These evils have their historical background in colonial domination and exclusion, in the efforts of national States to impose homogeneity in the nineteenth and twentieth centuries, and in social and economic structures that operate to this day. Conversely, skin colour, culture or religion as

¹ There are at least three countries in the region where Indigenous people make up over 50% of the national population (Peru, Bolivia and Guatemala) and more than a dozen countries where the black and mixed-race population makes up over 50% (see the table in section II below).

reasons for exclusion and racism are mechanisms socially and culturally created by society to give this exclusion some pseudoscientific "justification". In many countries, black or Indigenous people are still regarded as inferior or second-rate beings, and are excluded from the education system and relegated to the worst jobs. The direct consequence of this is the poverty to which millions of such people are condemned.

Recent economic developments have increased the social deficit, as growth has been below the region's historical average and there have been serious distributive shortcomings (ECLAC, 1997), and this has widened the gap that needs to be bridged if greater equity is to be achieved. Poverty has worsened over the last decade, affecting more severely specific sectors of the population, such as Indigenous and Afrodescendant peoples, that have a historical deficit as regards access to economic benefits and recognition for their collective rights and identities.

Today's ethnic and racial discrimination, largely inherited from Portuguese-Creole and Hispano-Creole colonialism, is the manifestation of renewed forms of exclusion and domination constituted into regimes of "internal colonialism" that created the myth of real integration. The integration of Indigenous and Afrodescendant peoples has actually had a largely symbolic character, while it cannot be verified in actual living conditions.

Poverty, marginalization and exclusion have become structural characteristics for Indigenous and Afro-descendant peoples. In the few comparative studies that have been done, the breakdown of poverty figures by ethnic and racial origin shows differences between these groups and the rest of the population. In the most extreme cases such as Guatemala, Mexico and Peru, the difference between Indigenous and non-Indigenous people can be as much as 20 or 30 percentage points (Psacharopoulos and Patrinos, 1994).

The situation of Indigenous peoples today cannot be compared with what it was a few decades ago, when the majority lived in rural areas and were perceived by the State and by most people as poor peasants. In the 1970s this situation began to change drastically. There are still large Indigenous areas and territories, the so-called ancestral lands, but migration to the cities has created new residential areas inhabited by large Indigenous groups of rural origin, as well as successive generations descended from earlier migrations.

In the case of Afro-descendants, while many of them live in urban areas, particularly the region's major metropolitan areas, a growing number of those living in rural areas are now demanding to be included in land title and protection schemes.

Formal education is another nexus of inequity, not only because of access and coverage problems, but because educational systems, far from encouraging recognition of diversity and respect for collective rights, have sought to use education to assimilate and integrate different ethnic and racial groups into the "national identity" and culture.

In contrast to assimilationist positions with their tendency towards domination, in recent years a new set of strategies has arisen to address the problem of education among Indigenous people. These are experiments based on the principles of interculturality and bilingualism.² These educational models have been slow to spread, although in countries such as Bolivia, Ecuador and Guatemala they have become important at the national level. Current progress is largely due to the promotion of and support for interculturality and the rights of Indigenous and Afro-descendant peoples by Indigenous organizations themselves and by United Nations bodies, the Organization of American States (OAS) and international development agencies.

This progress has been made possible by the establishment of an international regulatory framework that has allowed more global treatment to be given to the problem of racism, discrimination and multiculturalism in international forums and domestically in numerous States. The greatest influence has been exerted by instruments generated within the United Nations, from the 1948 International Bill of Human Rights to the International Covenants on Human Rights approved by the General Assembly: the International Covenant on Civil and Political Rights (1976) and its Optional Protocol (1976) and the International Covenant on Economic, Social and Cultural Rights (1976). A similar influence has been exerted by the Convention on the Elimination of All Forms of Discrimination against Women and different United Nations world conferences, such as those of Teheran (1968), Vienna (1993) and Beijing (1995).

Where the specific struggle against racism and discrimination is concerned, the United Nations has travelled a long road in the effort to foster debate and

² This strategy consists in teaching adults to read and write in both languages simultaneously, the subject-matter being productive development and microbusiness, environmental protection, gender equity, civil rights and community health, with the emphasis on reproductive health (Hernández, 1999).

awareness, the most important milestone being the International Convention on the Elimination of All Forms of Racial Discrimination.³ In addition, 1971 was declared to be the International Year to Combat Racism and Racial Discrimination, and this was followed by three successive United Nations Decades to Combat Racism and Racial Discrimination (1973-1983, 1983-1993 and 1994 to 2004).

In Latin America and the Caribbean, the promotion and support of both the civil and political rights and the economic, social and cultural rights of Indigenous and Afro-descendant peoples are based on ILO Convention 169 on Indigenous and Tribal Peoples and on the Additional Protocol to the American Convention on Economic, Social and Cultural Rights (Protocol of San Salvador), under the responsibility of the Inter-American Commission on Human Rights and the Inter-American Court of Human Rights. At the United Nations, too, there has been discussion for a number of years of a universal declaration of the human rights of Indigenous peoples, while within the region OAs has been discussing an American declaration on the rights of Indigenous peoples.

The progress that has been made in recognizing cultural diversity can be measured by the constitutional recognition that some countries have given to the Indigenous cultures and languages found within their national borders. Nonetheless, recent conflicts in countries such as Chile, Ecuador and Mexico show that a great deal still remains to be done when it comes to human rights, recognition for collective rights, multiculturalism and interculturality. It appears that ratifying conventions and enacting constitutional reforms is not enough to change existing patterns of ethnic and racial discrimination, which means that other measures need to be implemented and greater progress made with those already undertaken. Education, as it operates in most of the countries with Indigenous and Afro-descendant populations, is an example that demonstrates the need for public policies to be comprehensive and open as regards diversity and recognition for rights. Otherwise, there is the risk that any strategy will be reduced to ethnic or racial "addons" that will further isolate Indigenous and Afrodescendant people, thereby reproducing social exclusion.

Education and technological progress—the spread of the Internet, for instance— may be effective mechanisms for integration in diversity and for democratization of access to knowledge and symbolic goods for all groups in society, without this leading to new forms of denial, assimilation and discrimination. Again, access to knowledge, new technologies and scientific advances is a universally recognized right that does not imply the suppression of any culture or prevent the use and preservation of any language, as article 27 of the 1976 International Covenant on Civil and Political Rights declares.

But Indigenous and Afro-descendant people have alike been debarred not only from access to material and symbolic goods, to which the whole of society ought to have equal access, but also from the acquisition or recognition of their specific rights. The right to an identity, a language and a culture form part of the catalogue of demands that are now being added to those of an economic and social nature and that are intertwined with the acquisition of political rights as a regulating, legitimizing framework. The emergence of these "other demands" has created new political situations which, when States have failed to come to terms with or denied them, have cast doubt over the real prospects for social cohesion, equity and governance in certain of the region's countries.

2. Background and key concepts

The importance of categories like race and ethnicity lies in the fact that, throughout history, physical and biological features such as skin colour and blood group or, again, the culture to which a person belongs, have meant inequality, discrimination and the domination of one social group by another, by reason of a supposed superiority or the idea that the dominating group has better and more legitimate rights than those of the devalued and excluded "other" (Oommen, 1994). Along with the concepts of gender and class, those of race and ethnicity sustain a variety of cultural, economic and social domination systems and mechanisms through which large groups of people are denied equitable access to rights and goods (both symbolic and material).

Race and ethnicity are concepts that have borne different meanings over time and that cannot be understood only in the light of the uses now made of them. There is a history behind them, a process of transformation into social constructs and categories unfolding into different meanings that have altered at the different times and in the different social, cultural

³ This was offered for signing and ratification by the United Nations General Assembly (resolution 2106A (XX) of 21 December 1965) and came into force on 4 January 1969, after it had been ratified or subscribed to by 27 States, as a result of which the Committee for the Elimination of Racial Discrimination was set up.

and political contexts where they have developed (Wade, 1997).

The construction of a terminology and an ideological structure for race dates back a long way, but the major period of development was from the sixteenth century to the eighteenth century in Europe. Race began to be naturalized and put in "scientific" terms during the upsurge of the natural sciences in the Enlightenment. The naturalist Karl Linnaeus (1707-1778), for example, developed a system of classification by species and genus, a taxonomy of the natural world that categorized the different "human races" as species and subspecies. The classification was based on the physical characteristics and biological differences of the species classified, and these were assigned particular social and cultural attributes.

In this way, physical features and attributes came to form a whole, with culture and society apparently dominated by a natural determinant. The mechanism for classifying different human groups and cultures was constructed along the same lines as the one used for classifying plants or animals (insects, mammals, etc.). Anatomical measurements, head size and skin colour began to be classified as features of specific racial typologies, correlates of supposed levels of intelligence or stages of civilization.

Colonialism was to be a primary source for the emergence of ideas about racial differences between Europeans and the peoples they had "discovered". The idea of European racial superiority, contrasted with the supposed "inferiority" and "savagery" of the periphery, was to be part of the historical process whereby cultural images of conquerors and conquered would be constructed (Said, 1996). In Europe from the sixteenth to the eighteenth century, the idea of race was based on the gradual exclusion of those cultures and societies that were outside the Christian community.

During the nineteenth century, the development of racism in Europe experienced a number of turning points that would provide the basis for part of the future political discourse of the "dominant race" until the end of the Second World War. Towards the mid-nineteenth century, "scientific racism" reached its apogee with the spread of Darwin's theories about evolution. The contradiction in it is that, just as this theoretical and intellectual development was reaffirming ideas about inferior and superior races, or races at different stages of evolution, slavery began to decline. But abolitionism arose because of imperatives inherent in industrial capitalism, which was more and more dependent on wage labour, and not because of changing ideas about

racial equality. On the contrary, the end of slavery and the parallel development of "social Darwinism" would allow the idea of racial inferiority to remain present without the "need" for a form of domination as spurious as the one that had subsisted until that time.

At the time when modern States were being created, the construction of European racism had its origin and expression in class ideology more than in the formation of nations and nationalisms. This is demonstrated by the fact that most manifestations of racism in modern States have occurred within national borders. Racism as a political action is used to justify internal domination processes more than colonial-type objectives of foreign domination (Anderson, 1983). If we look at the situation of Indigenous peoples and ethnic and national minorities in Latin America and the Caribbean from this point of view, the idea that there are internal colonialisms, to which a number of contemporary authors have alluded, becomes more compelling.

The political institutionalization of the exclusion and oppression of black people is clearly manifested in segregationist regimes –like that seen in the United States until the 1960s- and in those societies that, after abolition, moved from formal slavery to a system of domination or "informal slavery" that was even more complex than what had preceded it, as in the case of Brazil and some Afro-Caribbean States. The most significant episode in the modern history of race and inter-ethnic relations, however, is the arrival of the Nazi regime in Germany and its well known xenophobia and policy of exterminating Jews, gypsies and other peoples. This terrible experience had no precedent in human history, and it provided the starting point for the necessary expansion of human rights relating to "racial origin". In this process, a key role was played by the United Nations which, starting with the dissemination of the International Bill of Human Rights and the Universal Declaration of Human Rights, has led the debate about the idea of racial non-discrimination and thence the rejection of social inequalities or the denial of civil, political and cultural rights to particular groups of people, societies or cultures on the basis of racial criteria.

Nonetheless, the racial argument has continued to carry weight irrespective of biological "objectivity", as part of the field of social construction. As in the case of gender, biology is the basis for the construction of images and stereotypes that vary by epoch, culture and society. Races exist not merely as ideas, however, but "as social categories of great tenacity and power"

(Wade, 1997, p. 14). This is why the notion of race remains active and important, and why it still has so much weight as a factor of social domination and exclusion. In fact, the International Convention on the Elimination of All Forms of Racial Discrimination emerged as a way of checking the gradual advance and resurgence of new forms of racial discrimination in many member States.

On a different level, the concept of ethnicity is of more recent usage than that of race and is less value-laden. Ethnicity comes from the Greek concept of *ethnos*, which means people or nation, and it has actually come into general use as a replacement for the discredited word "race". While "race" refers to phenotypic characteristics, ethnicity refers to culture and, specifically, to cultural differences.

There are at least three strands of thought regarding the meaning of ethnicity. One view is that it is a primordial or naturally existing quality. The contrary view to this essentialist outlook is that ethnicity is situational, membership of an ethnic group being a matter of the attitudes, perceptions and feelings of the individual concerned. A third approach emphasizes the historical and symbolico-cultural attributes of ethnic identity. According to this definition, an ethnic group "is a type of cultural collectivity that emphasizes the role of myths of ancestry and historical memories, and that is known by one or more differentiating cultural features, such as religion, customs, language or institutions" (Smith, 1997, p. 18).

Race and ethnicity converge and diverge in meaning because both concepts reflect social (and cultural) constructs that are produced and manipulated in response to different contexts. The difference, as already mentioned, lies in the fact that one is constructed primarily on the basis of phenotypic characteristics, while the other is linked with ethnic identity. The concept of ethnicity has a direct relationship with that of identity; both vary greatly depending on context, perceptions and values. Behind this apparent conceptual instability, however, ethnicity has the capacity to reflect the cultural changes and geographical mobility of people in the modern world (Wade, 1997).

It needs to be pointed out that the idea of categories being socially constructed and subject to change does not mean that identities are unstable or precarious. They possess dynamism and a degree of "nomadism", particularly in the face of the temporal and spatial flights imposed by modernity and modernization. The permanence of identities, their great power to explain the construction of a sense of belonging or the idea of

an "us", of an alterity as the opposition or denial of the "other", clearly demonstrates their symbolic efficacy and their power of action in the social space.

Likewise, the concept of ethnic identity has greater depth and stability than that of "racial identity", as it is not only based on phenotypic characteristics and their signification, but is also related to a set of "attributes" that an ethnic society or community shares collectively, from one generation to the next. Smith (1997) mentions among other attributes: a collective name, a myth of common origin, one or more differentiating elements of collective culture, an association with a specific "homeland" and a feeling of solidarity towards significant sections of the population.

A second conceptual core is the one deriving from the behaviour and actions assumed by individuals, institutions and society in relation to race and ethnicity. This constitutes what may be called preconceptions of racism.

Discrimination and segregation are two concrete ways of expressing racism, and their basis is the idea of separating, distinguishing or differentiating one thing from another. Socioculturally, the two concepts are related to the inferior treatment given to a person or group for racial, religious or political reasons. According to Wieviorka (1992), segregation means keeping the racialized group at a distance, which is done by setting aside special spaces for it that the group can only leave under particular conditions. Discrimination, by contrast, entails a differentiated treatment in different spheres of social life, sometimes to the point of humiliation.

Racial and ethnic discrimination operates through a set of social and cultural mechanisms: one of them is prejudice. According to Giddens (1991), prejudice is "the opinions or attitudes held by members of one group towards those of others, while discrimination is actual behaviour towards them. Prejudice means holding preconceived viewpoints about an individual or group that are often based on rumour rather than direct evidence, viewpoints that are resistant to change even in the face of new information".

Giddens holds that prejudice operates through what he terms "stereotyped thinking", a system of categories that people use to classify their experiences. These classifications are organized by structuring a set of assessments and attributions that are transferred socially using certain characteristics such as inferiority, negativity or passiveness, in opposition to (racial) superiority, positivity and activeness. These attributions use the social group producing the stereotypes as a

reference point by means of a system of binary oppositions. Like gender and class attributions, ethnic and racial discrimination and prejudice are subject to change and manipulation, and depend on the different historical circumstances and social processes experienced by societies.

П

Overview: the current situation of Indigenous and Afro-descendant peoples

The overview that follows seeks to show, in broad terms, some of the main demographic and socio-economic characteristics of Indigenous and Afro-descendant peoples. The aim is to bring to light in this way the aspects that, for reasons of equity, need to be addressed most urgently by the region's countries.

1. Indigenous peoples

a) Population

One way of approaching the current situation of the region's Indigenous population is to determine how large it is and where it is located geographically. The first obstacle to establishing the size and structure of the Indigenous population⁴ is that national censuses have been few and incomplete, and have been based on different criteria,⁵ which in some cases makes it hard or impossible to compare data among countries. There is now great demand, however, for research into people's ethnic origin. Indigenous people see censuses as an effective means of achieving a higher profile and a political instrument for reinforcing identity. For their part, States see censuses as decision-making and policy implementation instruments.

It is calculated that the Indigenous peoples of the region currently comprise between 33 and 35 million people, or approximately 8% of the continent's total population,⁶ and are subdivided into about 400 different

language groups. In some countries, however, they account for larger proportions: 81% in Bolivia, 50% in Guatemala, 40% in Peru, 35% in Ecuador and 13% in Mexico. In addition, although Indigenous peoples continue to be associated with the countryside, rural-urban migration and natural growth in the population of Indigenous origin in urban areas are tendencies that are becoming more and more apparent. In Chile, for example, it is calculated that some 80% of the 998,000 Indigenous people recorded in the 1992 census live in urban areas, most of them in the metropolitan area of the capital.

b) Poverty and marginalization

Most Indigenous people live in extreme poverty. Besides discrimination and racism, the main causes of this situation can be traced back to the liberal reforms of the nineteenth century which introduced the idea of private land ownership, thereby giving rise to a progressive loss of lands and the breakdown of community economies. This situation was aggravated by rural-urban migration and labour market participation (Psacharopoulos and Patrinos, 1994 and Plant, 1998).

In Chile, the inequity afflicting Indigenous people was so obvious by the early 1990s that they were deemed a priority group for government policy. In Bolivia, 75 children per 1,000 live births die before they are a year old, and most of these are of Indigenous origin (Schutter, 1994). In Mexico, over 50% of households in Indigenous areas have no electricity, 68% have no running water, 90% have no sewerage, and 76% have earthen floors. The 1990 census revealed that in areas where 30% or more of the population was Indigenous, 26% of all inhabitants aged between 6 and 14 did not go to school. Only 59% of those aged over 15 knew how to read and write and 37% had never been to school (Enríquez, 1998).

⁴ In the region, the term "Indigenous" covers a variety of groups or communities, ranging from the hunter-gatherers of the Venezuelan and Brazilian plains and forests, of whom there are some hundreds of thousands, to large agrarian societies in the Andean highlands of Bolivia, Peru and Ecuador, numbered in the millions.

⁵ In some cases (Chile), census records are created from questions about people's own view of themselves and their place in society, while in others (Bolivia, Guatemala) they are based on linguistic criteria.

⁶ For further details, see Peyser and Chakiel (1999).

c) Migration

Migration is one of the most important phenomena among Indigenous people today. Although its origins go back to colonial history, its greatest effects appeared in the twentieth century. The deterioration of peasant economies, the loss and diminution of community lands, the general lack of productive resources, population growth, the rise of the wage economy, poverty and the "cultural pull" of cities are some of the causes of migration, almost always from the countryside to the city.

In Mexico City, Bogotá, Santiago and Lima, Indigenous neighbourhoods have appeared and received successive waves of new migrants. These places have seen the creation of formal and informal networks and of neighbourhood, cultural, political and productive organizations whose unifying core is a sense of belonging or collective identity.

In the case of urban migrants, again, it is common for people to return to their home villages—the Aymara of northern Chile and the Bolivian Andes are examples—to celebrate local holidays, visit the dead or establish commercial relations with members of the community. In countries such as Bolivia, Colombia, Peru, Chile, Guatemala and Mexico, there are complex Indigenous commercial networks that bind together remote and diverse places, in some cases beyond national frontiers. In certain instances it has been shown that many of the Indigenous people who emigrate to cities return to their places of origin after a few years, Mapuche women in Chile being an example.

In addition to migration, another phenomenon in recent decades has been population displacement. In past decades, countries such as El Salvador and Nicaragua suffered displacement of Indigenous populations due to civil wars. The same thing is happening now in conflict zones such as the state of Chiapas in Mexico and, particularly, Colombia, where the position of Indigenous people tends to worsen steadily. In certain areas of Colombia, the actions of armed groups and drug traffickers have created a pervasive climate of violence. The direct effects for different Indigenous groups include displacement and the threat of forced involvement in these activities.

d) Work and employment

The occupational profile of Indigenous people is difficult to determine, as there is a dearth of information on the subject. It can be supposed, however, that they occupy niches similar to those of non-Indigenous migrants. In Mexico, Guatemala, Peru and Chile, for

example, Indigenous people are segregated to some extent into specific jobs and areas of activity, such as trade (often informal), own-account working and domestic service (in the case of women).⁷ Indigenous people respond to the difficult employment conditions they face with a set of strategies combining urban-type occupations with small-scale selling of farm produce or seasonal employment on agro-industrial estates.

The main problems faced by Indigenous migrants seeking to participate in the urban labour market are structural in nature, and include their relative lack of schooling and their unpreparedness for the demands of the production system. Thus, their entry into the waged labour force takes place in insecure, informal conditions. Formal waged work, something that is characteristic of the modernization process, is beyond the reach of Indigenous groups that are newly arrived in cities (Pérez Sáinz, 1994).

e) Education

The exclusion of Indigenous people from education systems is clearly manifested in high illiteracy rates, particularly among older groups, and low averages for years spent in the education system, particularly at the intermediate and higher levels. In Ecuador, for example, only 53% of Indigenous people enter primary education, 15% secondary education and 1% university or higher education (PAHO, 1998). In Panama, according to the 1990 census, 15% of the population was illiterate in rural areas and 3.3% in urban areas, but 44.3% of the Indigenous population was illiterate. In Mexico, illiteracy levels in the regions with the most Indigenous people are twice or in many cases three times as high as among the rest of the population.

Educational access and coverage problems are compounded by those of pedagogical "relevance". Until the early 1990s, the countries of the region, with a few exceptions, had not addressed the issue of interculturality and bilingualism. Hitherto, education for Indigenous people has been an instrument used by the dominant culture to take control of Indigenous cultures in the name of the "national culture". A number of studies, however, have revealed the failure of this effort and the need to seek alternatives that can enable Indigenous societies to handle the codes of modernity without having to give up their ethnic identity, language and culture.

 $^{^{7}}$ In Chile, 28% of economically active Mapuche women were in domestic service in 1992.

Current thinking stresses the need to move beyond the old approaches that have tried, among other things, to assimilate people who are culturally different. The new approaches seek to build bridges among cultures in contact whose only interchange is in the form of domination and subordination. The strategy is to remedy the lack of communication among cultures in the expectation that pedagogical efficacy will thereby be achieved (Durston, 1998).

f) Health

Although there is no very accurate information available, ethnic minorities have fared worse in health terms than the population in general, and in almost all the region's countries they are excluded, in different ways and to differing degrees, from social health protection (ILO/PAHO, 1999).

Ethnic discrimination is one of the main causes of inequity in health care, the result being a situation of extreme poverty, poor health conditions and undernutrition. For decades, furthermore, discrimination against traditional medicine in favour of Western medicine has meant that the rich medical traditions of Indigenous peoples have been neglected or denied. In future, participatory community health management, shared learning programmes and appreciation and reinstatement of traditional medicine may be viable strategies for improving health indicators among Indigenous people (PAHO/ECLAC, 1997).

In Bolivia, the provinces with the largest number of Indigenous people are the ones that have the country's worst health indicators. Whereas in La Paz infant mortality is 106 per thousand live births, in all the Aymara provinces of Oruro and Potosí it stands at between 120 and 135 per thousand live births. In provinces with fewer Indigenous people, 70% of the population has access to health services, but in Quechua provinces such as Tapacarí the figure is only 11%. The highest incidence of infectious diseases is found among Guarani groups, with rates five to eight times higher than the national average (PAHO, 1998, vol. II).

In Venezuela, the health indicators of Indigenous people are also poor, particularly in the case of groups living in the forest and immigrant Indigenous groups. Between 58.3% and 84% of Yanomamis living in the country become infected with hepatitis B at some time in their lives, and this is the third main cause of death after malaria and malnutrition. In forest areas, despite some mass vaccination programmes being organized in Indigenous communities, diseases such as tuberculosis affect 167.9 out of every 100,000

Indigenous inhabitants, while the figure for non-Indigenous people is 27.7 (PAHO, 1998, vol. II).

In Panama, the provinces with the most Indigenous people are the ones with the worst health indices. In the province of Boca de Toro, for example, mortality from diarrhoea in recent years has been 34.4 per 100,000, as compared to a national rate of 6.4. In the administrative district of San Blas, the peak incidence of cholera in 1993 was 80 times the national average, while in 1994 the incidence of pneumonia was six times the national rate (PAHO, 1998).

g) Political participation and representation

The problem of political participation and representation for Indigenous and Afro-descendant peoples is one of the worst manifestations of their exclusion and inequality. In recent decades, social movements and the political demands of Indigenous organizations have shown the need for States to reform political participation and representation thoroughly so that these are recognized as key elements in citizenship, integration and social cohesion, and in the democratic governance and stability of the region's countries.

In Bolivia, where 60% of the population is Indigenous, great efforts have been made to implement the commitments accepted by the country in relation to the recognition of Indigenous political, social and cultural rights. The political participation and representation of Indigenous people in Bolivia has been furthered by the enactment of the Popular Participation Act.

In Ecuador, CONAIE (Confederation of Indigenous Nationalities of Ecuador) has participated in the National Constitutive Assembly, proposed an Indigenous nationalities bill, taken part in the debate that preceded the passing of the Development Act (with which they are in disagreement) and participated in the general framework of State strategies and policies for Indigenous peoples and nationalities. By the same token, members of Indigenous organizations have attained high office at the national level. Despite this progress, however, these organizations complain that their participation in positions of authority and representative posts bears no proportion to the size of the Indigenous population and the level of organization it has attained.

The Chiapas conflict, the mobilizations in Ecuador and the conflicts on Mapuche lands in Chile show that Indigenous people are increasingly demanding a voice in decisions affecting their own destiny. In countries with large numbers of Indigenous people, legitimacy

and governance at the national or local level could be affected if the State does not heed their demands. In any event, whether the percentage of Indigenous people in a particular country's population is large or small should not be a determining or conditioning factor when it comes to recognition of the political participation and rights of Indigenous peoples.

h) The environment, land and territory

The relationship that Indigenous people have with land cannot be reduced to strictly economic and productive factors. Indigenous people have a holistic understanding of land and the environment that is conjoined with social, cultural, religious and economic aspects. To grasp this, it is necessary to apply the concept of territory, as ILO Convention 169 and Agenda 21 of the Rio Conference have done.

This point is important because the inequity and social imbalances deriving from the exclusion and marginalization of Indigenous people are directly related to the depletion of their natural resources and the diminution or loss of their ancestral territories. Some progress has in fact been made across the continent in recognizing the traditional rights of Indigenous people over territory, the environment and the ownership, administration and use of resources.⁸

In a number of countries, major development projects, while benefiting most of the population, tend to have adverse consequences for Indigenous people. In Colombia, deforestation and oil drilling are having a direct effect on Indigenous territories. In Venezuela, major development projects and new land use planning have combined with oil and coal concessions to displace different Indigenous groups from their traditional lands. In Chile, Mapuche-Pehuenche groups have fought hard to oppose the construction of six hydroelectric dams and power stations (one of them is already complete and another is under construction) which will leave thousands of hectares of ancestral lands and forests under water. These conflicts have shown how difficult it is to implement large-scale projects on Indigenous land without the consent, participation and prior knowledge of the social sectors directly affected.

It is important to bring the gender variable into this debate. Although environmental deterioration affects men and women alike, it is recognized that certain types of environmental damage and contamination affect women disproportionately by depriving them of resources needed for subsistence and thus displacing them to other geographical areas in conditions of poverty and insecurity (Bello, 1998).

Rural women in general, and Indigenous women in particular, are highly specialized in the use of certain natural resources. This knowledge is essential to the conservation of biodiversity. For this reason, the role of women in the sustainable management of natural resources has been deemed a key factor in the circle of rural poverty.

2. Afro-descendants

a) Population

As in the case of Indigenous people, any attempt to establish the size of the Afro-descendant population comes up against a number of difficulties, of which two will be mentioned here. Firstly, demographic censuses do not ask about this characteristic in all the countries. Secondly, where the race/colour variable is asked about, the response of the interviewee is conditioned by a number of factors, such as income and education levels, awareness of negritude, the need for "whitening", etc. All this makes it difficult to compare the data of different countries.

Despite these difficulties, an effort has been made to count Afro-descendants. One of the problems with this is that the figures we have for blacks and mulattos in most of the countries' populations are quite old. This causes distortions in the final count because demographic dynamics differ by racial group, i.e., rates of fertility, mortality, etc., differ by ethnic and racial origin. Even so, table 1 gives an idea, albeit a rough one, of the Afro-descendant population in the different countries of the region.

It can be said, subject to the limitations mentioned, that a very rough estimate of the black and mulatto/mestizo population ¹⁰ yields a total of some 150 million

⁸ In many instances, Indigenous peoples' rights over their territories are ignored or denied by the laws of modern States, which overlook the common law rights used by Indigenous peoples to regulate the use, occupation and distribution of land.

⁹ In Brazil, for example, while infant mortality has declined, only in 1980 did it reach the same rate among the black population as it had among the white population in 1960. As regards adult mortality, in 1950 the life expectancy of the white and black/mestizo populations was 47.5 and 40, respectively, while in 1980 the figures were 66.1 and 59.4. Thus, life expectancy has improved significantly in both groups, but the difference between them has hardly narrowed (Berquó, 1988).

¹⁰ This is not the place to go into the complex subject of what it means to be mulatto or mestizo in Latin America and the Caribbean. In this context, the terms should be understood to refer to people who, when consulted about their racial origin in demographic

TABLE 1

Latin America and the Caribbean: Estimates for the black and mulatto population,^a by country, 1998

| Cou | intry | Year | Black | Mulatto | 1998 | Black+mulatto |
|------|--------------------------------|------|-------|---------|-------------|---------------|
| | | of % | (%) | (%) | population | population |
| 1. | Antigua and Barbuda | 1970 | 81.4 | 8.6 | 67 000 | 60 300 |
| 2. | Netherlands Antilles | | | | 213 000 | |
| 3. | Argentina | | | | 36,125 000 | b |
| 4. | Bahamas | | | | 300 000 | |
| 5. | Barbados | 1980 | 91.9 | 2.6 | 268 000 | 253 260 |
| 6. | Belize | 1991 | 6.6 | 43.7 | 230 000 | 115 690 |
| 7. | Bolivia | | | | 7,957 000 | b |
| 8. | Brazil | 1995 | 4.9 | 40.1 | 166,296 000 | 74,833 200 |
| 9. | Chile | | | | 14,822 000 | b |
| 10. | Colombia | 1991 | 5.0 | 71.0 | 40,804 000 | 31,011 040 |
| 11. | Costa Rica | | | | 3,840 000 | b |
| 12. | Cuba | 1981 | 12.0 | 21.8 | 11,116 000 | 3,757 208 |
| 13. | Dominica | 1981 | 91.2 | 6.0 | 71 000 | 69 012 |
| 14. | Ecuador | | | | 12,175 000 | b |
| 15. | El Salvador | | | | 6,031 000 | b |
| 16. | Grenada | 1980 | 82.2 | 13.3 | 93 000 | 88 815 |
| 17. | Guadeloupe | | | | 443 000 | |
| 18. | Guatemala | | | | 10,802 000 | b |
| 19. | Guyana | 1980 | 30.5 | 11.0 | 856 000 | 355 240 |
| 20. | Haiti | 1999 | 95.0 | | 8,056 000 | 7,653 200 |
| 21. | Honduras | | | | 6,148 000 | b |
| 22. | Jamaica | 1970 | 90.9 | 5.8 | 2,539 000 | 2,455 213 |
| 23. | Mexico | | | | 95,830 000 | b |
| 24. | Nicaragua | | | | 4,807 000 | b |
| 25. | Panama | | | | 2,767 000 | b |
| 26. | Paraguay | | | | 5,223 000 | b |
| 27. | Peru | | | | 24,801 000 | b |
| 28. | Dominican Republic | 1991 | 11.0 | 73.0 | 8,232 000 | 6,914 880 |
| 29. | St. Kitts and Nevis | 1980 | 94.3 | 3.3 | 41 000 | 40 016 |
| 30. | Saint Lucia | 1980 | 86.8 | 9.3 | 148 000 | 142 228 |
| 31. | St. Vincent and the Grenadines | 1980 | 82.0 | 13.9 | 115 000 | 110 285 |
| 32. | Suriname | | 15.0c | | 416 000 | 62 400 |
| 33. | Trinidad and Tobago | 1980 | 40.8 | 16.3 | 1,284 000 | 733 164 |
| 34. | Uruguay | | | | 3,289 000 | b |
| 35. | Venezuela | 1991 | 10.0 | 65.0 | 23,242 000 | 17,431 500 |
| Tota | ıl | | | | 499,447 000 | 146,084 651 |

^a The black and mulatto population percentages were obtained from the United States Bureau of the Census, International (www.census.gov), except for Brazil (www.ibge.gov), Haiti (www.odci.gov) and Colombia, the Dominican Republic and Venezuela (Larousse Moderno, 1991). Population totals were obtained from ECLAC (1999).

Afro-descendants for the region (see table), or about 30% of the total population. Geographically, they are to be found chiefly in Brazil (50%), Colombia (20%) and Venezuela (10%), and in the Caribbean (16%), where they are the majority in several countries.

censuses, give an answer that places them outside the white category. This calculation supposedly does not include Indigenous mestizos.

b) Education

In today's world, education is becoming more and more important for those wishing to obtain better jobs and thence higher incomes. As is well known, education is a good that is distributed unequally in Latin American society, ethnic and racial origin being a factor that reduces people's prospects of entering higher levels of education. The result is ever-rising inequality and exclusion of black people.

b The census does not ask about (African) racial origin.

^c Price (1995).

In the case of Brazil, black and mulatto children have greater difficulty in entering, remaining in and progressing¹¹ through the educational system and keeping up to the standards set for their age group.¹² They also attend worse-quality schools, the result of all this being that they are more likely to be failed or to fall behind the standards set for their age group than are white students. Other indicators, such as the illiteracy rate¹³ and the proportion of people with 12 years of education or more¹⁴ (UNDP/Institute of Applied Economic Research, 1996), also show white children as being in a better position than black and mulatto ones. Another striking fact: of 50,000 students at the University of São Paulo in 1992, just 2% were black (IACHR, 1997).

Another important issue that arises in relation to education is the need for school texts and curricula to put aside prejudices and stereotypes relating to black people and introduce elements that show Afro culture in a positive light. In short, spaces need to be opened up for cultural pluralism and tolerance, so that existing cultures can be respected and preserved and cultural assimilation processes rejected.

c) Work and employment

The poor employment position of Afrodescendants is revealing of racial segregation in the region. A good example is Brazil, the country with the largest black and mulatto population in Latin America. In the metropolitan area of Rio de Janeiro, about 60% of black and mulatto men carry out manual work in industry, as against 37% of white men. While some 40% of black and mulatto women work as domestic servants, the figure for white women is just 15% (Rangel, 1998).

Thus, the combination of the gender and race variables appears to determine the particular position occupied by black women in Brazil's society and labour market: this group is positioned in the lower social strata, with lower incomes and a lower return on investments in education (there is a greater concentration of women, mainly black women, in domestic employment).

Race and gender emerge as determining factors in occupational stratification, the structuring of social opportunities and the distribution of material and symbolic rewards. Racism and sexism mean that, in terms of remuneration, women and black people obtain proportionately lower returns from their educational investments than white men do (Hasenbalg and Silva, 1988).

Like Indigenous people, Afro-descendants find it difficult to improve their position in the labour market, chiefly because of structural factors such as their relative lack of schooling or occupational training. Because of these factors, they generally participate in the labour market on a basis of extreme inequity.

d) Income distribution

Income distribution in the region is highly unequal, and this is particularly true when ethnic and racial origin is considered. In Brazil, a country whose income distribution is among the world's worst, the incomes of black and mulatto men in 1990 averaged 63% and 68%, respectively, of white men's average income. The same pattern of inequity was seen in the case of black and mulatto women, whose incomes averaged 68% of white women's. This income inequality is partly due to certain characteristics of these social groups. Firstly, there is the regional aspect: the racial composition of the Brazilian population varies by region, with whites predominating in the south and mulattos in the north. Thus, whites are concentrated in the most developed regions and mulattos in regions with lower per capita incomes. Secondly, there is the educational aspect: black people and mulattos have lower levels of schooling than white people. These two characteristics may explain some of the income inequality between black and white people. Differences associated with racial origin persist, however, even when the results are adjusted for both factors. In other words, when people of different races who live in the same region and have the same level of education are compared, the degree of inequality, although smaller, remains significant (UNDP/Institute of Applied Economic Research, 1996).

¹¹ The difficulties that black people have in moving up through the education system increase at the higher levels. While a black boy or girl who has started school has a 15% lower chance of reaching the second stage of basic education than a white boy or girl, a black student who has started secondary education has a 25% lower chance of going on to university than a white student (UNDP/Institute of Applied Economic Research, 1996).

¹² At the age of 14, 35% of white students, 73% of black ones and 65% of mestizo ones are more than two years behind the attainment level set for their age group. Conversely, 28% of white students, as against just 6% of black ones and 6% of mestizo ones, do not fall behind in this way (UNDP/Institute of Applied Economic Research, 1996).

¹³ The figure is 15.1% for white people, 35.2% for black people and 33.6% for mestizos (UNDP/Institute of Applied Economic Research, 1996).

¹⁴ The figure is 11.4% for white people, 1.7% for black people and 2.9% for mestizos (UNDP/Institute of Applied Economic Research, 1996).

e) Political mobilization, participation and representation

The political mobilization, participation and representation of social groups is undoubtedly a key factor in reducing inequality. Indeed, much of what the black population now has was obtained through political struggle. However, the black population is certainly under-represented in official politics. In the face of this and of what seem to be self-perpetuating inequalities and injustices, there is permanent racial mobilization in some countries, such as the United States and Brazil.

Afro-descendant social movements and racial mobilizations have called into question the role of the State in their countries, pressed for reforms to open up access to full citizenship for all, and struggled for equality and an end to racism. It would seem that national-type mobilization in Latin America and the Caribbean is now seeking to surmount national borders and shape an "Afro-descendant" movement.

f) Land and territory

The subject of land and territory among black people has been given less attention than in the case of Indigenous people, and has only taken on importance recently. Here, reference will be made exclusively to the cases of Brazil and Colombia.

Since the late 1980s and early 1990s, the constitutions of both countries have made mention for the first time (Brazil in 1988 and Colombia in 1991) to the cultural and agrarian land rights of their black communities. These legislative innovations have had major social repercussions, have given rise to new legal issues at the national level and in academic circles and, lastly, have created facts where only recognition was intended. These innovations, which seem to be a departure from previous approaches, since both countries had ignored the existence and circumstances of Afro-descendants, have given rise in practice to territorial policies influenced by the Indigenous agrarian land right issue (Arruti, 1999).

In Colombia, there was already a significant anthropological literature on the rural black populations of the Pacific coast which were to benefit from the 1991

Constitution. These studies were influenced by the paradigm of Indigenous anthropology, ignoring urban or semi-urban blacks. In Brazil, the first studies to look at rural black communities in terms of ethnicity were almost contemporaneous with the 1988 Constitution (Arruti, 1999).

The Colombian legislation recognizes the territorial rights of a group of communities that can be identified with some socio-geographical and historical precision: the Colombian Pacific. In this case, there is not much doubt about who should benefit from the new agrarian land rights. The Brazilian case is different, since it is not precisely specified which and how many communities are to benefit from the new legislation. The Constitution speaks of the "remanescentes" -the remnants or descendants- of the Maroons. This harks back to a type of historical social formation that supposedly disappeared with slavery, and whose characteristic is the search for invisibility vis-à-vis the State. Not only this, but the more historians research the documents available, the less homogeneous is the idea that emerges from their studies of the Maroons. The anthropologists asked to identify these "remnants" seek to define them by means of self-attribution, turning the issue into a problem of ethnic identity. In other words, the effort to identify the people who would benefit from the new Brazilian legislation has opened up a specialist field of study that is being fought over by anthropologists, sociologists, historians and archaeologists, not to mention governmental and nongovernmental agencies (Arruti, 1999).

In Colombia, debates about article 55, relating to the territory to which black communities would be entitled, began as soon as the Constitution had been passed. It was regulated by Law 70 of 1993, which played a part in the mobilization of different Colombian Pacific communities, organized into regional councils and associations. In Brazil, article 68 of the Constitution was only debated in 1995, the third centenary of Zumbi de Palmares, the country's most important Maroon leader, when bills to regulate it were introduced. Since then, demands for recognition as "remnants" of the quilombos have spread to communities in every state of the country (Arruti, 1999).

III

Conclusions: citizenship and identity, the keys to ending ethnic and racial discrimination in Latin America and the Caribbean

Discrimination and exclusion by ethnicity and race are part of a historical process in the region that, with local and regional variants, is having a great influence on its sociocultural, economic and political processes today. Thus, the "dialectic of denial of the other" (Calderón, Hopenhayn and Ottone, 1993 and Hopenhayn, 1998) is part of a process that has been constructed over a long period through history, culture and society. It is a dynamic process that can be reoriented by the State and public policies towards a situation in which the groups concerned enjoy the basic conditions of equity. Any effort of this kind needs to be inspired by the dynamic of Afro-descendants and Indigenous people themselves, by their opportunities and potential for selfdevelopment, by their logic and by their knowledge, which are visible under the social and cultural phenomenon of the "emergence of identities".

The "emergence" of diversity and identity has been accompanied by the development and universalization of economic, social and cultural rights. With these parameters, there is a visible and legitimate need for Afro-descendants and Indigenous people to have equitable access to a modern citizenship which, in the words of ECLAC, takes account of the particular features and forms of behaviour that define the region's identity. This identity is based on numerous specific identities that differ widely from one another. Rather than being an obstacle, as the perception has been hitherto, this offers great growth and development opportunities for social cohesion and integration in the continent. What needs to be understood is that ethnic identities and cultural differences have to be appreciated in the light of the multi-ethnic and multicultural character of Latin American societies, which means abandoning the parameter of denial and homogenization that has characterized the region.

How can integration be approached in the Indigenous and Afro-Latin context? In the first place, it needs to be recalled that for Indigenous people, for instance, traditional integration policies have involved stripping them of their symbolic and material goods, ignoring and/or abolishing their collective rights, and denying their culture. Thus, for Indigenous people, integration has been synonymous with assimilation and cultural disintegration. Only since the introduction of the new perspectives and forms of social integration has a broader concept been arrived at, supplemented by other dimensions and "renewed forms of integration" (Hopenhayn, 1998) grounded in the social and cultural diversity that characterizes all human groups.

We need to turn our attention to differences, and see identities not as threatening separatism or the "Balkanization" of the region, but as a renewed way of understanding human rights, sociocultural processes and the struggle against poverty and marginalization. Ethnic identity and the "challenge of diversity" can be seen as a singular form of "social capital", and cultural capital as well, that holds out great opportunities not only for Afro-descendants and Indigenous people, but for the region's society as a whole, and that can even provide a basis for dealing with issues such as competitiveness and the objectives of economic growth. The region is now at a turning point. The problem is deep-rooted, but the region has the instruments, the knowledge and the political, cultural and economic base to confront it successfully in the millennium that is now beginning.

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Challenges for secondary education in Latin America

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In recent years, most Latin American countries have committed themselves, implicitly or explicitly, to achieving universal provision of a good-quality basic secondary education. Despite the diversity of the situations to be found in the region, it is possible to see that what this commitment means for each of these countries is having to cope simultaneously with educational deficiencies inherited from the past –primarily, incomplete coverage that leaves some adolescents outside the system– and the new challenges raised by the exigencies of change in the organization of work, culture and citizenship. The present article sets out by recognizing this "surfeit of demands" on education, and seeks to show some of the greatest dilemmas and tensions faced by policies to achieve good-quality, universal secondary education in the region.

I

Introduction

Diagnostic analyses of secondary education in Latin America agree in identifying both the crucial importance of this level for social development and the personal destiny of individuals, and the particularly critical situation it is now in as regards both functioning and outcomes. It was in this context that most of the region's countries began to implement changes in their secondary education systems in the 1990s. Perusal of national documents dealing with these reforms shows that the objectives being aimed at are quite ambitious, both quantitatively and qualitatively. They can be summarized as the universalization of a good-quality basic secondary education, with the idea of good quality including training in the new skills needed to operate effectively as citizens and producers in a society characterized by complex and constantly shifting requirements.

The gap between the ambitious objectives proposed and the critical situations from which the countries are setting out is very large. Although there are major differences among and within countries, the region as a whole is still having to cope with major educational deficiencies inherited from the past. The specificity of the current situation, furthermore, is that this legacy is having to be dealt with in conjunction with the new challenges posed by changes in the organization of work, culture and citizenship. In seeking to explain problems and decide on strategies for change, the importance of this new context cannot be underestimated. To put it briefly, at a time when society is being profoundly transformed at every level, the countries of the region are having to cope simultaneously with the deferred educational demands of lower-income sectors and with calls to satisfy the new demands of sectors already catered to by the system. It is not just a case, then, of having to heed the demands of sectors that have not so far had access to a stable service. Demands are also coming from sectors that already have access to such a service, and are now insisting that it be reformed.

In situations like this, where there is a surfeit of demands, it seems inevitable that decisions will have to be taken that meet some needs by postponing the satisfaction of others. Since all the demands are urgent and legitimate, no sector is prepared to defer to others.

The struggle for scarce resources thus takes on characteristics that are not very rational from the point of view of general, long-term interests. The perils of this situation are well known. The most obvious and visible one is that decisions about priorities and resource allocation are settled in favour of those who are best able to express demands and exert pressure for them to be met. Another peril, which is less visible but real enough in several of the region's countries, is that sectors already catered to by the system will react negatively to policies designed to promote greater access and participation for the excluded. This negative reaction tends to manifest itself in a low opinion of the importance of these efforts and criticism of their lack of impact on quality or, from a more structural viewpoint, in the abandonment of the public education system and the expansion of private schools, where most of the educational investment of the better-off sectors goes.

As a result, the gap between the objectives proposed and the decisions taken tends to widen, giving rise to a socially perceived phenomenon of dissociation whereby the objectives set forth in public do not tally with what is happening in practice.¹

On the basis of these general considerations, the sections that follow try to show some of the greatest dilemmas and tensions besetting policies to universalize good-quality secondary education. Section II provides data that give an idea of the scale of the main macroeducational challenges in Latin America and the differences that exist both among and within countries. Section III analyses the main tendencies of the educational reforms now being implemented in the region for this level of education, and section IV sets forth some conclusions regarding policy orientations for the future.

¹ This phenomenon, characteristic not only of educational policies but of public policy in general, is a root cause of the weakness in the region's democratic processes. Discussion of this subject is becoming topical again (Nun, 2000).

II

Is the easy part of educational expansion over?

1. Latin America and the developed countries

The educational challenges facing Latin America differ depending on whether the goals being contemplated relate to primary or secondary education. In primary education, the region overall, and the great majority of individual countries, have already achieved the ambition of universal coverage. If tendencies in the region as a whole over the last 30 years are observed, it transpires that, after a brief drop in the mid-1970s, the gross primary school enrolment rate shows a gently upward trend, at values slightly in excess of 100% (figure 1).

If we compare Latin America with the developed countries, we find that the tendency is similar, although for the latter the line is closer to 100%, something that may be interpreted as being the result of a lower incidence of over-age situations owing basically to their low repetition indices. Now that the goal of universal primary schooling has been achieved in many countries, priority is being given to the objectives of equity in access to good-quality education, and of greater internal efficiency.

The situation is far more complex, on the other hand, when we look at school enrolment rates at the secondary level. Figure 2, which synthesizes trends in the region as a whole, shows that while secondary school enrolment rates have risen significantly over the last 30 years, and particularly during the 1990s, even now over a third of young people of secondary school age are not enrolled.

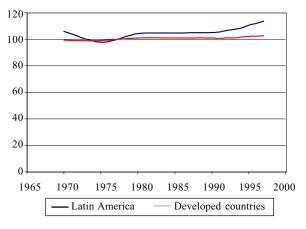
The comparison between Latin America and the developed countries shows the region achieving the coverage levels that the developed countries had in 1970 by the year 2000. This deficit is having to be dealt with, however, in a context that is significantly different from that of three decades ago, particularly as regards the tendency for social goods and services to become universalized. We shall return to this point in section III.

2. The diversity of national situations

Considering Latin America as a single whole obviously means ignoring the great diversity of situations in the region. Strictly speaking, every country should be analysed on its own to discover the specific way in

FIGURE 1

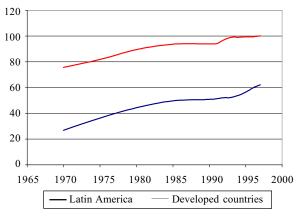
Latin America: Gross primary school enrolment rates, 1970-1997



Source: Prepared by the authors on the basis of UNESCO data.

FIGURE 2

Latin America: Gross secondary school enrolment rates, 1970-1997



Source: Prepared by the authors on the basis of UNESCO data.

which the sociodemographic, political, economic, ethnic and cultural aspects mesh with one another so that policies to achieve universal schooling in a good-quality secondary system can be devised. Nonetheless, the information available on the countries of Latin America does reveal certain recurrent situations that

suggest there is scope for attempting an organizing typology of diversity.

What is proposed here, then, is a country classification exercise to identify groups that are reasonably homogenous within themselves and distinct from one another. The first factor that needs to be considered in this classification process is the demographic profile of each country, as this obviously facilitates or hinders the achievement of school enrolment targets. Two features of what is known as a "traditional" demographic profile —high population growth rates and a high proportion of the population living in rural areas— are a particular challenge in the task of extending coverage towards universality.

A second factor is the level of gross per capita product, as a proxy for each country's degree of economic development. Underlying this choice of indicator is the fact that, in absolute terms, higher-income countries have greater public- and private-sector resources available to invest in education.²

Using this approach we can basically identify four groups of countries in Latin America, situated the length of an axis that runs from highly urbanized countries with very low population growth and high incomes (by Latin American standards) to countries with a fundamentally rural profile, high population growth and very low incomes. These groups are as follows:

- i) High-income countries with a modern demographic profile. This set comprises the three countries of the Southern Cone: Argentina, Chile and Uruguay. Demographically, these are the countries with the lowest population growth rates and the highest concentrations of inhabitants in urban areas. They are also the three countries with the highest per capita gross domestic product in Latin America.
- ii) Middle-income countries at an advanced stage of the demographic transition. This category includes six countries: Brazil, Costa Rica, Mexico, Panama,

- Peru and Venezuela. While demographically these countries are quite similar to the three named above, their per capita GDP averages only half theirs.³
- iii) Low-income countries just beginning the demographic transition. This third group contains Colombia, the Dominican Republic, Ecuador, El Salvador, Guatemala and Paraguay. Demographically, these countries are in an intermediate situation. Some 40% of their population is in rural areas, and they are under severe pressure from rapid population growth. Incomes there average about half those of the previous group.
- iv) Very low-income countries with a traditional demographic profile. This last group is formed by Bolivia, Haiti, Honduras and Nicaragua, countries whose per capita GDP is only a third of the previous group's. Over half their population lives in rural areas, and demographic growth rates are very high.

To construct this typology, use was made of a classificatory analysis of hierarchical conglomerates, the basis for this being the measurement of similarities and differences among cases in respect of the variables proposed. Exercises of this type always raise questions about the validity of one or another country's inclusion in each group, and it is possible that there may be doubts in some cases.⁴ Still, irrespective of how justifiable a particular country's inclusion in one or another category of this typology is, the value of the exercise consists in showing that there is not one "Latin America" but several.⁵

Table 1 gives a set of indicators summarizing the sociodemographic and educational profile of each of the groups described. A first aspect that offers a clue to the diversity of educational situations is the extent of adult illiteracy in each of them. While in group 1 countries only 4% of adults are illiterate, in group 4 the figure is 33%.

² The causal relationship between a country's demographic and economic characteristics and the extension of the education system is neither linear nor straightforward. While the impact of these factors on the extension of the education system is considered, the converse is equally significant: greater access to education creates a better environment for the development of practices that affect the rate of population growth and its geographical distribution, and also helps economic development. Secondly, there is a strong association between demographics and the economy. In point of fact, there is no country in Latin America with a high per capita income level and a traditional demographic profile, or with a modern demographic profile and a low level of income.

³ Simple average of the per capita GDP levels, in dollar terms, of the countries concerned

⁴ The boundary between groups 2 and 3 is relatively unclear. Peru appears in group 2 basically because of its demographic profile, while its per capita GDP would place it somewhere between the two. Colombia has population growth closest to that of group 2, a degree of urbanization close to the average for the two groups, and a group 3 level of GDP.

⁵ Cuba has obviously been left out of this classification. Owing to the particular characteristics of its social and political system, Cuba has the demographic and educational features of the first group but a much lower per capita GDP. Nor have we included the English-speaking Caribbean countries, which merit separate analysis.

TABLE 1

Latin America: Selected indicators for each group in the country typology, 1985-1995

(Percentages)

| | Group 1 Group 2 | | Group 3 | Group 4 |
|---|-------------------------------|---|--|---|
| | Argentina Chile Uruguay | Brazil Costa Rica Mexico Panama Peru Venezuela | Colombia Ecuador El Salvador Guatemala Paraguay Dominican Republic | Bolivia Haiti Honduras Nicaragua |
| Urban population | 87.0 | 76.0 | 61.6 | 48.7 |
| Average annual population growth rate | 1.4 | 1.8 | 2.2 | 2.4 |
| Per capita GDP (dollars) | 6,801.1 | 3,375.2 | 1,669.9 | 521.1 |
| Secondary school enrolment rate, 1985 | 69.3 | 48.1 | 42.9 | 30.1 |
| Secondary school enrolment rate, 1995 | 75.7 | 53.6 | 52.0 | 32.4 |
| Secondary school enrolment growth rate, 1985-1995 | 9.2 | 11.5 | 21.4 | 7.5 |
| Adult illiteracy (early 1990s) | 4.0 | 13.9 | 16.2 | 33.4 |
| Relative weight of each group | 11.5 | 66.4 | 16.8 | 5.4 |
| Gap (young people of secondary school age who are not in school): | | | | |
| Absolute values (thousands) | 1,137.8 | 12,382.0 | 4,435.4 | 1,778.4 |
| − % of regional total | 5.8 | 62.7 | 22.5 | 9.0 |

Source: Prepared by the authors on the basis of UNESCO data (1998).

Looking at secondary school enrolment levels in the mid-1980s, we find that the Southern Cone countries had the highest values and were well ahead of the other groups. Among these others, rates fall from one group to the next until in group 4 we find less than a third of all young people in intermediate education.

Over the period 1985-1995, we see a rise in secondary school enrolment rates in all cases, something that deserves special attention. Generally speaking, we know that growth processes follow a dynamic whereby the pace of improvement slackens as the indices approach their final value. In situations of low school attendance, for example, education forms part of what are known as the "soft areas" of social policy, i.e., those that are less resistant to change. As the coverage of demand increases, society as a whole has to make greater efforts and investments to continue advancing towards universal attendance. Thus, education gradually shifts into the category of what are known as "hard areas" of social policy (Kaztman and Gerstenfeld, 1990).

Analysis of the growth dynamic of secondary school enrolment rates during the period 1985-1995 sheds a great deal of light on what is happening in the region. The countries in group 1, which have the highest rates, are the ones that show the lowest growth during the period, as the type of measures needed to expand coverage relate to more structural aspects of the education system. Groups 2 and 3 behave as would be expected from the considerations described, so that larger increases in school attendance rates in countries where these were lower to begin with (in this case, group 3) are leading over time to gradual upward convergence.

By contrast, the situation of the group 4 countries is highly critical from this point of view. As well as having the lowest levels of school attendance, these countries as a group also show the lowest relative growth in the period. The neediness of these countries undoubtedly acts as an obstacle to development of the education system, and this continues to hold them back so that they are unable to close the gap with the rest of the region.

3. Heterogeneity within countries

The educational situation varies not only among countries, however, but within them as well. From

information presented in a World Bank document $(n/d)^6$ on the educational situation of Latin America, it is possible to estimate the size of the disparities within eight of the region's countries as regards access to intermediate education during the first half of the 1990s, taking account of sex, socio-economic level and urban or rural residence.

Firstly, we can see in table 2 that the column for disparities by sex is the one whose values stay closest to 1. The countries with the largest disparities are El Salvador, where the male attendance rate is 15% higher than the female rate, and Honduras and Nicaragua, where the difference is about 10%, this time in favour of females. In the cases of Chile, Costa Rica and Ecuador, there is virtually no noticeable difference in access to education by sex. From supplementary information we can state that these disparities are slightly greater in rural sectors, and among the poorest families.

The differences begin to be larger when we analyse the access opportunities of young people from poor families in comparison with those from sectors that are not poor. In the eight countries for which this information is available, attendance rates are lower among the poor, and the difference is particularly significant in Nicaragua, where the attendance rate of the poor is less than half that of the non-poor, and in El Salvador, Brazil and Ecuador, in all of which the gap is over 25%.

Taking the countries analysed as a whole, the greatest disparity is between urban and rural areas. Urban attendance rates are significantly higher than rural ones, and once again the largest gaps are found in Nicaragua, Honduras and El Salvador. Chile, Brazil and Costa Rica also show significant disparities in access to secondary education, however.

TABLE 2

Latin America (eight countries):
Indices of inequity in access to intermediate education

(Ratios between secondary school enrolment rates)

| | Male/female | Poor/not poor | Urban/rural |
|-------------|-------------|---------------|-------------|
| Chile | 0.99 | 0.89 | 1 44 |
| | | | 1.44 |
| Brazil | 0.91 | 0.69 | 1.49 |
| Costa Rica | 0.99 | 0.80 | 1.40 |
| Peru | 1.04 | 0.93 | 1.15 |
| Ecuador | 0.98 | 0.72 | 1.32 |
| El Salvador | 1.15 | 0.66 | 1.67 |
| Honduras | 0.90 | 0.78 | 1.80 |
| Nicaragua | 0.89 | 0.46 | 2.11 |

Source: Prepared by the authors on the basis of data from the World Bank (n/d). See footnote 6.

To sum up, analysis of the data on changes in intermediate school enrolment rates allows two general conclusions to be advanced. The first is that a homogeneous analysis of the problem is very difficult to achieve. There are structurally different situations that require different conceptual and political approaches if they are to be understood and addressed. The second is that the scope for "easy" gains in school enrolment is no longer there. This is due to the changing socio-economic environment and to the specific characteristics of the sectors that need to be incorporated into education, requiring special measures. In the case of group 4 countries, it is also due to major shortcomings in the general process of economic and social development.

Ш

Where is reform going in Latin America?

The literature on secondary education reforms in Latin America has grown substantially over recent years, as

a result of the transformation process itself.⁷ Although there has been a wealth of technical discussion, and diagnostic analyses stress the diversity and complexity of situations, educational reforms are guided by fairly

⁶ To generate the data used, the authors drew on the following information sources: Brazilian Geographical and Statistical Institute (IBGE) (1995); Chile, Ministry of Planning and Cooperation (MIDEPLAN) (1992); Costa Rica, Encuesta de Inversión social (ENISO) (1993); Ecuador, Encuesta Nacional de Hogares sobre Medición de Niveles de vida (1994); El Salvador, Encuesta Nacional de Hogares sobre Medición de Niveles de vida (1995); Honduras, Encuesta Nacional de Hogares sobre Medición de Niveles de vida

^{(1993);} Peru, Encuesta Nacional de Hogares sobre Medición de Niveles de vida (1991) and Nicaragua, Encuesta Nacional de Hogares sobre Medición de Niveles de vida (1993).

⁷ A recent seminar on this problem held by IIEP-Buenos Aires provided an opportunity to revise the existing analysis for the region as a whole. See particularly Braslavsky, org. (2001).

homogeneous principles. The main focuses of discussion are structural change, curricular reform and changes in management style. Although all these aspects are closely linked, we shall deal with them separately in the interests of analytical clarity.

1. Structural change

Structural changes in the education system are associated with increases in the number of years of compulsory schooling and with considerations deriving from the cycles in the development of pupils' personalities. As the number of years of compulsory schooling increases, content that was traditionally intended for a minority comes to be universally disseminated. Meanwhile, the status of "student" —traditionally the preserve of the urban middle classes—comes to belong to the entire youth population.

It is worth remembering that the strategy of providing the same compulsory, long-term schooling to everybody arose in the advanced capitalist countries after the war, at a time of very strong economic growth, full employment and universal social services provision, led in many countries by the State. Insofar as, from a socio-economic point of view, the trend was favourable to social equity, the debate about expanding education essentially turned around the problems raised by the need to deal successfully with the growing diversity of pupils. Again, this expansion took place in a context that was relatively stable and predictable as regards work organization models. This context, it should also be recalled, allowed for the emergence of planning ideas that, whatever their objective merits, provided a political and technical instrument for projecting rates and levels of educational demand on the basis of tendencies in the operation of the labour market.

With some delay, Latin America has followed this rising tendency in the number of years of compulsory schooling. According to a recent UNESCO study, all the countries in the region other than Bolivia and Nicaragua have now made at least the first stage of secondary education compulsory (Macedo and Katzkowicz, 2000). By contrast with the advanced countries, however, this extension of compulsory schooling is taking place in a context of rising social inequality, weakening development planning mechanisms and significant uncertainty about future human resources

needs. In short, Latin America is having to cope simultaneously with diversity and inequality, and to do so in a context where structural tendencies are generating great uncertainty and the risk of rising social exclusion. In these circumstances, it is reasonable to wonder whether it is possible to put in place uniform structures that are valid for the entire population, considering how significant the inequalities within many of the region's countries are.

Increasing compulsory schooling to nine or ten years in countries or in regions within a particular country where average school attendance is four or five years is a task that can scarcely be achieved in the space of one or two generations unless there is a rapid process of general growth and development with equity. If these conditions do not obtain, increasing the number of years of compulsory schooling may have at least two perverse effects. Firstly, there is the risk that those who only manage six or seven years of schooling will perceive that they have not even obtained their certificate of full basic schooling, and this in an environment where the symbolic and actual value of this certificate is very great. Secondly, increasing the number of years of compulsory schooling may result in a tendency to spread the learning of certain basic subjects over a greater number of years and to put off the moment at which these studies are embarked upon, so that pupils who are only in school for part of the cycle will learn less than they would have done in a shorter compulsory education cycle. New curriculum designs have sought to avoid this risk by reinforcing early basic learning, but the problem arises with the actual application of these designs and not with their theoretical formulation.

These risks obviously do not justify the adoption of the opposite alternatives (not increasing the number of years of compulsory schooling, or introducing structures that are differentiated by the opportunities of each social sector), which are also regressive, as they consolidate existing differences. We only wish to sound a warning about the great complexity of this situation and open a debate about the need to design strategies which take account of this complexity rather than ignoring it.

2. Curricular reform

The curricular reforms initiated in different countries in the region over recent years have focused on three main areas:

 the transition from organization by disciplines to organization by areas of knowledge,

⁸ See the systematic studies that ECLAC has done on the subject of the social gap. The most recent of these is *The Equity Gap: A Second Assessment* (ECLAC, 2000).

- the introduction of a new type of curricular content, relating in particular to the values and the new skills required to operate as effective citizens and producers,
- the introduction of greater opportunities for pupils to choose what subjects to learn about, and of orientation as a teaching method.

The justification for these changes has been much debated by educationalists. Organization by disciplines was called into question a long time ago, both from the epistemological point of view and in relation to the consequences for the organization and management of schools. The new skills (the ability to work in teams, solve problems, experiment, interact with those who are different, etc.) and the values that are part of citizenship training (solidarity, tolerance, respect for human rights) are taught not necessarily as part of a single discipline, but rather through transversal methods that also require profound alterations in curricular organization and teachers' working methods. As regards greater opportunity for choice in learning, this was introduced partly in response to the increasing diversity of pupils, partly to develop students' ability to "learn how to learn", which has been recognized as one of the basic skills for coping with the demands of lifelong learning (Braslavsky, org., 2001).

As regards curricular management, some countries have opted to produce basic content that is used everywhere and then give schools or local authorities greater or lesser autonomy to devise individual content. Others, by contrast, have focused on creating national standards. In respect of methodologies for deciding on curriculum content, significant progress has also been made in incorporating the demands of actors from outside the school system through different forms of consultation and participation.

Taking stock of all this, it can be said that the changes have resulted in substantial modernization of the contents of secondary school curricula. It is also generally agreed, however, that the impact of these changes on what is actually happening in schools has been much less than was hoped. What accounts for the "resistance" of traditional structures? Apart from the usual difficulties associated with any educational reform, and the fact that altering behaviour is always a slow process, it would seem that the difficulty of changing the actual performance of those involved in the learning process (teachers and students) derives from two factors that are beginning to have far more attention paid to them than in the past: an external factor,

youth culture, and an internal factor, the working conditions and professional culture of teachers.

a) Youth culture

The relationship between school attendance, youth and culture has undergone very significant changes over the last three decades. Historically, at least in the Western world, being young was associated with being a student, and consequently school culture occupied an important place in youth culture. The most telling manifestation of this was the way youth movements were identified with student movements. This association has weakened. Recent studies agree that while the expansion of schooling has created students on a mass scale, this same process has increased the diversity among them. Studenthood has become less important in determining the features of youth culture, and the place of school has been usurped, in a way, by consumption and thus the market.

But changes in the socio-economic environment are also producing major shifts in what access to schooling signifies. Access to secondary schooling is no longer accompanied by expectations of social mobility. For many young people, this access merely means a postponement of the uncertainty produced by a changeable, restrictive and segmented labour market. 10 Furthermore, the new sectors entering this level of education for the first time are very ill-equipped for learning, which explains the high indices of failure found in these groups. Lastly, the considerable diversity of youth culture does rest on some common elements: the importance of the body, of music and of certain personalized forms of religion, the predominance of images, empathy with the use of new technologies (not necessarily with an understanding of their workings), the fundamental importance of emotions as an aspect of social relationships and the predominance of the present as the most important time dimension (Margulis and Urresti, 1998 and Barbero, 1998).

By way of contrast, the predominance of these factors highlights the waning importance of some key elements of the traditional school culture: the predominance of reading, respect for knowledge and systematic work, the deferment of gratification, and appreciation of the past as a heritage that has to be transmitted and of the future as a project for which it is necessary to prepare oneself.

⁹ See Dubet and Martucelli (1999) and Tenti (2000).

¹⁰ Among recent publications on intermediate education and the labour market, see Filmus (2001).

The new curricular proposals thus have to measure up to a situation that is complex both socioeconomically and culturally. Having an education does not guarantee a place in society with prospects for social mobility, nor does it bring admittance to the symbolic worlds that carry prestige in the dominant youth culture. In response to the opportunities for socialization offered by school, the options pursued often assume a clearly alternative character. Much of the sociology of youth culture makes mention of the phenomenon of gangs, "tribes" or similar forms of association, involving the construction of an identity characterized by its opposition -sometimes violent- to the institutions of the system. This violent opposition is different from the politically motivated youth violence that arose in the 1960s. According to studies by some anthropologists: "Opting for tribes works –in part– as a way of dropping out, an alternative path in life, guided by other values, oriented in a different direction. It means abandoning the fight outright before it has begun, getting off the train before it sets off" (...) "The links among tribal youths are brief and fleeting, a kind of sociability of the provisional, a culture of instability dominated by the here and now and the lack of a future" (...) "Thence the aimlessness, the weight of immediate motivations, the determination not to go outside or beyond oneself, the looking out for one another with such self-protective urgency" and (...) "the rule of the emotions" (Margulis and Urresti, 1998).

The contributions made by anthropological studies of youth are an essential input for the design of new curriculum proposals. Anthropology, however, tends to postulate an adaptive discourse whose message is that we should learn from the young. There is a tension between this adaptive discourse and the pedagogical and political discourse, according to which the school curriculum must always have an intentional, voluntary content embodying what it is that adults wish to transmit to the young. This tension is not new. One of the peculiar characteristics of our times, however, is how little hegemony the dominant way of thinking seeks to exert and, in the case of Latin America, how much "social capital" has deteriorated, as manifested by low indices of trust in others and particularly in the representatives of the institutions responsible for social order.

There is a great deal of empirical evidence to confirm that indices of trust are low among citizens in general. Some recent findings show that this is equally true of teachers, who tend to share the mistrust of citizens in general towards the public institutions and social actors responsible for social cohesion.

This analysis opens the way for a discussion that is beyond the scope of the present work. It only seems relevant to mention here the importance of the cultural dimension in the design of secondary education curricula. This dimension is not confined to cognitive aspects alone but implies linkage among the cognitive, the emotional, the aesthetic and the social, involving not just students but, as we shall see in the following point, teachers as well. Some countries have already begun to introduce this approach in a systematic way.¹¹

This greater cultural density in the design of secondary education curricula means accepting the tension between adaptation to the new cultural patterns that characterize the young and the transmission of a particular set of skills, values and attitudes that define the will of adults. In this respect, schools can legitimately adopt the character of a socialization space with certain "countercultural" characteristics where it is possible to learn what is not learnt outside of school.

b) The situation and role of teachers

Curricular changes and alterations in management styles entailing much greater independence for schools are forcing teachers to undertake what amounts to a veritable retraining. Their performance is being affected by changes in all areas. The content that they have to transmit has been renewed, and it is assumed that this will be a permanent process. Their work, traditionally individual and solitary, now has to be coordinated with colleagues as part of an institutional plan. Pupils reach the classroom with levels of educational preparedness very different from what they were in the past, and require personalized attention. Traditional teaching methods are not appropriate for imparting the new skills that form the renewed curriculum of secondary education, as these new skills are personality characteristics and cannot be taught using either the head-on methods or the rote learning of the past.¹²

¹¹ Leite Berger Jr., R. (2001). The situation is even more complex in culturally heterogeneous countries, such as the Andean countries and some Central American ones, where increased access to secondary schooling is bringing in the indigenous population with its different cultural and linguistic patterns.

¹² Regarding the teaching methods appropriate for citizenship training, it would be interesting to make a comparison between the demands that used to be created by loyalty to the nation State and the demands created by citizenship in the globalized society. Durkheim (1998) provided a lucid analysis of the first point when he associated citizenship training with religious rituals and the cognitive dimension. For current needs, these methods are incompatible with the idea of identity construction.

What kind of position are teachers in, objectively and subjectively, to confront these new challenges? The information available in certain of the region's countries relates chiefly to working conditions, salaries, occupational training and, in some cases, career opportunities. By contrast, there is very little systematic information on how teachers view the different cultural dimensions, the new paradigms prevailing among the young and the new professional demands being made on them. There is one recent survey, though, which was conducted in Argentina among a nationally representative sample of primary and secondary school teachers, and which at least provides an idea of certain important characteristics of secondary school teachers and allows some working hypotheses to be formulated.13

Firstly, while teachers' living conditions are a factor that influences the mood with which they approach reform in the education system, this study shows that an even more significant factor is their perception of what has happened to their position in society over recent years. Thus, teachers who perceive that their living conditions have deteriorated lately, and that this deterioration is going to continue over the coming years, are the group that is hardest to mobilize around reform proposals. By contrast, those who perceive themselves as moving up in society are more willing to accept commitments in relation to these new challenges. This finding suggests that a social policy for teachers would also act as a good educational policy.

Secondly, the way teachers view youth values is becoming a factor of great importance. The survey reveals that the perception teachers have of the standards guiding youth behaviour is, in the main, quite a negative one. According to teachers, young people reveal only a weak grasp of fundamental values such as social commitment, tolerance, national identity, honesty, family feeling, responsibility, effort, duty and respect for their elders. This view of the young is remarkably consistent among teachers, irrespective of their age, sex or social position.

As regards cultural consumption and production patterns, teachers display a profile that is problematical to say the least, considering their role in transmitting culture and training the young in the new skills associated with competitiveness and citizenship. Watching television is the most common pastime among them. Their predominant cultural practice is watching videos. Going to the cinema is next in importance. Only 40% read a newspaper every day. The percentages using electronic mail or the Internet are in single figures, while just 18% write on a computer. Such reading as they do is mostly of teacher training material.

The way teachers conceive of the aims of education shows that they regard its objective as being the formation of the whole personality. This increases the likelihood of conflict with pupils, as what teachers pursue is precisely that which most differentiates and distances them from those who are the object of these efforts. Educating for work or, in a more focused way, for the transmission of knowledge are options to which teachers attach a very low priority.

One of the basic problems of secondary education revolves around the issue of authority. The young have a deficit of "significant adults", a role which teachers cannot easily assume given the characteristics of their training and their patterns of conduct. The way curricula are structured by disciplines aggravates this problem, owing to the widespread use of itinerant teachers who cannot play an efficient part in guiding pupils because they spend so little time in the school. A number of countries in the region are trying to deal with this by encouraging the allocation of teachers or teams of teachers exclusively to one establishment and by pursing training policies that focus on the cultural acquirements of teachers as well as scientific and pedagogical refresher material.

Importance is now being given to some proposals formulated earlier in other ambits, regarding the need for major changes in teacher training policies based on two key ideas: training in teams within the establishment itself, and the introduction, along with the cognitive dimension of professional development, of other dimensions in which many of the emotional perceptions that teachers have of the young and of the new cultural paradigms are rooted.

3. Changes in management styles

The educational changes implemented in Latin America in the 1990s have brought general reforms in management styles: greater decentralization and autonomy for schools, evaluation of results, support for innovation and the introduction of competition mechanisms for the allocation of different types of support. These issues have been very intensely debated,

¹³ Although the situation of Argentine teachers may be different from that of other countries', it could also be argued that where the phenomena analysed by the survey are concerned (cultural patterns and consumption) the features detected there may be even more strongly marked in other countries (see UNESCO-IJEP, 2000).

and the lack of empirical information about the effects of the changes has often meant that proposals have had a predominantly ideological character. This is not the place to summarize the terms of this debate. We merely wish to point out that the way these innovations are applied in secondary education has specific features that differ greatly from those found in basic or higher education. Thus, for example, results measurement systems are used more widely in basic education than in secondary education. Conversely, school autonomy and demands for the creation of institutional profiles seem to be more a feature of secondary education than of basic education.

Over and above these peculiarities, recent experience with reforms in management styles shows that the time has come to contextualize the processes of administrative reform. Two different types of situations can be distinguished:

 The situation of private schools or State schools catering to middle- and high-income sectors. In these schools, experience seems to show that greater autonomy is a necessary but not sufficient

- condition for creating the dynamism needed to satisfy the new requirements. These schools already have a great deal of autonomy, and while their results are better than other schools', it is reasonable to suppose that this is due to factors other than the specific actions of these establishments. The need here is not to deregulate further, but to work on the pedagogical and cultural aspects referred to in the previous point.
- ii) The situation of schools admitting sections of the population that are new to this level of education. The situation is more complicated in these establishments, since while autonomy is a necessary condition if the diversity of the population is to be catered to, many of the studies on the situation of disadvantaged populations indicate that one of their main characteristics is difficulty in planning. Establishing competition among plans as a management method in this sector means creating a situation in which the most disadvantaged sectors are required to act on the basis of what they are least well equipped for.

IV

Some conclusions and proposals

What we wish to do in this final section is to offer some suggestions for thinking about strategies for change in secondary education. These suggestions take as read the starting point of this article, which is the need to cope simultaneously with the demands of young people from poor families who are only now entering intermediate education and the needs of sectors that are already catered to, and that are demanding the transformation of traditional provision. Clearly there can be no question of providing the traditional education to the new sectors and altering it just for those already in the system. It is precisely in the need to deal with all this at the same time that the complexity of the current situation consists. In view of this, these suggestions can be organized around three propositions. The first of these emphasizes the need to come to grips with the complexity and heterogeneity of existing situations, and

1. The heterogeneity of strategies

When the challenge of universalizing secondary education is considered, one question that necessarily arises is why a significant proportion of adolescents do not attend any educational establishment. It can be said that there are basically three configurations of phenomena that are instrumental in this.

Firstly, there is still a large shortfall in the supply of secondary education in the region. Because secondary schooling has traditionally been oriented towards a minority, large areas, particularly in the countryside, do not have the establishments available to receive ever larger numbers of these young people.

shun universal solutions. The second relates to policies for getting from current situations to the goals being aimed at. The third, lastly, focuses on the need to give priority to the pedagogical aspects of educational reform.

¹⁴ See Morduchowicz (2000) and Gajardo (1999).

A second factor are the obstacles that prevalent poverty and deficient living conditions represent for many young people. The 1990s saw already high levels of poverty worsen, while at the same time the vulnerability of middle- and low-income families increased, so that young people are increasingly having to share in the responsibilities involved in providing a livelihood for their families. For them, the urgent needs of the present take precedence over investments whose benefits will be appreciated only in the medium or long term.

Lastly, there is a significant mismatch between the formal characteristics of the educational supply and the actual performance of actors in the teaching process. There is widespread discontent among teachers, and also among pupils, who do not find school to be a place for socially significant learning.

The coexistence of these three factors means that the development of education policies aiming at the expansion of good-quality intermediate education needs to combine a wide range of actions. In principle, there needs to be a substantial increase in infrastructure investment, which may mean not so much the expansion of schools along traditional lines as alternative forms in which a prominent role could be played by new information technologies. In addition, education policies need to be tied in with other social policies, something that experience suggests is harder than might be expected. Lastly, pedagogical reform, changes in management styles and substantial modifications in the profile and role of teachers seem to be crucial if this objective is to be achieved.

Most of the region's countries are now developing plans and programmes that provide for this array of measures. The typology of countries presented in section II of this article is a reminder of the impossibility of devising single policies for the whole region. The Southern Cone countries (group 1) are, relatively speaking, the ones whose networks of establishments are least badly placed to provide comprehensive coverage to young people, who in turn are less likely to be prevented from attending school by household poverty than are their counterparts elsewhere in the region. In these countries, the emphasis should be on pedagogical reform, in response to growing demands for quality. Rising school attendance rates in group 2 and 3 countries show the positive impact of the policies being implemented to expand intermediate education. In these countries, though, and particularly in those of group 3, the precarious living conditions of many young people threaten to put a ceiling on educational expansion, which makes it particularly important to tie education policies in with social policies more generally. Lastly, the group 4 countries, whose main obstacle is that they do not have the minimum level of economic and social development needed to set in train the expansion of intermediate education, are in a position where they need to develop a set of education policies that can hardly owe much to the rest of the region's. On the contrary, the challenge of providing an education in conditions of widespread poverty calls for a creative exercise in which the pedagogical dimension must clearly be uppermost.

The countries should come to terms with this diversity of situations within their own borders. The challenges differ between urban and rural areas, and the strategies that need to be developed to deal with similar problems cannot be the same in large middle-income cities as in small impoverished towns. Even the countries that are best placed economically and socially have large sections of their populations living in extreme poverty. Again, promoting education in a poor community in a poor country is not the same as promoting it in a poor community in a high-income country. Nor do single policies for a whole country seem to be an option. Rising social heterogeneity will only worsen if it is ignored and uniform policies are applied.

Education policies, like social policies generally, now require more accurate diagnostic analysis that can capture the growing complexity of the situations in which action has to take place, and the ability to tie together a wide range of instruments as the needs of the specific case being dealt with dictate. Only a policy that is based on the recognition of diversity can ensure homogeneity of outcomes.

2. Transition policies

Analysis of educational transformation processes has revealed both their visible characteristics and their shortcomings. Recent experience would seem to suggest that one of the most significant shortcomings is the failure to pay sufficient attention to the difficulties involved in transitions from existing situations to the outcomes envisaged.

Such transitions are attended by characteristics that make some kind of specific treatment necessary. Thus, for example, we know from all the information provided by results measurement systems that secondary education is receiving, and will continue to receive for some years more, students who are seriously deficient in their understanding of the basic codes of reading, writing and arithmetic.¹⁵ We also know that teachers operate on the basis of views, corporate interests and professional traditions that will not be altered simply because their working conditions or the contents of study plans change.¹⁶ Curriculum designs, management styles and the structure of school provision cannot be the same at the outset of reform as at later stages. There thus seems to be a need to introduce the idea of transition policies that are valid for specific situations and for specific periods of time (transitional curriculum designs for cohorts of pupils coming into intermediate education or some form of it over the coming years, transitional qualifications, etc.).

Thinking about such transition policies would make it possible to improve on current options for educational change that are based on general reform or on innovations that are tried out in a small number of establishments before being applied everywhere.

3. The pedagogical dimension

The strategies for change implemented in the region seem to have reached a point where they need to give greater priority and pay greater attention to the pedagogical and cultural dimension if they are to translate into changes in learning processes and outcomes. There are two fundamental aspects to this. The first concerns teachers. Given the educational challenges that the region's countries are facing at a time of profound social change, the teacher's role cannot be underestimated or replaced by other learning inputs. The second aspect concerns pedagogy as a discipline. In addition to motivated, well equipped teachers working in institutions where they can develop as independent professionals, what are needed are teaching solutions that are appropriate to social and cultural contexts as complex as those found in the region.

In summary, the great question is how education can be provided in conditions of acute social inequity. In Latin America we have not developed a pedagogy that can provide us with working methodologies and techniques that are appropriate for solving the learning problems of poor, culturally heterogeneous populations. In the case of secondary teaching, the complexity is greater still because the pedagogical answers that are needed relate to adolescents and young people who are going through what is always a difficult and awkward period. Insofar as these problems have deep cultural roots, the answers will also be marked by the cultural context in which they are produced.

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¹⁵ See Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación, UNESCO/OREALC (2000).

¹⁶ The request for each establishment to produce a plan, which arose from the increased autonomy granted to schools, elicited different responses. Schools that already had the capacity to produce their own plans continued with this. Many others, however, did no more than copy texts produced by publishers. This resulted in homogenization based not on public-sector policies, but on the policies of certain publishers in the private sector. See González Lucini (2001).

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The role of

institutions in

local contexts

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Wageningen University, The Netherlands mnuijten@wxs.nl This article looks at some methodological issues that confront development research when local institutions are studied. It considers ways of formulating working concepts that are useful for obtaining information on institutions and their dynamic processes in relation to the economic activities of rural households. It presents and evaluates some quantitative and qualitative methods on the basis of case studies in Mexico and India, and considers the scope and limitations of these. The conclusion is that a flexible, multidisciplinary conceptual and methodological framework is needed to understand the dynamics of institutional processes, from established rules and norms to people's organizing practices. It is stressed that policy-oriented research has to focus on specific objectives, such as institutional arrangements capable of supporting the poorest groups, and ways in which these groups can mobilize to transform institutions.

I

Introduction

Institutions have been a focus of the development debate for several decades. With the transformation of the State and recognition of the existence of "market failures", emphasis has been laid on the role of institutions in providing economic and social agents with access to resources and opportunities for enhancing their earning potential. Thus, "getting institutions right" is becoming a dominant policy-making paradigm in the international development agenda. As a result of structural adjustment and economic reform, interventionist policies are giving way to policies that focus on "enabling" and devolving power to populations that are to become active partners in development efforts. With this "bottom up" approach, local institutions have been assigned a central role in the task of helping people cope with the impact of macroeconomic changes and finding new ways to improve their livelihoods through access to employment and resources. Institutions at the local level are seen as mediators that connect macro policies with economic and social agents at the community level, and as a framework that enables people to cope with the "changing ground rules" resulting from structural reform, whether as individuals or collectively.

In this article, we wish to analyse some of the methodological issues confronting development research when local institutions are examined. The study of institutions and the way rural households and individuals interact with their institutional environment raise serious methodological problems to which little attention has been paid in development literature. The present article will consider how relevant information on these subjects can be obtained.

First of all, we briefly analyse how the concepts of "institution" and "organization" are defined and used in development literature. We then discuss how to formulate working concepts that are useful in field research. Lastly, we present and evaluate some quantitative and qualitative methods and the corresponding research techniques, and their potential and limitations for the study of institutions. The argument is illustrated by a number of case studies in which we participated in Mexico and India. We believe that the analysis presented here may be of interest both for academic research, including research for policy-making or project- and planning-oriented diagnostic purposes, and for a variety of development agents.

II

The concept of institutions and organizations in the development debate

Many development projects assign local institutions a central role in improving the living conditions of the poor. Box 1 shows how a rural family in India and

another one in Mexico secure their daily livelihoods, and what role institutions play in their lives.

A quick glance at the activities carried out by these two families and the context of these gives an idea of

de Investigaciones Multidisciplinarias, National Autonomous University of Mexico (CRIM/UNAM). In Mozambique, the Department of Plant Production and Protection, Faculty of Agronomy and Forest Engineering, Universidade Eduardo Mondlane, Maputo. We would like to express our gratitude to all these institutions; the opinions expressed here are those of the authors, however, and are their exclusive responsibility.

¹ The research, which covered cases in India, Mexico and Mozambique, was carried out as part of the Programme on rural household income strategies for poverty alleviation and interactions with the local institutional environment, conducted by the Rural Development Division of the United Nations Food and Agriculture Organization (FAO). The following institutions participated: in India, the Centre for Management in Agriculture, Indian Institute of Management (IIM), Ahmedabad. In Mexico, the Centro Regional

$Box \ 1$ The life of a rural family in India and Mexico

India

The village of Malawada in the district of Kheda, state of Gujarat, is a medium-sized village with a population of 3,000. It has a year-round irrigation channel. Rice and wheat are its main crops. There is also a dairy cooperative and a factory that employs some workers from the village.

Jeevabhai and Ramabhai live in the village of Malawada; they belong to the Parmar caste. The household consists of this elderly couple and one son, his wife and three grandchildren. The household owns four acres of inherited land that is under irrigation; it also has a buffalo and two bullocks. The adults divide their labour between their own land and other properties. They produce a variety of crops, for which they purchase inputs. They also hire labour. Some of their output is sold to the village cooperative. Jeevabhai has been a member of a credit group for 15 years. The women belong to a marketing group for selling milk to a dairy cooperative. The only requirement for membership is to have milk-producing animals. To participate in the credit group, Jeevabhai has to pay a contribution. Membership does not involve a large commitment of time; the members say they have put in one or two days' labour for each organization and do not have an active role in decision-making.

Source: IIM (1999).

Mexico

San Pablo is situated in the highlands of the Sierra Juárez in the south-eastern state of Oaxaca. The forest is the main natural resource of the local communities, and is collective property. The community has a complex institutional system of governance that regulates access to and administration of resources.

Pedro, his wife and a granddaughter live in the village of San Pablo. Pedro is a member of the community and owns four plots of land that were allocated to his family some generations ago. The family grows maize and some vegetables for its own consumption, and has four cows. Pedro is entitled to work in the forest, which he does by hiring an outside labourer by the day. In this way he participates in the community forestry enterprise.

In 1964, Pedro was an immigrant worker in California. He now has three married daughters living in Los Angeles, as well as a son working as a mechanic, who regularly sends money home. The family has lent them money to migrate. They are members of a migrants' association. Another two daughters are studying in Mexico City.

Pedro has performed a number of administrative duties (cargos) in local institutions, acting for example as Comisariato (administering common resources) and as secretary, treasurer and trustee of the municipality. He has never received any payment for this work, which is part of his obligations as a member of the community.

Source: CRIM/UNAM/CRUCO/UACH (1999).

the great range of institutions that are important for them (box 2).

As can be seen, a wide range of items are encompassed by the term "institutions". Consequently, the first thing that has to be done is to sort out the concept of "institution" and look for the best way of understanding it in the context of specific research, and then decide how the institutions chosen and their role in the livelihood of each family can be studied.

In order to develop a conceptual framework for the study of institutions in rural contexts, we shall now consider how they have been approached in the development debate. A quick glance at the wider literature shows that there is confusion in the way the concepts of "institution" and "organization" are defined. To begin with, the two terms are often used interchangeably. Furthermore, different disciplines and subdisciplines, such as organization sociology, new institutional economics, economic sociology and anthropology, use these concepts in different ways. Lastly, there is no agreement on their use even within individual disciplines.

Despite the confusion and disagreements, a certain consistency can be distinguished in the use of the terms. Most studies that try to distinguish between organizations and institutions stress the normative aspects of institutions, while laying more emphasis on the structural aspect of organizations. Consequently,

Box 2

INSTITUTIONS THAT ARE IMPORTANT TO RURAL HOUSEHOLDS, INDIA AND MEXICO

The caste system The household
The family The migrants' association

Marriage The system of indigenous duties (cargos)

Land ownership rights Local government
The community Labour markets

Water rights

organizations are defined more in terms of structures of recognized and accepted roles, while institutions are defined more in terms of the beliefs, norms and rules that make these roles and structures possible (Uphoff, 1986; North, 1990; Ostrom, 1995 and Scott, 1995). The distinction and interconnection between organization and institution can be illustrated with the following example. Schools, the dairy cooperative or the forestry enterprise are organizations that exist because a number of "working rules" or underlying institutions define them and give them meaning. However, institutions such as money, markets, marriage and the law do not have a single, direct organizational manifestation (Leach, Mearns and Scoones, 1997, p. 237). In this article, we shall use the concept of institution in a broad sense that includes not just normative aspects, but also regulatory and cognitive aspects (Scott, 1995). The reason is that many institutions (such as locally developed land tenure arrangements) are more in the nature of customary practices persisting over time than a set of rules or norms (Leach, Mearns and Scoones, 1997, p. 91, and Crowley and Appendini, 1998).

Development projects or policy-oriented research frequently argue that it is important to classify institutions and organizations according to certain criteria. It is often maintained that institutions can be classified as formal or informal. This dichotomy, however, does not make it any easier to grasp the complexity of institutional arrangements in which households are involved. Another distinction that is very often to be found in the literature is the one between grass-roots community organizations, nongovernmental organizations and government agencies (Poulton and Harris, eds., 1988; Curtis, 1991 and Bebbington and Ferrington, eds., 1993). These differences are hard to sustain in practice, however. It is rare for organizations and institutions to be simply public or private, and many successful institutions are a mixture of "private-like" and "public-like" institutions that defies categorization into a sterile dichotomy (Ostrom, 1995, p. 14). Another classification that is often used but is hard to sustain is the one between local and extralocal institutions. It is often difficult to determine whether an institution is local or not, and there does not seem to be much point in laying down strict boundaries. In a context where people are increasingly operating in ways that go beyond specific territorial limits and identities, we would have to find new ways of defining the "local". We argue that the concept "local" alludes to the embedding of larger-scale realities in specific contexts (Appadurai, 1997, p. 55). Thus, when we speak of the local institutional context we are referring to the institutional environment that is relevant to households in the specific geographical areas we are studying.

The credit group

Gender relations

The forestry enterprise

The village cooperative

The dairy cooperative

One problem with much of the literature on local institutions and organizations for poverty relief (Esman and Uphoff, 1984; Korten, 1987; Harris, 1988 and Curtis, 1991) is its reference to collective actions and goals. In fact, most works dealing with "organizations or institutions" for development see institutions as social units whose purpose is to achieve collective goals or meet institutional needs in the society or environment of which they are a constituent part. The concept of the institution as a normative and regulatory structure, however, automatically implies the existence of power differences and divergent interests among the people involved in it. In our study, we see institutions as negotiated orders that are built, sustained and changed by social interaction. Institutions are related to wider configurations of power and domination and may reproduce the ideological and political constraints in which they are embedded. Lastly, it needs to be recognized that institutional and organizational realities are constructed, sustained and altered by processes of cultural creation and enactment. This results in the creation of values and the expression of ideologies, rituals and ceremonies that lead to a sense of participation and belonging (see Reed, 1992, pp. 73-129).

To obtain a good understanding of the different forms of organization that are important to households, we also used another concept: that of organizing practices. Organizing practices are the different action patterns and strategies that people follow to sustain and develop their daily subsistence and other life projects. A number of anthropologists maintain that rather than starting with the institution, it is more important to begin with the activities of individuals and households. They argue that rural people organize their activities in different ways in their daily lives. Consequently, in many cases organizations are not established, but networks are mobilized to provide crucial information, financial support and practical help (Wolf, 1990 and Long, 1990). This means that attention should be paid to the existence of organizational forms established by the poor before any attempt is made to influence existing institutional environments. These organizing practices are often fragmentary rather than collective in nature. Over time, however, they may develop into ways of ordering and regularities (Nuijten, 1998). When in the course of time these organizing practices become more structured and follow certain implicit rules, we can say that they become institutionalized.

For several reasons, we argue that it is important to pay attention to organizing practices when analysing local institutions. Firstly, structures, which consist more in routine practices than in a set of established rules or regulations, will be identified more easily by studying organizing practices than by focusing on institutions. Secondly, a study of organizing practices can deepen our insight into the ways in which more structured forms may or may not develop. It can also explain why more individualized and fragmented forms of organization often prevail without leading to collective projects. And it can suggest policy recommendations for consolidating certain informal ways of organizing. Thirdly, conflicts and tensions are an important focus of research into organizing practices. This is in contrast with many studies of institutions, which tend to focus on collective functions or goals, or rest on the basic assumption that conflicts will ultimately be resolved through cooperation (neoinstitutionalists, for example). Fourthly, studying organizing practices will preserve us from the tendency to reify institutions and attribute to them roles that they do not have for the people involved.

Consequently, our argument is that if studies focusing on institutions and organizations are combined with others that also look at organizing practices (beginning with the activities of social actors), a better insight can be obtained into the interrelationships between the economic activities of households and local institutions. What we propose is not so much a model as a conceptual framework (see box 3). Having such a

Box 3 Core concepts

Institutions

Institutions consist of cognitive, normative and regulative structures and activities that provide stability, coherence and meaning to social behaviour. Institutions are transported by various carriers – cultures, structures, and routines (Scott, 1995, p. 33).

Organizations

Organizations are entities set up around defined processes that result in the attainment of particular goals. The structure of an organization is based on the definition of different functions and roles, and its rules must ensure reliable performance (adapted from Scott, 1995, pp. 48-49).

Organizing practices

Organizing practices are the different actions and strategies that people follow to sustain and develop their daily livelihoods and other life projects. Organizing practices can develop into established patterns (processes of institutionalization) and in this way give rise to the emergence of institutions.

Local institutional context

The local institutional context is constituted by the specific manifestations of institutions in the geographical area being studied, even though these institutions might extend beyond the physical boundaries of that area.

flexible framework makes it possible to form a better idea of the role of institutions in the lives of rural people and avoid artificial dichotomies such as the formal/informal, internal/external, local/extralocal, private/

public and modern/traditional dichotomies. This way, different manifestations of institutions are taken into account and it is easier to deal with heterogeneity and complexity.

Ш

Classifying institutions

Once the research team has an overview of the institutional environment, it is important to classify institutions and organizations in accordance with the objective of the study. Obviously, they can be classified and subdivided in any number of ways. If the study focuses on household income generation, it is important for the classification to be based on access to resources, relations of production or economic activities.

Taking into account the institutions studied, we can arrive at the classification shown in box 4.

The aim of the classification shown is not to establish exclusive categories but to help develop appropriate strategies for studying and analysing different institutions. Clearly, different types of institution require different types of study and analysis. A caste system cannot be studied and analysed in the same way as a system of land tenure, and a football club cannot be studied in the same way as credit arrangements. Thus, for instance, questions about the year of foundation, main objectives, the number of members or the services supplied to them only make sense in relation to certain organizations and not in relation to other institutions. Where government administrative units are concerned, it does not make sense to speak in terms of membership.

We believe that the four major categories of the classification (main sociocultural divisions, relations of production, local governance, and organizations) need to be dealt with as separate subjects in the final analysis.

A number of the above-mentioned institutions and organizations fall into more than one category. For example, credit groups, cooperative banks, etc., are included among organizations, but they also need to be taken into account when relations of production are considered. The point is that they perform different roles and can be studied from different perspectives (as organizational entities or as part of the credit structure).

Separate consideration needs to be given to production relationships (land tenure, credit and labour

relations), as these are complex institutions made up of many different elements.

Again, it is important to have a special category for local governance. This might include the local agencies of government bodies and elected representative groups, such as community councils. These institutions will often be made up of a mixture of public- and private-sector components.

A large number of organizations can be subclassified in different ways. The incorporation of certain criteria allows institutions to be categorized in the way that is most relevant. For example:

- whether the institution includes or excludes certain categories of the population,
- whether the institution focuses on the poor,
- whether the organization has development potential.

Before examining the different methods that might be useful for studying institutions, it is important to pay greater attention to the relationship between local institutions and the productive activities of rural households. It needs to be realized that households operate in multiple institutions at the same time and that it is the combination of institutions that determines demand for and access to resources.2 For example, the right to land within a village would be of little use to a household if it were not combined with other institutional arrangements. As we shall see later on, the processes of institutional inclusion or exclusion are also determined by the combined actions of different institutions. Lastly, institutions can overlap and carry out different functions at the same time. This dynamic is illustrated by the examples in the following boxes.

² See Leach, Mearns and Scoones (1997) and Crowley and Appendini (1998).

Box 4

CLASSIFICATION OF THE INSTITUTIONS AND ORGANIZATIONS STUDIED

- Main sociocultural divisions
 - gender relations
 - caste relations
 - religious alliances
- Relations of production
 - land tenure (rental, sharecropping, ownership)
 - credit (lenders, forms of interest, credit groups)
 - labour relations (service, mutual assistance, sale of labour in exchange for food)
- 3. Local government
 - ejido/community
 - neighbourhoods with committee of elders
 - traditional chiefs/authorities
 - local government committees
- Organizations
 - Related to production

Directly

Bank of India, district cooperative

Women's production group

Oil producers' cooperative society

Dairy cooperative

Credit groups

Women's saving group

Saving group for the Prajapati caste

Producers' association

General welfare

Medical posts

Migrant networks, migrants' associations

Subsidized consumer goods stores

Development projects (depending on the type of project)

Private enterprises

Enterprises

One commercial bank

Tourist company

Social/religious/educational

Football clubs Youth groups Cultural group Women's groups

Parish/religious groups School

Indirectly

Water group maintenance groups

Solidarity committees

Rural agricultural labourer services group

Non-governmental organizations (NGOs)

Box 5

RECOMMENDATIONS FOR ANALYSING LOCAL INSTITUTIONS

If the purpose of the study is to understand the links between households' income-earning strategies and local institutions whose focus is on inclusion and exclusion procedures, with a view to policy-making, the following is recommended for the analysis of local institutions:

- Do not try to present a "complete" picture of local institutions.

 This cannot be done, and attempting it would only produce a vague and unfocused outcome.
- Do not adhere to artificial classifications.

 Most institutions are composed of different elements. They may combine, for example, some characteristics of public-sector enterprises with others typical of private-sector ones. Exclusive categories should therefore not be used.
- Define the relationship that exists between institutions and socio-economic differentiation. For example, how access to land differs among the various socio-economic groups.
- Determine which institutions merit consideration in development policies.
 For example, because they support poor households and have the potential for further development, or conversely because they are an obstacle to the development of certain households and could perhaps be altered.

Box 6

HOUSEHOLDS AND THE DYNAMIC OF MULTIPLE INSTITUTIONS

In the case of the Mexican family, economic activities and access to resources are determined by membership of the community, with the rights and obligations this implies. This means that Pedro participates in local government and resource management institutions. The household is involved with institutions linked to labour and product markets, and with migration support networks. But institutions are not only concerned with economic and local governance activities. Belonging to the community has a broader significance: it is an essential part of a person's life. Rights and obligations are flexible because the members of the community are involved in frequent migration and have created mechanisms so that they do not lose their rights, complying with their obligations even when they are away from the community. Consequently, there may be no direct answer to the question of who has what rights and obligations and when, and land access and use are mediated through other institutions and forms of organizing (Appendini, García and De la Tejera, 2001).

In the case of the Indian family, a number of institutions are important for production activities: land ownership, water management, the labour market, the local input and product markets, the dairy cooperative and the credit groups. Ramabhai can sell milk to the cooperative because his family owns land and can thus provide its animals with fodder. Jeevabhai belongs to a credit group because he owns land, which is a condition of membership. Institutions are also linked here. For example, membership of the dairy cooperative is linked to land ownership and sharecropping agreements (obtaining fodder for animals). For Jeevabhai's son and his family, access to land is connected with relationships of kinship and marriage, since they only have it because they are members of that household.

Box 7

RELATIONSHIPS BETWEEN RURAL HOUSEHOLDS AND INSTITUTIONS

- Households operate in multiple institutions at the same time.
- It is the combination of different institutions which determines claims and access to resources and the
 possibility of certain production activities.
- Processes of institutional inclusion and exclusion are the result of the combined working of different institutions.
- Institutions often fulfil different functions at the same time: providing inputs for production activities, providing forms of social security, providing elements which are central to people's identity and meaning in life
- Institutional integration differs by socio-economic stratum. The institutional linkages of the poorer parts of the population differ from those of the richer parts of the rural population.

IV

A discussion of the methodology for studying institutions

In this section we shall analyse how the study of local institutions should be approached in field research. We suggest that an open, flexible approach needs to be taken, combining qualitative and quantitative methodologies. Taking a critical evaluation of case study experience as our basis, we shall focus mainly on the use of surveys and on qualitative methodologies.

In the case studies, the point of entry to communities was the use of diagnostic techniques based on designs that are very much in vogue among international development organizations and in the project and programme design of government bodies, such as participatory rural appraisal (PRA) and rapid rural appraisal (RRA). The objective of these techniques and similar types of diagnostic is to supply information on the core subjects of the research and the ethnographic context. In the studies carried out in the three countries, PRA/RRA was used to arrive at a general assessment of the community. Information was obtained on the main resources, economic activities and the socio-economic stratification of households, and on the most important institutions.

On the basis of these studies, it was concluded that the PRA was not a powerful enough tool to identify the importance of different institutions. Certain PRA instruments, such as Venn diagrams, tend to have a bias towards organizations, and they exclude less formalized institutions that are often central to household income generation strategies, such as the different arrangements for obtaining credit, reciprocal labour relations and land tenure arrangements.³

Some of the lessons learned in this initial phase of the field research were drawn on throughout the study. One of them was the discovery that research cannot always be carried out in a linear fashion, as the research teams need to advance and retreat and be in a position to adapt their research plans when they consider it necessary. Lastly, the experience and qualifications of the members of the research team have a decisive influence on the results. In many countries it is difficult to find highly qualified and experienced research teams. For this reason, the training of such teams can be a goal of the research itself, and of a human resource training strategy—be it local, regional or national—designed to sustain participatory research. It is also important to bring local people into the team and support training for human resources in communities.

We should now like to consider how certain characteristics of institutions and the role they play in the economic strategies of households can be determined using quantitative data obtained from surveys.

A household survey was used to collect quantitative data on institutions associated with income-generating activities, in order to support the material on institutional interrelationships obtained using community appraisals, interviews, cases studies, etc.⁴ Whether or not it is necessary to collect information using questionnaires and, if so, the type of information that is needed, will depend on the specific institutions that are to be studied.

One of the greatest constraints on policy-oriented research is time. Because there is usually not much time for the field research, detailed data collection is often disregarded. This can result in a faulty diagnosis and bad policy recommendations. Although this is always a dilemma, it can be solved up to a point by well focused research. It is better to concentrate the research on a selected theme than to have a lot of data covering a wide range of themes in little detail. What is needed is not so much to have a broad perspective as to identify clearly and early on in the research what the objectives of the study are in terms of institutions, interests and development intentions. This is crucial for determining the methodology that is to be used and the approach that is required for the research.

³ There is an interesting evaluative literature dealing with the application of these techniques. See Mosse (1994 and 1998); also Richards (1995), cited by Mosse (1998).

⁴ The information on households' interrelations with institutions was obtained as part of a broad survey of household income generation strategies.

Box 8

MEXICO: QUESTIONS ABOUT RESOURCE-RELATED RIGHTS, OBLIGATIONS AND SANCTIONS

The indigenous community is an overarching institution that encompasses rights to and management of resources by its members, participation in local government bodies, and the obligations and sanctions associated with this.

In the household survey, people were asked about the rules and standards governing access to and use of resources, and about obligations and sanctions.

Questionnaire

Access to resources and rights:

- When you become a member of the community, are you as an individual assigned a plot of land to cultivate?
 Area of the plot
- 2. Are you given the right to use common areas?
 - Of what kind? (land, common arable land, forest)
- 3. As a member of the community, are you entitled to participate and vote in the assembly?
- 4. Do you acquire the right to perform a "cargo"?
- 5. What "cargo", and in what order of importance?

Access to resources and obligations:

- 1. Do you have to pay some contribution to the community? What for? How much?
- 2. Do you have to contribute some labour to the community? For what purpose? How much? Date of contribution
- 3. What happens if you leave your plot untended?
- 4. Are you obliged to attend assemblies? How many times were assemblies held last year? For what purposes were these assemblies held?
- 5. Did you participate in the assemblies? How many times?
- 6. Are you obliged to perform a "cargo"? When?
- 7. Are there any other obligations? What are they?

Sanctions:

- 1. If you do not comply with your obligations as a member of the community, are you subject to sanctions? What are they?
- 2. Are the sanctions the same for every type of offence?
- 3. Are the sanctions the same for a first offence and for repeated offences?
- 4. If there are rules for access to and use of the forest (for grazing/for cultivation), to what extent are these rules complied with?
- 5. Where were the sanctions decided on (general assembly; ejido authorities; council of elders; other council; elsewhere specify)?
- 6. Who was given responsibility for applying the sanctions?
- 7. Was there any disagreement about the sanctions? If so, how was it resolved?

Some community rules concerned with resource rights have been relaxed in practice, or are simply not well defined. This is due primarily to migration and to migrants' efforts to retain their rights even though they are away from the community. One example are rights over abandoned arable land. According to Mexican agricultural law, a household loses the right to harvest land that is left untended. But when asked what the consequences would be if a plot were left untended, 69% of households in the communities studied replied 'nothing would happen'; 17% replied 'the plot would be forfeited and allocated to another member of the community'; other responses were 'a plot that has been untended for five years or more is forfeited'; 'nothing happens if you hold a "cargo"; 'nothing happens if the plot is fenced in' (San Pablo); 'if trees are planted on the plot, it becomes part of the community's forest land' (Ixtlán).

Source: CRIM/UNAM/CRUCO/UACH (1999).

Data obtained using household surveys can be useful for identifying the institutions that are most important to the different social groups in the community. If the context under study were land tenure relationships, for example, information would have to be collected on the number of households cultivating land under different types of tenure arrangements and on the amount of land cultivated in a given community under each type of contract. If the context were an organization, a credit group say, information would have to be collected on the exact number and type of households participating in it. In most contexts, this participation can be studied in different ways. In the case of a credit group, it can be analysed, for example, in terms of membership of the group, and of credit advanced by the group to different households. This information would have to be reviewed in the light of the household survey and qualitative interviews. In Malan, India, all households have formal access to the dairy cooperative, but only those with access to land and fodder are able to keep cattle and thus produce milk.

Household surveys make it possible to collect a wide range of information on institutional arrangements and practices. They can also include other participation-related aspects, such as information on rules, rights and obligations (box 8).⁵

In the case of Mexico, it can be concluded that practices in communities differ depending on how decisions are taken about abandoned plots. In San Pablo, where cattle are a major source of income, agricultural plots are not lost if they are fenced in for grazing (privatization); in Ixtlán, some plots are incorporated into the forest for commercial exploitation (collectivization). Different organizing practices do not always adapt smoothly, however, to the changes that take place with time, so that conflict and the erosion of institutions may be part of these processes. Research in this case was based on qualitative information.



Qualitative methods for studying institutions

As was explained earlier, many of the links between household livelihood strategies and local institutions cannot be understood by means of a diagnostic study with a PRA or RRA or a household survey alone. Other studies are needed. To capture organizing practices and the complex links of the institutional environment within which rural households operate, qualitative research methods are needed (Mikkelsen, 1995). Since qualitative research is time-consuming, only a few institutions can be studied in this way. In any situation, a decision has to be taken as to which institutions are important enough to need studying, and for each of these a special research plan has to be devised. A decision might be taken, for instance, to study institutions whose importance for the activities of certain categories of household has been demonstrated (labour exchange agreements, a cooperative). It can also be useful to make a detailed study of processes that result in certain groups in the population being excluded from an important production organization. If this is done, efforts can be made subsequently to influence these exclusion processes by means of a policy-oriented project. In many situations it will be very important to study the underlying conflicts and tensions in local organizations or in attitudes to land tenure arrangements, before introducing conflict resolution projects or new forms of management.

1. Some qualitative methods

There is an enormous literature on qualitative research methods (Strauss, 1987; Silverman, 1993 and Alaasutari, 1995). The following methods are particularly well suited to the study of institutions.

a) *Life stories*

Generally speaking, life stories are an efficient way of bringing to light people's efforts and designs for mitigating poverty. They can also be important for the specific study of the institutional contexts in which

⁵ Of course, participation also has other aspects –participation in decision-making, for instance– that are qualitative and need to be studied differently.

people and households are immersed. Life stories show how household members try to earn a living and meet their different needs, cope with particular uncertainties, and respond to new opportunities and situations by drawing upon different social networks and new forms of organization. In the study of life stories, genealogies can be used as an extra methodological instrument. This can be particularly helpful in areas where there is a great deal of migration and movement, or in areas where migration networks are essential to the household economy. Series of individual and household life histories, combined with the study of resource flows, can help provide an understanding of the relationship between social mobility processes and support networks.

b) Story-telling and the analysis of narratives

Story-telling is recognized as a key element in the organization process. For this reason, the analysis of stories and narratives is a method which is increasingly being used in the study of organizations. But paying attention to people's personal histories is also important for other reasons. The view that household members take of their own situation and the way people think about themselves and the world around them tell us something about the social and cultural context in which they live and can give us clues to socio-political divisions and forms of inclusion and exclusion related to institutions. This is particularly clear in the study of collective narratives in which what is expressed are not so much individual experiences as the experiences of a social group.

c) Extended case study analysis

With the extended case study method (Mitchell, 1983 and Walton, 1992) an object of study (event or situation) is chosen to be examined in great detail: for example, the election of the executive board of an organization or the implementation of a new management project. The case study seeks to provide greater detail about social interactions and confrontations, to cast light on institutional processes. As attention is paid to the different groups of people involved, and to the different interests at stake, power relationships and the historical context become central. In this way, extended case studies can reveal dynamics in organizations that go unnoticed when the formal structure of these is examined.

d) Analysis of conflicts and tensions

Controversial issues, areas of tension and open conflicts are of paramount importance for any analysis of institutions. Situations of conflict cast light on the main resources at stake and the power struggles taking place around them. The study of conflicts reveals how the social actors themselves are organized, how groups form and break up, and what is important to different categories of households. It also shows how the workings of institutions are influenced by power relations, and how official rules, laws and procedures can turn into political instruments and be used as legal resources by individuals and groups to attain their objectives at particular times and in particular places (Starr and Collier, 1989, p. 2).

2. The use of qualitative methods: examples from Mexico and India

The Mexican team gave a central place to qualitative research methods, arguing that to analyse the way households were interlinked with local institutions it was necessary to understand the historical context of communities and the dynamic of their economic and institutional changes.

The fundamental principle on which the research was based was that the livelihoods of peasants were grounded in historically developed values and norms that influenced their preferences, knowledge and expectations concerning different productive activities, such as agriculture, animal husbandry and trade. To gain a more thorough understanding of how households' economic strategies were shaped in a dynamic institutional environment, life stories were compiled in selected households.

The results of the survey were used to prepare profiles of households' economies. On the basis of these profiles and of the relationships established with certain people in the early stages of the research, a selection of families was made in each community so that life stories could be constructed. Open interviews were held to reconstruct the way the profile of the household had evolved over the last 30 to 40 years, or even longer in the case of some families. The open interviews were designed to cover households' economic activities and linkages to institutions.

An interpretive approach was used, i.e., attention was paid to the meanings attributed by the peasants themselves to the reality around them. These subjective accounts are essential if the development of local institutions and forms of cooperation is to be understood. They also give an indication of how viable new forms of institution might be. The construction of life stories was carried out in a critical and creative way,

with a view to filling in gaps and clearing up misinterpretations or inconsistencies, and the peasants were asked to reflect on this. Hence, conditions were created in which people could express themselves quite freely, and a reflective dialogue was established in which it was possible to question stories told at crucial moments.

The qualitative information made it possible to understand different aspects of decision-making and resource management dynamics, including that of the collective forest resources that are of such crucial importance to community and household life. By way of example, box 9 analyses a conflict in the community of San Pablo, Mexico, which had an impact on the

Box 9

ANALYSIS OF INSTITUTIONAL CONFLICTS AND ADMINISTRATIVE PROBLEMS: A COMMUNITY FORESTRY ENTERPRISE (SAN PABLO, MEXICO)

An independent community forestry enterprise was set up in San Pablo in 1982. The community also has a sawmill.^a As in the other forest communities of the Sierra Juárez, control of the forest was legally transferred to the communities after a fierce struggle to end the concessions the Mexican State had granted to private companies.

Formally, communities are supposed to pursue three objectives in forestry enterprises: the reproduction of the household, the interests of the community and the commercial viability of the forestry enterprise.

The first objective is met if the enterprise is able to generate sufficient employment opportunities at pay rates acceptable to workers and owners (the commoners themselves). The second objective requires the enterprise to generate profits that will be used appropriately for the benefit of the whole community (construction of public works, assistance for schools, pensions for widows and the elderly). The third objective requires the enterprise to be developed in a way that ensures democracy, efficiency and sustainability.

The research showed that the technical/organizational needs of forestry activities were incompatible with the day-to-day activities of campesino households. Holidays, migration patterns and maize farming place severe constraints on the operations of the forestry enterprise. For example, it is very difficult to establish steady working routines, organize worker supervision and ensure that the production capacity of the enterprise is used to the full all year round.

There is tension between the need for capital accumulation to sustain and reinvest in the forestry enterprise and the desire to spend profits on public works, religious festivities and redistribution among the commoners. Some commoners prefer direct redistribution of profits to the creation of a common fund to reinvest in the forestry enterprise. Commoners may also prefer to invest in social infrastructure or social security programmes than to reinvest in forestry. If investment is inadequate, the competitiveness of the enterprise and its long-term profitability may decline, and it may become unviable. This tension has created major conflicts in forestry work and political frictions at assembly meetings.

Although it is generally argued that internal conflicts in communities are an obstacle to the development of effective institutions, the research shows that conflict can also give rise to new ideas and viewpoints and create competition among individuals and groups which may speed up institutional adaptation and change.

The research revealed a deep crisis in the community in relation to the forestry enterprise, owing to a fraud committed by the president of the Comisariado de Bienes Comunales (Communal Property Management) in 1988-1989 and the resultant internal feuding among the commoners. This resulted in a long court case and many expulsions from the community. A new group took control, but there is still fundamental discord over the issue of political control of forestry resources. The authorities used the revenues of forestry enterprises to combat rival groups. The conflicts run so deep that every aspect of social life is under serious threat. The commoners meet less and less. Attendance is increasingly being made compulsory, and there is a system of penalties for those who fail to appear. Less effort is now being made to attain consensus. These conflicts have led to splits in the community, and these have left a legacy of doubt about the future running of the enterprise. Most commoners still support the forestry enterprise, however.

Source: CRIM/UNAM/CRUCO/UACH (1999).

^a The community forestry enterprise is run by an operating committee, a director and other professionals. The enterprise is accountable to the Asamblea de Comuneros (Assembly of Commoners), which is officially the highest authority, and to the Comisariado de Bienes Comunales.

community and even forced a group of inhabitants to emigrate.

The research carried out in San Pablo showed that there were serious contradictions and tensions in the formal objectives of the institution and the relationship with households. The life stories, open interviews and informal talks with local people showed clearly that the different households participating in community forestry enterprises had different ideas about the goals of these enterprises and their own main interests in the project. With the focus on organizing practices, the researchers looked at how the different activities of the community forestry enterprise were conducted day by day. This gave a better insight into organizational processes and the scope for change. Lastly, the researchers focused explicitly on the tensions, problems and conflicts that had arisen, and a conflict analysis was carried out.

In the research in India, a case study was carried out on the dairy cooperative in the community of Malan. The objective of the study was to gain a more thorough understanding of the participation processes and exclusion mechanisms of the households in the cooperative, both for milk delivery and for administrative decision-making (boxes 10 and 11).

The case study in India indicates that the connection among the land, access to fodder, cattle ownership, castes and participation in the cooperative is highly complex. It also shows that the way the cooperative works is related to poverty, a politically sensitive issue in the case being studied. A number of factors prevent many families from becoming actively involved in it. Poor families that can gain access to fodder, and thus can keep animals, are excluded from active participation in the institution's decision-making. The higher castes dominate the cooperative and discriminate against the poor. Discrimination against "untouchables" is still practised in Malan, and class relations are fundamental to power relations and local politics, as it is in all rural areas of Gujarat. It is hard to conceive of democratic processes in contexts where people are unequal.

VI

Conclusions

This article approaches the debate concerning appropriate methods for dealing with development issues. The conceptual and methodological analysis is intended for people involved in research on rural institutions and poverty reduction. Rural institutions in developing societies operate through complex relationships, among individuals, among households and at other levels. For this reason, our objective is not to dictate a methodological model, but rather to provide insights that can be used to conceptualize and study institutional problems in a flexible way.

Interdisciplinary approaches were used in this project, and methodological pluralism was opted for. The diagnostic studies were supplemented by qualitative and quantitative methods for studying the workings of institutions and their interaction with households. The aims, scope and limitations of each of the methods used were examined. Obviously, there can be many different ways of carrying out field research, and many different analytical approaches to the data collected.

Two types of conclusions come out of the analysis of methodological issues associated with empirical research into local institutions. Some of them concern the methodology/practice of field studies, while others have to do with the need to achieve a better understanding of local institutions and their interaction with the economic strategies of households, so that policy recommendations can be formulated on the basis of the methodological experience of the cases illustrated.

In the first group, one of the conclusions of the study is that the researcher needs to combine different methods of information collection creatively to cope with the complexity of institutional links in rural societies. The working framework of the research has to be adapted to the specific local conditions of the place where it is conducted.

Another conclusion is that numerous research stages are required, as is the flexibility to adapt field research plans from one moment to the next, as the team judges necessary.

Box 10

QUALITATIVE ANALYSIS OF INCLUSION/EXCLUSION PROCESSES (Dairy cooperative in Malan, India)

In the research:

- · there were informal discussions with people about subjects related to the cooperative
- · cooperative members and non-members were interviewed
- · care was taken to interview households of different castes and socio-economic strata
- · the managers of the cooperative were interviewed
- people were asked their reasons for being members or non-members
- · people were asked why there were different forms of participation and non-participation
- people were asked about the workings of the cooperative, production, services provided, administration and decision-making
- · any conflicts and tensions perceived were studied
- · cooperative meetings were attended
- · people's daily activities were followed up

Source: Rawal (1999).

Box 11 ANALYSIS OF A CASE STUDY (Dairy cooperative in Malan, India)

The *Malan Milk Producer's Co-operative Dairy*, in the village of Malan in the state of Gujarat, engages in milk marketing, the sale of cattle fodder and the sale of ghee (clarified butter). The cooperative also acts as a guarantor for members taking out loans to buy cattle. In addition, it provides veterinary services in the village. To be a member of the cooperative, it is necessary to own cattle and deliver milk regularly for a minimum of 90 days. The cooperative has three collection centres in the village for this purpose.

The research showed that participation varied markedly by caste, being much higher among households from the higher *Hindu* castes than in households from the scheduled castes.

The study identified some of the barriers to participation in the cooperative. Firstly, because Malan is a dry agro-ecological zone, the main requirement for cattle ownership was access to fodder. Access to fodder proved to be closely linked with access to land, which in turn was closely linked to caste.

A number of groups in the village own cattle: the large landowners, from the high *Patel* caste, have enough fodder and own large numbers of dairy cattle. Those in the second group, who belong to the *Rajput* caste, own small and medium-sized plots that supply them with enough fodder to feed their cattle. Those in the third group, from the *Thaku* caste, work as sharecroppers on the lands of the *Patel* caste, from which they can obtain some fodder for their animals. The fourth group consists of Muslims who own small plots or work as sharecroppers. The fifth group belongs to the *Nai* caste. These are barbers by trade, and they provide their services to designated individuals belonging to the higher castes (*Patel*); these services include certain religious rituals, and this gives the *Nai* the right to certain amounts of grain and fodder from their patrons, so that they can maintain a few head of cattle. The other groups in the village do not own any cattle.

There are also differences as regards members' participation in the cooperative's administration and decision-making. Widespread illiteracy among women and the scheduled castes and the undemocratic working methods of the cooperative were identified as barriers to greater and more active participation by the poor. For example, people who cannot read and write cannot sit on the managing committee. Such people have trouble understanding the proceedings of the general councils, and in the interviews they gave this as a reason for ceasing to attend meetings. Some lower castes have to sit on the floor, even at meetings, when in the presence of the *Patel*, who treat them with contempt. It is obvious that relationships of this type have an influence on the organization and decision-making processes of the village and of organizations of every kind, including the cooperative.

Source: Rawal (1999).

In policy-oriented research, there is always a dilemma between time constraints and the quality of the data obtained. This can be resolved up to a point by well focused research.

Lastly, it was found that the training of research teams had to be a key component of research projects. There needs to be a close working relationship between the agencies carrying out the development project or programme, on the one hand, and the research team, on the other. The objectives of training research teams should go beyond the immediate objectives of the development project/programme and be regarded as part of the local/regional/national human resources training effort.

A second consideration relates to conceptual aspects. To obtain and understand information on institutions in a rural environment, it is necessary to have a clear conceptual framework that avoids the rigidities of different theoretical approaches and makes it possible to capture the heterogeneity and complexity of institutional processes. For this reason, we propose a multidisciplinary concept that makes it possible to understand dynamic processes, from established rules and norms to people's organizing practices. Also, we seek to highlight the different levels and categories of institutions referred to in the case studies. Likewise, we stress the need to focus the analysis on certain specific aspects, in accordance with the aims of the research; for example, identifying the institutions that are most important for people's economic activities, processes of inclusion and exclusion, institutional forms that can be altered, improved or constructed for the benefit of poorer groups, and the way these groups can be mobilized to change institutions.

We would like to conclude with some brief remarks regarding examples of policy recommendations that can be drawn from the case studies, on the basis of the conceptual and methodological analysis set forth in this article.

The case of San Pablo is an interesting example of a community that decided to develop a type of local institution that could help it to implement community projects and negotiate with external agents. But it is a case that also shows how difficult it is to set institutional goals that match the income-generating strategies of individual households. The analysis of the forestry enterprise showed that both institutional objectives and institutional procedures could be controversial and problematic. Although these were relatively homogeneous communities from a cultural point of view, the need to take different positions and interests

into account prevented the establishment of norms that were acceptable to everybody. There were no clear established ideas regarding the choice between equitable distribution and conservation, or regarding autonomy and dignity. People's ideas about these things depended upon their interests, principles and beliefs, which in turn were related to socio-political forces and the interaction of different views. For the same reason, positions were always flexible and changeable.

Organized into assemblies and discussion groups, a committee has begun the hard work of drawing up plans for common management and for writing up internal rules and procedures. The idea is that the fundamental dilemmas can thereby be dealt with. One policy recommendation that can be drawn from the study is that it would be advisable to establish mechanisms both for resolving conflicts and for solving problems concerning the management of the forestry enterprise.

In the case of India, the research indicated that there were a number of institutions which were important for the economic life of rural communities. Organizations tend to be dominated by the higher castes, however, and a number of adverse mechanisms prevent greater participation by the poorer castes in local organizations. This is the case with the dairy cooperative. As for policy recommendations, one can identify a need for mechanisms to enable poor people to be included more in cooperatives, for example.

This is also related to the need for public policies to operate at a more macro level (through mass literacy programmes and the promotion of better land distribution, for example), to improve the participation and negotiating position of the poorest and most discriminated against.

Concerning policy recommendations, again, the research suggests that it is essential, firstly, to support people's own organizational efforts, even if these are relatively informal in nature (for example, by facilitating certain dealings with bureaucracies or government programmes, or by providing financial support or information); secondly, to introduce programmes or projects that focus on the weakest institutional links, reinforcing them in favour of poor households; thirdly, to provide mechanisms that increase the ability of individual or collective agents to act by themselves so that they can mobilize and/or change institutions for their own benefit; lastly, and this is very important, to provide conflict resolution mechanisms to deal with institutional conflicts that may affect poor households' access to resources.

When the objective in development programmes and projects is to target certain specific institutions or organizations, it is important to take an open, flexible approach that recognizes local initiatives and considers different groups and interests. This is so that space can be created for open, inclusive negotiations. It is important to identify the areas, ways and levels where action can be taken, since institutions are made up of

different components at different levels, ranging from the community and village to government authorities and national legislation. Thus, actions at local level can be linked in with wide-ranging public programmes, such as mass education programmes, which in the end may enhance the prospects of "empowering" poorer groups and hence facilitate a general strategy to increase their participation in local institutions and organizations.

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Structural reforms

and economic growth

in Latin America:

a sensitivity analysis

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Department of Economics, University of San Francisco de Quito, Ecuador rafaelc@andinanet.net Since the mid-1980s, most Latin American countries have undertaken far-reaching structural reform along the lines of the so-called Washington Consensus. This article tests the robustness of the empirical evidence provided by a variety of studies in support of the reforms and their positive impact on Latin American growth. The results are striking. No reform has a robust positive correlation with growth, investment or productivity in the region, and there is evidence that some reforms, particularly labour market deregulation, may actually be harming growth. The results also show that the time effects for the period 1987-1995 were if anything positive, contradicting the prevailing wisdom that the poor economic performance seen in Latin America in the face of numerous far-reaching structural reforms has been due to an adverse international environment.

"Economists have inherited from physical sciences the myth that scientific inference is objective, and free of personal prejudice. This is utter nonsense. All knowledge is human belief; more accurately, human opinion."

LEAMER, 1983.

I

Introduction

Since the mid-1980s, in the aftermath of the debt crisis, most Latin American countries have rapidly liberalized and internationalized their economies, along the lines of the so-called Washington Consensus. Despite a whole range of far-reaching structural reforms, however, and notwithstanding a drop of 1.8% in per capita GDP during 1981-1985, per capita economic growth during 1986-1995 was only 1.2% a year, whereas during the 1960s and 1970s the region averaged rates of 2.5% and 2.4%, respectively.¹

In spite of this, a number of empirical studies have set out to show that the structural reforms have had a positive impact on regional growth, arguing that poor economic performance has been due to a failure to implement even deeper reforms, a lack of policy complementarity,² and international factors.

Specifically, the Inter-American Development Bank (IDB, 1997), using policy indices representing five areas of reform and panel data models, estimated that the reforms had contributed 1.9% to the region's permanent growth and that further reform could still contribute between 1.2% and 1.6%. According to the IDB report, the reforms enhanced growth essentially by improving resource allocation, a factor which was estimated to have contributed 1.7% to permanent growth, while there were found to be positive if modest effects on investment. The report also found that, contrary to common belief, the reforms had taken effect rapidly, and accordingly it strongly recommended an acceleration of the reform process.

The policy indices used by IDB have also been employed in panel data growth regressions by Barrera and Lora (1997) and Fernández-Arias and Montiel (1997), who have reached conclusions similar to those

of IDB.³ In a worldwide cross-section study using three policy indices, however, Aziz and Wescott (1997) found that no single reform correlated robustly with growth. They argued, though, that this result was due to the unevenness of reforms among the different sectors, and they found that policy complementarity, represented by the difference between a central tendency and a dispersion measure for the policy indices, was robustly and positively correlated with growth. Lastly, Easterly, Loayza and Montiel (1997), using six policy indices and dynamic panel data models, concluded that the reforms and their impact on the renewal of growth in Latin America added up to an impressive achievement. They put the region's disappointing economic growth down in part to negative international factors.

This paper tests the robustness of the correlation between the structural reforms and Latin America's economic growth or its sources. It also tests the robustness of the correlation between policy complementarity and growth, and considers whether a negative international environment harmed regional growth. The study employs the same structural policy indices and panel structure as the Inter-American Development Bank (IDB, 1997). Thus, the panel is composed of 19 Latin American countries, with four periods representing three-year averages: 1984-1986, 1987-1989, 1990-1992 and 1993-1995. The countries included in the study are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominic Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela. The paper employs panel models, while the estimation procedure controls for fixed effects and endogeneity, and uses efficient twostep generalized method of moments (GMM) estimators. The test of robustness is the extreme bound analysis method (EBA) suggested by Leamer (1983) and

¹ World Bank data for 19 Latin American economies.

² Policy complementarity basically means that the positive effect of the reforms is conditioned by the heterogeneity of sectors. Therefore, even if a country has brought in very far-reaching economic reforms, their effect on growth will vanish if the level of reform among different areas is too uneven.

³ In fact, the IDB 1997 Report (IDB, 1997, chapter II) basically reproduces the findings of Barrera and Lora (1997).

employed in growth regressions by Levine and Renelt (1992).

The paper is organized as follows. Section II describes the structural policy indices. Section III highlights the importance of controlling for the time effects and temporal trend problems of the panel under consideration, illustrates the advantages of using panel

data models in growth regressions, and explains the estimation procedure. Section IV discusses the EBA methodology. Section V presents the data and models to be used to perform the EBA and the different classifications of the variables. Section VI reports the econometric results and, lastly, Section VII presents the conclusions.

П

Measuring structural reforms

One of the main obstacles to the quantitative evaluation of the structural reforms implemented in Latin America was always the lack of a well established methodology for measuring the reform process. In order to quantify the region's reform process in a comprehensive manner, Lora (1997) created the "structural policy index" (SPI). The SPI is the arithmetic mean of five sectoral indices representing: trade liberalization (TRADE), tax neutrality (TAX), financial liberalization (FIN), privatization (PRIV) and labour deregulation (LAB). In turn, each sectoral index is the arithmetic mean of one or more policy variables, whose values are normalized with respect to the best and worst observation for that variable in the entire set of countries and years (see appendix A). Accordingly, each index can range from 0 to 1, and the closer to 1, the more neutral the economic policy of the country. Thus, the SPI and its five components are proxies for the degree of free-market policy orientation. Lastly, it is important to observe that the indices are explicitly composed of policy variables and thus avoid one of the main shortcomings of a number of previous studies, which used expected reform outcomes as proxies for the reforms.⁴

Using the SPI, table 1 shows the speed and depth of the structural reforms carried out in Latin America during 1985-1995 and the reform paths and rankings of the different countries. In 10 years, the average SPI for the region increased from 0.345 to 0.621. To illustrate how quickly reform has taken place in some countries, it need only be mentioned that in 1985 and 1990 Chile was the best example of a free-market economy, but that in the space of just five years it dropped to ninth place. The process has been so general that the lowest SPI in 1995, Venezuela's, would have been the third highest in 1985.

The box-and-whisker diagrams (figure 1) show the behaviour of every area of reform. The most neutral policies—represented in the diagrams by higher medians and lower dispersion— are in Latin America's external trade and financial sector. However, all areas of reform show substantially higher medians than in 1985, albeit levels of privatization and labour deregulation in 1995 still differed greatly among countries.

associated with reform...and should explain growth" (Easterly, Loayza and Montiel, 1997, p. 293). Hence, the positive effect of the reforms on growth is virtually taken for granted.

⁴ Several studies use the assumed outcomes of reforms as proxies for them, instead of using policy variables for this purpose. For instance, Easterly, Loayza and Montiel (1997) explicitly state that their reform proxies "should move in the qualitative direction

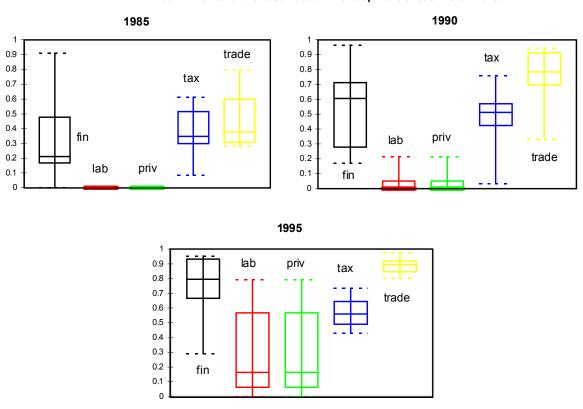
TABLE 1

Latin America and the Caribbean: Structural policy index (SPI)

| | 1 | 985 | 19 | 990 | 19 | 95 |
|---------------------|-------|------|-------|------|-------|------|
| | SPI | Rank | SPI | Rank | SPI | Rank |
| Argentina | 0.367 | 4 | 0.476 | 12 | 0.679 | 5 |
| Bolivia | 0.343 | 6 | 0.548 | 5 | 0.721 | 1 |
| Brazil | 0.348 | 5 | 0.512 | 8 | 0.584 | 13 |
| Chile | 0.489 | 1 | 0.596 | 1 | 0.628 | 9 |
| Colombia | 0.443 | 3 | 0.549 | 4 | 0.590 | 12 |
| Costa Rica | 0.309 | 10 | 0.500 | 10 | 0.512 | 18 |
| Dominican Republic | | | 0.361 | 17 | 0.638 | 8 |
| Ecuador | 0.325 | 9 | 0.357 | 18 | 0.580 | 14 |
| El Salvador | | | 0.532 | 7 | 0.671 | 6 |
| Guatemala | 0.309 | 10 | 0.438 | 14 | 0.596 | 11 |
| Honduras | | | 0.450 | 13 | 0.548 | 17 |
| Jamaica | | | 0.573 | 3 | 0.684 | 4 |
| Mexico | 0.328 | 8 | 0.498 | 11 | 0.563 | 16 |
| Nicaragua | 0.216 | 14 | 0.391 | 15 | 0.643 | 7 |
| Paraguay | 0.336 | 7 | 0.548 | 5 | 0.625 | 10 |
| Peru | 0.232 | 13 | 0.252 | 19 | 0.712 | 3 |
| Trinidad and Tobago | | | 0.589 | 2 | 0.715 | 2 |
| Uruguay | 0.486 | 2 | 0.511 | 9 | 0.573 | 15 |
| Venezuela | 0.304 | 12 | 0.364 | 16 | 0.457 | 19 |
| Average | 0.345 | | 0.479 | | 0.621 | |

FIGURE 1

Latin America and the Caribbean: Development of each reform area



Ш

Econometric issues

1. The temporal trend of growth, the interest rate and the structural policy index

Although per capita growth in the region was low in 1985-1995 compared with the 1960s and 1970s, it followed a rising trend subsequent to the debt crisis of the early 1980s (figure 2). This trend was analogous to the evolution of the SPI for Latin America as a whole, but it was also a mirror image of the declining trend in the international interest rate. The international interest rate is a crucial variable for Latin America's economic performance, since it has a large impact on the external debt service and capital inflows into the region. Figure 2 also shows the changes in all three variables in order to sweep out temporal trends. Given the short time dimension of our panel, a straightforward inspection would, in general, be a risky way of determining any relationship among the variables. However, it seems quite clear that changes in growth are still a mirror image of changes in the interest rate.

The situation described presents two simultaneous problems that must be considered. The first one is the influence of international factors, which make it difficult to tell if growth was enhanced because of better policies or, for instance, a lower international interest rate. The second problem is the risk of spurious correlation, given the temporal trend shown by growth and the structural reforms. In order to partially address these problems, the estimation procedure must control for the international economic environment and the temporal trend within growth and any explanatory variable.

FIGURE 2

0.3

0.1

0.0

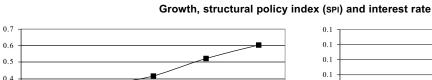
Panel data and growth regressions

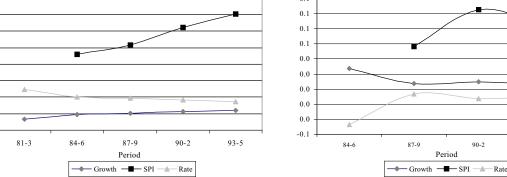
Several authors have asserted the importance of panel data for growth regressions.⁵ The panel structure presents fundamental advantages over cross-section growth regressions, offering more degrees of freedom, instruments to control endogeneity, and mechanisms to control for individual and time effects.

The gain in degrees of freedom is crucial when we are interested in a region or subset of countries with similar characteristics. The usual cross-section methodology employs regional dummies to allow for different intercepts among regions. However, with this procedure one should accept that the marginal effect of any explanatory variable is the same in an OECD, African or Latin American country. Thus, the gain in degrees of freedom provided by panel data facilitates study of just a subset of countries, rendering the implicit assumption of parameter homogeneity more plausible.

Another fundamental advantage of panel data is the time series structure, which provides valid instruments by using lagged values for the explanatory variables. Because almost any explanatory variable in growth regressions could be considered endogenous, the availability of valid instruments is paramount if consistent estimates are to be obtained.

⁵ See Islam (1995) and Caselli, Esquivel and Lefort (1996).





Lastly, and most fundamentally, panel data models are the only way to control for individual and time effects. When fixed effects are not controlled for, a problem of omitted variables is present and the estimated coefficients will be biased, unless we use the implausible assumption of orthogonality between the effects and the explanatory variables. It is particularly important to consider time effects when dealing with underdeveloped countries since, as the preceding section illustrated, their economies depend greatly on the international economic environment. Meanwhile, controlling for individual effects is also of the greatest importance, because we can hardly conceive of countryspecific variables explaining growth and not being correlated with the unobserved economic and social capacities of that country. In addition, when lags of the dependent variable are used as an explanatory variable, as they are in most cross-section studies, the implausible assumption of orthogonality is necessarily violated, as Caselli, Esquivel and Lefort (1996, p. 367) correctly point out.

3. Estimation procedure

The panel data models to be estimated (see appendix B) have the general form:⁶

$$y_{it} = x_{it}'\beta + \eta_t + \alpha_i + v_{it}$$

 $i = 1, 2, ..., N. t = 1, 2, ..., T.$ [1]

where x_{it} is a K x 1 vector of explanatory variables that can contain the dependent variable lagged one period, endogenous but weakly exogenous regressors ($E[x^1_{it} \ v_{is}] = 0$ for t < s), and strictly exogenous regressors ($E[x^2_{it} \ v_{is}] = 0$ for all t,s); β is a K x 1 vector of constants; η_t and α_i are the unobserved time and individual specific effects, respectively; and v_{it} is a serially uncorrelated random disturbance.

The specifications are fixed-effect models in the sense that η_i and α_i are fixed constants and not random disturbance that can be incorporated into the error term. The fixed-effect specification is the appropriate one since we are focusing on a specific set of countries over specific periods, and thus the effects have not been randomly drawn from a large population.

Following Anderson and Hsiao (1981), we control the individual effects by setting [1] in first-difference

form.⁷ Note that this transformation also removes any temporal trend within the variables.⁸ To control the time effects, these will actually be estimated using timedummy variables. Lastly, observe that due to perfect multicolinearity the fixed-effect specification prevents identification of the coefficients of any time or individual invariant variable. Consequently, the actual models to be estimated have the general form:

$$\Delta y_{it} = \Delta x_{it}' \beta + d_{t}' \phi + \Delta v_{it}$$

 $i = 1, 2, ..., N. t = 2, ..., T.$ [2]

where d_i is a (T-2) x 1 vector of dummies representing the periods 3,4,...., and ϕ is a (T-2) x 1 vector of constants. On the assumption that v_{it} is serially uncorrelated, any value of y_{it} or x^1_{it} lagged two or more periods is a valid instrument for the first-difference equation, and thus with $T \ge 3$ we can do a consistent estimation of [2].

To gain efficiency, we use a variant of the twostep GMM estimator proposed by Arellano and Bond (1991). Exploiting a set of orthogonality conditions implied by our assumptions on the error term and regressors, we use the instrumental matrix W = (Z, d), where d is the matrix of time dummies, $Z = (z_1, z_1, z_2, z_1)$, and $z_i = diag(y_{il}; ..., y_{it-2}; x_{il}^l, ..., x_{it-2}^l; \Delta x_{i3}^2, ..., \Delta x_{it}^2$). The estimation is done in two steps. First, an instrumental variable estimation of [2] is performed employing the matrix W. Second, the residuals of this

⁶ Even if in actual estimation we work with unbalanced panels, for notational simplicity in this section we assume balanced panels.

⁷ Note that if \mathbf{x}_{it} contains any lag of y_{iv} the within estimator is inconsistent because $(y_{it-s} - \overline{y}_i)$ and $(v_{it} - \overline{v}_i)$ are correlated since the latter average contains v_{it-s} .

⁸ The model in first differences can exacerbate the inconsistency generated by measurement errors when the explanatory variable has a temporal trend, which is the case with the policy indices. Notwithstanding, it is important to note that the bias always has the opposite sign to the coefficient's ("attenuation bias"), so measurement errors can generate lack of statistical significance, but not coefficients with the wrong sign. However, in general the use of mainly policy variables –not macroeconomic aggregates– in the construction of the indices minimizes the risk of measurement errors.

⁹ Note that if we have y_{it-1} on the right-hand side of [1], we *always* have endogeneity of regressors in [2], since $E[\Delta y_{it-1} \Delta v_{it}] \neq 0$ due to the fact that y_{it-1} and v_{it-1} are correlated.

 $^{^{10}}$ In this first step, Arellano and Bond (1991) perform an instrumental variable-GLS estimation where the weighted matrix H_i is a (T-1) square matrix with twos in the main diagonal, minus ones in the main sub-diagonals and zeroes otherwise, representing the provisional assumption that v_{ii} is homoscedastic. Since any positive definite matrix produces a consistent estimation, instead of H_i we are using the identity matrix.

first estimation are used to estimate an unrestricted covariance matrix, and an instrumental variable-generalized least squares (GLS) estimation of [2] is performed using again the matrix W. Lastly, we conduct

a Sargan test of over-identifying restrictions to test the validity of the instruments and, in order to check multicolinearity problems, we compute the condition number of the matrix of explanatory variables in [2].

IV

Extreme bound analysis (EBA)

To test the robustness of the correlation between the structural reforms and growth, we use a variant of the extreme bound analysis (EBA) suggested by Leamer (1983) and used in growth regressions by Levine and Renelt (1992). EBA is a formal specification search that seeks to estimate the size of model uncertainty by systematically changing the conditioning set of information.

The explanatory variables are classified as the focus variable, the free variables (I) and doubtful variables (D). The focus variable is the variable in whose coefficient (β_F) we are interested. The I and focus variables are always in the information set, whereas the D variables can be combined in any arbitrary linear fashion. ¹¹

For a given level of confidence, the upper (lower) extreme bound for β_F is the estimate corresponding to the highest upper (lowest bottom) bound out of all the confidence intervals of the different estimates of β_F . The linkage between the focus variable and the dependent variable is considered robust if β_F remains significant and with the same sign at the extreme bounds. Otherwise, the linkage is defined as fragile.

This extreme bound analysis is particularly pertinent when dealing with $ad\ hoc$ models that are not supported by a well founded theory and consequently have higher uncertainty in relation to the true model. However, there have been serious criticisms of EBA, specifically in relation to the decision rule for defining a variable as fragile, the risk of introducing multicolinearity, and the risk of omitting relevant variables. Sala-i-Martin (1997) argues that when EBA is used no variable will be robust, since it is enough to find an exception where β_F becomes insignificant to regard the focus variable as fragile. The problem with this argument is that the converse is also true: estimating different specifications in $ad\ hoc$ regressions usually

Another important criticism is that the EBA can introduce irrelevant variables correlated with the rest of the explanatory variables, thereby inflating the standard errors of the estimated coefficients. However, as long as the causal channels are not clear, a multicolinearity problem may simply mean that the data evidence is weak (Leamer, 1983, p. 34). Notwithstanding, as a rule of thumb to control this problem we will eliminate any *D* variable with a correlation coefficient greater than 0.5 with respect to the focus variables, and we will never include in the models *D* variables with a correlation coefficient greater than 0.5 with respect to one another. Lastly, as stated in the preceding section, in all regressions we will check for multicolinearity using the condition number of the

yields a model where β_r is significant and of the desired sign. Therefore, the debate is more precisely about how many successes and how many failures in significance or sign should be deemed to determine that a variable is robust or fragile. Sala-i-Martin answers this question by constructing an empirical probability distribution for β_r . Given the practical problems associated with such analysis, 12 the "how much is enough" question does not have an objective answer. For instance, when dealing with structural reforms that change entire countries, how many exceptions should we allow before we conclude that the evidence is strong or weak? Still, to partially address this criticism, we try to be as descriptive as possible in reporting the EBA results. Consequently, our EBA will report the extreme bounds, the value and statistical significance of the focus coefficient in the best specification selected according to the Akaike (AIC) information criterion, and the proportion of positive (negative) and significant (insignificant) coefficients found for each focus variable.

¹¹ However, usually only exclusion restrictions are applied to D.

 $^{^{12}}$ To construct the empirical probability distribution for $\beta_{\rm p}$ Sala-i-Martin ran two million regressions.

matrix of regressors. Any model with a condition number larger than 20 will not be considered for the EBA.

A further and more fundamental criticism is that the EBA can omit relevant variables, making the estimates of β_F and Var (β_F) biased. However, this criticism is just a reminder of the weakness of inferences drawn from any *ad hoc* model, and as long as the EBA

uses plausible models, the methodology illustrates rather than causes this problem. Nonetheless, since the best way to minimize the risk of relevant variables being omitted is to rely on a well established theory, the starting point for our analysis will be the augmented Solow model as proposed by Mankiw, Romer and Weil (1992), and the *I* variables for the growth regressions will be an empirical application of this model.



Data, models and classification of variables

1. The starting point: the augmented Solow model

We start our analysis by estimating the model

$$\begin{split} \Delta lnGDP_{it} &= \mu + (\rho - 1) \; lnGDP_{i,t-1} + \beta_1 \; lnINV_{i,t} \\ &+ \beta_2 lnPROT_{i,t} + \beta_3 \; lnPOP_{i,t} + \eta_t + \alpha_i + v_{it} \end{split}$$
 [4]

The model represents an empirical approximation to the augmented Solow model proposed by Mankiw, Romer and Weil (1992), where GDP is income per capita; PROT is the rate of growth in the average daily protein intake, used as a proxy for human capital growth; ¹³ INV represents the investment coefficient and is used as a proxy for physical capital growth, and POP is population growth. Taking first differences to control for individual fixed effects, using time dummies to control for time effects, and managing terms with the dependent variable, the model can be estimated as

$$\Delta lnGDP_{it} = \rho \Delta lnGDP_{i,t-1} + \beta_1 \Delta lnINV_{i,t}$$

$$+ \beta_2 \Delta lnPROT_{i,t} + \beta_3 \Delta lnPOP_{i,t}$$

$$+ \Sigma_j \phi^j d_i^j + \Delta v_{it}$$
[5]

where d^{j} are the time dummies and j = 3,...,T.

In the Solow framework, the only sources of growth are factor accumulation and the unobserved

growth of total factor productivity (g). For this reason, our analysis uses three different dependent variables as proxies for growth and its sources: $\Delta lnGDP$ representing growth, lnINV representing factor accumulation, ¹⁴ and RES, the residuals of our estimated Solow model, as a proxy for the unobserved g.

2. Data and classification of variables

Appendix C lists the variables employed in this study, describing each one with its respective source. The main source of the data is IDB.

The paper analyses six focus variables in our EBA: the five reform indices, namely trade liberalization (TRADE), tax neutrality (TAX), financial liberalization (FIN), privatization (PRIV) and labour deregulation (LAB); the arithmetic mean of the indices (SPI); its standard deviation (SIGMA); and policy complementarity, represented as SPI-SIGMA (POLCOM).

The Solow framework also dictates the variables that must theoretically always be included in growth regressions. Therefore, when the dependent variable is $\Delta \ln GDP$, the I variables are $\ln GDP_1$, $\ln PROT$, $\ln INV$ and $\ln POP$. For the regressions where the dependent variable is $\ln INV$, the I variables are $\ln GDP_1$, $\ln PROT$ and $\ln POP$, and when the dependent variable is RES, we do not use any I variables.

Eight doubtful variables were selected out of the wide range of variables used in the literature: annual terms of trade growth (TOT), annual inflation (INF), government surplus (GOV), external public debt (DEBT),

¹³ To represent human capital accumulation, we chose a nutritional variable (PROT) over the school attainment indicators used by most empirical studies of growth. The reason is twofold. First, quality factors are not taken into account when school attainment indicators are used, even though they are crucial if meaningful school indicators are to be obtained in developing countries. Second, when indicators such as average years of schooling or enrolment rates are used, it is never clear if they represent the level or growth of human capital.

¹⁴ We exclude human capital growth and population growth since there are no clear channels through which structural reforms can improve them.

standard deviation of reform indices (SIGMA), financial flows from international organizations (FLOWS), current account surplus (CA) and domestic credit growth (DOCRE). Most of these variables are commonly used in the literature as indicators of short-term policies (GOV and DOCRE), the external situation (CA and DEBT), the situation of international goods markets (TOT) and macroeconomic stability (INF). FLOWS was also included because capital inflows from international financial organizations have a decisive impact on the economic performance of developing countries. Lastly, SIGMA was also selected to control for heterogeneity in the reform process.

3. The models

Every model will include the respective I variables, the focus variable and up to two doubtful variables. Therefore, including the time dummies, we have up to 10 regressors in the $\Delta lnGDP$ regressions, up to 9 in the lnINV regressions, and up to three in the RES regressions. ¹⁵ Table 2 shows the correlation matrix for the variables used in the analysis.

As mentioned in Section 4, any doubtful variable with a correlation coefficient greater than 0.5 with respect to the focus variables has been eliminated. In addition, DEBT and CA, DEBT and GOVSUR, INF and GOVSUR, DOCRE and INF and DOCRE and GOVSUR never enter the same regression, since their respective correlation coefficients are greater than 0.5.

4. Endogenous and exogenous variables

We assume that all the variables, with the exception of TOT and the focus variables, are endogenous with respect to growth. Since INV and RES are sources of growth, we consider the endogeneity assumptions valid for the regressions with any of our three dependent variables. Note that growth in the terms of trade (TOT) is clearly exogenous. However, we consider financial flows (FLOWS) endogenous, since the assistance of international financial organizations usually comes in periods of poor economic performance. Lastly, all the focus variables are considered exogenous, on the assumption that they depend exclusively on policy decisions.

TABLE 2 Correlation matrix

| | ΔlnGDP | InINV | RES | InGDP_1 | InPROT | InPOP | CA | DEBT | FLOWS | INF | TOT | GOVSUR | DOCRE | FIN | LAB | PRIV | TAX | TRADE | SPI SIGMA I | POLCOM |
|---------|--------|-------|-------|---------|--------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|-------|------|-------|-------------|--------|
| ΔlnGDP | 1.00 | | | | | | | | | | | | | | | | | | | |
| InINV | 0.34 | 1.00 | | | | | | | | | | | | | | | | | | |
| RES | 0.32 | -0.04 | 1.00 | | | | | | | | | | | | | | | | | |
| InGDP_1 | 0.11 | -0.08 | 0.11 | 1.00 | | | | | | | | | | | | | | | | |
| InPROT | 0.20 | 0.08 | 0.08 | 0.01 | 1.00 | | | | | | | | | | | | | | | |
| InPOP | -0.09 | 0.21 | -0.02 | -0.49 | 0.03 | 1.00 | | | | | | | | | | | | | | |
| CA | 0.09 | -0.23 | 0.11 | 0.65 | 0.12 | -0.33 | 1.00 | | | | | | | | | | | | | |
| DEBT | -0.41 | 0.01 | -0.16 | -0.47 | -0.16 | 0.16 | -0.57 | 1.00 | | | | | | | | | | | | |
| FLOWS | -0.27 | -0.20 | -0.33 | -0.32 | -0.12 | 0.27 | -0.18 | 0.41 | 1.00 | | | | | | | | | | | |
| INF | -0.46 | -0.09 | -0.02 | 0.04 | -0.10 | 0.00 | -0.22 | 0.40 | -0.04 | 1.00 | | | | | | | | | | |
| TOT | 0.07 | 0.20 | -0.16 | -0.17 | -0.02 | 0.03 | -0.26 | 0.13 | 0.06 | -0.06 | 1.00 | | | | | | | | | |
| GOVSUR | 0.45 | 0.24 | -0.03 | 0.17 | 0.20 | -0.13 | 0.34 | -0.48 | -0.17 | -0.69 | 0.22 | 1.00 | | | | | | | | |
| DOCRE | -0.41 | -0.12 | -0.09 | 0.07 | -0.07 | 0.02 | -0.20 | 0.38 | 0.05 | 0.94 | -0.11 | -0.72 | 1.00 | | | | | | | |
| FIN | 0.37 | -0.07 | -0.17 | 0.11 | -0.01 | -0.31 | -0.02 | -0.11 | 0.12 | -0.20 | 0.11 | 0.10 | -0.10 | 1.00 | | | | | | |
| LAB | 0.18 | 0.36 | -0.07 | 0.03 | -0.02 | -0.38 | 0.04 | -0.10 | -0.36 | -0.18 | 0.20 | 0.23 | -0.19 | 0.12 | 1.00 | | | | | |
| PRIV | 0.24 | 0.18 | -0.06 | 0.18 | -0.02 | -0.17 | -0.06 | 0.07 | 0.09 | -0.14 | 0.11 | 0.13 | -0.11 | 0.25 | 0.03 | 1.00 | | | | |
| TAX | 0.33 | 0.04 | -0.03 | -0.33 | 0.16 | 0.12 | -0.13 | -0.03 | -0.01 | -0.13 | 0.06 | 0.25 | -0.08 | 0.14 | -0.02 | 0.03 | 1.00 | | | |
| TRADE | 0.39 | 0.11 | -0.05 | -0.12 | 0.06 | -0.07 | -0.19 | 0.06 | -0.06 | -0.18 | 0.10 | 0.13 | -0.15 | 0.42 | 0.04 | 0.37 | 0.47 | 1.00 | | |
| SPI | 0.51 | 0.18 | -0.14 | -0.01 | 0.04 | -0.30 | -0.11 | -0.05 | -0.05 | -0.28 | 0.19 | 0.26 | -0.21 | 0.75 | 0.37 | 0.55 | 0.47 | 0.78 | 1.00 | |
| SIGMA | 0.06 | -0.05 | -0.09 | -0.31 | -0.04 | -0.19 | -0.11 | 0.08 | -0.06 | -0.09 | 0.06 | 0.05 | -0.10 | 0.21 | 0.37 | -0.34 | 0.43 | 0.49 | 0.38 1.00 | |
| POLCOM | 0.52 | 0.21 | -0.11 | 0.14 | 0.07 | -0.23 | -0.07 | -0.09 | -0.02 | -0.26 | 0.17 | 0.26 | -0.18 | 0.70 | 0.21 | 0.76 | 0.29 | 0.60 | 0.89 -0.08 | 1.00 |

 $^{^{15}}$ When the dependent variable is RES, the regressions do not include time dummies.

¹⁶ Note that, as was demonstrated in Section 3, GDP_1 is endogenous in the model in first differences, as they were included for the RES calculation.

VI

Econometric Results

1. The Solow model

Table 3 shows our estimated Solow model. We report the estimates of the first and second steps, but only refer to these latter results.

All the explanatory variables have the theoretically predicted sign, and all but lnPROT are significant at the 95% confidence level. Note the strong significance of the coefficient of investment, which was the only variable robustly correlated with growth in the Levine and Renelt (1992) study, and also the strong significance of the negative coefficient of GDP per capita lagged by one period, verifying the existence of conditional convergence. The routine F-test of joint significance strongly rebuts the null hypothesis. In addition, the critical value for the Sargan test using the 95% confidence level is $\chi^2_{20} = 31.41$, and therefore we cannot reject the null hypothesis of validity of instruments. Lastly, the condition number of the matrix of explanatory variables does not show multicolinearity problems.

2. Correlation matrix

The correlation matrix of table 2 has illustrated some results. All indices in that matrix show the expected correlation with growth and investment, with the exception of SIGMA (wrong sign with respect to growth) and FIN (wrong sign with respect to investment). Note also the high correlation between growth and SPI before controlling for temporal trends.

A surprising result in this step is the negative correlation of all the indices and policy complementarity with respect to RES, our proxy for the unobserved growth of total factor productivity. The only focus variable whose correlation coefficient with respect to RES shows the expected sign is SIGMA. These results are all the more startling considering that the most natural way that free-market policies can enhance growth is by improving resource allocation.

3. EBA results

Table 4 reports the extreme bounds of β_F for every focus variable, and the value of β_F in the respective best specification according to the AIC criterion. Appendix D describes in more detail the corresponding models and the econometric results.

The EBA shows that no focus variable is robustly correlated in the theoretically expected manner with growth or its sources. This lack of robustness includes the average of the policy indices (SPI) and policy complementarity (POLCOM = SPI - SIGMA). Note that the regressions with POLCOM represent the restricted version of the models using SPI and SIGMA, imposing $\beta_{\rm SPI} = -\beta_{\rm SIGMA}$. However, the unrestricted models also yield fragility. In fact, the lowest bound for SPI in the growth regressions includes SIGMA as a doubtful variable (see appendix D).

The only robust relationship is LAB with the residuals of the Solow model, but the correlation is *negative*, indicating that labour deregulation is actually *harming* productivity growth. Even if fragile, the best performing focus variable is SIGMA, whose coefficient always has the expected sign in the residuals regressions, indicating that policy dispersion reduces growth by decreasing total factor productivity.

Table 4 also shows that FIN, LAB, TRADE and SPI in the case of growth regressions, FIN, TAX and SPI in the case of investment regressions and FIN, PRIV, TRADE and SPI in the case of the residuals regressions enter the best specification with *negative* sign. Therefore, in a systematic and objective search for the best specification, we should conclude that these reforms are decreasing growth, investment, and productivity growth, respectively.

Table 5 reports the distribution of β_F according to sign and significance. The table shows that fragility is not caused by just a few exceptions. Rather, FIN, LAB and SPI in the growth regressions, and FIN and SPI in the residuals regressions, show mostly negative correlation with the dependent variables. With respect to investment, the focus variables are generally insignificant.

4. Bad luck or bad policy?

Since we are controlling for time effects, the EBA's results raise serious doubts about the effectiveness of the policy reforms, irrespective of whether the international factors were positive or negative. However, Easterly, Loayza and Montiel (1997) echo the consensus viewpoint when they argue that the reason Latin America's economic performance was poor in

TABLE 3
Estimation of Solow model
Dependent variable: ΔInGDP

| | | First step | | | Second step | |
|------------------------|--------|------------|--------|---------|-------------|--------|
| | β | s.e. | t | β | s.e. | t |
| ΔlnGDP_1 | -0.811 | 0.161 | -5.034 | -0.811 | 0.101 | -8.070 |
| ΔlnPROT | 0.157 | 0.170 | 0.922 | 0.134 | 0.084 | 1.607 |
| ΔlnINV | 0.276 | 0.093 | 2.962 | 0.305 | 0.029 | 10.608 |
| ΔlnPOP | -0.020 | 0.062 | -0.313 | -0.040 | 0.017 | -2.345 |
| Dummy variable 87-89 | 0.014 | 0.019 | 0.744 | 0.002 | 0.008 | 0.183 |
| Dummy variable 90-92 | 0.004 | 0.026 | 0.159 | 0.011 | 0.013 | 0.837 |
| Dummy variable 93-95 | 0.023 | 0.025 | 0.944 | 0.025 | 0.009 | 2.696 |
| No. of observations | 57 | | | 57 | | |
| \mathbb{R}^2 | 0.420 | | | 0.403 | | |
| F(6, 50) | 3.12 | | | 62.10 | | |
| Sargan (χ^2_{20}) | | | | 17.12 | | |
| Condition no. | 2.199 | | | 2.199 | | |

TABLE 4 Extreme bound analysis^a

| | | Growth | | | Investment | | Residuals ^b | | | |
|---|---------|---------|---------|---------------------|------------|----------|------------------------|----------------------|----------------------|--|
| | High | Best | Low | High | Best | Low | High | Best | Low | |
| FIN: financial liberalization | 0.0306 | -0.0500 | -0.2086 | 0.2771 | -0.0284 | -0.1947 | -0.0351 | -0.0782° | -0.0763 | |
| | 0.0913 | 0.0452 | 0.1068 | 0.1995 | 0.0406 | 0.1784 | 0.0451 | 0.0193 | 0.0396 | |
| LAB: labour deregulation | -0.0708 | -0.4487 | -1.0691 | 2.6815 | 0.7962 | -0.5184 | -0.3752c | -0.4932c | -0.5306c | |
| - | 0.6592 | 0.3642 | 0.6490 | 1.5789 | 0.6296 | 1.2935 | 0.0403 | 0.0266 | 0.0475 | |
| PRIV: privatization | 0.1986 | 0.0559 | -0.2646 | -0.3065 | 0.0309 | -0.4752 | 0.0400^{c} | -0.1658c | -0.1626c | |
| • | 0.2014 | 0.0522 | 0.1398 | 0.4362 | 0.0641 | 0.4748 | 0.0191 | 0.0060 | 0.0154 | |
| TAX: tax neutrality | 0.1215 | 0.0927 | 0.0110 | 0.2099 | -0.0901 | -0.3488c | 0.0889^{c} | 0.0813c | -0.0547c | |
| | 0.0779 | 0.0493 | 0.1230 | 0.2329 | 0.0953 | 0.1394 | 0.0170 | 0.0162 | 0.0158 | |
| TRADE: trade liberalization | 0.1441 | -0.0325 | -0.1023 | 0.1791 | 0.1093 | -0.2531 | 0.0641c | -0.0347 ^c | 0.0078^{c} | |
| | 0.1566 | 0.0440 | 0.1418 | 0.3338 | 0.0941 | 0.1950 | 0.0290 | 0.0079 | 0.0160 | |
| SPI: average of policy indices | 0.2421 | -0.2262 | -0.5974 | 1.0711 ^c | -0.3351 | -0.7132 | -0.1271 | -0.3256c | -0.2260c | |
| | 0.2658 | 0.1942 | 0.4161 | 0.3578 | 0.3398 | 0.5054 | 0.0997 | 0.0552 | 0.1095 | |
| SIGMA: standard error of policy indices | 0.1576 | -0.5455 | -0.7131 | 0.4938 | -0.1212 | -0.9358c | -0.2389 | -0.4693c | -0.5180 ^c | |
| | 0.4115 | 0.2425 | 0.3666 | 0.5869 | 0.3725 | 0.4037 | 0.1524 | 0.0340 | 0.0836 | |
| POLCOM: policy complementarity | 0.1713 | 0.0914 | -0.0581 | 0.9284c | 0.1359 | -0.4311 | 0.0326 | -0.0723 | -0.0877 | |
| (SPI-SIGMA) | 0.3123 | 0.2267 | 0.2606 | 0.4628 | 0.0852 | 0.4504 | 0.0849 | 0.0373 | 0.0770 | |

^a Standard errors in italics.

High β_E : Focus coefficient of the regression with the highest bound (β_E + two s.e.).

spite of the reforms was that the international economic environment was unfavourable.

Yet the time dummies contained in the estimated Solow model reported in table 3 are all positive, indicating that the international situation in the period under consideration was, if anything, favourable to

Latin America. This result is consistent with the behaviour of the international interest rate, as was highlighted in Section III.¹⁷

Best β_F : Focus coefficient of the regression with the best Akaike information criterion (AIC) value.

Low β_F : Focus coefficient of the regression with the lowest bound (β_F - two s.e.).

With the exception of SIGMA, the expected sign of the coefficients is positive.

^b Residuals of the estimated Solow model.

^c Coefficient significant at 5% of significance.

¹⁷ As was also mentioned in Section III, the fixed-effect specification prevents identification of the coefficients of any time or individual invariant variable. Hence, technically we cannot dismiss the

TABLE 5

Sign and significance of the focus coefficients^a
(Percentages)

| | | Gro | wth | | | Inves | stment | | | Residuals ^b | | | |
|--|--------------|-----------------|--------------|--------|--------------|---------|---------------------------|--------|--------------|------------------------|-----------------------|--------|--|
| | β_F po | ositive | β_F ne | gative | β_F pe | ositive | $oldsymbol{eta}_{\!F}$ ne | gative | β_F po | sitive | $oldsymbol{eta}_F$ ne | gative | |
| | Sc | NS ^d | NS | S | S | NS | NS | S | S | NS | NS | S | |
| FIN: Financial liberalization | 0 | 14 | 75 | 9 | 28 | 59 | 9 | 3 | 0 | 0 | 38 | 63 | |
| LAB: Labour deregulation | 0 | 0 | 44 | 5 | 28 | 63 | 9 | 0 | 0 | 0 | 0 | 100 | |
| PRIV: Privatization | 13 | 66 | 16 | 6 | 0 | 59 | 4 | 0 | 13 | 38 | 2 | 28 | |
| TAX: Tax neutrality | 3 | 66 | 31 | 0 | 0 | 31 | 4 | 25 | 22 | 6 | 31 | 41 | |
| TRADE: Trade liberalization | 0 | 53 | 47 | 0 | 3 | 59 | 38 | 0 | 19 | 6 | 33 | 38 | |
| SPI: Average sect. structural policy indices | 0 | 19 | 72 | 9 | 9 | 56 | 34 | 0 | 0 | 0 | 16 | 84 | |
| SIGMA: Standard deviation of structural policy indices | 0 | 13 | 75 | 13 | 4 | 50 | 33 | 13 | 0 | 0 | 4 | 96 | |
| POLCOM: SPI-SIGMA | 0 | 54 | 46 | 0 | 8 | 54 | 38 | 0 | 4 | 33 | 46 | 17 | |

^a Focus coefficients are significant or not significant at 5% of significance level. Number of models: FIN, LAB, PRIV, TAX, TRADE and SPI: 32 models. SIGMA and POLCOM: 24 models.

VII

Conclusions

This paper has implicitly argued that controlling for fixed effects, endogeneity, spurious correlation and model uncertainty, and establishing objective procedures in model selection to avoid researcher bias, should be standard procedures in growth regressions, particularly when the findings have powerful policy implications.

possibility that this favourable situation may actually be the result of higher regional SPI by period. Given the EBA results, however, it is improbable that whereas country-specific changes in the SPI are not robustly correlated with growth, changes in the regional average are.

Considering all these premises, the study shows that the evidence for the positive effects of structural reforms on Latin American growth is far from conclusive. In fact, our analysis raises serious doubts about the effectiveness of the policy reforms, since no reform is robustly correlated with growth or its sources with the expected sign; frequently, the reforms enter the respective best specifications for growth and its sources with a negative sign; and it is not difficult to find specifications where the reform indices have significant negative coefficients.

What is more, the only robust relationship found in our analysis is a *negative* correlation between labour

^b Residuals of the Solow model.

^c S = Significant.

^d NS = Not significant.

deregulation (LAB) and the residuals of the Solow model (RES), indicating that labour deregulation is *harming* productivity. Financial deregulation (FIN) and the average of the policy indices (SPI) also show only negative coefficients in the RES regressions, indicating that, if anything, they are also harming productivity. Since the free-market reforms of the Washington Consensus should enhance growth, particularly by improving resource allocation, these findings strongly suggest that the Washington Consensus policies are simply not working in Latin America.

The lack of robustness in the positive correlation between reforms and growth does not improve when policy dispersion (SIGMA) is controlled for, even using a policy complementarity index (POLCOM = SPI - SIGMA) or simple unrestricted regressions. However, the SIGMA coefficient generally shows the expected sign when entering the RES regressions, indicating that reform heterogeneity is bad for productivity.

Lastly, even if the foregoing conclusions are not affected by the direction of the time effects during the period, these effects were positive if anything, indicating that the poor economic performance of Latin America was not due to an adverse international environment. This conclusion is consistent with the behaviour during the period of the international interest rate, a crucial variable for regional growth.

This paper has used the same reform indices as were employed to produce most of the evidence being questioned, and although there is room to improve these indices, they represent a major advance in the measurement of Latin American structural reforms, since they explicitly incorporate policy variables and not the assumed outcomes of the reforms.

In future, the availability of longer time series and perhaps better indices may cast more light on the true impact of market reforms on Latin American growth. If the conclusions of the present study are confirmed, however, urgent research will be needed to understand how policies aimed at improving resource allocation can in fact harm productivity. In this endeavour, case studies might be more illuminating than econometric regressions.

Meanwhile, can anyone suggest accelerating the reforms?

APPENDIX A

Measuring the structural reforms

The components of the policy indices are:

Financial liberalization:

- a) Freedom to set deposit interest rates
- b) Freedom to set lending interest rates
- c) Real level of bank deposit reserves
- d) Quality of banking and financial oversight

Labour deregulation:

- a) Flexibility of hiring
- b) Cost of dismissal after one year of work
- c) Cost of dismissal after ten years of work
- d) Overtime pay
- e) Social security contributions

Privatization:

Privatization proceeds accrued since 1988

Tax neutrality:

- a) Top marginal income tax rate for corporations
- b) Top marginal income tax rate for individuals

APPENDIX B

Econometric issues

a) Consistent estimation of β

Assuming balanced panels for notational simplicity, the models to be estimated have the general form:

$$y_{it} = x_{it}'\beta + \eta_t + \alpha_i + v_{it}$$

 $i = 1, 2, ..., N.$ $t = 2, ..., T.$ [B.1]

where x_{it} is a $K \times 1$ vector of explanatory variables that can contain the dependent variable lagged one period, endogenous regressors

- c) Basic value-added tax rate
- d) Productivity of value-added tax¹⁸

Trade liberalization:

- a) Average tariffs
- b) Tariff spread

Quantifying every observation of the respective policy variable in such a way that higher values represent greater neutrality, the value of every index R for country j in year t is given by the function

$$\mathbf{R}_{t}^{j} = \frac{1}{n} \sum_{i=1}^{n} \frac{x_{it}^{j} - x_{i}^{min}}{x_{i}^{max} - x_{i}^{min}}$$

where n is the number of policy variables included in index R, x_{i}^{j} is the observation of variable i for country j in year t, and x_{i}^{min} (x_{i}^{max}) is the minimum (maximum) value observed for variable i across all countries and years.

 $(E[x_{ii}^1 v_{is}] \neq 0 \text{ for } t = s)$ and strictly exogenous regressors $(E[x_{ii}^2 v_{is}] = 0 \text{ for all } t,s)$; β is a $K \times 1$ vector of constants; η_t and α_i are the unobserved time and individual specific effects, respectively; v_{it} is the error term; and in general $E[\alpha_i \mid x_{it}] \neq 0$.

 $^{^{18}}$ Defined as the ratio between the basic rate and actual collection as a percentage of $\ensuremath{\mathtt{GDP}}.$

Taking first differences to sweep out the individual effects, and introducing dummies to estimate the time effects, we have:

$$\Delta y_{it} = \Delta x_{it}' \beta + d_t' \phi + \Delta v_{it}$$

 $i = 1, 2, ..., N. t = 2, ..., T.$ [B.2]

where d_i is a (T-2) x 1 vector of dummies representing the periods 3,4,..., and ϕ is a (T-2) x 1 vector of constants. If we have $y_{it\text{-}1}$ on the right-hand side of [B.1], OLS estimation of β in [B.2] is inconsistent. In this case, we have endogeneity of regressors since $E[\Delta y_{it\text{-}1} \Delta v_{it}] \neq 0$ due to the fact that $y_{it\text{-}1}$ and $v_{it\text{-}1}$ are correlated. A similar problem arises if we consider some x_{it} variables as endogenous. However, if we assume v_{it} is serially uncorrelated, and the endogenous regressors are weakly exogenous in the sense that $E[x^l_{it}v_{is}] = 0$ for t < s, any value of y_{it} or x^l_{it} lagged two or more periods are valid instruments for [B.2], since $E[y_{it\text{-}2}\Delta v_{it}] = 0$ and $E[x^1_{it\text{-}2}\Delta v_{it}] = 0$. Therefore, under the former identifying assumptions and having $T \geq 3$, there are instruments for the consistent estimation of β .

b) Two-step GMM estimator

The two-step GMM estimator proposed by Arellano and Bond (1991) uses the instrumental matrix $W^{AB} = (Z^{AB}, d)$, where d is the matrix of time dummies, $Z^{AB} = (Z^{AB}, \ldots, Z^{AB}, j')$, and $Z^{AB} = \text{diag}(y_{i1}, \ldots, y_{it-2}, x^l_{i1}, \ldots, x^l_{it-2}; x^2_{i1}, \ldots, x^2_{iT})$. This instrumental matrix exploits optimally the orthogonality with respect to Δv_{it} of values of y_{it} and x^l_{it} lagged two or more periods and all values of x^2_{it} . In actual estimation we use a subset of the former orthogonality conditions, choosing the instrumental matrix W = (Z, d), where $Z = (z_1, \ldots, z_N)'$, and $z_i = \text{diag}(y_{i1}, \ldots, y_{it-2}; x^l_{i1}', \ldots, x^l_{it-2}'; \Delta x^2_{it}', \ldots, \Delta x^2_{it}')$.

The estimation is done in two steps. Firstly, an instrumental variable estimation of [B.2] is performed using matrix W. This estimation is consistent but inefficient if Δv_{ii} is not homoscedastic. Using the residuals of this first estimation, an unrestricted covariance matrix for Δv_{ii} is estimated and an estimation is carried out for [B.2], once again using the matrix W and the covariance matrix previously estimated.

Defining, $\Delta \tilde{X} = [\Delta X, d]$ the two-step GMM estimator has the form:

$$\boldsymbol{\hat{\beta}} = \left[\left(\Delta \boldsymbol{\tilde{X}}' \boldsymbol{W} \right) \boldsymbol{A}_{\boldsymbol{N}} \! \left(\boldsymbol{W}' \Delta \boldsymbol{\tilde{X}} \right) \right]^{-1} \left[\left(\Delta \boldsymbol{\tilde{X}}' \boldsymbol{W} \right) \boldsymbol{A}_{\boldsymbol{N}} \! \left(\boldsymbol{W}' \Delta \boldsymbol{Y} \right) \right] \quad [B.3]$$

where $A_N = \left[\sum_i W_i'(\Delta \hat{v}_i) (\Delta \hat{v}_i)'W_i\right]^{-1}$ and where $\Delta \hat{v}_i$ is the vector of residuals of the first step estimation, ignoring \mathbf{A}_N in [B.3].

c) Sargan test of over-identifying restrictions

Since we have more instruments than parameters to be estimated, the models are over-identified. Using these over-identifying restrictions, we can test the validity of instruments using the statistic

$$s = \Delta \breve{\nu}' \ W \left[\sum_{i} W' \left(\Delta \breve{\nu}_{i} \right) \left(\Delta \breve{\nu}_{i} \right)' W_{i} \right]^{-1} \ W' \Delta \breve{\nu} \tag{B.4}$$

where $\Delta \nu$ is the vector of residuals of the second step. Under the null hypothesis of validity of instruments, the s statistic is asymptotically distributed as χr , where r is the number of overidentifying restrictions, i.e., the difference between the columns of W and the number of estimated coefficients. A rejection of the null hypothesis suggests, for instance, that one of our assumptions —residuals not autocorrelated in [B.1] and/or endogenous but weakly exogenous regressors— is not true.

APPENDIX C

Variables and sources

a) Policy indices

FIN : financial liberalization index. Source: IDB.

LAB : labour deregulation index. Source: IDB.

PRIV : privatization index. Source: IDB.

TAX : tax neutrality index. Source: IDB.

TRADE : trade liberalization index. Source: IDB.

SPI : structural policy index, defined as the arithmetic mean of the five policy indices. *Source*: IDB.

SIGMA : dispersion of the indices, defined as the standard deviation of the five policy indices.

POLCOM: policy complementarity, defined as SPI-SIGMA.

b) Other variables

GDP

CA: non-factorial current-account surplus in constant dollars as a percentage of GDP. Source: IDB.

DEBT : external public and publicly guaranteed external debt in constant dollars as a percentage of GDP. Source: IDB.

DOCRE: log of (1 + growth of domestic credit at end of period). Source: IDB.

FLOWS: net financial flows in current dollars from international financial organizations as percentage of GDP. Sources: World

Bank and International Monetary Fund (IMF). GDP per capita in constant dollars. *Source*: IDB.

GOVSUR: current-account surplus (current revenues minus current expenditure) of the government, in current local currency, as a

percentage of GDP. Source: IDB.

INF : log of (1 + average annual inflation). *Source*: IMF.

INV : gross investment in constant local currency as percentage of GDP. Source: IDB.

POP : annual growth rate of total population. Source: IDB.

PROT : (1 + annual growth rate of the average daily intake of proteins). Source: IDB.

RES : residuals of the estimated Solow model.

TOT : log of (1 + growth rate of terms of trade). Source: World Bank.

APPENDIX D

Extreme bound analysis^a

Dependent variable : ΔlnGDP

: lnGDP_1, lnPROT, lnINV and lnPOP I variables

| Focus variable | | В | s.e.b | t | \mathbb{R}^2 | AIC ^c | D variables | Obs ^d | Sargan | No. of cond. |
|------------------------------|-------|---------|--------|---------|----------------|------------------|---------------|------------------|-----------------------|--------------|
| FIN: | high: | 0.0306 | 0.0913 | 0.3348 | 0.4571 | -5.4092 | DEBT, FLOWS | 57 | $\chi^2_{35} = 28.61$ | 3.95 |
| Financial | best: | -0.0500 | 0.0452 | -1.1053 | 0.5188 | -5.5297 | DEBT, DOCRE | 57 | $\chi^2_{35} = 9.35$ | |
| liberalization | low: | -0.2086 | 0.1068 | -1.9538 | 0.3245 | -5.1906 | TOT, DOCRE | 57 | $\chi^2_{35} = 24.18$ | |
| LAB: | high: | -0.0708 | 0.6592 | -0.1074 | 0.3708 | -5.2616 | FLOWS, DOCRE | 57 | $\chi^2_{35} = 32.2$ | 3.76 |
| Labour | best: | -0.4487 | 0.3642 | -1.2320 | 0.5487 | -5.5940 | DEBT, DOCRE | 57 | $\chi^2_{35} = 10.58$ | 3.95 |
| deregulation | low: | -1.0691 | 0.6490 | -1.6473 | 0.4347 | -5.3687 | DEBT, FLOWS | 57 | $\chi^2_{35} = 28.53$ | 3.45 |
| PRIV: | high: | 0.1986 | 0.2014 | 0.9861 | 0.3351 | -5.2069 | DEBT, SIGMA | 52 | $\chi^2_{.35} = 7.17$ | 5.87 |
| Privatization | best: | 0.0559 | 0.0522 | 1.0724 | 0.4901 | -5.4719 | DEBT, FLOWS | 57 | $\chi^2_{35} = 7.85$ | 4.07 |
| | low: | -0.2646 | 0.1398 | -1.8921 | 0.4.69 | -5.3212 | SIGMA, GOVSUR | 52 | $\chi^2_{35} = 20.28$ | 3 4.46 |
| TAX: | high: | 0.1215 | 0.0779 | 1.5609 | 0.3689 | -5.2585 | FLOWS, DOCRE | 57 | $\chi^2_{35} = 2.83$ | 4.02 |
| Tax | best: | 0.0927 | 0.0493 | 1.8806 | 0.5013 | -5.4940 | DEBT, TOT | 57 | $\chi^2_{35} = 4.14$ | 7.02 |
| neutrality | low: | 0.0110 | 0.1230 | 0.0891 | 0.4187 | -5.3413 | SIGMA, GOVSUR | 52 | $\chi^2_{35} = 8.04$ | 4.88 |
| TRADE: | high: | 0.1441 | 0.1566 | 0.9200 | 0.3798 | -5.2765 | DEBT, INF | 52 | $\chi^2_{35} = 20.14$ | 5.39 |
| Trade | best: | -0.0325 | 0.0440 | -0.7389 | 0.4525 | -5.4396 | DOCRE | 52 | $\chi^2_{30} = 18.33$ | 4.61 |
| liberalization | low: | -0.1023 | 0.1418 | -0.7214 | 0.4622 | -5.4190 | DEBT, DOCRE | 52 | $\chi^2_{35} = 24.79$ | 5.48 |
| SPI: | high: | 0.2421 | 0.2658 | 0.9110 | 0.2300 | -5.0986 | INF | 52 | $\chi^2_{30} = 34.41$ | 6.41 |
| Average sect. | best: | -0.2262 | 0.1942 | -1.1645 | 0.4687 | -5.4313 | FLOWS, DOCRE | 52 | $\chi^2_{35} = 17.54$ | 7.19 |
| structural policy indices | low: | -0.5974 | 0.4161 | -1.4357 | 0.3326 | -5.2031 | SIGMA, GOVSUR | 52 | $\chi^2_{35} = 14.38$ | 6.66 |
| SIGMA: | high: | 0.1025 | 0.4386 | 0.2318 | 0.4344 | -5.3686 | DEBT, TOT | 52 | $\chi^2_{35} = 27.10$ | 3.65 |
| Standard deviation | best: | -0.5455 | 0.2425 | -2.2493 | 0.4441 | -5.4244 | DOCRE | 52 | $\chi^2_{30} = 24.37$ | |
| of structural policy indices | low: | -0.7131 | 0.3666 | -1.9448 | 0.3052 | -5.1629 | TOT | 52 | | 2.32 |
| POLCOM: | high: | 0.1713 | 0.3123 | 0.5484 | 0.3518 | -5.2709 | GOVSUR | 52 | $\chi^2_{30} = 32.28$ | 3 4.47 |
| SPI-SIGMA | best: | 0.0914 | 0.2267 | 0.4029 | 0.4615 | -5.4180 | DEBT, DOCRE | 52 | $\chi^2_{35} = 25.15$ | |
| | low: | -0.0581 | 0.2606 | -0.2231 | 0.3386 | -5.2121 | TOT, GOVSUR | 52 | $\chi^2_{35} = 26.28$ | 6.19 |

^a High β_F : focus coefficient of the regression with the highest bound (β_F + two s.e.). Best β_F : focus coefficient of the regression with the lowest AIC. Low β_F : focus coefficient of the regression with the lowest bound (β_F - two s.e.). b s.e.: standard error.

^c AIC: Akaike information criterion.

^d Number of observations.

APPENDIX D (Continued)

Dependent variable : lnINV

I variables : lnGDP_1, lnPROT and lnPOP

| Focus variable | | В | s.e. ^b | t | \mathbb{R}^2 | AIC ^c | D variables | Obs ^d | Sargan | No. of cond. |
|------------------------------|-------|---------|-------------------|---------|----------------|------------------|---------------|------------------|-----------------------|--------------|
| FIN: | high: | 0.2771 | 0.1995 | 1.3886 | 0.1092 | -3.4901 | TOT, DOCRE | 57 | $\chi^2_{30} = 13.80$ | 3.03 |
| Financial | best: | -0.0284 | 0.0406 | -0.7000 | 0.6151 | -4.3293 | CA, DOCRE | 57 | $\chi^2_{30} = 14.69$ | 2.82 |
| liberalization | low: | -0.1947 | 0.1784 | -1.0914 | 0.2426 | -3.6523 | FLOWS, INF | 57 | $\chi^2_{30} = 18.42$ | 3.33 |
| LAB: | high: | 2.6815 | 1.5789 | 1.6983 | -0.1168 | -3.2640 | FLOWS, DOCRE | 57 | $\chi^2_{30} = 16.38$ | 2.50 |
| Labour | best: | 0.7962 | 0.6296 | 1.2646 | 0.6385 | -4.3921 | CA, DOCRE | 57 | $\chi^2_{30} = 9.81$ | 2.24 |
| deregulation | low: | -0.5184 | 1.2935 | -0.4008 | -0.1063 | -3.4774 | SIGMA, GOVSUR | 52 | $\chi^2_{30} = 14.72$ | 2.41 |
| PRIV: | high: | -0.3065 | 0.4362 | -0.7027 | 0.0289 | -3.6078 | SIGMA, GOVSU | 52 | $\chi^2_{30} = 13.12$ | 4.05 |
| Privatization | best: | 0.0309 | 0.0641 | 0.4818 | 0.6577 | -4.4466 | CA, DOCRE | 57 | $\chi^2_{30} = 25.31$ | 3.18 |
| | low: | -0.4752 | 0.4748 | -1.0007 | 0.0142 | -3.5927 | DEBT, SIGMA | | $\chi^2_{30} = 13.97$ | 5.09 |
| TAX: | high: | 0.2099 | 0.2329 | 0.9012 | 0.2673 | -3.6855 | DEBT, FLOWS | 57 | $\chi^2_{30} = 23.24$ | 6.01 |
| Tax | best: | -0.0901 | 0.0953 | -0.9455 | 0.6671 | -4.4743 | CA, DOCRE | | $\chi^2_{30} = 28.66$ | |
| neutrality | low: | -0.3488 | 0.1394 | -2.5014 | -0.0101 | -3.5684 | SIGMA, GOVSUR | 52 | $\chi^2_{30} = 3.97$ | 4.75 |
| TRADE: | high: | 0.1791 | 0.3338 | 0.5367 | 0.1154 | -3.7011 | DEBT, SIGMA | 52 | $\chi^2_{30} = 13.29$ | 7.94 |
| Trade | best: | 0.1093 | 0.0941 | 1.1616 | 0.5181 | -4.3084 | CA, DOCRE | | $\chi^2_{30} = 26.58$ | 3.65 |
| liberalization | low: | -0.2531 | 0.1950 | -1.2980 | 0.0279 | -3.6068 | FLOWS, SIGMA | 52 | $\chi^2_{30} = 10.21$ | 6.71 |
| SPI: | high: | 1.0711 | 0.3578 | 2.9937 | 0.0295 | -3.6468 | DEBT | 52 | $\chi^2_{25} = 17.31$ | 4.12 |
| Average sect. | best: | -0.3351 | 0.3398 | -0.9859 | 0.5155 | -4.3031 | CA, DOCRE | 52 | $\chi^2_{30} = 11.74$ | 5.27 |
| structural policy indices | low: | -0.7132 | 0.5054 | -1.4112 | 0.4070 | -4.1010 | CA, GOVSUR | 52 | $\chi^2_{30} = 12.30$ | 5.19 |
| SIGMA: | high: | 0.4938 | 0.5869 | 0.8412 | 0.1126 | -3.6980 | FLOWS, INF | 52 | $\chi^2_{30} = 21.26$ | 4.64 |
| Standard deviation | best: | -0.1212 | 0.3725 | -0.3255 | 0.5566 | -4.3918 | CA, DOCRE | 52 | $\chi^2_{30} = 20.71$ | 3.51 |
| of structural policy indices | low: | -0.9358 | 0.4037 | -2.3178 | 0.4888 | -4.2495 | CA, TOT | | $\chi^2_{30} = 15.63$ | 5.33 |
| POLCOM: | high: | 0.9284 | 0.4628 | 2.0010 | 0.3259 | -3.9728 | CA, GOVSUR | 52 | $\chi^2_{30} = 13.71$ | 4.40 |
| SPI-SIGMA | best: | 0.1359 | 0.0852 | 1.5956 | 0.4994 | -4.2700 | CA, FLOWS | 52 | $\chi^2_{30} = 14.61$ | 5.31 |
| | low: | -0.4311 | 0.4504 | -0.9572 | -0.0456 | -3.5339 | DEBT, DOCRE | | $\chi^2_{30} = 23.11$ | 5.98 |

APPENDIX D (Conclusion)

Dependent variable : RES I variables : none

| Focus variable | | В | s.e.b | t | \mathbb{R}^2 | AIC ^c | D variables | Obs ^d | Sargan | No. of cond. |
|------------------------------|-------|---------|--------|----------|----------------|------------------|---------------|------------------|-----------------------|--------------|
| FIN: | high: | 0.0351 | 0.0451 | -0.7778 | 0.1268 | -5.6955 | DEBT | 57 | $\chi^2_{10} = 11.44$ | 1.74 |
| Financial | best: | -0.0783 | 0.0193 | -4.0594 | 0.1835 | -5.7275 | DEBT, DOCRE | 57 | $\chi^2_{15} = 17.92$ | 2.89 |
| liberalization | low: | -0.0763 | 0.0396 | -1.9274 | 0.0743 | -5.6371 | DOCRE | 57 | $\chi^2_{10} = 10.50$ | 1.74 |
| LAB: | high: | -0.3752 | 0.0403 | -9.3072 | 0.1657 | -5.6360 | TOT, SIGMA | 52 | | 1.62 |
| Labour | best: | -0.4932 | 0.0266 | -18.5364 | 0.2014 | -5.7498 | DEBT, DOCRE | 57 | $\chi^2_{15} = 17.45$ | 2.47 |
| deregulation | low: | -0.5306 | 0.0475 | -11.1821 | 0.1718 | -5.6433 | DEBT, SIGMA | 52 | $\chi^2_{15} = 17.94$ | 2.82 |
| PRIV: | high: | 0.0400 | 0.0191 | 2.1005 | -0.1432 | -5.4261 | DOCRE | 57 | $\chi^2_{10} = 10.53$ | 2.65 |
| Privatization | best: | -0.1658 | 0.0060 | -27.8000 | 0.1853 | -5.6598 | TOT, IGMA | 52 | | 2.83 |
| | low: | -0.1627 | 0.0154 | -10.5302 | 0.0558 | -5.5123 | CA, SIGMA | 52 | $\chi^2_{15} = 18.43$ | 1.53 |
| TAX: | high: | 0.0889 | 0.0170 | 5.2280 | 0.1305 | -5.6647 | DEBT, TOT | 57 | $\chi^2_{15} = 15.12$ | 5.30 |
| Tax | best: | 0.0813 | 0.0162 | 5.0182 | 0.1085 | -5.6748 | DEBT | 57 | $\chi^2_{10} = 7.95$ | 5.13 |
| neutrality | low: | -0.0548 | 0.0158 | -3.4544 | 0.0211 | -5.5462 | FLOWS, TOT | 57 | $\chi^2_{15} = 17.86$ | 1.53 |
| TRADE: | high: | 0.0641 | 0.0290 | 2.2103 | 0.0731 | -5.5691 | SIGMA | 52 | | 4.60 |
| Trade | best: | -0.0347 | 0.0079 | -4.4177 | 0.1224 | -5.5854 | DEBT, TOT | 52 | $\chi^2_{15} = 16.60$ | 2.38 |
| liberalization | low: | -0.0785 | 0.0160 | -4.9100 | 0.0198 | -5.4748 | CA, FLOWS | 52 | $\chi^2_{15} = 18.05$ | 2.37 |
| SPI: | high: | -0.1271 | 0.0997 | -1.2748 | 0.0487 | -5.5048 | FLOWS, GOVSUR | 52 | $\chi^2_{15} = 18.08$ | 4.21 |
| Average sect. | best: | -0.3256 | 0.0552 | -5.9012 | 0.2162 | -5.6984 | TOT, DOCRE | | $\chi^2_{15} = 18.46$ | |
| structural policy indices | low: | -0.2260 | 0.1095 | -2.0648 | 0.1357 | -5.6391 | DOCRE | 52 | $\chi^2_{10} = 16.70$ | 3.21 |
| SIGMA: | high: | -0.2389 | 0.1524 | -1.5673 | 0.1137 | -5.6140 | DEBT | 52 | $\chi^2_{10} = 14.41$ | 2.59 |
| Standard deviation | best: | -0.4693 | 0.0340 | -13.8225 | -0.0575 | -5.3989 | CA, INF | 52 | $\chi^2_{15} = 18.45$ | 2.24 |
| of structural policy indices | low: | -0.5180 | 0.0836 | -6.1945 | -0.0504 | -5.4442 | FLOWS | 52 | $\chi^2_{10} = 11.34$ | 1.40 |
| POLCOM: | high: | 0.0326 | 0.0849 | 0.3846 | 0.0038 | -5.4971 | GOVSUR | 52 | $\chi^2_{10} = 14.17$ | 3.21 |
| SPI-SIGMA | best: | -0.0723 | 0.0373 | -1.9370 | 0.1269 | -5.5905 | DEBT, DOCRE | 52 | $\chi^2_{15} = 18.65$ | 4.89 |
| | low: | -0.0877 | 0.0770 | -1.1384 | 0.0019 | -5.5298 | none | 52 | | |

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Urban traffic

congestion: its economic and social causes

and consequences

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In recent years, and particularly since the early 1990s, rising transport demand and road traffic have led to increasing congestion, delays, accidents and environmental problems, particularly in large cities. This explosive increase has been the result of greater access to cars (as the purchasing power of the middle-income classes has risen), easier access to credit, falling retail prices, a larger supply of used cars, population growth, a decline in household size and an unstructured approach to urban transport policy. Transport in the largest cities consumes some 3.5% of the region's GDP, partly as a result of traffic congestion, which affects both car and public transport users and which produces a loss of economic efficiency and other negative effects for society. Without seeking to propose specific solutions, this article analyses what congestion is and what the consequences of this modern urban scourge are for city dwellers' quality of life.

I

What is congestion?

1. Popular usage and the dictionary definition

The word "congestion" is often used in relation to vehicle traffic, by specialists and the general public alike. The Concise Oxford English Dictionary (Oxford University Press, 2002) defines it as "abnormal accumulation, crowding, or obstruction, especially of traffic etc." It is commonly understood as a situation in which many vehicles are in movement and each of them progresses slowly and fitfully. These definitions are subjective, however, and not sufficiently precise.

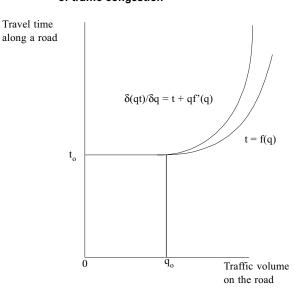
2. A technical explanation

The basic cause of congestion is friction among vehicles in the traffic flow. Up to a certain level of traffic, vehicles can move fairly freely at a speed constrained only by speed limits, the frequency of junctions, etc. When volumes are higher, however, each additional vehicle hinders the movement of the rest, meaning that congestion begins. A possible objective definition, then, would be: "Congestion is the situation that arises when the entry of one vehicle into a traffic flow increases the journey time of the rest."

As traffic increases, speeds decline at a greater and greater rate. Figure 1 uses the function t = f(q) to show the time (t) needed to travel along a street at different traffic volumes (q). The other curve, $\delta(qt)/\delta q = t + qf'(q)$, is derived from the previous one. For any volume of traffic (q), the difference between the two curves represents the increase in journey time that the entry of the additional vehicle causes for the other vehicles on the street.

It can be seen that the two curves coincide up to a traffic level of Oq_o ; until then, the change in journey time for all vehicles is simply the time taken by the one entering, as the others can carry on moving at the same speed as before. From here onward, however, the two functions diverge, with $\delta(qt)/\delta q$ rising above t. This means that each vehicle entering the flow experiences its own delay, but at the same time increases the travelling time of all the other vehicles already on the road. Thus, the individual user perceives only part of the congestion he is causing, while the rest is experienced by the other vehicles in the flow at that

FIGURE 1
Schematic representation of the concept of traffic congestion



time. In specialist language, it is said that users perceive the average private costs, but not the marginal social costs.

Strictly speaking, users do not have a thorough grasp of average private costs either since, for example, few car drivers have a clear idea of how much it costs them to make an additional journey in terms of maintenance, tyre wear, etc. However, they do perceive the costs imposed by the government (particularly the tax on fuel), which are straightforward transfers from the car user to the State, something that has a distorting effect on their decision-making.

Another conclusion, which is borne out by simple observation, is that at low congestion levels an increase in the flow does not significantly raise journey times, but at higher levels the same absolute increase raises total travelling times considerably.

In accordance with the definition given, congestion begins at traffic volume Oq_o . This generally happens at relatively low volumes, however, which does not accord with the popular understanding of the concept.

3. Towards a practical definition of traffic congestion

Some specialist texts do not give very rigorous definitions of congestion. Two renowned transport modelling specialists consider that "congestion arises when demand levels approach the capacity of a facility and the time required to use it (travel through it) increases well above the average under low demand conditions" (Ortúzar and Willumsen, 1994). Although it matches the public perception, this definition gives no indication of the exact point at which the phenomenon begins.

One effort to define the term precisely in a way that matched normal perceptions was made in a bill to introduce road charging passed by the Lower Chamber of the Chilean Congress. As the intention was to avoid leaving the authorities any room to act discretionally, the definition was highly specific. A road was deemed to be congested when along more than half its total length (the sections need not be consecutive) the

average spatial velocity of the traffic flow was less than 40% of the free flow speed. This condition had to prevail for at least four hours a day from Tuesday to Thursday, as ascertained by surveys taken over four consecutive weeks between March and December. An exact definition of congested areas was also considered. The definitions were perhaps too precise and difficult to apply in practice, although in fact there has been no occasion for it to be applied so far since the bill has not received legislative approval from the Senate.

Without going into so much detail, but in the same spirit of objectivity, we might define congestion as "the condition in which the introduction of one vehicle into a traffic flow increases the delay for the remainder by more than x%". An objective, albeit still arbitrary, definition of congestion might be a volume of traffic such that $\delta(qt)/\delta t = at$, where for example a = 1.50. In other words, congestion would begin at the point where the delay to which all vehicles already in the traffic flow were subject equalled half the travelling time that an additional vehicle would have.

Causes of congestion

The characteristics of urban transport that cause congestion

The transport system, including the provision of urban land for transport infrastructure, operates under very special conditions, among which mention may be made of the following:

- The demand for transport is derived and not an end in itself (Ortúzar and Willumsen, 1994). Journeys are rarely made because of a desire to travel as such; they generally result from the need to go to places where different activities are carried out (such as work, shopping, study, recreation, leisure, etc.), all of them in different locations.
- The demand for transport is highly variable and there are very marked peaks when many journeys coincide, owing to people's wish to use the day to the full to carry out their different activities and have the opportunity to make contact with others.
- Transportation takes place along restricted road spaces that are fixed in the short term. It will readily

- be understood that unused road capacity cannot be stored for later use in periods of higher demand.
- The transport options that have the most soughtafter characteristics—i.e., safety, comfort, reliability and autonomy, as is the case with the car— are the ones that use most road space per passenger, as will be explained later.
- The provision of road infrastructure to meet demand at peak times is very expensive, particularly in urban areas.
- Because of these factors, congestion occurs in various places, with all the adverse effects this has in terms of pollution, substantial expenditure of private and social resources, and diminished quality of life.

An aggravating factor, as was indicated in the previous section, is that the cost of congestion is not fully perceived by the users who contribute to it. Whenever this happens, the good or service concerned

¹ Chilean bill aimed at establishing a charge for use of urban roads affected by vehicle congestion.

is consumed more than the social optimum. Since users do not experience the greater time and operating costs they are causing to others, their decisions about routes, mode of travel, origin, destination and the times at which they make their journeys are taken on the basis not of the social costs, but only of their own costs or, more precisely, of what is often an incomplete perception of those costs. The logical outcome is overuse of existing road infrastructure, at least in particular areas and at particular times.

2. The problem is caused mainly by cars

Some vehicles generate more congestion than others. In traffic engineering, each type of vehicle is rated by its PCU (passenger car unit) equivalence. A car scores 1 PCU, while other types of vehicle receive a rating that reflects the disruption they cause to the traffic flow, or the road space they effectively occupy, by comparison with a car. A bus is normally considered to score about 3 PCU and a lorry about 2 PCU. Strictly speaking, the PCU factor varies depending on whether the vehicle is approaching an intersection or is on a stretch of road between intersections.

Although a bus generates more congestion than a car, it generally carries more people. If the former carries 50 passengers and the latter an average of 1.5, then each car occupant is causing 11 times as much congestion as is attributable to each bus passenger. Other things being equal, then, congestion will fall if buses come to account for a larger share of journeys. Unless they carry less than 4.5 passengers, they will on average cause less congestion than cars. It is unusual for buses to carry less than 4.5 passengers, but it can happen, as for example in areas of Santiago, Chile, at off-peak times in the late 1980s, or in Lima 10 years later.

An excessive number of public transport vehicles worsens congestion, as can be seen in some cities. One of the characteristics of today's economic models is deregulation. In the area of urban passenger transportation, far-reaching deregulation normally results in a considerable expansion of bus and taxi fleets and a deterioration in the orderliness and discipline of their operations. This made a major contribution to higher congestion in Santiago in the 1980s and in Lima the following decade.

Liberalization of used vehicle imports and deregulation of public transport took place simultaneously in Lima, with particularly severe effects. In Santiago, which had some 4.3 million inhabitants in

the late 1980s, used vehicle imports were rare and the public transport fleet (buses of all kinds and collective taxis) did not exceed 16,000 units. In the mid-1990s, however, the public transport fleet in Lima, which then had some 6.7 million inhabitants, numbered at least 38,000 units (although some sources put the actual figure at close to 50,000). In other words, in the mid-1990s the number of units per inhabitant in Lima was between 52% and 101% higher than it had been in Santiago some seven years before, just when deregulation in Chile was producing its most dramatic results.

3. Driving practices and the state of roads contribute to congestion

a) Roads in cities: design and maintenance problems

Poor road design and maintenance result in
unnecessary congestion. In many cities it is common
to come across stretches of road without lane markings,
unexpected changes in the number of lanes, bus stops
situated just where the roadway narrows, and other
shortcomings that obstruct the traffic flow. Poor
pavement conditions, and potholes in particular, create
growing capacity restrictions and increase congestion.
In many Latin American cities, such as Caracas, rain
gathering on the road surface reduces capacity and thus
increases congestion.

b) Some types of behaviour cause more congestion than others

Some drivers show little respect for other road users. In certain cities, such as Lima, many drivers try to save a few seconds' journey time by cutting in at junctions, thus blocking them and generating diseconomies for others that are much greater than the benefit they obtain for themselves. In other cities, such as Santiago, it is customary for buses to stop immediately before junctions, which causes congestion (and accidents). And in these cities and others where there is an ample supply of taxis that do not usually operate from fixed stands, the drivers of these vehicles cruise slowly on the look-out for passengers, which also causes congestion.

In addition to all this, traffic flows often include old, poorly maintained or animal-drawn vehicles. When vehicles start moving again after stopping at traffic lights, congestion is caused by the delay that slower vehicles in front impose on vehicles with normal rates of acceleration behind them. A broken-down vehicle severely obstructs the traffic flow, as it effectively closes a whole lane.

c) The information available on traffic conditions is inadequate

Another factor that increases congestion is ignorance of traffic conditions. If a motorist who can reach his destination by either of two routes, A and B, knows that traffic conditions are poor on route A, he can use B, where his own contribution to congestion will be less. A study of a hypothetical city conducted at the University of Texas shows that being informed about traffic conditions in the different parts of the network can reduce congestion by much more even than road charging can (IMT, 2000). Lack of basic knowledge of the street network could also increase the average mileage of each journey and contribute to congestion.

d) Reduced capacity is the result

Generally speaking, the combination of motorist behaviour and the state of roads and vehicles undoubtedly means that a street or urban network in Latin America has a lower capacity than one of the same geometrical dimensions in Europe or North America. Evaluations carried out in Caracas in the early 1970s established that a motorway there had just 67% of the capacity of a similar-sized one in the United States.² This percentage difference must vary from one city to another, but there can be no doubt that, relatively speaking, the propensity towards congestion in the road systems of Latin American cities is generally high.

\prod

The invasion of the car

The last decade of the twentieth century brought with it a large increase in the number of cars in use in Latin America. These vehicles are employed for the most varied purposes, including travel to places of work and study, and this is placing substantial pressure on the road network. What is the cause of all this?

Economic reforms have made car ownership more accessible

The economic reforms implemented in the region in the 1990s led, among other things, to higher economic growth rates and lower car prices. Growth rates per inhabitant were almost invariably negative in the 1980s, but they turned quite strongly positive in the 1990s. In Uruguay, for example, average annual growth rose from -1% between 1981 and 1988 to 4% between 1991 and 1994 (ECLAC, 1989 and 1995). This has had a favourable impact on personal incomes, leaving more money free to spend on durable goods.

At the same time, taxes on cars, particularly customs duties, were cut in many cases. In some countries, furthermore, the exchange rate appreciated, making imported products cheaper. In Colombia, for example, the real exchange rate in 1994 was just 75% of its 1990 level (IDB, 1995).

This tendency has not always resulted in lower prices, because vehicle quality has also been improving. In the case of vehicles whose characteristics have remained relatively constant, however, retail prices have fallen in real terms. In 1996, for example, the selling price of a Volkswagen Beetle in the Chilean market was equivalent to US\$ 7,780. In 1982, it would have cost US\$ 8,902 at 1996 prices.

Prices for used cars have clearly fallen by even more in real terms, although reliable data are very hard to obtain. The rate at which cars depreciate is directly related to the ownership rate. In countries where there are few vehicles per person, second-hand cars are quite scarce and selling prices reflect the limited supply, while demand is sometimes high. The increase in vehicle ownership levels in Latin America over recent years has eased the relative scarcity of used cars, thereby tending to increase supply, reduce demand (since a larger proportion of inhabitants already own a car) and thus bring down prices, putting them within reach of lower-income families.

As a result, while real incomes in Latin America are rising, car prices are tending to decline.

2. The popularization of car ownership

In Latin American cities, changes in personal incomes and car prices, particularly prices for used cars, have meant that vehicle ownership is ceasing to be an

 $^{^2}$ Figures calculated by the authors on the basis of data from Voorhees (1973) and Winfrey (1969).

unattainable dream and is becoming a reality for many families. The increase in the car ownership rate is a phenomenon that can be seen virtually throughout Latin America, and it has enabled the middle class, in particular, to harvest one of the most important fruits of technological progress in the twentieth century.

In countries where economic reform was implemented quickly, car imports likewise grew at a rapid pace (table 1). The column for Peru in the table shows that between 1990 and 1991 car imports increased 14-fold in value. Peru liberalized imports not only of new cars, but of used ones as well (except for a brief period between February and November 1996). The average unit price fell as a result, indicating that the number of units imported rose by more than import costs.

In some car manufacturing countries the economic reforms resulted in both imports and domestic vehicle production rising. This happened in Brazil, where for decades car imports were subjected to heavy tariffs as part of a policy of encouraging domestic production. Between 1990 and 1994, imports grew by more than 10,000%, albeit from a tiny base. Domestic output also rose by 70%, however. Exports were restrained because producers preferred to place their output in the growing domestic market (table 2). For a time from mid-1994 onward, the appreciation of the country's currency also had an effect. One concrete result is that while the population of São Paulo grew by 3.4% between 1990 and 1996, the number of vehicles in the city grew by 36.5%.

On the basis of data for the 34 communes in Greater Santiago, the following equation for determining the number of cars per family was derived:

$$y = e * (0.2850 - 134.5746/X)$$

where y = cars per family and x = monthly income per family in 1990 pesos.

This equation has the expected form, although there could be technical objections to it.³ It can be used to estimate the elasticity or unit variation of the car

TABLE 1

Ecuador and Peru: Passenger
vehicle imports^a
(Thousands of dollars)

| Year | Ecuador ^b | Peru |
|------|----------------------|---------|
| 1989 | 10,062 | 6,482 |
| 1990 | 23,432 | 11,880 |
| 1991 | 23,554 | 170,668 |
| 1992 | 166,109 | 213,018 |
| 1993 | 245,895 | 165,647 |
| 1994 | 374,038 | 252,421 |

Source: ECLAC, on the basis of official information.

TABLE 2

Brazil: Apparent car consumption^a

| Year | Uı | Units | | |
|------|----------|-----------|--------------|--|
| | Imported | Produced | consumptiona | |
| 1990 | 1,310 | 602,545 | 483,084 | |
| 1991 | 11,146 | 615,097 | 499,090 | |
| 1992 | 30,714 | 667,229 | 454,817 | |
| 1993 | 70,438 | 929,582 | 750,413 | |
| 1994 | 138,679 | 1 026,827 | 890,691 | |
| 1995 | 320,261 | 1 147,897 | 1 278,437 | |

Source: ECLAC (1997).

ownership rate in relation to income. Table 3 shows that elasticity has an inverse relationship with income levels. While elasticity in low-income communes (*La Pintana*) may be very high, a 1% rise in incomes translates into a small increase in the absolute number of cars per family. A 1% rise in incomes in a middle-income commune, meanwhile, translates into a rise in the absolute number of cars per family that is very similar to that seen in a very high-income commune.

The most important conclusion that can be drawn from this analysis is that a rise in incomes substantially increases car ownership rates not just in higher-income neighbourhoods but in middle-income ones as well. Thus, the number of cars in Santiago grew at an annual rate of 8% during the 1990s.

3. Cars are fewer, but travel seems harder

The growing number of vehicles is undoubtedly increasing the tendency towards congestion.

 $^{^3}$ The equation was adjusted (r = 0.9586) on the basis of commune-level data compiled in a cross-sectional type transport survey conducted in 1991. The changes in the car ownership rate estimated by the equation are only a function of the change in family incomes; they do not reflect the influence of changes in car prices or quality, as these factors remain constant in a cross-sectional analysis. In fact, prices have tended to fall and vehicle quality to rise, so that the increases in ownership rates over the years are higher than the equation predicts.

^a The figures exclude buses.

b The figures relate specifically to private transport vehicles within the consumer goods category.

^a Production + imports - exports.

| TABLE 3 | |
|---------|---|
| | Santiago, Chile (three communes): Estimated increase in |
| | car ownership per family as average incomes rise |

Commune Monthly Cars Elasticity of cars per Increase in cars per family family in relation to family if family per income family family income incomes rise 1% Vitacura 598,700 1.71 0.23 0.0039 Santiago (centre) 126,700 0.311 1.06 0.0033 La Pintana 39,730 0.051 3.39 0.0018

Source: Authors' estimate based on statistics provided by Kain and Liu (1994), table A-7. The authors do not mention the source of their data, but they doubtless come from the 1991 origin-destination survey conducted in Greater Santiago by the Executive Secretariat of the Commission of Investment Planning for Transport Infrastructure (SECTRA).

Nonetheless, car ownership rates in Latin American cities are still generally much lower than those seen in developed countries. In 1980, the number of cars per person in North American cities such as Houston, Los Angeles, Phoenix, San Francisco, Detroit, Dallas, Denver, Toronto and Washington was between 0.55 and 0.85, while in European cities such as Brussels, Amsterdam, Copenhagen, Frankfurt, Hamburg, London, Stuttgart and Paris the rate was between 0.23 and 0.43. Some 10 or 15 years later, some Latin American cities (such as Chiclayo and Huancayo in Peru) still had no more than 0.02 cars per inhabitant. In Lima, the rate was no more than 0.05 per person, even though the surge in vehicle imports had then begun. In Greater Santiago there were 0.09 per person. Again, in a small number of Latin American cities the ownership rate was closing in on the lower limit for Western European cities. In Curitiba, for instance, there were about 0.29 cars per person in 1995.

Despite this, there is evidence that it is easier to drive around large cities in the developed world than comparable ones in Latin America. In Quito, whose 1990 population was roughly a million, the average journey time from home to the workplace was 56 minutes; in Munich, with its 1.3 million inhabitants, it was 25 minutes. In Bogotá (five million inhabitants) the journey time was 90 minutes, while in London (6.8 million) it was 30 minutes. There are many similar examples. It is clear that the cities of the developed world are better equipped to live with the car and avoid its worst consequences, something that Latin America has yet to master.

It also seems to be easier to drive around the Latin American cities that have the highest rates of car ownership than in many of those that have lower rates. Curitiba, for example, has more cars per person than Guatemala City, which is of similar size, but travelling by car or public transport is a much less unpleasant experience in the former than in the latter.

The explanation for these apparent contradictions has to be sought in the marked tendency to use cars intensively for every kind of purpose.

4. Subjective factors are also important

What underlies or accounts for the marked preference for private vehicle use?

One important aspect is "status". In Latin America, cars are still regarded not just as a means of locomotion but as an indicator of their owner's position in society. Someone who drives a BMW is deemed superior to someone who drives a Suzuki. Someone who arrives at the office by car instead of by bus is considered to have risen in the social scale. The prestige associated with car use has a major impact on traffic volumes.

In addition to these reasons, which relate to the social structure and cultural characteristics, the following are some of the other considerations that have an influence in Latin America:

- The poor quality of buses, when measured against the aspirations of car owners.
- The high rates of bus occupation at peak times.
- The safety worries caused by the aggressive driving methods of some bus drivers.⁴
- The possibility, real or presumed, of falling victim to crime on board public transport vehicles.

⁴ A telephone survey held in March 2001 in Santiago, Chile, revealed that 63% of public transport users believed buses to be unsafe in terms of the risk of road accidents, while 70% said they were driven recklessly (published by the electronic newspaper El Mostrador, 2001).

The preference for car use becomes a problem at peak times, when most travel for work and study takes place. Not even long delays can induce people to stop using their cars. Given the choice between arriving at their destination slowly on congested roads or somewhat faster in public transport, it is far from certain that many Latin American car users would opt for the second alternative.

The inhabitants of cities in the developed world are less inclined to use their cars to drive to the office in the morning rush hour. Clearly, a distinction is made between ownership of a car and its use in situations involving major difficulties. A New York or London banker living in the suburbs of the city would never dream of travelling to Wall Street or the City by car each day, since both cities have good-quality public

transport systems. Their counterparts in São Paulo or Santiago would not consider travelling to the centre other than by car.

The preference for car travel can bring other consequences that affect more than just the transport sector as such, with negative macroeconomic implications. Consider, for example, the increases in car fuel prices resulting from the rise in international oil prices in 1999 and 2000. Typical Latin American car owners probably did not much reduce their vehicle use, but cut back on consumption of other goods and services instead, thereby reducing short-term demand for these, many of which are produced locally. At the same time, higher prices and inelastic demand meant that the amount of currency that importing countries had to give over to fuel purchases increased.

IV

How serious is the problem, and who suffers from it?

Different indicators reveal a bad and worsening situation

Taken as a whole, urban transport is of great importance to a country's development. The operation of vehicles on the roads of cities with more than 100,000 inhabitants consumes some 3.5% of Latin America and the Caribbean's gross domestic product (GDP), without considering optional journeys, like those made at weekends. The social value of the time spent travelling equates to a further 3% or so of GDP. As these figures show, the resources applied to urban transportation are very substantial.

These percentages are very likely to rise, for a number of reasons. Firstly, the increase in vehicle ownership rates already mentioned, and the tendency for cars to be used intensively. Secondly, cities are growing, and journey lengths are increasing as a result (Thomson, 2001).

Inevitably, growing demands on a relatively unchanging supply of roads will result in a progressive reduction in journey speeds. The situation is worsening rapidly, as is revealed by the form of the statistically obtained equations relating traffic speed with traffic volume in a street.

At peak times, much of the road network in Latin American cities is operating very close to capacity, which means that small increases in traffic flows have a very severe effect on congestion. Although there are not many figures showing specifically how congestion has developed over the years, data for São Paulo reveal that in 1992, on average, some 28 kilometres of the main road network suffered from acute congestion in the mornings and 39 kilometres in the evenings; by 1996, the number of kilometres affected had risen to 80 and 122, respectively (Companhia de Engenheria de Tráfego, 1998).

The case of Santiago, Chile, is interesting because it is the capital of the Latin American country where the economic reform and liberalization process began. Simulations indicate that the average time taken to travel 10 kilometres by car during the rush hour rose from 22 to 32 minutes between 1991 and 1997 (ECLAC, 1997). Furthermore, the most acute congestion is no longer found just in the wealthiest communes, but in some middle-income ones as well. The highest-income neighbourhoods are in the north-east of the city. There is congestion in this area, and along the thoroughfares between it and the city centre. The most congested places, however, include thoroughfares in other parts

of the city where family incomes are much lower and which are not even transit areas for high-income vehicle

As regards the cost of the congestion caused, for conditions in Caracas in 1971, when the situation was less serious than it is now, it was calculated that each car occupant generated a congestion cost of US\$ 0.18 per kilometre (in 2000 prices) and each bus passenger a cost of US\$ 0.02 per kilometre.⁵

It seems reasonable to conclude that congestion costs are high and, conversely, that the adoption of low or moderate cost measures to reduce congestion would have substantial net benefits. Conservative calculations suggest that increasing car travelling speeds by 1 km/h and public transport speeds by 0.5 km/h on average would reduce journey times and operating costs by an amount equivalent to 0.1% of GDP (Thomson, 2000b).

In any event, merely measuring traffic speeds or quantifying congestion costs does not fully capture the extent of the problem. To limit the effects of congestion, some people change their behaviour, adopting habits that are not what they would ideally choose, such as leaving home very early to travel before peak congestion times or living close to their workplace.

In addition to all this, there are other serious consequences that have a severe effect on urban living conditions, including greater air pollution caused by high fuel consumption in vehicles travelling slowly in clogged traffic, higher noise levels in the vicinity of major thoroughfares, the irritability caused by the loss of time and the additional stress caused by driving on crowded roads. These other results of congestion may be difficult to quantify, but they should not therefore be overlooked, since they aggravate what is already a serious situation.

2. Who pays the costs of congestion?

Firstly, it has to be said that the prejudicial effects of congestion fall upon all city dwellers, in the form of lower quality of life in different respects (greater noise and air pollution, negative impact on mental health, etc.). Thus, in one way or another, nobody is immune to its consequences.

If the analysis is focused on those who have to travel, the effects of congestion can be analysed by breaking down its costs into two basic components: people's time, and vehicle operating costs, particularly It is unquestionable that car drivers themselves have to bear the consequences of congestion. In other words, they experience the effects of what they themselves have caused, in the form of longer travelling times and higher operating costs.

Car drivers are not the only ones to suffer the effects of congestion, however. Congestion worsens the already poor condition of public transport, whose users are thus seriously affected by it as well, even though they do not cause it. This is a source of social inequality, as public transport is mainly employed by people with lower incomes, who are captive users.

a) Congestion delays bus passengers

Congestion obviously makes journey times longer for bus passengers. This is unquestionably detrimental to them, but perhaps does not attract too much attention because the relatively low incomes of these passengers mean that a low monetary value is set on their time.

In Latin America, particularly, urban bus users have much lower incomes than urban car users. In Santiago, Chile, analysis of the data generated by the 1991 origin-destination survey yields a figure of 99,321 Chilean pesos (CLP) for the family incomes of bus passengers and a figure of CLP 308,078 for car users. In other words, the incomes of car occupants are typically more than treble those of bus passengers. Data for São Paulo in 1977 indicate that, on the whole, the situation there was no different from that in Santiago (table 4), and if measurements existed for other cities in the region the conclusion would probably be similar.

TABLE 4 São Paulo: Relative incomes of users of different modes of transport, 1977 (Car = 100)

| Mode of transport | Relative income of users | |
|-------------------------|--------------------------|--|
| D 1 | 55 | |
| Bus only | 55 | |
| Car only | 100 | |
| Taxi only | 91 | |
| Metro only | 89 | |
| Suburban train only | 39 | |
| Bus + bus combination | 50 | |
| Bus + metro combination | 62.5 | |
| Bus + train combination | 50 | |

Source: Empresa Metropolitana de Transporte Urbano de São Paulo.

fuel. Both costs are increased when journeys are undertaken in congested conditions.

⁵ Estimates based on Thomson (1982).

b) Congestion increases bus fares

Another factor, which many passengers might consider more important than longer journey times, are bus fares. Congestion delays not only bus passengers, but the buses themselves. As a result, more units and more drivers are required to provide the same transport capacity, the result being higher fares

This phenomenon was analysed by ECLAC in 1982, when it was estimated that if the speed at which public transport travelled around Santiago increased from 15 to 17.5 km/h at peak times, fares could be cut by up to 5% (Thomson, 1982). A more recent study on the largest cities in Brazil estimated that congestion increased bus operating costs by up to 16% (table 5). Note that the percentages are very low in the cases of Brasilia, which is exceptionally well endowed with road space, and of Curitiba, where buses operate on dedicated lanes.

TABLE 5

Brazilian cities: Increases in public transport operating costs as a result of vehicle congestion (Percentages)

| City | Increase in bus operating costs due to congestion |
|----------------|---|
| Belo Horizonte | 6.2 |
| Brasilia | 0.9 |
| Campinas | 6.4 |
| Curitiba | 1.6 |
| João Pessoa | 3.7 |
| Juiz de Fora | 2.1 |
| Recife | 3.5 |
| Rio de Janeiro | 9.6 |
| São Paulo | 15.8 |

Source: ANTP (1999).

Under year 2000 conditions, after almost 20 years of real increases in the prices of buses and drivers' wages, a reduction of 10% would surely be feasible.



Dealing with the situation

Traffic congestion, especially in large cities, is becoming more and more common throughout the world. The huge and growing costs in time and vehicle operating expenses that it entails mean there is a need to design policies and measures to help bring it under control. The problem is complex, and the most appropriate solutions are difficult to design.

1. Some congestion is desirable

In urban areas, particularly at times of greatest demand, congestion is inevitable and, within limits, desirable, since the costs it entails may be lower than the costs that would have to be incurred to eliminate it. Attempting to banish congestion entails the following costs, among others:

- The costs of diverting users on to other routes or to other modes or times of travel.
- The costs of suppressing certain journeys.
- The costs of investment to increase road capacity, which may be greater than those caused by moderate levels of congestion.

Underuse of road space already available also represents a loss of benefits for society.

The idea, then, should not be to get rid of congestion entirely, since this would be impossible or very expensive, and is not even desirable. It does have to be kept under control, though, since rising congestion has a negative impact on quality of life in large cities.

2. A fresh approach by the authorities

In almost all the region's cities, travelling conditions have worsened by much more than they might or should have done, something that is partly due to mismanagement by the authorities concerned. It is plain that the growth in private vehicle numbers has far outstripped the capacity of institutions to deal with the situation.

Hitherto, the reaction of the authorities has been uncoordinated because, throughout the Latin America region, responsibility for planning and administering urban transport is divided up among a whole array of bodies: different national ministries, regional governments, municipalities, suburban or underground railway companies, traffic police, etc. Each of these does what it thinks best without much considering the repercussions for the interests of the other institutions.

A municipality, for example, fearing that economic activity may be diverted away to another part of the city, might authorize the construction of car parking facilities or allow on-street parking, without concerning itself with the impact the congestion generated will have on road users travelling through the area.

Another situation reflecting the consequences of piecemeal decision-making that fails to take account of the wider repercussions may arise in the vicinity of a mass transport facility, such as a metro. Because accessibility has increased, land use becomes denser, and office buildings are put up. Municipal rules generally require these buildings to have a minimum number of parking places of their own; as a result, staff are encouraged to come in by car. This set of measures tends to increase congestion.

Furthermore, in an area as sensitive as urban transport, strong pressure is applied by organized groups, such as road hauliers, and by politicians pressing home their points of view and, on occasion, defending particular interests. All this is a source of distortion and makes the situation even more involved.

The speed with which traffic congestion is increasing in the region's cities makes it imperative for the authorities to adopt a new approach so that urban transport systems can be adapted to this situation, particularly as regards the use of cars in congested areas or at peak times. Institutions need to improve their ability to respond –and more importantly still, to anticipate– in an effective way. They also need to develop the capability to cope with the pressures that are applied from so many sides.

What is required then are, firstly, increased professional and specialist traffic management capabilities, both in the authorities responsible and in universities and local consultancies, and secondly, traffic management that is integrated and not divided up institution by institution.

There is a place for private transport, but only within reason

One thing that makes it difficult to combat congestion in Latin America is the marked preference of city dwellers for the car. In these circumstances, even if the authorities responsible for urban transport in Latin America had clear ideas about how traffic should be controlled in cities (which unfortunately is not always the case), it would be hard for them to put these into effect because parliamentarians or city councillors, fearful of losing votes among the ever-growing ranks of private car owners, would not give their approval.

The preference for car travel has a number of consequences, including the following:

- The demand among car users for new high-quality public transport systems could be quite low, so that most users of a new metro line would be drawn from among bus passengers rather than private vehicle users;
- For car users to become interested in public transport they would have to be offered a superior option, not only in terms of objective quality (fares, travel time and frequency) but also in terms of subjective attributes (air conditioning, reclining seats, etc.).
- Even if fuel, road use or parking were highly taxed, few people would switch from cars to public transport. As a result, i) these measures would be more a way of raising revenue than of changing traveller behaviour and ii) raising these taxes would yield a high fiscal return, but would produce relatively few social benefits.

Using a car to go to a shopping centre, to visit relatives or friends living some distance away or to get out of the city is one of the fruits of economic development; many of the costs are usually internalized by the owner of the vehicle, insofar as these journeys take place at times of low congestion. Using a car to go to a city centre office every day, however, generates external costs in the form of congestion and pollution and does society considerable harm.

Striking a better balance between car ownership and use is one of the greatest challenges now facing the region's transport sector. It is likely that there will be a change in attitude among car owners in future, and in some more culturally developed cities –such as Buenos Aires, where the quality of public transport is also higher than the average for Latin American cities generally—it can be seen that there is already a greater willingness to use public transport than in some other Latin American cities.

4. A comprehensive approach is needed

Congestion is too serious and overwhelming a problem for there to be any prospect of it being mitigated by unilateral, inconsistent or unrealistic measures. On the contrary, if it is to be kept under control and if urban living standards are to be at all sustainable, there is an urgent need for an interdisciplinary effort that includes measures to improve driving habits, the provision of better infrastructure (supply management) and traffic management measures (demand management).

Urban roads in Latin America do not have the capacity to cope with indiscriminate private vehicle use, and they never will, even if all financially, environmentally and politically feasible measures are taken to expand them. Merely providing more road infrastructure does not solve the problem; in fact, it can make it worse, as the experience of Caracas and other large cities that have applied this strategy shows.

Nonetheless, improving roads and perhaps enlarging them can potentially be useful, provided these measures are matched by others to prevent them rapidly clogging up, or the congestion being transferred a few blocks along.

Better results can be expected from simultaneous, progressive action on a wide range of transport

fronts: good street marking and maintenance, coordination of traffic lights, better driving habits, rationalization of public transport and car parking, awareness of the larger traffic volumes generated by new buildings and shopping centres, and many others. It must never be forgotten that any particular measure can have repercussions for other aspects of vehicle traffic, and negative effects can be forestalled if these repercussions are anticipated.

In other words, a set of feasible measures needs to be implemented to increase capacity by improving management and enhancing the productivity of existing infrastructure.

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Hub ports in Mexico:

limitations and opportunities

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The subject of hub ports has become an increasingly important one in Latin America owing to the rapid growth of international goods flows that has resulted from trade liberalization and economic globalization. The aim of this paper is to reappraise hub ports in Mexico from a viewpoint that situates the unit of analysis in the global sphere, as the technological, organizational and geographical changes being undergone by ports and liner shipping worldwide largely determine the limitations and opportunities for port development in the country. In this initial approach to the subject, five criteria of analysis are established for ascertaining the opportunities and potential of Mexican ports operating liner sea container services within the new international maritime and port context. The paper ends by setting forth some general prospects and conclusions for consideration by actors, both public and private, concerned with port development.

I

Introduction

Hub ports have become the new development paradigm for Latin American sea transport and trade. It is a weak paradigm, undoubtedly, with little to sustain it, as it is based primarily on adaptation of the working methods, organization and technology of the central countries, but lacks the kind of conceptual basis that can draw on disciplines such as geography and transport economics to attain an understanding of the conditions, limitations and development opportunities of port complexes of this type in peripheral countries.¹

In general terms, hub ports are characterized by the ability to attract cargo whose places of origin or destination (be they in the same country as the port or elsewhere) lie well outside their traditional hinterland or zone of influence. Cargo is concentrated in such ports in two main ways: by sea, when cargo bound for other ports is trans-shipped, and by land, as the port's hinterland grows to take in vast territories, perhaps extending beyond the country's borders.

There is virtually no country in Latin America that does not have some plan for a hub port on its shores. There is recurrent talk of developing megaports associated with bi-oceanic transport corridors. Hoffmann (2000) shows how every one of the countries on the South American Pacific seaboard has raised the possibility of one or more of its ports being raised to hub status. Mejillones in Chile, Callao in Peru, Manta and/or Guayaquil in Ecuador and Buenaventura in Colombia are among those most frequently mentioned. In the same paper, Hoffmann uses a broad conceptual approach to sum up recent port and international shipping tendencies, and warns of the difficulties and drawbacks of trying to create hubs in this part of the continent.

In Central America too there has been a welter of proposals for port and multimodal development. The

most striking is the Nicaraguan proposal for an interoceanic canal; this would be a land bridge or dry canal that would entail the construction of railway lines and hub ports on the Pacific and Atlantic coasts. In Panama, progress has been made with a scheme to turn the port of Balboa into a regional hub. This port will undoubtedly benefit from the modernization of the railway linking it to the Manzanillo (Panama) International Terminal, situated on the Atlantic coast.

In the south of Mexico, meanwhile, consideration is being given to the possibility of developing the Isthmus of Tehuantepec corridor by converting the ports of Salina Cruz (Pacific) and Coatzacoalcos (Gulf of Mexico) and modernizing the highway and railway link between these two ports, which are situated on the narrowest and flattest part of the country. The aim of this project is to concentrate and redistribute large volumes of international cargo. Researchers and analysts also highlight the potential of the ports of Altamira and Veracruz on the Gulf of Mexico, and of Manzanillo and Lázaro Cárdenas on the Pacific, to become major cargo and redistribution hubs, although the public sector has taken a cautious attitude to the development of hub ports.

The idea that each country can have a hub port is of a piece with approaches in the social sciences that insist on circumscribing the unit of analysis to the boundaries of the nation State (Yocelevzky, 1999), and thus neutralize or dilute decision-making whose focus is on global conditions or, to put it another way, the "world system" (Braudel, 1985 and Wallerstein, 1996), creating great expectations that have only weak conceptual or empirical underpinnings.

This paper aims, then, to look at the issue of hub ports in Mexico from a viewpoint that places the unit of analysis on the global level, where the technology and organization of liner shipping, the new role of ports as logistical centres linking together increasingly globalized production chains, and the development of intermodalism are all coming to exercise a decisive influence on the viability of hub ports.

The main purpose of this initial approach to the subject is to establish elements of analysis or indicators to ascertain the situation and opportunities of Mexican ports operating liner sea container services within what

¹ The concepts of centre, semi-periphery and periphery are current in the field of economic geography and in the regional studies debate (see Benko and Lipietz, 1994). It is also relevant to note the increasingly multidisciplinary nature of the study of ports and transportation. Previous approaches, which centred almost exclusively upon economics or engineering, have been enriched by contributions from social science disciplines and subdisciplines such as transport geography and territorial and regional planning.

we have termed the global network of ports. In other words, the idea is to determine how high each of the liner ports can rise within this hierarchical network.

To this end, section II summarizes recent port and international maritime transport tendencies. Section III proposes five elements of analysis for determining the place and potential of the country's ports in the global system. The first is the volume and trend of containerized cargo flows; the second is the nature of the geographical space from which each port obtains

cargo; the third is the level of modal integration in each port; the fourth is the location of each port in relation to the main international maritime trade corridors, and the fifth is the types of services with mainline and feeder routes, and changes in the number of operators integrated into the port. Lastly, section IV looks at future prospects and offers preliminary conclusions for port administrators, researchers and transport authorities, and for economic agents concerned with port development.

П

Recent port and international shipping tendencies

Since the second half of the 1990s, a great many research papers and articles have been written about the drastic restructuring of the world's ports and liner container shipping services.²

Ports and international sea transport play a crucial role in sustaining economic globalization and trade liberalization. In fact, many of the new techniques for integrating merchandise flows associated with fragmented production chains scattered around the planet were originally developed "out at sea" and introduced into the international system by the world's large shipping firms. This is not surprising if we consider that most international trade is conducted by sea.

Technological trends: from the container to giant ships and ports

The main technological and organizational changes underlying the development of intermodalism and "door-to-door" transport chains without cargo break-up originated in the shipping industry. At the same time, new actors appeared to create and coordinate the nascent intermodal transport networks, in particular the multimodal transport operator (MTO), whose role in

designing, selecting and overseeing the transport chain is becoming ever more important.

From the technological point of view, the most significant milestone since the advent of the container has been the rapid increase in the size and carrying capacity of ships. The speed of large ships has also been progressively increasing.³ Since economies of scale and the speed at which goods and transport equipment move are very important in international shipping, it was to be expected that the dynamism deriving from container use would stimulate technological changes in ship characteristics. The tendency towards giant ships has not stopped. In the last decade, the largest container ships doubled in size from 3,500 TEU⁴ to 7,000 TEU capacity.

² Most of them have come out of the United States and Europe (Damas, 1995 and 1996; Kadar, 1996; Fossey, 1997 and De Monie, 1998, among others), although some studies have been produced recently in Latin America (Burkhalter, 1999 and Hoffmann, 1998 and 2000).

³ Although experiments have been going on since the 1970s to develop very fast ships (over 30 knots), these have not been commercially viable owing to their limited carrying capacity. New versions of these fast ships have still not solved the problem, so they will only be used on very short routes. This is the case with the Tecno Super Liner, developed in Japan and tested during 2000, which can reach speeds of 45 knots but has a cargo capacity of just 1,400 metric tons (roughly 140 TEU). Having said this, container ships, which are commercially viable on intercontinental routes, have become considerably faster on average in the last two decades. According to data from the German shipping company Hapag-Lloyd, between 1984 and 1998 the speed of high-capacity container ships rose from 18 to 25 knots.

⁴ TEU (twenty-foot equivalent unit) is the unit equivalent to a 20-foot-long container. It is the universally accepted unit for expressing both the cargo capacity of ships and other forms of transport and the container cargo volumes handled in intermodal ports and terminals.

Ships of this type are obviously used on the main international trade corridors, which are in the northern hemisphere, and for them to operate properly the international port system has had to change profoundly. The new dynamic of multimodal and sea transportation has meant that only the largest ports have been able to draw in large enough cargo volumes to make these ships profitable to operate. Megaterminals have been built at these ports, endowed with specialized high-performance equipment and the installations needed for large-scale movements. As far as is known, no container ship of the post-Panamax type has yet been used on north-south routes.

It is difficult to predict at present how large ships might become. It is plain, though, that the tendency towards giant ships will not halt any time soon, as is clearly demonstrated by the new shipbuilding orders being placed by the main shipping companies⁵ and by the technological changes being made to intermodal ports and terminals.

The technological feasibility of building larger, faster ships is allowing shipping operators to restructure routes and services to capture larger market segments. Hoffmann (1998) has described another tendency that has recently become firmly established in liner shipping: the high degree of concentration that is emerging in the sector.

2. Alliances and mergers: growing concentration in international shipping

The process of concentration is characteristic of the globalized capitalist economy, so it is no novelty in itself. Given this, the tendency towards concentration in liner shipping seems inevitable.

What is perhaps striking in this phase is the shape and scale of concentration. The main shipping companies are not only increasing their size and market participation capacity by bringing in larger ships that can be used to move more cargo at lower cost, but are engaging in strategic alliances, takeovers or mergers with competitors. The strategic alliances and mergers being carried out by the so-called "megacarriers" (large multimodal and shipping consortia) undoubtedly amount to a firm new tendency that is giving rise to

significant changes in the organization of international shipping and the position of ports.

The proliferation of alliances seems to be a response by carriers to the demands of globalized production and increasing deregulation of the maritime sector. The fact is that most shipping companies operating liner services now form part of one or more alliances. In the 1990s, many regional-type alliances arose to cover specific routes linking ports in one or two continents, but the most spectacular development has undoubtedly been the creation of the four great global alliances formed by the world's largest shipping companies and multimodal transport operators.⁶

The key feature of global alliances is their geographical reach. They are multi-continental and cover all the main axes of international maritime transport. In their founding agreements, they seek to go beyond the initial premise which is at the basis of any strategic shipping alliance, the sharing of space on vessels. In a gradual process of integration, the global alliances are seeking to share feeder services and make joint use of terminals, both in ports and inland. They are also seeking to conclude agreements under which the land sections of distribution networks will be operated jointly, i.e., they are trying to control the whole network by consolidating intermodalism.

Among international shipping users, there is concern about the consequences of the ever-increasing tendency towards concentration of services, as now reflected in the proliferation of alliances and mergers. The creation of powerful actors with monopolistic or oligopolistic power is unquestionably a concern for exporters and importers. Analysis of trends in sea container transportation rates for the main international shipping lanes has shown, however, that over the last seven years these rates have shown a tendency towards negative growth on average, i.e., a tendency to decline; consequently, it would seem that competition is still strong and no actors have appeared with enough power to have a significant effect on the market (Martner and Moreno, 2001).

⁵ It is sufficient to mention as an example the order placed with Samsung Heavy Industries in January 2001 by China Shipping Container Line (CSCL) for two ships with a capacity of 10,000 TEU apiece, which are due to go into operation in 2004. In recent years, CSCL has become the second largest shipping company in the People's Republic of China; only COSCO is larger.

⁶ The four global alliances are: i) the **Grand Alliance**, formed by P&O Nedlloyd, Hapag-Lloyd, Nippon Yusen Kaisha (NYK), Orient Overseas Container Line (OOCL) and Malaysia International Shipping Corporation (MISC); ii) the **Unique Global Alliance**, formed by Maersk Line and Sea Land, recently merged into Maersk-Sealand; iii) the **New World Alliance**, including American President Line (APL-NOL), Mitsui-OSK Lines (MOL) and Hyundai Merchant Marine, and iv) the **United Alliance**, involving Hanjin, DSR-Senator and Cho Yang.

It is still not clear how far shipping concentration will go, nor how many companies will survive the competition. Nonetheless, the tendencies alluded to are having a substantial effect on the structure and characteristics of ports around the world.

3. Towards a global port network

The appearance of large hub ports was made possible by the increase in ship size and the creation of large consortia and/or alliances among shipping operators. To concentrate cargo in a main port node, however, it is necessary to redefine the functions of a number of intermediate ports while at the same time developing an interconnected, hierarchical structure of smaller ports to feed cargo to the hubs. Only then can megaships and megaports be viable. When this is understood, the idea of a global network of ports becomes conceptually clear. The implication is that many ports will be excluded from mainline services and, at best, will be able to participate in the network only by servicing feeder routes along which cargo is carried on smaller ships to some main port node (hub port), there to be transferred to large ships for onward carriage to the final destination.

According to this conceptual approach, "global hubs" are at the top of this global port network by virtue of the size of their terminals and flows, the type of ships operated and their geographical coverage, involving multi-continental links. These global hubs are generally situated in the northern hemisphere, on east-west routes, which is where the main shipping lanes and networks are.

Global hubs, defined as logistical centres for the concentration, processing, consolidation and distribution of goods and information, are fed by flows from both land networks and maritime feeder networks. The development of intermodalism has undoubtedly been essential for the concentration of cargo in ports, inasmuch as it extends inland connections and expands the port hinterland to more distant regions.

In emerging and historically non-central places, within the globalized capitalist economy whose trade flows have recently grown strongly, the global port network has required an intermediate link between the great global hub and feeder ports. Consequently, a new tendency in the formation of this global network has been the creation of "regional hubs" whose size, cargo capacity and geographical coverage are less than those of the global hubs (table 1) but more than those of feeder

TABLE 1

World: Main global and regional hub ports, by geographical region, 1999

| Global hubs | | | | Regional hubs | | |
|-------------|------------------------|-----------------|---------------|---------------|-----------------|--|
| A | Asia | Millions of TEU | As | ia | Millions of TEU | |
| Hong Kong | (China) | 16.1 | Port Klang | (Malaysia) | 2.5 | |
| Singapore | (Singapore) | 15.9 | Tanjung Priok | (Indonesia) | 2.3 | |
| Kaohsiung | (Taiwan) | 7.0 | Manila | (Philippines) | 2.1 | |
| Busan | (Rep. of Korea) | 6.4 | Laem Chabang | (Thailand) | 1.8 | |
| Shanghai | (China) | 4.2 | Colombo | (Sri Lanka) | 1.7 | |
| Tokyo | (Japan) | 2.7 | Yantian | (China) | 1.6 | |
| Eu | irope | Millions of TEU | Europ | e | Millions of TEU | |
| Rotterdam | (Netherlands) | 6.4 | Gioia Tauro | (Italy) | 2.3 | |
| Hamburg | (Germany) | 3.8 | Algeciras | (Spain) | 2.0 | |
| Antwerp | (Belgium) | 3.6 | Marsaxlokk | (Malta) | 1.0 | |
| Felixstowe | (United Kingdom) | 2.7 | Piraeus | (Greece) | 1.0 | |
| | - · · | | La Spezia | (Italy) | 0.8 | |
| North | America | Millions of TEU | The Ca | ribbean | Millions of TEU | |
| Long Beach | (United States) | 4.4 | Manzanillo | (Panama) | 1.0 | |
| Los Angeles | (United States) | 3.8 | Kingston | (Jamaica) | 0.7 | |
| New York | (United States) | 2.9 | Freeport | (Bahamas) | 0.5 | |
| Middl | le East | Millions of TEU | Middl | e East | Millions of TEU | |
| Dubai | (United Arab Emirates) | 2.8 | Damietta | (Egypt) | 1.2 | |

Source: Prepared by the author on the basis of data from Containerisation International.

ports. Most regional hubs are on the intersection of eastwest and north-south routes.

In Latin America, one example of a regional hub is the international terminal of Manzanillo, in Panama. This port, which was inaugurated in 1995, receives medium-sized container vessels (2,000 to 4,000 TEU) from the trans-Pacific and trans-Atlantic corridors and links up container cargo flows using smaller ships (500 to 1,500 TEU) from the Caribbean Basin and South America. Thus, the main activity of Manzanillo-Panama is trans-shipment and maritime interconnection with the regions of the American continent referred to.

All of a piece with the formation of the global port network is the burgeoning of trans-shipment. The segmentation of routes, and thence the proliferation of feeder services among the different hierarchical levels of the port network, is an indispensable precondition if cargo is to be concentrated at hubs and larger and larger ships are to be filled. Thus, trans-shipment becomes the "glue", the unifying element, in maritime transport chains. In other words, the aim is to use trans-shipment to integrate into

the global port network a number of smaller hubs (regional hubs) and feeder ports that, by allowing low-volume mainline routes to be replaced by feeder routes, can supply cargo and feed the great global hubs.

There are now ports that survive almost entirely on trans-shipment. Many regional hubs, situated at key geographical points where routes intersect, are of this nature. A very thorough analysis is needed, however, to ascertain the potential of each place, and how best it can be fitted in to global goods transport and physical distribution networks. The economic, geographical, technological and logistical characteristics of the region or country where it is intended that the hub should be established also need to be considered in the light of key tendencies in the organization of international maritime and intermodal transportation.

The main concern of this paper is to establish the viability of Mexican ports in the light of the new trends in international maritime transport, and to ascertain their potential to become hubs, whether as trans-shipment ports or as intermodal links with inland regions.

Ш

Mexican ports in the global context

In Mexico, the port restructuring and privatization of the 1990s produced substantial improvements in infrastructure, equipment and goods loading and unloading operations. New investment accompanied the appearance of private port operators and the rearrangement of liner services. Restructuring, in fact, has been creating a new port geography, and in some cases giving rise to forms of regional and global integration that were unknown in previous periods.

The aim of this section is to establish five important areas of analysis and suggest possible indicators that can assist in determining the potential and limitations of Mexican ports in a context dominated by the creation of a global network of hub ports. The model proposed includes not only typical port development indicators, such as the rate of growth in cargo flows and shipping services, but also some new ones related to the geography of transport and the sea-land linkages of ports. For this reason, stress is laid here on the role of a port's inland connection as a source of cargo, and as a result the issue of modal integration takes on particular importance. Analyses of the position of ports in relation

to the main international maritime trade corridors, and of the combination of mainline and feeder services, are also included. Both these aspects are of the greatest importance in determining the global potential of the country's ports.

Evolution and dynamism of container cargo in Mexican ports

During the 1980s, container handling on the Mexican Pacific coast was still more or less evenly shared out among at least four ports. In 1988, Pacific containers were divided among Guaymas (21.6%), Manzanillo (27%), Lázaro Cárdenas (28%) and Salina Cruz (18.5%). These ports served their traditional captive hinterlands: Guaymas covered the cities of the northwest, Manzanillo and Lázaro Cárdenas served the Bajío area and the centre of the country, and Salina Cruz served the south and south-east.

A similar situation was seen in the Gulf of Mexico, albeit with differences of scale. Here too, most ports had few links and only limited territorial integration

| TABLE 2 | |
|---------|---|
| | Mexican ports: Container cargo, by coast, 1988-2000 |
| | (Percentage shares and average annual growth rates) |

| Pacific | 1988 % | 2000 % | AAGR ^a % | Gulf of Mexico | 1988 % | 2000 % | AAGR % |
|--|-----------|-----------|--------------------------------------|---------------------------------------|-----------|-----------|-----------|
| Ensenada | 0 | 5.7 | _ | Altamira | 14.0 | 21.8 | 20.7 |
| Guaymas | 21.6 | 0 | _ | Tampico | 19.6 | 5.9 | 5.3 |
| Mazatlán | 2.5 | 3.6 | 19.4 | Tuxpan | 17.3 | 0 | _ |
| Manzanillo | 27.0 | 89.3 | 27.8 | Veracruz | 44.4 | 64.4 | 20.0 |
| L. Cárdenas | 28.0 | 0.2 | -24.7 | Coatzacoalcos | 4.1 | 0 | _ |
| Acapulco | 2.2 | 0 | _ | Puerto Progreso | 0.4 | 7.1 | 48.8 |
| Salina Cruz | 18.5 | 1.2 | -8.2 | Others | 0.2 | 0.8 | _ |
| Others | 0.2 | 0 | _ | | | | |
| Total | 100.0 | 100.0 | 15.7 | Total | 100.0 | 100.0 | 16.4 |
| Movement in 1988 = 81,328 TEU ^b Movement in 1999 = 469,808 TEU | | | Movement in 1988 Movement in 1999 | · · · · · · · · · · · · · · · · · · · | | | |

Source: Prepared by the author on the basis of data from the Coordinación General de Puertos y Marina Mercante.

with inland areas. The rough balance of flows seen on the Pacific seaboard was not so much in evidence here, however, owing to the existence of established ports and cities that had traditionally been important in the country, such as Veracruz and Tampico, whose relationship with Europe and the American Atlantic goes back to colonial times.

Despite the traditional dominance of Veracruz, in the late 1980s container flows were still diversified, being spread around at least five ports on the Gulf of Mexico (table 2). In the north-east, Altamira and Tampico had shares of 14% and 19.6%, respectively. Tuxpan and Veracruz handled traffic with the central and southern areas of the country, and their container shares were 17.3% and 44.4%, respectively. Coatzacoalcos, meanwhile, moved the containers of companies in the south-east and the Yucatan peninsula.

This delicate near-balance of cargo flows, however, could not long withstand the conditions and demands of a highly competitive maritime and port environment, where technological and organizational change, as manifested chiefly in the advent of huge vessels, great terminals and hub ports, and in the birth of global alliances and megacarriers in the business of maritime and multimodal transportation, resulted in a strong tendency towards concentration and specialization.

During the 1990s, these global tendencies, along with increasing trade liberalization and the port restructuring carried out in Mexico, gave rise to a substantial change both in the evolution of container cargo flows and in the country's port geography. The first aspect that needs to be highlighted is the rapid growth in general container cargo along both seaboards. Between 1988 and 2000, container movements along the Mexican Gulf and Caribbean seaboard grew at an average annual rate of 16.4%. On the Pacific seaboard, the average annual growth rate was 15.7% (table 2).

The second aspect is the reorganization of flows and the new port hierarchy. In 2000, container flows on the Mexican Gulf and Caribbean seaboard were largely accounted for by just two ports, Veracruz and Altamira (map 1). The former moved 64.4% of all containers (measured in TEU) and the latter 21.8%. Between them, they accounted for 86.2% of this type of cargo on the Gulf seaboard. With the exception of Puerto Progreso in Yucatan, the remaining ports on this coast have stagnated and seen their importance as nodes in regional development and production chains diminish. In fact, Tuxpan and Coatzacoalcos have dropped out of container movements, and their flows have been absorbed by Veracruz. Tampico, meanwhile, has lost share to Altamira.

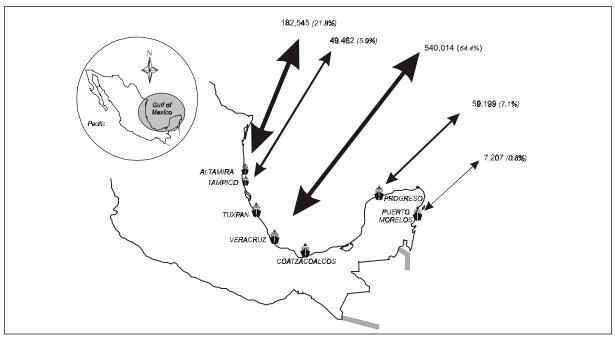
On the Mexican Pacific coast, shifts in flows have led to even more pronounced concentration in container movements. In 2000, a single port attracted 89.3% of all the seaboard's containers (map 2). This was the port of Manzanillo, situated on the coast of the state of Colima. The other ports that had a significant share of

^a AAGR = Average annual growth rate (%).

^b TEU: Twenty-foot equivalent unit.

(TEU)

 $$^{\rm MAP\ 1}$$ Gulf of Mexico ports: Movement of container cargo, 2000

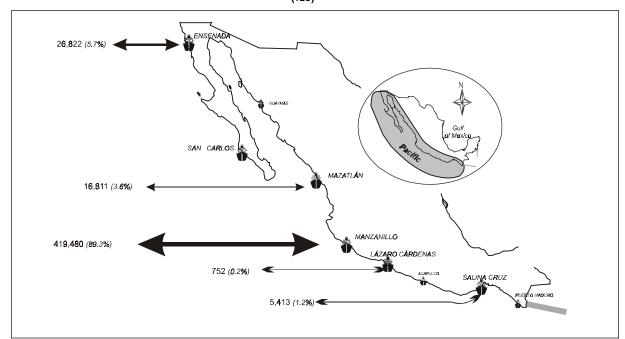


Source: Prepared by the author on the basis of information from the Dirección General de Puertos y Marina Mercante.

MAP 2

Mexican Pacific ports: Movement of container cargo, 2000

(TEU)



Source: Prepared by the author on the basis of information from the Dirección General de Puertos y Marina Mercante.

this cargo category during the 1980s have suffered a slump: liner vessels have stopped calling there and have concentrated their operations in Manzanillo.

Thus, Guaymas stopped moving containers in the 1990s, Lázaro Cárdenas and Salina Cruz saw a sharp drop, and only Mazatlán managed to increase its share, although this is still only a small proportion of the total. A newcomer to container movements is the port of Ensenada, in Baja California; its share is modest, although it may be able to grow at a good rate if it can handle inputs on a large scale for *maquila* companies in Tijuana, Mexicali and Ensenada itself.

The traditional indicator for measuring the evolution of cargo has been the average annual growth rate. This can be analysed and compared over set periods of time chosen to encompass important socioeconomic events.⁷ Clearly, it will not by itself shed enough light on the position of ports in the global network. It will, however, provide clues of some importance for subsequent analysis. To begin with, on the Pacific seaboard there are two small ports (Ensenada and Mazatlán) situated on the bottom rungs of the global network (as feeders) and one port that is growing to intermediate size and has the potential to occupy a higher position in the international port hierarchy. This is Manzanillo, whose average annual growth rate in container movements was an impressive 27.8% in the period 1988-2000, the highest in the country.

Similarly, on the Gulf-Caribbean seaboard there are two dynamic hub ports that are tending towards an intermediate size in the international system. These are Veracruz and Altamira, which grew by an annual average of over 20% between 1988 and 2000. Also striking is the dynamism shown by a small port, Puerto Progreso, in the flow of container cargo based on short-range regional and international links. Since these data do not explain how the country's ports become cargo hubs, however, or how they might take on greater international importance, additional elements of geoeconomic analysis need to be brought in.

2. Where ports obtain their cargo

Traditionally, ports obtained all their cargo from the regions adjoining them. In other words, goods flows were mainly attracted or generated by areas and urban centres close to the port. The inefficiency of port operations, regulatory barriers and the difficulty of land

access meant that a port's hinterland was strictly limited by geographical proximity. Thus, experts on port issues (UNCTAD, 1992) used to say that Latin American ports had a captive hinterland, since these constraints on access and operations represented very costly barriers for any port seeking to compete for a market situated within another port's well-defined hinterland.

But as intermodalism developed and legal, administrative and operational obstacles were overcome, the geographical area within which ports could attract or generate cargo expanded considerably. Similarly, captive zones of territorial influence broke up and gave way to a shared hinterland that could be fought over and shared by a number of ports simultaneously, as and when the integration of the different forms of transport made this possible. For example, ports on the Pacific and Atlantic coasts of the United States have greatly expanded their hinterland owing to the development of intermodal transport systems. Now they are even competing for the traditional hinterlands of Mexican and Canadian ports. Thus, one of the main ways for a port to concentrate cargo and become a regional or global hub is now to expand its hinterland through multimodal integration.

Another way of concentrating cargo from distant places is to develop maritime trans-shipment. As was noted in previous sections, a growing number of ports around the world have become trans-shipment hubs, and some even survive almost exclusively on this activity, which is so characteristic of the recently formed global port network system. Important examples can be found on virtually every continent: Singapore in Asia, Algeciras and Gioia Tauro in Europe, Manzanillo-Panama in America and Damietta in North Africa, among others.

To ascertain the potential of Mexican ports and the likelihood of their being able to participate and improve their position in the global port network, it is necessary, in each individual case, to analyse the geographical area from which they obtain their cargo. Those whose geographical area of influence continues to be their traditional hinterland are unlikely to rise in the global network. By contrast, those that extend their zone of geographical influence and/or introduce trans-shipment activities will be able to concentrate cargo and position themselves more firmly in the network.

 $^{^{7}}$ In this case, the major events marking out time periods are chiefly trade liberalization and port restructuring.

⁸ A Paretian arrangement for analysing comparative developments in the primary hinterland, accounting for 80% of the cargo handled by the port by volume and/or value, and the secondary hinterland, accounting for the remaining 20%, could be a useful and easily applied numerical indicator for port administrators.

The first thing that needs to be said is that most national ports obtain their cargo from their traditional hinterland, consisting of the state to which they belong (or the province or department, in other countries) and neighbouring states. Geographical proximity and continuity continue to play a preponderant role, and the opportunities for concentrating cargo are fewer.

A smaller number of ports obtain cargo from an extended hinterland consisting of a number of states in which physical proximity is not so important. The structure is one of diversified multiregional linkage which offers the potential for the port to concentrate large volumes of cargo. Prominent in this group are the ports of Manzanillo, on the Pacific coast, and Veracruz and Altamira, on the Gulf of Mexico.

The concentration of specialist cargo agents, multimodal transport operators and logistical services for just-in-time management of manufactured inputs, and the development of land transport corridors and, in the best case, a land bridge with double-stack container trains connected to inland intermodal terminals, have all contributed in recent years to the expansion and diversification of these three ports' hinterland.

3. Modal integration of Mexican ports

The development of intermodalism is essential if cargo is to be concentrated and the competitive position of Mexican ports strengthened, particularly when most cargo is generated or attracted by inland cities and regions. However, the land-sea interconnection still has problems with modal integration and with coordination of the different activities associated with the physical distribution of goods internationally.

Previous studies by the Mexican Institute of Transport (IMT, 1997, 1998, 1999 and 2000) have alluded to the problem created by the intrusiveness of the goods inspection system, to the detriment of fluidity in external trade chains. Better coordination and cooperation among the institutions involved in this would undoubtedly help reduce the amount of time for which goods are tied up in port terminals, but there is also a need for land transport options to be restructured, both by streamlining operations and by introducing logistical distribution strategies and modernizing technology.

Application of the so-called national transport evaluation indicators proposed by the Mexican Institute of Transport (IMT, 2001b) would make it much easier to carry out detailed analysis of the country's land-sea

interconnection problems. Indicators such as the waiting rate, the vehicle attention rate, container turnaround time, the intermodal service utilization rate and the supply capacity of the intermodal railway service, among others, will furnish data that can be used to refine the study of modal integration in each port.

To begin with, a significant indicator for the landsea interconnection is the long average turnaround time for containers in Mexican port terminals. This is virtually double the international benchmark, ¹⁰ and unless a substantial reduction is achieved in the medium term, it will limit the scope for concentrating larger volumes of cargo and using ports to develop just-intime chains. Double-stack container train services are another important element. Suffice to say that the two major hub ports on the Gulf seaboard (Veracruz and Altamira) handle large enough volumes of container cargo to compete with United States Gulf ports by using this technology, which doubles the number of containers moved by one train and produces substantial savings in total transport chain costs.

At present, the only Mexican port that has consolidated the double-stack train service is Manzanillo, and penetration has been growing. During 2000, some 40% of all containers moved went by railway. Thus, this port has an extra competitive advantage that in the long run will enable it to move up through the global network.

A striking fact that emerges in this analysis is that Mexican ports do not obtain maritime trans-shipment cargo. Trans-shipment percentages are insignificant, if not non-existent; ports, then, are only supplied by land. The fact is that current legislation, far from encouraging trans-shipment activity, constrains it. The Reglamento de la Ley de Navegación (Mexico, Federal Government, 1998), or navigation act, states that foreign ocean-going vessels may only carry empty containers among

⁹ The national transport evaluation indicators proposed by the Mexican Institute of Transport (IMT, 2001b) assume simple operations and data that administrators and transport regulators can easily obtain. For example, the waiting rate is WR = Wt/Bt, where Wt = waiting time to berth or enter the loading and unloading area and Bt = time berthed at a quay or in inner terminal loading and unloading areas. The vehicle attention rate is VAR = Aot/Bt, where Aot = actual operating time and Bt = time berthed at a quay or in inner terminal loading and unloading areas. The turnaround time indicator is TI = time/containers.

¹⁰ In Mexico, the turnaround indicator averages 10 days, as against an international benchmark of five days and a United States benchmark of seven days.

Mexican ports, for the purpose of using this equipment for goods exports (article 71). This means that oceangoing liner shipping companies cannot carry out transshipment of full containers between the country's ports.

In addition, article 72 of this law prohibits coasting vessels from trans-shipping people or goods on to ocean-going vessels. Opportunities for trans-shipment are limited, therefore, to full or empty containers coming from other countries, and empty containers in the case of ocean-going liners calling in at more than one Mexican port.

Thus, legal restrictions mean that this dynamic option for obtaining cargo in the era of the global port network cannot be fully exploited for cargo concentration purposes. This is not the only factor involved, however. Another important reason for the absence of trans-shipment is undoubtedly the location of Mexico's coastlines in relation to the main international shipping lanes.

4. The location of ports in relation to the main ocean corridors

The analysis carried out in previous sections shows that ports' geographical location in relation to the main shipping lanes largely determines the scope for creating regional or global hubs within the network. For example, Hoffmann (2000) clearly shows the difficulties involved in establishing hub ports on the South American Pacific seaboard, owing among other reasons to its distance from the main international shipping lanes.

Global hubs are invariably located on east-west routes in the northern hemisphere. This is directly related to the fact that the most important and heavily used international trade corridors are there, namely the connections among Europe, North-East Asia and North America. Regional hubs, on the other hand, tend to develop most easily in areas where the main east-west corridors cross or connect with north-south routes. In the American continent, the main areas where this is the case are the Caribbean and Panama. Hoffmann (2000) notes the impressive increase in trans-shipment in some of this region's ports, such as Manzanillo-Panama, Kingston in Jamaica and Freeport in the Bahamas. The reason for this is to be found in the proliferation of feeder services on less heavily used routes, and the concomitant need for trans-shipment in places where routes cross. It is in the Caribbean that the north-south routes of the American continent cross the international shipping lanes linking North America,

Asia and Europe. On the continent's Pacific coast there is another point where routes cross: the ports of Long Beach and Los Angeles in California, where smaller ships from the South American Pacific meet larger vessels on the North America-Asia axis.

It needs to be asked what the position of Mexican ports is in this geographical context. Given their geographical location, is it possible to create regional or global hubs on Mexico's coasts? On the face of it, they do not seem to be very far away from where routes cross or intersect. Principally, the Mexican Pacific is situated on the axis of intersection constituted by Long Beach/Los Angeles in California and the trans-shipment ports of the Panama Canal. By contrast, on the axis of intersection constituted by the Atlantic coast of Panama, Mexico's Gulf ports are relatively distant from the area where north-south routes and east-west routes intersect, by comparison with Florida and the island countries of the Caribbean (map 3).

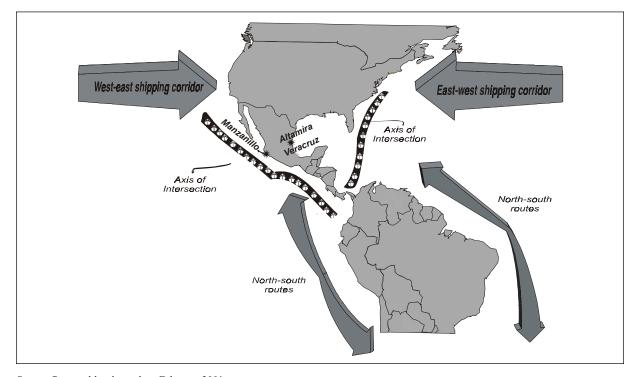
Thus, by concentrating ever-increasing flows of container cargo generated or attracted by numerous producer and consumer regions in the country, a Mexican Pacific port such as Manzanillo, which is on the axis of intersection referred to earlier and which has substantially expanded its domestic hinterland, could increase the number of containers moved exponentially by carrying out connection and transshipment functions between the north-south and eastwest routes. In other words, it would be in a position to rise in the hierarchy of the global port network until it became a regional hub obtaining cargo not just from its extended hinterland, but also from maritime interconnection and trans-shipment operations.

A study by Zohil and Prijon, cited by Hoffmann (2000), analysed the relationship between the volume of port traffic generated by a port's hinterland, the geographical location of the port concerned and the volume of trans-shipment traffic for the Mediterranean Sea. The authors "conclude that the volumes of transshipment traffic of a port are a linear function of the volume of port traffic [generated by the hinterland] and an inverse linear function of the distance from the main line [route] of transit. In other words, ships tend to prefer ports for which they have local cargo and take advantage of their presence there to engage in trans-shipment operations. The shorter the detour from the main route that the stopover involves, the more likely that port is to be chosen as a trans-shipment centre..." (Hoffmann, 2000, p. 129).

The port of Manzanillo meets these criteria to a great degree. It obtains cargo from its hinterland and is

MAP 3

Mexican ports in relation to interoceanic shipping axes



Source: Prepared by the author, February 2001.

virtually on top of an intersection between mainline and feeder routes. Thus the comparative advantages, especially the geographical ones, are there. What is needed now is for this potential to be realized by the actions and vision of the public- and private-sector actors associated with the port in question. A strategic vision and the planning of development to anticipate events are essential if this potential is to be taken advantage of. In this case, planning objectives have to be set so that the port can improve its position in the face of strong competition from other ports in North and Central America looking to act as hubs.

The main node of competition is undoubtedly represented by the United States ports in the south of California. Long Beach and Los Angeles continue to overcome technical constraints to reclaim land from the sea and develop container megaterminals. ¹¹ The two

ports will retain their role as a global hub for a long time to come. In recent years, however, Manzanillo has expanded its hinterland to take in Mexican cargo markets in the north and centre of the country that were being served by Long Beach and Los Angeles. It has also managed to increase the number of trans-shipments on the routes linking the South American Pacific with Asia, although in this category the main competition is provided by the ports of the Panama Canal.

The strength of the Gulf of Mexico ports as regards their potential for rising within the global port network lies principally in the opportunities for expanding their hinterland. In this case, it would seem that only the first criterion of Zohil and Prijon (cited in Hoffmann, 2000) is met, while the second one is not, since the main east-west shipping lanes do not enter the Gulf (map 3). In other words, their greater distance from the axis where the main routes intersect makes it much less likely that shippers will wish to carry out trans-shipment activities in the Mexican Gulf ports. Thus, the potential of Veracruz and Altamira basically lies in the scope for expanding their hinterland and capturing larger container flows from and to the country's interior. Both

¹¹ In 1997, the shipping company American President Line (APL) inaugurated Global Gateway South, the largest container terminal in the United States (265 acres), in the port of Los Angeles. Four years later, in 2001, Maersk-Sealand began construction in the same port of the largest container megaterminal in North America. At 484 acres, it is almost twice as large as the preceding one.

these ports can aspire to become national cargo hubs if they strengthen their intermodal connections.

Direct and indirect liner services¹² in Mexican ports

This is a new element, but it is essential in determining the situation of ports in the global network. It is fairly clear that a port catering to small ships and offering indirect routes between places of origin and destination will be near the bottom of the network hierarchy, as a feeder port. The position is not so clear when feeder routes coexist with mainline routes. It would be necessary to analyse the characteristics of the latter in particular. The outcome is very different depending on whether the routes concerned are traditional mainline ones directly linking ports a long way apart using relatively small vessels with high costs per unit of cargo moved, or whether these mainline routes are plied by large or medium-sized vessels along the main international shipping lanes.

In Mexico, most ports that move containers have few liner services, arrivals are infrequent, and most vessels are small ones working short routes that feed larger ports abroad, whence the cargo is redistributed by sea or land to the final destination. Within this group of small ports, some are expanding and have been introducing new services on more important routes, such as Ensenada on the Pacific and Puerto Progreso on the Gulf of Mexico. Others have remained fairly stable as regards volumes and services offered, examples being Mazatlán, Tampico and Puerto Morelos. Lastly, there are ports that are clearly losing ground and tending to be left outside the global network, such as Lázaro Cárdenas and Salina Cruz on the Pacific coast and Coatzacoalcos and Tuxpan on the Gulf coast.

The three ports that dominate the country's container movements are in a different situation. During the 1990s, the ports of Manzanillo, Altamira and Veracruz not only concentrated larger flows of container cargo, but also attracted a large number of liner shipping companies (table 3).

Without escaping from global trends, these actors have formed strategic alliances to offer particular services and serve routes jointly. The result is that larger and larger vessels are docking in them, and with increasing frequency. In addition, feeder services are being combined with mainline routes on the great international east-west shipping lanes.

To gain a more nuanced understanding of the differences and particular potential of each of the three ports concerned, a more detailed analysis of the characteristics of these mainline services is required. Firstly, it should be noted that the mainline services of Veracruz and Altamira are part of the North America-Europe shipping axis or corridor. The three services that are most important in terms of frequency, ship size and speed of turnover take in the two Gulf ports in the same order. That is, they always call in first at Veracruz and then at Altamira. This is obviously not down to chance; the logic of this order is dictated by the direction of flows and the characteristics of each port's hinterland. In Veracruz, imports going to the country's largest consumer region, namely the metropolitan area of Mexico City and the states of the central zone, are what predominate. Intermediate goods also come in for companies working with lean inventories and the justin-time supply system, mainly in the automotive and electronics industries. This is why Veracruz is the first port of call on routes from Europe.

In Altamira, by contrast, it is export flows that predominate. The port caters to areas that are primarily producers of manufactured goods, such as the state of Nuevo León and the Tampico-Altamira industrial corridor itself, in the state of Tamaulipas. For this reason, it is logical to expect Altamira to become the port of departure for routes to Europe.

Two of the three direct routes go to ports in northern Europe, of which the main ones include Antwerp, Bremerhaven and Le Havre (table 4). Strategic alliances among shipping companies have resulted in larger flows on the northern Europe route, as a result of which they have improved the service by introducing larger, faster ships. The third route is towards Mediterranean ports such as Valencia and Barcelona in Spain and La Spezia and Gioia Tauro in Italy. This latter route operates at a lower frequency, although plans were recently announced to strengthen it by bringing in larger ships with a greater frequency of arrival.

In addition, Veracruz has another direct service to Europe that takes in Tampico instead of Altamira. This is a lower frequency route, operated with small ships, that includes some Caribbean ports in its itinerary. By

With mainline services, the cargo is not trans-shipped at any stage during its sea crossing. Feeder services, by contrast, necessarily entail trans-shipment of cargo at some intermediate port. Between Mexico and Asia, for example, there are mainline services in medium-sized container ships (2,000 to 4,000 TEU) and feeder services in small ships (500 to 1,000 TEU) that trans-ship cargo in the Pacific United States ports to larger vessels which then carry it on to the Asian continent.

TABLE 3

Port of Manzanillo, Mexico: Presence of liner shipping companies, 1985-2000

| Shipping company | 1985 | 1990 | 1995 | 1997 | 2000 |
|--|--------------|--------------|--------------|--------------|--------------|
| TMM (now TMM Lines) | \checkmark | V | √ | \checkmark | √ |
| Ned Lloyd | \checkmark | \checkmark | \checkmark | \checkmark | |
| Delta Steamship Line | \checkmark | | | | |
| K Line | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark |
| Nippon Yusen Kaisha | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark |
| F.M. Grancolombiana | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark |
| Mitsui O.S.K. Line | | \checkmark | \checkmark | \checkmark | \checkmark |
| Cía. Sudamericana de Vapores | | \checkmark | \checkmark | \checkmark | \checkmark |
| Lauritzen | | \checkmark | \checkmark | \checkmark | \checkmark |
| American President Line | | | \checkmark | \checkmark | \checkmark |
| Sea Land | | | \checkmark | \checkmark | \checkmark |
| Maersk Line | | | \checkmark | \checkmark | \checkmark |
| Australian New Zealand Line | | | \checkmark | \checkmark | \checkmark |
| Maruba Line | | | | \checkmark | \checkmark |
| Pacific Star Line (cosco) | | | | $\sqrt{}$ | \checkmark |
| Cía. Chilena de Navegación Interoceánica | | | | \checkmark | \checkmark |
| Lykes Line | | | | | $\sqrt{}$ |
| Hanjin Shipping Line | | | | | $\sqrt{}$ |
| DRS Senator | | | | | $\sqrt{}$ |
| Cho Yang | | | | | $\sqrt{}$ |
| P&O Nedlloyd | | | | | \checkmark |
| Colombus Line | | | | | $\sqrt{}$ |
| Toka Kaiun Kaisha | | | | | $\sqrt{}$ |
| Total shipping companies | 6 | 8 | 12 | 15 | 21 |

Source: Prepared by the author on the basis of data from the Coordinación General de Puertos y Marina Mercante and the Manzanillo Port Administration.

TABLE 4 Gulf of Mexico ports: Mainline container routes

| Shipping company or alliance | Route | Frequency | Ships (in TEU) |
|---|---|----------------------|----------------------|
| Hapag-Lloyd/TMM/Lykes/ Evergreen/CMA-CGM | <i>Veracruz - Altamira -</i> Charleston - Antwerp - Thamesport - Bremerhaven - Le Havre - Houston - Veracruz | Weekly on set day | 2,800 to 2,400 |
| Mediterranean Shipping Co. | <i>Veracruz - Altamira -</i> Houston - Nola - Miami - Freeport - Charleston - Antwerp - Hamburg - Bremerhaven - Felixstowe - Le Havre | Weekly on set day | 2,700 |
| TMM/Lykes/Contships | <i>Veracruz - Altamira -</i> Houston - New Orleans - Valencia - Barcelona - Gioia Tauro - La Spezia - Miami - Veracruz | Every nine days | 2,400 to 2,100 |
| Melbridge C.L./H. Stinnes | <i>Veracruz - Tampico -</i> La Guaira - Pto. Cabello - Río Haina - San Juan - Antwerp - Hamburg - Bilbao - San Juan - Río Haina - Veracruz | Once a fortnight | 1,100 |

Source: Prepared by the author, 2001.

TABLE 5

Mexican Pacific ports: Mainline container routes

| Shipping company or alliance | Route | Frequency | Ships (in TEU) |
|------------------------------|--|----------------------|----------------------|
| Maersk-Sealand | Hong Kong - Kaohsiung - Kobe - Nagoya - Yokohama - Oakland - Long Beach - <i>Manzanillo (Mexico)</i> - Balboa - Manzanillo (Panama) - Miami - Charleston - Newark - Halifax | Weekly on set day | 4,300 |
| TMM/Lykes Lines/APL | Manzanillo (Mexico) - Yokohama - Kobe - Hong Kong - Kaohsiung - Pusan - Kobe - Yokohama - Los Angeles - Ensenada (Mexico) - Manzanillo (Mexico) | Weekly on set day | 3,266 |
| Hanjin/Cho Yang/DRS-Senator | Yantian - Hong Kong - Kaohsiung - Pusan - <i>Manzanillo</i> (<i>Mexico</i>) - Manzanillo (Panama) - Savannah - Norfolk - New York - Felixstowe - Bremerhaven - Rotterdam - Le Havre - New York - Norfolk - Manzanillo (Panama) - <i>Manzanillo (Mexico)</i> - Long Beach - Pusan - Yantian | Weekly on set day | 2,700 |
| CSVA/NYK | Yokohama - Nagoya - Kobe - Pusan - Keelung - Hong Kong - Los Angeles - <i>Manzanillo (Mexico)</i> - Guayaquil - Callao - Iquique - San Antonio - Antofagasta - Callao - <i>Manzanillo</i> (<i>Mexico</i>) - Yokohama | Weekly on set day | 2,226 to 1,726 |
| P&O Nedlloyd | Singapore - Hong Kong - Keelung - Pusan - Kobe - Yokohama - <i>Manzanillo (Mexico)</i> - Buenaventura - Callao - Iquique - Valparaíso | Once a fortnight | 2,169 |
| TMM/Lykes Lines/Maruba | Kaohsiung - Hong Kong - Shanghai - Pusan - Los Angeles - <i>Manzanillo (Mexico)</i> - Puerto Quetzal - Puerto Caldera - Callao - Iquique - San Antonio | Once a fortnight | 1,730 to 1,493 |

Source: Prepared by the author, 2001.

its structure and itinerary it seems to work more as a traditional-style mainline route, with stops at certain ports without specialist terminals where general loose cargo handling is combined with container cargo handling.

Feeder routes in Veracruz and Altamira are very numerous. The most extensive ones link the east coast of the United States with the east coast of South America, with ships calling in at the Mexican Gulf coast ports. This service is provided by strategic alliances among Brazilian, European and North American shipping companies operating vessels with a capacity of roughly 1,500 TEU. Such services are regarded as feeder ones here because they have onward connections to Europe, Asia and Africa at the trans-shipment hubs of the east coast of the United States and some hubs in the Caribbean. There is also a set of short-distance routes running between the Gulf of Mexico, Central America and the Caribbean Basin. Vessels with a capacity of between 600 and 1,100 TEU operating services of this type are constantly arriving in Veracruz and Tampico.

On the Pacific coast, mainline and feeder liner routes are much more concentrated on a single port. Manzanillo is the main magnet for both types of route. But that is not the only difference between it and the Gulf ports. Mainline services there, connecting mainly with the North America-Asia corridor, are more numerous and operate with larger vessels (table 5).

In addition, two of the routes with direct services form part of global alliances of international shippers. Not only do they connect Manzanillo with the main trans-Pacific axis (i.e., with the North America-Asia corridor), but they also connect it with the main trans-Atlantic axis, the North America-Europe corridor. Thus, the United Alliance service (Hanjin Shipping, Cho Yang and DRS-Senator) starts in Asia, calls in once a week at Manzanillo and carries on through the Panama Canal to the east coast of the United States and then Europe.

In late 2000 a route operated by what was then a global alliance, but is now a merged company named Maersk-Sealand, was introduced to Manzanillo. This service also links Asia with the Pacific and Atlantic coasts of North America, and it uses the largest

container ships ever to dock in a Mexican port (4,300 TEU capacity).

In addition, three long-distance mainline routes running from the South American Pacific to the Far East and back have been introduced. The most frequent one is that operated by the strategic alliance between the Compañía Sudamericana de Vapores (CSVA), of Chilean origin, and Nippon Yusen Kaisha (NYK), of Japanese origin. This service operates with mediumsized vessels (1,700 to 2,200 TEU) that dock in Manzanillo once a week. The other two services running from South America to Asia are less frequent. Ships operated by P&O Nedlloyd, with a capacity of over 2,150 TEU, and by the strategic alliance formed by TMM, Lykes Line and Maruba, with a maximum capacity of 1,730 TEU, dock in Manzanillo once a fortnight.

Feeder services have also grown. Short feeder routes between the Central American Pacific and the

North American Pacific, and north-south routes between South America and ports on the east coast of the United States, have a greater presence in Manzanillo. Shipping companies such as the Compañía Chilena de Navegación Interoceánica (CCNI), TMM, Lykes Line, Maruba and Pacific Star Line, among others, operate these routes using small vessels of 1,000 TEU or less.

To sum up, the presence of high-capacity vessels operated by two of the four global alliances of international shippers, the link both with the trans-Pacific corridor and with the trans-Atlantic one and the development of new feeder services show that Manzanillo is "astride" the axis where east-west and north-south routes intercept and connect with one another. Consequently, it could develop container cargo concentration not only through growth in the flows from its hinterland but also through greater participation in international maritime trans-shipment.

IV

Prospects and preliminary conclusions

The concentration of container cargo at specific points along the Mexican coast is a firm tendency that will continue over the coming years. Economies of scale can only be obtained and a market with a wide range of specialist logistical services created if cargo is accumulated at hub ports. Consequently, if port terminals become saturated (as is the case with Veracruz), it would be highly advisable for extra capacity to be created in the reserve areas of the ports themselves or somewhere nearby. If new ports are created elsewhere, flows will be dispersed and the advantages of agglomeration will be lost.

Most of the country's ports will have feeder functions within the global port network. Some feeders are in a state of obvious decline, however (Lázaro Cárdenas, Salina Cruz, Tampico, Coatzacoalcos, Tuxpan), and these could be left out of the network if they fail to find specific markets where they can be competitive, or if they do not restructure their integration strategies, services and land-sea connections. Other feeders, such as Ensenada and Puerto Progreso, are finding market niches and effective operators to structure the requisite intermodal networks. These have better prospects of consolidating their position.

There are at least three ports that could move up in the hierarchy of the global port network. With their direct and feeder routes, larger vessels and frequent services to major destinations, Altamira, Veracruz and Manzanillo could reach an intermediate level as national hubs concentrating container cargo and distributing it along the Mexican Gulf and Pacific seaboards. In these three cases, cargo would be generated from the country's different inland regions.

It would be highly desirable to strengthen the inland connections of the main ports handling container cargo in the country. As was pointed out in the analysis in previous sections, almost all the cargo of ports with potential for flow concentration comes from their respective hinterlands, so the issue of modal integration should be given high priority. As of 2001, railway transportation played a negligible role in container cargo handling at ports like Veracruz and Altamira. Despite the potential advantage entailed by the presence of more than one railway operator, double-stack services have not yet come into operation, owing to the small cargo volumes attracted by this form of transport. The railway cannot continue to be left out of this process, as its cost advantages for highvolume long-distance cargoes could greatly strengthen the competitive position of Mexican Gulf ports.

At present, the port with the greatest potential as a future regional hub is Manzanillo. There are a number of factors which support this assertion. Firstly, it is on the axis where the routes of the east-west shipping corridor intersect with north-south routes. Secondly, owing to this, it is found to have more direct routes linked to the trans-Pacific corridor and to the trans-Atlantic corridor as well. Thirdly, the largest container ships ever seen along the Mexican coast have begun to call in there. The combination of these three factors gives Manzanillo the opportunity to develop progressively as a regional trans-shipment centre for Central and South American feeder routes and liners requiring a wider range of connections with Asia and Europe.

The rise of Manzanillo to the status of regional hub is not guaranteed and will depend both on the international competition environment and on the policies and actions of the public, private and social sectors as they relate to the development of the port. To realize the port's potential, it will be vital to pursue a strategic approach whereby long-term planning is carried out to respond properly to the demands this port hierarchy entails. Not only do reserve areas for new container terminals need to be identified in advance, but there needs to be planning of connections with land transport systems, cargo access and departure infrastructure, reserve areas for the development of

intermodal terminals and logistical platforms for cargo consolidation and distribution, and shipping districts in general. In short, turning the port into a hub will involve a strategic conception with elements of long-term planning that looks beyond the precincts of the port and increasingly involves the outer harbour and its actors, the port city and its connections with the hinterland.

Lastly, to encourage trans-shipment of full and empty containers among Mexican ports and ensure that this activity, which is of greater and greater importance in intermodal transport networks, is integrated into the coasting trade, it is recommended that articles 71 and 72 of the Reglamento de la Ley de Navegación (Mexico, Federal Government, 1998) be reformed, as the conditions they place on links between coasting and ocean-going container traffic have only served to hinder port and shipping activity in the country. If these regulatory constraints were done away with, the benefits would far outweigh the disadvantages. Mexican ports could concentrate and move larger volumes of cargo if these "shackles" were removed. Similarly, the coasting trade would secure a new and hitherto unexploited market niche along the country's seaboards: the carriage of containers among Mexican ports, with the potential for linking up with international shipping routes by carrying out trans-shipment in one of the country's ports.

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The impact of exports on growth in Chile

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Principal Regional Adviser ECLAC Professor of Economics University of Chile rffrenchdavis@eclac.cl Dynamic export growth has been a distinctive feature of the Chilean economy over the last quarter of a century. This strong performance, however, has been accompanied by only modest average growth in GDP. Whilst export volumes rose by 10% a year between 1974 and 2001, GDP growth was only 4.3%. Furthermore, whereas export growth was steady, GDP fluctuated greatly, with several episodes of 8% to 10% growth but also deep recessions of 14% or 15%. Here we shall look at the similarities and differences among three episodes (1973-1982, 1983-1989 and 1990-1999), analyse the interrelationship among export quality, the macroeconomic environment and overall growth in Chile, and touch on some challenges for the future.

I

Introduction

Dynamic export growth has been a distinctive feature of the Chilean economy over the last quarter of a century. With only the occasional reverse (the main one being in the early 1980s), goods and services exports have led economic growth and tended to rise as a proportion of national output, increasing from 15% of GDP in the 1970s to some 30% by the beginning of this decade.

Dynamic exports, however, have been accompanied by modest average GDP growth. Whilst export volumes rose by 10% a year between 1974 and 2001, GDP growth averaged only 4.3%. Whereas export growth has been quite steady, GDP has fluctuated sharply, with episodes of 8% to 10% growth but also deep recessions of 14% and 15%. These fluctuations have had a significant effect on average economic growth.

The pioneering trade liberalization carried out in the 1970s, rapid export growth and the recovery in GDP observed in the Chilean economy after the 1975 crisis would seem to indicate that trade reform was a success. The outcome is not so clear-cut, however. The proimport bias of the first trade reform brought in during the 1970s, the currency appreciation that took place in the second half of the decade and mistakes with the sequencing and speed of the changes had led by the early 1980s to a huge external deficit and to a situation

that was discouraging to exporters. Although the effects were positive in the early years (Ffrench-Davis, 2002, chapter III), by 1981 most exports were losing ground in volume and value terms.

Following recovery from the 1982 debt crisis, a changed framework led to a second surge in exports. This context included a real exchange rate that depreciated sharply during the 1980s, and proactive public policies, including a new and more pragmatic trade reform that reintroduced a degree of protection for importables and incentives for non-traditional exports. Then, in the 1990s, a third episode of export dynamism was stimulated by a more comprehensive policy that sought to combine the principles of an open economy and selective integration with certain strategic trading partners, particularly in Latin America, all this taking place in a new environment characterized by high levels of domestic investment and rising productivity across the economy until 1998. In more recent years (1999-2001) this tendency has been reversed to some degree.

Several interesting studies of Chilean export performance have come out recently. Here we shall concentrate on the differences among the three episodes (especially the second and third), the interrelationship between that performance and overall growth in the Chilean economy, and challenges for the future.

\prod

Trade policy in the 1980s:

a departure from neoliberal orthodoxy

In response to the deep recession of 1982, Chile was obliged to adjust its policies to cope with severe external constraints and stimulate domestic recovery. Thus, there was a shift from a highly orthodox or neoliberal model,

implemented mainly in the 1970s and early 1980s, to a more pragmatic approach, which included partial reversal of some of the original reforms (Ffrench-Davis, 2002, chapter VI, and Moguillansky, 1999). In this new context, the priority was to generate a trade surplus to

[☐] An abridged version of this article also appears in Ffrench-Davis (2002). The author is grateful for the valuable research work done by Heriberto Tapia and for the comments of Carla Macario.

¹ See, for example, Agosin (2001); Meller and Sáez (1995); Meller (1996) and Sachs, Larraín and Warner (1999).

service the large external debt built up between 1977 and 1982. The strategy followed involved both reducing imports and promoting exports, in three ways: an increase in the uniform tariff from 10% to 35%, the use of a battery of export promotion instruments—notably a novel system of simplified drawback for non-traditional exports, or subsidy of 10%— and an active exchange-rate policy that sought to enhance the external competitiveness of the Chilean economy and its ability to generate foreign currency.

1. Export promotion and the second trade reform

Chile was the first Latin American country to carry out across-the-board trade liberalization, and has been the most consistent in applying it. In 1973, before the reforms began, Chile's external trade was subject to heavy State intervention.² In late 1973 a deep trade reform was initiated. This included the abolition of all non-tariff restrictions, rapid tariff reductions and unification of the multiple exchange rates into a single rate. Although it was not one of the programme's original goals, by June 1979 a low, uniform tariff of 10% had been established (Ffrench-Davis, 2002, chapter III).

Table 1 shows how the average import tariff and real exchange rate have moved over time.

In the first trade liberalization, large tariff cuts and the dismantling of quantitative controls seem to have had a powerful impact on export dynamism, by reducing the cost of imported inputs (Agosin, 2001). The starting point was a situation in which the great majority of domestic prices for standard importables (consumer and intermediate goods) were not tied to international prices; as a result, the scope for reducing costs by replacing domestic inputs with imports and raising productivity was immense. By late 1973, furthermore, there was significant underutilization of installed capacity in the export sector, owing to the marked distortions that then prevailed in the Chilean economy. This was the main reason for the spectacular growth of exports in 1974, which began sharply a few months after the 1973 coup, along with very marked

TABLE 1

Chile: Average tariff and real exchange rate, 1973-2001

| Year | Average tariff ^a (%) | Real exchange rate ^b (1986=100) |
|------------------------|---------------------------------|--|
| 1973 | 94.0° | 65.1° |
| 1974-79 | 35.3 | 73.2 |
| 1980-82 | 10.1 | 57.6 |
| 1983-85 | 22.7 | 79.1 |
| 1986-89 | 17.6 | 106.6 |
| 1990-95 | 12.0 | 99.5 |
| 1996-98 | 11.0 | 80.3 |
| 1999-2001 ^d | 9.0 | 88.4 |

Source: Central Bank of Chile and Ffrench-Davis (2001).

- ^a Simple average, excluding exemptions and preferential arrangements negotiated with Latin American countries and Canada
- b Simple average. The nominal exchange rate was deflated by the Chilean consumer price index (duly adjusted in 1973-1978) and inflated by an external price index. This index was constructed on the basis of the wholesale price index, weighted for the shares in Chilean trade of Argentina, Brazil, Canada, France, Germany, Italy, Japan, Peru, the Republic of Korea, Spain, the United Kingdom and the United States from 1986 onward; it was obtained from the Central Bank of Chile. For years up to 1985, the information is taken from Ffrench-Davis, Leiva and Madrid (1991), and includes France, Germany, Japan, the United Kingdom and the United States.
- ^c December 1973.
- ^d Provisional figures for 2001.

diversification. However, because of the recessionary environment in which the reform was carried out, its abruptness, the behaviour of the exchange rate (which appreciated sharply after 1975) and excessively high interest rates (an average of 38% in real terms between 1975 and 1982), the dynamism of the export sector was transmitted only very weakly to the rest of the economy. Fixed productive investment was well below historical norms, and the economy underwent a sharp deindustrialization. Lastly, banks (and thus their lending) suffered a spectacular crisis (Ffrench-Davis, 2002, chapter II).

Abrupt trade liberalization, accompanied by significant currency appreciation between the mid-1970s and the early 1980s, resulted in a major external imbalance that multiplied the effects of the highly adverse external shocks associated with the Latin American debt crisis. To cope with the domestic and balance-of-payments crisis that struck Chile in 1982 (owing to a combination of economic policy errors and

² This was the situation in 1973. A reform programme carried out in the second half of the 1960s, however, included gradual rationalization of the import regime, improvements to export promotion mechanisms and systematic implementation of a policy of mini-adjustments to the exchange rate (Ffrench-Davis, 1973). This was the experiment that pioneered what John Williamson would later dub the "crawling peg" system, later to evolve into the system of "crawling bands".

a threefold external shock³ that reduced aggregate demand by 30% and GDP by 17% between 1981 and 1983), the currency was devalued on a number of occasions from mid-1982 onward, then a crawling peg was reintroduced. At the same time, the uniform tariff was raised in stages to 35% by September 1984 (with annual averages of 24% and 26% in 1984 and 1985, respectively). Subsequently, as the acute shortage of foreign exchange eased, the tariff was reduced in stages to 30% in March 1985, 20% in June the same year, 15% in 1988 and 11% in mid-1991.

After the 1982 crisis, trade policy was modified in a number of ways. The Government began to make active use of antidumping measures to protect the economy from unfair trading practices. For this purpose, it raised the total tariff (the uniform tariff plus countervailing surcharges) to a maximum of 35% -the level bound by Chile in the General Agreement on Tariffs and Trade (GATT) in 1979– for imports that Chile could prove were being dumped. A system of price bands consistent with medium-term international prices was introduced for three leading agricultural products (wheat, sugar and oilseeds), which yielded significant benefits for agriculture. Of course, it was also a departure from the uniform tariff, although it was viewed more as a price stabilization mechanism for the imports affected. Where exports were concerned, drawback systems were improved and a system of simplified tax rebates was adopted for minor exports, which qualified for reimbursement of up to 10% of their value when the total value of all exports in the customs item concerned did not exceed a certain yearly limit (Macario, 2000). In 1996, according to information from the Central Bank, 16% of exports benefited from this incentive and the average drawback was 8.7% of the value of these exports. Box 1 summarizes the main export promotion mechanisms.

One of the most striking export initiatives was developed by a semi-public foundation, Fundación Chile. The early projects of the Foundation were mainly focused on providing technical assistance to particular sectors. Few got beyond the pilot stage, however. In view of these problems, the Foundation decided to gain experience by initiating business ventures itself. The idea was to determine what activities could benefit from new technologies, so that these could then be acquired and adapted. Once a technology had been assimilated,

the Foundation would carry out commercial production, with marketing to be conducted by a subsidiary. When the subsidiary became profitable it would be sold off, and the technology transfer process thereby completed.

One very successful example was salmon farming. In 1981, the Foundation decided to conduct a pilot cage-based freshwater salmon farming project. Commercial production began in 1986-1987, and doubled the following financial year. In 1988 the project went into profit, and the transfer cycle was completed that year when the Foundation sold it on to a Japanese fish and shellfish company. The Foundation's salmon farming project gave a clear boost to salmon production in Chile, and in the 1990s salmon became one of the country's main exports, and the leading non-traditional one (ECLAC, 1998).

To sum up, a "second trade reform" began in 1983, involving a mixture of restrictions, liberalization and intervention (table 1). While the basic characteristics of trade policy -the abolition of non-tariff barriers and the adoption of a uniform tariff-had not changed since 1979, the tariff had risen back to quite a high level by 1984, and was now accompanied by antidumping measures and price bands. In fact, the tariff averaged 20% in 1984-1989, double the average for 1979-1982. The fundamental difference, however, lay in the fact that during the first liberalization the exchange rate appreciated progressively through the second half of the 1970s and early 1980s. In the 1980s, on the other hand, as the tariff was being cut from 35% in September 1984 to 15% in 1988, the currency underwent a large real devaluation under the pressure of the debt crisis, which sent out a powerful positive signal to exporters while at the same time stimulating the production of import-competing goods. Thus, in this second episode, by contrast with the first, the output of importables also recovered strongly, chiefly between 1984 and the late 1980s.

If conclusions are drawn about the different stages of trade liberalization in Chile, it is clear that the net results of the second reform were better than those of the first (ECLAC, 1998, chapter V).

2. Exchange-rate policy

Exchange-rate policy has varied greatly. From 1976 onward, real exchange-rate appreciation was used sporadically to anchor inflation (Ffrench-Davis, 2002, chapter IV). This was because inflation remained stubbornly high despite a deep recession that produced a current-account surplus in 1976. Currency

³ Worsening terms of trade, higher interest rates on the external debt and a sudden halt to lending by foreign banks (Ffrench-Davis, 2002, chapter VI).

$Box \ 1$ Tax incentives for exports by the late 1980s

- Exemption of exports from value-added tax (VAT) and reimbursement of taxes paid on inputs incorporated into export products. This instrument was designed to avoid double taxation of final products or "tax exporting" (Decree-Law 825, in force since 1974).
- Simplified tax rebates or drawback for minor exports (non-traditional products) involving refund of 10% or 5% of the FOB value exported (Act 18.480, in force since 1985).
- Duty and VAT waiver for inputs imported for use in producing export goods on premises designated for that purpose (Fiscal Decree 224, in force since 1986).
- Deferred payment of customs duties on imports of capital goods. This instrument is of general application and is not exclusive to exporters (Act 18.634, in force since 1987).
- Rebate of customs duties paid on imported inputs incorporated into export products (Act 18.700, in force since 1988).

Source: Ffrench-Davis, Leiva and Madrid (1991) and Macario (2000).

appreciation intensified in 1979 when the peso was set at 39 to the dollar, a nominal parity that survived until the mid-1982 crisis; during those years, very substantial real appreciation took place. The currency crisis of 1982 was followed by some months of experimentation, with a succession of policies being followed. In 1983 a crawling peg was adopted again, and this policy was maintained with some variations until 1999. Essentially, the Central Bank set a reference price for the dollar in the official market (called the "tipo de cambio acuerdo" or TCA), with an initially small flotation band that was widened every so often. The "official" exchange rate was devalued each day in accordance with the differential between domestic inflation and estimated external inflation. One-off devaluations were also carried out on a number of occasions, culminating in the enormous real depreciation seen after the 1982 crisis (130% between 1982 and 1988).

Because a number of exchange controls remained in force for many years (except for a few weeks in 1982 when all exchange controls were lifted), an illegal (but openly tolerated) parallel currency market operated. This would be legalized as the "mercado cambiario informal" (MCI) only in April 1990, by virtue of the Central Bank independence act issued by Pinochet's Government at the very end of his 16 years in power.

In 1988, currency appreciation accompanied by tax and tariff cuts (see the next section) reconciled lower inflation with a strong economic recovery. By 1989 the recovery was complete and the output gap between actual GDP and potential GDP was closed (figure 1).⁴

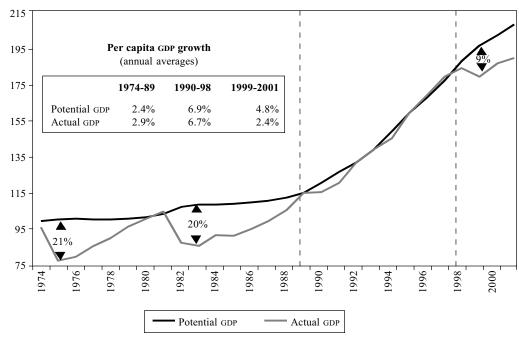
In mid-1989, the flotation band against the dollar was widened to \pm 5%. The action of the Central Bank was accompanied by a change in expectations in the currency market, so that the exchange rate rapidly fell to the bottom of the band. Thus, without too much dislocation, a significant depreciation was achieved without any change in the "official" exchange rate. For a year or so, during which time democracy was restored, presidential elections were held (in December 1989) and president Aylwin took office (in March 1990), the bank market rate ("dólar observado") remained at the bottom of the band, even though in January 1990 macroeconomic adjustment efforts were stepped up to check rapidly climbing inflation, which had risen to 31% on an annualized basis over the previous five months. The sole adjustment measure taken was a sharp interest rate rise, led by Central Bank 10-year paper, which was offered at the high real annual rate of 9.7%.

This was due to a sharp increase in aggregate demand, sustained by the tax cuts and currency appreciation of 1988 and the fiscal revenue generated by a large rise in the copper price in 1987-1989; between 1986 and 1988, the terms of trade improved by the equivalent of 6% of GDP (according to the Central Bank National Accounts, at 1986 prices). A large rise in imports and the external deficit (if the current account is recalculated using the "normalized" price of the Copper Stabilization Fund) and a sharp pick-up in inflation led the Central Bank to reverse previous interest rate cuts.

⁴ See Ffrench-Davis (2002, chapter I).

FIGURE 1

Chile: Actual and potential GDP per capita, 1974-2001 (1974 per capita GDP = 100)



Source: Based on Ffrench-Davis (2002, chapter 1).

Ш

Trade policy since 1990

The economic team that took over in 1990 stuck to the basic principles of the previous trade policy.⁵ The main exception was the decision to sign trade agreements with a number of partners, mainly in Latin America. The economy remained open to trade and a uniform

import tariff for the rest of the world was retained. The rate of 11% that applied in 1991 was kept unchanged until 1999, when it began to be gradually reduced with a view to bringing it down to 6% after five years, in 2003. In a significant "reform of the reforms", however, macroeconomic policies were altered substantially (Ffrench-Davis, 2002, chapters I and IX). The most important outcome was vigorous export expansion, now achieved in tandem with dynamic GDP growth.

1. Towards a "reciprocated" policy

Without a doubt, the most outstanding feature of Chilean trade policy in the 1990s was the search for

⁵ The new approach was consistent with the documented criticism of the shortcomings recorded in the liberalization process, which had led to the sharp de-industrialization of the 1970s and to numerous bankruptcies, but it was also compatible with an awareness that neoliberal reform had begun 16 years previously and culminated in 1979. This was now a given, and there was no question of starting afresh. In Agosin and Ffrench-Davis (1998) we put forward some proposals for "reforming the reforms" to trade and productive development in Chile.

arrangements to expand the country's access to new export markets. The new domestic political scene opened the way for a marked shift in Chile's position, away from an across-the-board, unilateral approach to liberalization informed by a preference for neutral policies and an arm's length attitude to Latin America, and towards a strategy that included preferential free trade agreements subject to reciprocity (with many countries in the region, in the event) and more active promotion policies.

Since by that time the Chilean economy was already highly open to trade, it was judged that in a world where trading areas and economic blocs were becoming increasingly important, the benefits of further unilateral liberalization would be small (Ffrench-Davis, 1999, chapter VIII.1). Progress towards economic integration in Latin America was envisaged as a form of open regionalism.

In pursuit of an active policy, economic complementation agreements were signed with Andean Community countries, i.e., Bolivia (1993), Venezuela (1993), Colombia (1994), Ecuador (1995) and Peru (1998), and with the Central American Common Market (1999). In the case of the Southern Common Market (Mercosur), the main market in Latin America that includes Argentina, Brazil, Paraguay and Uruguay, an agreement was signed in 1996, stipulating that a free trade area would be in operation by 2004.

Far-reaching integration was achieved with Mexico (1991 and 1999) and Canada (1997), thanks to quite comprehensive free trade agreements. For example, the agreement with Canada contains a special clause allowing Chile to apply capital controls, particularly the reserve requirement which Chile established in 1991 to moderate the large inflow of funds recorded then and shift their composition away from short-term and volatile flows.

Stronger links with other regions were another ingredient in Chile's international policy. This resulted in negotiations with the European Union, the United States and Asia-Pacific countries.

Domestically, trade policy in the 1990s had to deal with a situation quite different from the previous decade's. Successive GATT negotiating rounds and the rules subsequently laid down by the World Trade Organization (WTO) restricted the use of export subsidies in developing countries. Consequently, the use of simplified tax drawback schemes and deferred payment of customs duties on imported capital goods, instruments that had proved highly effective and efficient in the 1980s and early 1990s, was heavily restricted and is due to be discontinued by January 2003.

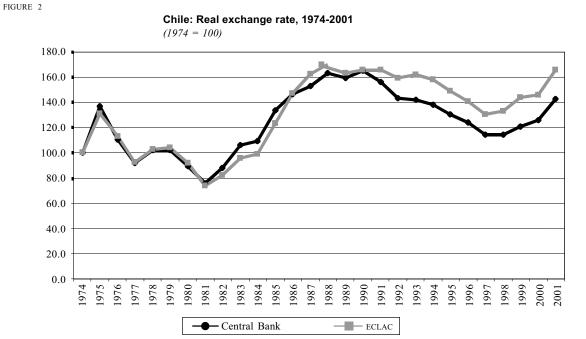
In the 1990s, then, the authorities' export development efforts largely centred on ways of correcting some market distortions more directly. The main programme, administered by the national export promotion body (ProChile), supplies information to potential exporters and supports activities to promote Chilean products in new markets. These policies were successful in facilitating market access for participating firms (Alvarez and Crespi, 2000), but they were far from being as vigorous as the rather unorthodox exporting strategy of the 1980s (including simplified drawback and incentives such as debt-equity swaps with an implicit subsidy of 46%). This was certainly given a decisive boost by the real devaluation of 130%. This devaluation was prompted, or forced, by the acute external debt crisis and the consequent need to "produce" dollars by exporting and "save" dollars by substituting imports or producing importable tradables.

Exchange-rate policy and the new capital surge

For most of the 1990s the crawling peg system was maintained, but with much more active intervention. As in other Latin American and emerging countries, the Chilean authorities had to cope with a sharp resurgence of private-sector capital inflows which pushed exchange-rate policy decisively in the opposite direction from the 1980s, when the pressure was towards depreciation. Owing to the scale of these inflows, the real exchange rate in Chile tended to appreciate during the first half of the decade (see figure 2 and Ffrench-Davis, 2002, chapter IX). However, the effective appreciation was significantly less than in other countries; furthermore, the fact that Chile was emerging from the severe external debt crisis of the 1980s meant there was room for appreciation since, up to a point, this represented movement towards equilibrium rather than away from it.

Broadly speaking, the moderate level of the current-account deficit in the first half of the 1990s indicates that the appreciation really did represent a movement towards equilibrium; this is consistent with net productivity increases and the improvement in external debt conditions. The external deficit actually averaged just 2.5% of GDP in 1990-1995, by comparison with the 8% seen in Mexico prior to the "Tequila" crisis.

⁶ This refers to the so-called "chapter XIX", which operated in Chile between 1985 and 1991 with large implicit subsidies for those foreign investors bringing Chilean external debt paper (see Ffrench-Davis, 2002, chapter VII).



Source: Central Bank of Chile, ECLAC and Ffrench-Davis (2002, figure IX.3). The main difference between the two indicators is that ECLAC uses the consumer price index to measure external inflation and the Central Bank uses wholesale prices. The first method is more consistent with estimates available for other Latin American countries.

In Chile, significant changes were made to exchange-rate policy to counter the tendency towards appreciation; thus, after being linked only to the United States dollar, the exchange rate was tied to a basket of currencies with a view to discouraging speculative capital flows, most of which were in dollars, and the Central Bank became actively involved in the currency market, where its activities included intra-margin intervention (within the band). Taxes and reserve requirements were also imposed on external credits and foreign-currency deposits, the idea being to increase their cost in the domestic market and thereby dampen the supply of currency being generated by the capital surge and reduce the share of short-term flows. Defending the exporting model was an explicit objective of this effort to avoid excessive real currency appreciation and instability (Zahler, 1998).

Prudential macroeconomic policies lost some of their effectiveness in the second half of the decade, when the Central Bank failed to react forcefully and quickly enough to a massive new capital inflow. Flows into Latin America rose substantially in 1996-1997, and this overabundance was felt particularly in Chile. In the face of this, the Central Bank choose to keep cost restrictions (the reserve requirement) at existing levels. As a result, the Chilean foreign-exchange and credit

markets were flooded by funds to a greater extent than in 1990-1994. The reserve requirement was generally paid, but it was less than the returns expected from investing in Chile. Thus, excess supply built up in the Chilean market. The scale of outside flows resulted in a real appreciation of 16% between 1995 and October 1997 and in a rise in the external deficit, which peaked at 5.7% of GDP in the 1996-1997 biennium. To maintain the equilibria of the real macroeconomy, the natural response would have been to raise the reserve requirement (Le Fort and Lehmann, 2000).

Thus, when the Asian crisis hit Chile, the exchange rate was overvalued. The expectation of an imminent devaluation triggered further capital flight, with all the downward pressure on the currency this entailed. The Central Bank resisted this pressure by narrowing the band and raising interest rates, until in September 1999 it decided to let the currency float freely. This change made it possible for the real exchange rate to begin a sharp adjustment from its hitherto very overvalued level, but subsequently it also meant greater volatility.⁷

⁷ Caballero and Corbo (1989) have shown empirically that real exchange-rate volatility has highly negative effects on export performance.

IV

Export performance

1. Export dynamism

Since the 1970s, two cycles in Chilean export growth can be distinguished. As table 2 shows, these represent a step-change from the historical trend. The first cycle lasted from 1974 until the late 1970s. In eight years, export volume growth averaged 9% a year, but the rate for non-copper exports was 16%. In the early 1980s total and manufactured exports stagnated, owing to the substantial real currency appreciation that took place in Chile and to the cooling of the world economy. Thus, in 1981 export volumes fell by 3%, dragged down by a fall of 7% in non-copper exports (Sáez, 1991).

The second cycle of rapid export growth began after 1982, when the real exchange rate underwent a sharp devaluation. Table 2 shows that in the second half of the decade, the slow growth of copper export volumes was compensated by the spectacular rise in other export categories. The volume of traditional exports other than copper grew by 9% a year over the four-year period 1986-1989, but it was non-traditional exports that showed the greatest dynamism, with shipments expanding by 22% a year.

Export volumes continued to rise vigorously in the 1990s, at an annual average of 9% (1990-2001). This is basically accounted for by the performance of nontraditional exports, which grew by 13% a year, while shipments of copper and other traditional products increased by 9% and 5%, respectively. The value of primary commodity exports did not change much in the first half of the 1990s, owing to the decline in the copper price. In 1994-1995, prices for the main exports picked up sharply, which contributed to the vigorous growth they displayed over the biennium. This boom was cut short by the Asian crisis, which struck the economies of Latin America in 1998-1999, causing a negative terms of trade shock so that the value of exports, particularly traditional ones, fell substantially. The index of unit export prices fell by 9% over the biennium. The instability of export prices (and of the

terms of trade) is one of the drawbacks affecting this variable of such key importance to economic development in Chile.

There is another disturbing factor that deserves closer consideration. While growth in the physical volume of non-traditional exports has been exceptional, this dynamism has gradually being falling away: growth averaged 22% a year in 1986-1989, 16% in 1990-1995 and 10% in 1996-2001 (table 2, p. 144). Consequently, the volume growth of these exports has tended to converge, perhaps prematurely, with the average volume growth of total exports (figure 3, p.145). Slower growth in traditional exports other than copper during 1996-2001 was offset by the dynamism of copper exports, whose physical volume increased at an annual rate of 12% (15% in 1995-1999). As Moguillansky (1999) and Sachs, Larraín and Warner (1999) document, however, these very impressive growth rates appear to be unsustainable, both because investment is falling and because there are external markets in which Chile has become a "major" exporter in a number of categories.

The real currency appreciation that occurred in the second half of the 1990s, and its impact on the competitiveness of the export sector, seems to be the main reason for the slackening of non-traditional export growth (Díaz and Ramos, 1998). This hypothesis is given support by the econometric estimates of Moguillansky and Titelman (1993) for the priceelasticity of Chile's export supply in different industries. These authors conclude that the effects of variations in the real exchange rate differ depending on the type of goods being exported, and that a systematic real depreciation (appreciation) tends to have a positive (negative) impact on volume and on diversification into greater value-added. Thus, depreciation of the currency followed by stability at the new rate is likely to prove an incentive for investment in tradables and export diversification.

In the 1990s, the pattern of trade growth was greatly influenced by foreign direct investment (FDI), which affects both exporting capacity and the exchange rate. In fact, FDI has made a major contribution to export development in Chile. In the period 1990-2000, it is conservatively estimated that about 30% of the resources invested in tradables were channelled through

⁸ It is interesting to note the spectacular rise in exports in 1974, reflecting very considerable underutilization of export capacity the year before. Export volume rose by 38% in 1974, then by 7% a year on average in 1975-1980, before falling in 1981.

| TABLE 2 | |
|---------|--|
| | Chile: Export volume growth, 1961-2001 |

| | 1961-1970 | 1971-1973 | 1974-1985 | 1986-1989 | 1990-1995 | 1996-2001 |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Copper | 3.9 | -2.3 | 5.0 | 3.3 | 6.5 | 11.4 |
| Non-copper | 7.8 | -8.5 | 15.8 | 13.1 | 11.2 | 7.0 |
| Traditional | | | | 9.0 | 7.7 | 2.9 |
| Non-traditional | | | | 21.7 | 15.2 | 10.3 |
| Total exports | 4.9 | -4.5 | 9.3 | 8.8 | 9.2 | 8.8 |

Source: Sáez (1991) for 1960-1985 and Central Bank of Chile for 1985-2001. Exports FOB.

FDI, the main destination being copper production. This large contribution to export capacity was eroded, however, in the second half of the decade. In 1990-1995, FDI in export sectors accounted for 75% of total FDI flows. In 1996-2000, however, the share was down to 35% (ECLAC, 2001). 10

The declining share of FDI in tradables production was offset by the sharp rise in total FDI. Larger flows, on top of higher portfolio inflows during those years, were partly responsible for the overvaluation of the peso in 1996-1997. This process not only had negative macroeconomic effects (see Ffrench-Davis, 2002, chapter IX), but was detrimental to production as well, owing to the spread of so-called "Dutch disease" in most export sectors, particularly non-traditional ones which, as has now been documented, react more elastically to the level and stability of the real exchange rate. All this is consistent with the surge in copper export volumes and the slackening of other exports. It highlights the importance of having a broader set of policies to ensure sound export development.

2. Export composition

Chilean exports have been diversifying in recent decades, but they are still natural resource-intensive. The share of copper exports in the total fell from 70% in 1970 to about 45% by the early 1980s, and stayed at around this level until the 1990s, when it fell below 40%. This decline is partly explained by the fall in the copper price during the first half of the 1990s, and the more rapid drop seen in recent years. Meanwhile, the trend towards diversification can also be observed in the number of products sold abroad, which increased from 200 in 1970 to 2,800 in 1990 and about 3,900 in 1996, before stabilizing at that level. Something similar happened with the number of exporters, which rose spectacularly until the mid-1990s before settling at about 6,000.

Traditional exports other than copper –consisting of fresh fruit and natural resource-based manufactures, including fishmeal, cellulose and paper– increased substantially in the 1970s, jumping from 24% to 40% of total goods exports between 1970 and 1979. In the early 1980s the real value of these exports fell off, owing to the detrimental effects of currency appreciation, and over the decade their share fell to a third of the export total. In 1987 they began to increase again in real terms, although more slowly than other exports, and with large fluctuations. As a result, by the end of the 1990s their share was less than 30%.

Non-traditional exports –a category which includes non-natural resource-based manufactures and new products based on non-traditional natural resources initially grew very strongly during the first trade reform.

⁹ However, the domestic value-added in this copper output is notably lower than that of the State enterprise Codelco, because privately produced copper is less highly processed and effective taxes on profits are very low.

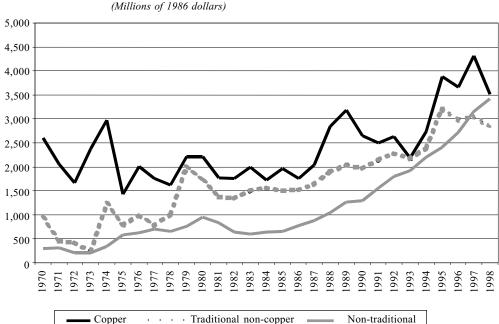
¹⁰ In addition, a large percentage of FDI in the latter part of the 1990s went into mergers and acquisitions of existing assets, operations that did not directly result in the creation of new productive capacity. This is borne out by the contrast between huge FDI inflows –some US\$ 17 billion in 1999-2001, or 8.4% of GDP, the highest since figures became available– and the declining growth rate of potential GDP (4.8%) and actual GDP (2.4%).

¹¹ In those years proposals were made for rationing FDI in copper production by an auctioning process. The idea was to reduce the inflow (thus checking currency appreciation), moderate the downward pressure on the future price of copper and capture some of the economic rent from reserves, which were taxed only lightly and without regard to the quality of the natural resource (Agosin and Ffrench-Davis, 1998).

¹² During the 1980s the copper production costs of most of the world's major mining companies fell substantially. For this reason, the "normal price" expected for the metal over the years that followed tended to be much lower than in previous decades (Bande and Ffrench-Davis, 1989, and Vial, 1988).

FIGURE 3

Chile: Value of goods exports, 1970-1998



Source: Author's calculations based on BADECEL. The series were deflated by an external price index relevant to Chile.

Their share increased from less than 10% in 1970 to about 20% in the second half of the decade, but then it fell off in the early 1980s, actually decreasing substantially in 1981. As already noted, from the mid-1980s this group saw vigorous, sustained growth again, so that its share rose to 35% in the second half of the 1990s, matching the value of copper exports towards the end of the decade.

Table 3, p. 146, shows the geographical distribution by value of Chilean exports, broken down by technology content, over the last three decades. The technology classification, which is based on ECLAC (1992), groups products into three categories: unprocessed commodities (line a), which are natural resources with little value added; semi-processed commodities (line b), which are natural resources that have been subjected to some degree of processing, and manufactured products (line c), encompassing technologically more complex goods.

The first column of the table shows that, despite the diversification of recent years, and notwithstanding the tendency to export more highly processed goods, Chilean sales abroad continue to rely heavily on natural resources. In fact, even non-traditional exports include a large share of goods that are intensive in such resources (line b). The table reveals that the share of natural resource-based exports in the total was more than 85% in 1998. This is not surprising when it is considered that Chile is endowed with rich natural resources plus geographical factors generating natural comparative advantages that are highly static. It is for this reason, though, that prices for Chilean exports are so unstable, and demand so sluggish. The table also shows that no vigorous or systematic enough effort has been made to achieve a more substantial shift in the country's export profile.

3. Diversification of destination markets

Exports have diversified in terms not only of products, but of destination markets as well. The number of markets rose from 31 in 1970 to 120 in 1987 and 174 in 1999. The European Union has traditionally been the largest destination for Chilean exports. In 1970, for example, 61% of exports went to Europe (table 3, line d).

After the first trade liberalization the geographical distribution of exports changed, mainly owing to the increasing importance of the Latin American and North American markets, which cut into the European Union

TABLE 3

Chile: Geographical distribution of exports by technology content, 1970-1998

| Year | Product type | Composition | | Geog | graphical dist | ribution (%) | | |
|-------|-------------------------------|--------------|------------------|-------------------|------------------|--------------|------|--------|
| | | (% of total) | Latin America | European Union | United States | Japan | Asia | Others |
| 1970 | a) Non-processed commodities | 12.9 | 10.6 | 33.0 | 14.9 | 39.8 | 0.1 | 1.6 |
| 1,,,, | b) Semi-processed commodities | 84.5 | 10.3 | 67.1 | 14.2 | 7.8 | 0.4 | 0.2 |
| | c) Manufactures | 2.2 | 62.6 | 2.2 | 10.1 | 13.0 | 1.0 | 11.1 |
| | d) Total | 100.0 | 11.5 | 61.1 | 14.1 | 12.1 | 0.4 | 0.8 |
| 1983 | a) Non-processed commodities | 27.2 | 9.2 | 25.0 | 26.7 | 25.7 | 8.4 | 5.0 |
| | b) Semi-processed commodities | 66.8 | 11.3 | 43.1 | 27.8 | 3.1 | 7.7 | 7.0 |
| | c) Manufactures | 6.0 | 33.2 | 17.1 | 35.7 | 2.3 | 4.1 | 7.6 |
| | d) Total | 100.0 | 12.0 | 36.6 | 28.0 | 9.2 | 7.7 | 6.5 |
| 1989 | a) Non-processed commodities | 26.3 | 13.2 | 27.4 | 20.9 | 19.3 | 15.4 | 3.8 |
| | b) Semi-processed commodities | 66.3 | 10.8 | 43.6 | 14.2 | 12.7 | 13.5 | 5.2 |
| | c) Manufactures | 7.5 | 21.2 | 20.2 | 36.8 | 3.6 | 3.5 | 14.7 |
| | d) Total | 100.0 | 12.2 | 37.6 | 17.7 | 13.7 | 13.2 | 5.6 |
| 1998 | a) Non-processed commodities | 30.5 | 17.2 | 19.1 | 21.8 | 27.4 | 11.4 | 3.1 |
| | b) Semi-processed commodities | 55.5 | 19.4 | 36.0 | 13.1 | 10.0 | 18.7 | 2.8 |
| | c) Manufactures | 14.0 | 55.7 | 17.3 | 14.2 | 0.6 | 1.1 | 11.1 |
| | d) Total | 100.0 | 23.8 | 28.2 | 15.9 | 14.0 | 14.0 | 4.1 |

Source: Prepared by the author using BADECEL data. Figures in current dollars, classified in accordance with ECLAC (1992) and Benavente (2001).

share. The severe effects of the debt crisis on Latin America reversed that tendency, so that the share of Chilean exports taken by the region fell to 12% in 1983. In that same year, the United States absorbed 28%, while the share of the European Union fell to 37% and Asian countries other than Japan emerged as important trading partners, their share rising from close to zero to 8%. By the end of the military dictatorship, in 1989, the share taken by United States markets had slipped to 18%, with an offsetting rise to 27% in the share going to Asian destinations.

In the 1990s, the share of United States markets held steady while that of the European Union declined, although it remained the largest destination in 1998. Asian markets continued to grow in importance, and in 1997 their share of Chilean exports (almost exclusively natural resources) peaked at 35%, making them the largest destination. This growth in the share taken by Asian markets was reversed in 1998, owing to the crisis that originated in that region. The collapse of Asian markets, whose share fell by seven percentage points, is one of the factors accounting for the severe drop in Chile's export total in 1998-1999. Exports to Latin American countries rose vigorously, thanks to the implementation of free trade agreements covering most

of the region's markets, an upsurge in economic activity and the real appreciation of their currencies in relation to other parts of the world. As a result, the share of regional markets had risen to 24% by 1998, just before the Asian contagion reached Latin America.

The composition of Chilean exports differs greatly by geographical destination. The figures in table 3 show that exports to industrialized countries are much more dominated by processed and unprocessed natural resources than are exports to markets in the region. The contrast is marked: in 1998, manufactures accounted for 56% of all Chilean exports to Latin America (a considerable increase on the 21% recorded in 1989), but for only 17% of Chilean exports to the European Union, 14% of those to the United States and 2% of those to Asia. The huge importance of Latin American markets as a destination for manufactures could be crucial for future progress with the volume and quality of Chilean exports. As was mentioned earlier, these markets have been highly dynamic, their share doubling between 1989 and 1998.

Within the region, Mercosur is Chile's main trading partner. The share of this market in Chile's total exports to Latin America declined during the 1990s. Nonetheless, the share of manufacturing exports going

there rose from about 40% in the 1980s to about 50% in the 1990s, which is indicative of the strategic importance of Mercosur for export diversification and upgrading. As regards the other markets of Latin America, the most dynamic one is Mexico, which is taking an increasing share of both total and manufactured exports.

Thus, the countries of Latin America are playing an increasingly important role in raising the share of manufactures and services in Chile's export diversification process. This development is closely bound up with trade liberalization in the region, including regional integration agreements.

Despite this, questions remain about the sustainability of Chilean manufacturing export growth. Much of the demand for these products still depends on the performance of the region's economies, on macroeconomic stability, and on the maintenance of exchange rates favourable to intraregional trade. In addition, the process will only remain dynamic if productive capacity is increased in activities that are more intensive in value-added and innovation.

V

Exports and growth

It has often been asserted that exports are the engine of the Chilean economy. The growth of exports as a share of GDP is obviously a channel for the transmission of externalities deriving from the exposure of local companies to markets abroad. The incidence of these is difficult to quantify, however, and little research has been done. 13 Again, the crowding-in effect of exports depends on the way they feed back into the national economy. 14 Progress has unquestionably been made in recent decades, as natural advantages have been supplemented by the development of dynamic competitive advantages, many of them based on natural resources, with the emergence of clusters specializing in forestry products, wine, salmon and fresh fruit. Some analysts believe that these successes could help provide the basis for a "Nordic" development strategy in Chile, whereby value is added to natural resources directly or by services, inputs and capital goods associated with them (Díaz and Ramos, 1998).

There are several arguments for further diversification into more highly processed goods and services, and against passive acceptance of an export profile dominated by products that only make intensive

Here we shall concentrate on another relationship, the influence of domestic policies —mainly the shifting macroeconomic environment— on the association between the performance of exports and the other components of GDP.

The correlation between export growth and real GDP has actually been high since the recovery from the debt crisis, in the 1990s. There was also a strong association in the recovery periods that followed the 1975 and 1982 crises (Meller, 1996). In those periods, the export sector was one of the most dynamic in the economy. This dynamism was accompanied in the

use of natural resources. There are four important reasons to diversify further with a view to adding more value. Firstly, the fact that primary commodities still make up a large percentage of Chilean exports means that the economy as a whole is still highly vulnerable to the large, unpredictable swings to which raw material prices are always subject. Secondly, there is a limit to how dynamic these products can be in the long term, and this could have adverse consequences for future growth in the economy as a whole (Sachs, Larraín and Warner, 1999). Thirdly, diversification would rapidly feed back into positive effects for the rest of the economy (greater correlation or linkages between exports and the other components of GDP). Fourthly, production of more highly processed goods would bring positive externalities for the rest of the economy in the medium term, owing to the "learning by doing" effect and to the benefits that accrue when dynamic competitive advantages are secured (ECLAC, 1998, chapters III and IV).

¹³ See Macario (2000) for a pioneering analysis covering Brazil, Chile, Colombia and Mexico.

¹⁴ Another very important variable is the limited share of GDP represented by exports. At late 1990s prices, gross goods and services exports represented less than 30% of GDP. If this figure is adjusted for the imported component of exports, their net value falls to between 21% and 24% of GDP. Thus, a rapid rise in exports –of 12% a year, say, as in East Asia– provides a growth floor of less than 3%.

1970s and 1980s by a recovery in GDP, while in the 1990s Chile's productive capacity expanded strongly as the country embarked on the longest period of sustained growth in its history. In all episodes, export volumes grew much more quickly than GDP (table 4). Most econometric studies that have examined the issue have found a clear positive association between exports (particularly non-copper exports) and GDP growth. ¹⁵

It is important to distinguish, however, between an effect that reactivates aggregate demand and an effect that generates new productive capacity. To concentrate on the latter, table 4 breaks down the last few decades into periods bracketed by years of peak utilization of productive capacity, in 1974, 1981, 1989 and 1997-1998. To repeat something that is often forgotten, a sector can only really become a growth engine if its expansion feeds back into the creation of new productive capacity in the rest of the economy, something that was only recorded in the 1990s.

As has been pointed out, the external debt crisis and the automatic adjustment that resulted from it led to a decline in output across the board in 1982-1983, with GDP falling by some 14%. In this process, the application of policies to restrain demand resulted in a high degree of productive capacity underutilization. Because the currency was devalued so much, stimulating output of exportables and importables, this underutilization was naturally concentrated mainly in non-tradable goods and services.

The export promotion measures taken during the 1980s, summarized earlier, acted as supply switching policies, reallocating available resources among sectors at a time when the total investment rate was very low (and thus new capacity creation was weak overall). Depressed domestic demand, and the increased profitability of exports that resulted from currency depreciation, generated incentives to invest in and produce tradables. As a result, there was no export-led growth that decade, but rather an export surge deriving from the combination of binding external constraints and a recessionary internal adjustment. The vigorous growth of exports, which averaged 8% a year in the period 1982-1989, obviously helped to revive economic activity. It was not enough, however, to make up for the virtual stagnation of non-export GDP, which rose by a mere 1.1% a year at a time when the population was growing at 1.6%. Exports were therefore unable to transmit their dynamism to total GDP, which grew by just 2.6% a year (table 4). This very modest outcome

can be explained by the fact that goods and services exports are responsible for less than a quarter of total value-added, or GDP.

In the 1990s it was a different story. The capital formation ratio rose to unprecedented levels, surging not just in the export sector but in non-exports as well. The gross fixed capital investment ratio rose from 18% in 1982-1989 to 28% in 1990-2000. Output in non-tradable sectors grew at much higher rates than in the 1970s and 1980s. In 1990-1997, for example, growth in infrastructure works and telecommunications was 18% and 32%, respectively (Moguillansky, 1999). 16

At the same time, exports remained dynamic even though the real exchange rate appreciated, particularly in 1995-1998 (figure 2). Three factors contributed to this positive outcome. Firstly, world trade was more vigorous. In 1980-1989, the volume of world trade had grown at an annual rate of 3.7%, but in 1990-1999 the rate was 6.2%. Secondly, Chile secured preferential access to new markets under a variety of trade agreements. Thirdly, the unprecedented rate of productive investment recorded in the period provided the basis for considerable improvements in labour productivity and external competitiveness. Other things also need to be borne in mind. The bulk of the moderate currency appreciation that occurred during the first half of the 1990s was an equilibrating adjustment after the currency drought of the 1980s. In addition, genuinely active policies were applied during those years to enhance export development through prudential management of the capital account and the macroeconomy in general. 17 As a result, actual growth in total GDP in the 1990s was associated with dynamism in both tradable and non-tradable sectors. In fact, exports and other components of GDP grew by 9.3% and 5.1% a year, respectively, in the period 1990-2000.¹⁸ Together with full utilization of productive capacity (figure 1), macroeconomic stability and prudential management, this accounts for the rapid rate of growth in the Chilean economy for much of the decade.

¹⁵ See Agosin (2001), Coeymans (1999) and Meller (1996).

¹⁶ These figures should be compared with annual growth of 2.6% for infrastructure in 1982-1989.

¹⁷ See Ffrench-Davis (2002, chapter IX), Ffrench-Davis, Agosin and Uthoff (1995) and Zahler (1998).

¹⁸ Figures based on table 4. The averages given in the text include the full employment years from 1991-1997 and the slowdown years of 1990 and 1998-2000. As 2000 was a year with a recessionary gap, potential non-export GDP growth in 1990-2000 was 6.3% a year, i.e., higher than the actual non-export GDP growth rate of 5.1%.

| TABLE 4 | |
|---------|---|
| | Chile: Exports and economic growth, 1960-2001 |

| | GDP growth | Export growth ^a | Non-export GDP growth ^b | Exports/GDP (constant prices) | Exports/GDP (current prices) |
|-----------|---------------|-------------------------------|-------------------------------------|-------------------------------|------------------------------|
| 1960-1970 | 4.2 | 3.6 | 4.3 | 11.9 | 14.0 |
| 1971-1973 | 0.5 | -4.1 | 0.9 | 9.9 | 11.8 |
| 1974-1981 | 3.3 | 13.6 | 1.5 | 20.7 | 21.8 |
| 1982-1989 | 2.6 | 7.8 | 1.1 | 28.3 | 28.3 |
| 1990-1994 | 7.3 | 10.0 | 6.3 | 34.6 | 31.0 |
| 1995-1998 | 7.3 | 9.5 | 6.4 | 37.7 | 28.4 |
| 1999-2001 | 2.4 | 7.3 | 0.0 | 43.3 | 31.4 |

Source: Based on official figures from the Central Bank of Chile at constant prices. Exports include goods and non-financial services.

In the second half of the 1990s, however, the real exchange rate appreciated too much owing to a large capital influx that outstripped the ability of the economy to absorb it efficiently and sustainably. As a result, resource allocation was distorted and the external deficit widened excessively, so that in 1996-1998 it was more than twice as large as it had been in 1990-1995. Consequently, there was also some over-investment in non-tradable sectors (particularly construction and trade), while production of tradables (particularly manufactures) fell off.

Thus, the achievements of most of the 1990s, when high export growth was combined with solid expansion of other components of GDP, were reversed. The reasons for this included the severe external shocks experienced by Chile from 1998 onward and the handling of the real macroeconomy, which was more neutral and passive than it had been in previous years. These two factors produced the recessionary macroeconomic environment in which companies had to operate from 1998 onward (figure 1).

VI

Concluding remarks

To sum up, the last three decades have been a period of exceptional export growth in Chile. During the second and third of these decades this remarkable performance was associated with unorthodox, quite active policies that sought to keep the exchange rate competitive and generate export capacity rather than confining themselves solely to orthodox economic reform, as happened in the 1970s with unilateral trade liberalization.

Four mutually reinforcing sets of factors seem to be most important in explaining the dynamic performance of Chilean exports. First, a depreciated real exchange rate is a factor of proven importance for the overall path of exports. Second, diversification into goods and services with greater value-added is crucial for improving the quality of exports, as it: i) gives access to more dynamic demand and higher international prices, and ii) strengthens the links between exports and the domestic economy. Important instruments for this purpose are a stable and rather depreciated real exchange rate, incentives such as simplified drawback of duties for non-traditional exports, and intraregional integration. Third, although this is beyond the scope of the present article, a vigorous national effort is needed to "complete" domestic technology and labour training markets and the long-term segments of the capital market if export quality is to be raised. Fourth, the export drive needs to be complemented by a sustainable domestic macroeconomic environment in which actual output is close to potential GDP and key macroeconomic prices are appropriate and conducive to productive development, so that export-led growth can emerge. This was the decisive factor underlying the positive association between export dynamism and sustained GDP growth in Chile for much of the 1990s.

^a Discrepancies with table 2 figures are due to differences in sources and methodology.

^b Non-export GDP equals total GDP minus the domestic content, that is the value-added, in exports. The share of imported inputs in the gross export total was assumed to be equal to imports of intermediate and capital goods as a share of GDP.

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The strategies of

multinational companies

in 1990s Argentina

In the 1990s, Argentina received large amounts of foreign

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Centro de Investigaciones para la Transformación (CENIT), Buenos Aires direct investment and the participation of multinational companies in the country's economy increased significantly. As during the import substitution industrialization period, the basic goal of multinationals is still to exploit the domestic market. Two differences from that period can be observed, however: access to the Brazilian market allows for greater economies of scale and specialization, and increased competition in many tradable sectors is forcing subsidiaries to bring their operations closer to international best practice. These differences, though, are not reflected in the trading practices of subsidiaries. Although these have considerably higher import ratios than local firms, differences in the export ratios of the two types of companies are not statistically significant.

Multinationals' manufacturing exports go mainly to Mercosur, while their imports come principally from the developed countries.

I

Introduction

One of the most striking features of the Argentine economy during the 1990s was the large influx of foreign direct investment (FDI) and the resultant increase in the presence of multinational companies in the country's market. Although Argentina had received large flows of investment of this kind at different stages in its history, particularly in the late 1950s and early 1960s, when the "hard" part of import substitution industrialization (ISI) began, there are a number of aspects of the recent FDI surge that make it unusual and particularly important.

Firstly, the largest FDI inflows seen in Argentina prior to the 1990s were between 1959 and 1963, when they averaged US\$ 464 million a year in today's money. In the 1990s, investment inflows of this kind averaged more than US\$ 6.76 billion a year. While FDI ran at about 0.3% of GDP between 1959 and 1963, it exceeded 2% almost every year in the 1990s. In fact, Argentina is one of the few developing countries to attract significant flows of foreign investment: between 1994 and 1999 it ranked fourth as an FDI recipient among developing countries, after China, Brazil and Mexico.

Consequently, the presence of multinationals¹ in the Argentine economy is also much greater than it was in the past. To take the largest manufacturing firms, whereas in 1963 multinationals accounted for 46% of value-added and 36% of employment, in 1997 the figures were 79% and 61%, respectively. Again, the share of multinationals in the total sales of the 100 largest manufacturing firms rose from 43% in 1974 to 61% in 1998. Indeed, the advance of multinationals in

the 1990s puts them among the clear "winners" in the restructuring that has taken place in the Argentine economy since the adoption of the Convertibility Plan and the implementation of a far-reaching programme of pro-market structural reform, which has drastically changed the ground rules of the country's economy.

Secondly, and essentially as a result of the reform programme just referred to, the domestic context has altered greatly. Whereas during the import substitution industrialization phase the Argentine economy was virtually closed to imports that competed with local output, from the late 1980s onward significant progress was made towards freer trade, including integration with Brazil, Paraguay and Uruguay in Mercosur.

Thirdly, during the substitution phase FDI went first and foremost into the manufacturing sector, while in the 1990s services played a much greater role as the weight of the industrial sector in the economy diminished. Again, whereas FDI during the import substitution period went mainly into greenfield investments, in the 1990s the bulk of investment went into purchases of existing companies (including privatized public-sector companies).

Lastly, the international context too is different from what it was in the past. Although FDI flows around the world expanded substantially in the 1950s and 1960s, in the 1990s there was a greater impetus towards globalization, one of whose most distinctive features has been the rapid growth of FDI. Measured at current values, world FDI flows increased from an annual average of US\$ 115 billion in 1984-1989 to an average of some US\$ 500 billion in 1994-1999. Globalization has also led to qualitative changes in the logic of FDI deployment, such as the growing importance of mergers and acquisitions and the reshaping of intracompany relationships to achieve greater linkage between the different subsidiaries and their head offices, not only commercially but also as regards technology and production methods.

Given this context, it is clearly important to analyse the determinants, types and effects of the great influx of FDI that went into Argentina in the 1990s. Chudnovsky and López (2001) present the results of a research project that looked into these issues. In the present article, which partly draws on that work, the

[☐] This article is based on the findings of a research project that was completed in March 2001 in the Mercosur Network, with financing from the International Development Research Centre (IDRC) of Canada and the *Agencia Nacional de Promoción Científica y Tecnológica* in Argentina. The authors wish to thank Laura Abramovsky for her valuable assistance in collecting and processing the statistical material used in this paper.

¹ The term "multinational" is used here to refer to all companies that have more than 10% of their share capital held by non-residents (following the IMF criterion that uses the 10% threshold to distinguish between portfolio investment and direct investment). In fact, most of the multinationals operating in Argentina are more than 50% foreign-owned.

analytical objectives are more narrowly defined, and the essential aim is to consider the extent to which the strategies and behaviour of the subsidiaries of multinationals in the new circumstances of the 1990s differed from what had been seen in the substitution industrialization period.

During ISI, the basic motivation of multinational companies investing in Argentina was the desire to exploit the protected domestic market ("jumping the tariff").² Their subsidiaries had little production complementation and/or linkage with their peers elsewhere in the company, and the little they exported went mainly to Latin American markets. They imported quite substantially, however, mainly goods that could not be produced locally because of the scales or the degree of technological complexity involved. These imports came mainly from the home countries of their parent companies, and from other developed countries. These subsidiaries performed better in terms of productivity, technology assets, etc., than locally owned firms, but because they were operating in an environment that offered relatively few incentives for technical progress and efficiency-seeking, the technologies and productivity levels they worked with tended to fall further and further behind international best practice. In certain respects, in short, the subsidiaries of multinationals showed a tendency to accentuate the main problems of the substitution model.3

By contrast, in the new circumstances of the 1990s the expectation, particularly among orthodox economists, was that FDI would be not only a source of balance-of-payments financing, but also a key element in the restructuring of the domestic economy to raise

its efficiency and level of integration with the world economy. This type of reasoning is embodied in the World Development Report 1991 (World Bank, 1991), where many of the ideas and recommendations of the so-called Washington Consensus were developed. According to the World Bank, FDI leads to losses of welfare when it is carried out in countries that follow "distorting" policies, such as high levels of import protection (as in the case of ISI). In open economies with investor-friendly laws, by contrast, multinationals abandon their old focus on the domestic market, increase their exports by exploiting their links with international markets, and at the same time increase their productivity rapidly (World Bank, 1991). The argument that multinationals stimulate export growth in recipient economies is also found in the World Development Report 1999/2000 (World Bank, 2000). To sum up, the expectation was that multinationals would not aggravate economic weaknesses as they had during ISI, but would help to strengthen the potentialities of the economic regime adopted in the 1990s.

In earlier studies (Chudnovsky, Porta and others, 1996 and Chudnovsky and López, 1996) we found that multinationals played a much more limited role in export growth than this orthodox view maintained, and that their strategies continued to focus mainly on the domestic market, although they were indeed more efficient than companies operating under the substitution industrialization model. Now that more time has passed since the reforms began, and new empirical evidence has been analysed, the findings of the present study bear out the results of our previous research.

Given this situation, this article sets out to answer the following questions. To what extent do the strategies and objectives of multinational companies differ, in the context of an economy that is more open now than in the past, from those that prevailed during the substitution industrialization phase? If there are differences, how did they manifest themselves in the external trade patterns of these companies' subsidiaries in the 1990s? And in particular, have multinationals altered their trading strategies along the lines predicted by the orthodox theory?

² Even in the days when the agricultural export model prevailed, of course, there were multinationals in Argentina engaged in exploiting natural resources, chiefly agricultural, with a view to export. Although this type of operation not only continued but expanded during the import substitution stage, the purpose of most of the FDI that arrived then was to exploit the domestic market.

³ See Sourrouille, Gatto and Kosacoff (1984), Sourrouille, Lucangeli and Kosacoff (1985) and Kosacoff and Aspiazu (1989).

II

The strategies of multinational companies

To analyse the strategies and operating methods adopted by multinationals in Argentina in the 1990s, we shall rely mainly on the conceptual framework provided by the so-called "eclectic paradigm" of foreign direct investment (Dunning, 1988 and 1996). This classifies FDI by purpose into four main types:

- i) Resource-seeking investment. This seeks to exploit natural resources or unskilled labour, whose availability is obviously the main locational advantage offered by the recipient country. Investments of this type are generally export-oriented and tend to operate as enclaves within the host country.
- ii) Market-seeking investment. This aims to exploit the domestic market of the recipient country (and sometimes the markets of other countries nearby). The size and growth rate of the market, the existence of physical barriers and/or high transport costs and the industrialization strategy of the recipient country, including decisions about the degree of protection for local output, are decisive factors for this type of FDI, which was the dominant one in Latin America during the ISI phase.
- iii) Efficiency-seeking investment. This type of investment tends to follow the previous type as competition conditions are modified by economic development, trade liberalization or the emergence of local competitors. Its aim is to rationalize production in order to exploit economies of specialization and scope. Regional integration, falling transport costs and advances in telecommunications favour this type of investment, which generally goes into trade and production activities designed to complement the operations of the multinational company's subsidiaries.
- iv) Strategic asset-seeking. It seems that FDI of the first two types is now yielding primacy to investment of this fourth type. "The main purpose [of this type of strategy] is to acquire resources and capabilities that an investing firm believes will sustain or advance its core competencies in regional or global markets. These assets may range from innovatory capability and organisational structures to accessing foreign distribution channels and a better appreciation of the needs of consumers in unfamiliar markets" (Dunning, 1996, p. 36).

In turn, shifts in multinationals' strategies and objectives have given rise to changes in the way their subsidiaries fit into the company's operations. Thus, market-seeking strategies led on to the creation of standalone subsidiaries. These reproduce the organization of the parent company on a smaller scale, generally with the exception of research and development activities, which tend to be concentrated in the home country (UNCTAD, 1994).

As cost competition begins to prevail in certain industries, national consumption patterns converge and transport costs fall, there is a shift in some cases to "simple integration" strategies, in which the subsidiary specializes in certain stages of the value chain (usually labour-intensive ones) as part of the outsourcing arrangements established by the company. This type of strategy obviously tends to increase the volume of external trade generated by FDI, as subsidiaries not only export much of their output, but generally operate with only a low level of national integration. Lastly, UNCTAD (1994) speaks of what it terms a "complex integration" strategy, in which multinationals turn their subsidiaries into an integral part of regionally or globally integrated distribution and production networks. Thus, the value chain is broken down into functions (assembly, finance, research and development, marketing, etc.) that are situated wherever they can be carried out most efficiently for the company as a whole. In this way, production and management functions of strategic importance to the company may be based in subsidiaries.

To analyse the strategies of multinationals in the case of Argentina, a range of indicators bearing on the external trade of their subsidiaries was studied, and a typology of strategies by sector was generated on the basis of this examination. In this way it was possible to establish four groupings that differ essentially depending on the types of sector involved in each case and their greater or lesser propensity to export, but that also display specific characteristics in their approach to Mercosur, among other factors (table 1).⁴

⁴ The sample from which the data included in this table were calculated were the 1,000 largest Argentine firms by sales in 1992 and 1997. The sales of companies in this sample represented 35% and 44% of GDP, respectively.

TABLE 1

Subsidiaries of multinational companies in Argentina: a sectoral typology of their strategies, 1992 and 1997

(Percentages and millions of dollars)

| | 1997 | | | | | | | | 1992 | | |
|--|----------------------|----------------------|-------------------------------|---------------------------------|---|----------------------------------|-------------------------|----------------------|-------------------------------|---|--|
| | X ratio ^a | M ratio ^a | X to Mercosur ^b | M from Mercosur ^b | X ratio without Mercosur ^c | Trade balance (mill. dol.) | % sales ^d | X ratio ^a | X to Mercosur ^b | X ratio without Mercosur ^c | |
| Total | 15.0 | 18.8 | 50.6 | 19.5 | 9.3 | 802 | 100.0 | 17.6 | 30.3 | 14.8 | |
| Resource-seeking strategy | 71.8 | 2.1 | 22.5 | 8.0 | 59.2 | 5,746 | 12.2 | 71.3 | 8.6 | 64.9 | |
| Fisheries | 87.8 | 2.9 | 2.1 | 0.0 | 86.1 | 137 | 0.3 | 64.7 | 0.1 | 64.6 | |
| Oils and grains | 84.5 | 1.0 | 16.4 | 12.7 | 69.6 | 4,570 | 8.2 | 88.4 | 17.2 | 72.9 | |
| Commodities marketing ^e | 81.6 | 2.9 | 7.2 | 2.8 | 75.2 | 180 | 0.5 | 81.2 | 0.6 | 80.8 | |
| Leather and manufactures thereof | 76.2 | 8.3 | 5.3 | 22.8 | 73.2 | 194 | 0.4 | 64.5 | 33.1 | 42.7 | |
| Petroleum | 45.3 | 1.6 | 54.0 | 1.2 | 26.9 | 522 | 2.3 | 15.4 | 0.0 | 15.4 | |
| Meat products | 44.1 | 1.8 | 21.7 | 1.6 | 30.9 | 143 | 0.5 | 53.9 | 0.4 | 53.6 | |
| Domestic market-seeking | | | | | | | | | | | |
| strategy | 0.8 | 16.2 | 12.6 | 11.0 | 0.7 | -2,227 | 38.1 | 1.7 | 22.0 | 1.6 | |
| Import trade with technical | | | | | | | | | | | |
| assistance component ^f | 4.7 | 41.2 | 12.5 | 6.5 | 4.4 | -471 | 1.3 | 4.0 | 19.7 | 3.8 | |
| Electricity, gas and water | 0.8 | 5.1 | 12.0 | 10.5 | 0.7 | -134 | 9.1 | 0.0 | 0.0 | 0.0 | |
| Construction and engineering | 0.1 | 2.9 | 8.1 | 6.5 | 0.1 | -9 | 0.3 | 0.7 | 14.9 | 0.6 | |
| Telephony services | 0.1 | 24.2 | n.c. | 2.5 | 0.1 | -774 | 9.7 | 0.0 | 0.0 | 0.0 | |
| Wholesale and retail trade | 0.1 | 32.1 | n.c. | 20.8 | 0.1 | -675 | 11.0 | 1.0 | 0.0 | 1.0 | |
| Transport and storage | 0.0 | 3.0 | n.c. | 2.0 | 0.0 | -71 | 2.8 | 0.0 | 0.0 | 0.0 | |
| Television and multimedia | 0.0 | 7.4 | n.c. | 0.1 | 0.0 | -67 | 1.1 | _ | - | - | |
| Other services | 0.0 | 1.6 | n.c. | 11.0 | 0.0 | -26 | 2.8 | 0.2 | 36.0 | 0.1 | |
| Moderate-export market-seeking | | | | | | | | | | | |
| strategy | 15.9 | 29.0 | 59.8 | 27.7 | 6.1 | -1,682 | 25.8 | 10.5 | 40.6 | 7.4 | |
| Cars and car parts | 24.8 | 31.7 | 69.3 | 40.7 | 4.3 | -334 | 12.8 | 11.1 | 37.5 | 8.9 | |
| Textiles and wearing apparel | 17.5 | 32.1 | 91.3 | 56.3 | 1.5 | -6 | 0.2 | 14.4 | 52.2 | 12.4 | |
| Cellulose and paper | 15.1 | 17.2 | 60.6 | 24.9 | 9.5 | -14 | 1.5 | 4.3 | 42.4 | 3.6 | |
| Chemical and petrochemical industry | 14.6 | 27.2 | 53.9 | 22.5 | 7.9 | -757 | 8.2 | 11.8 | 37.6 | 8.1 | |
| Plastic and rubber products industry | 11.2 | 31.1 | 63.2 | 30.6 | 3.1 | -170 | 1.0 | 2.3 | 50.6 | 1.1 | |
| Engineering and machinery | 10.3 | 30.1 | 57.0 | 20.2 | 4.8 | -194 | 1.1 | 12.5 | 48.6 | 7.7 | |
| Home electrical/consumer electronics | 10.0 | 38.3 | 80.2 | 17.8 | 1.8 | -207 | 1.0 | 0.1 | 46.9 | 0.1 | |
| Low-export market-seeking strategy | 6.7 | 16.6 | 62.0 | 19.9 | 2.3 | -1,052 | 23.4 | 5.3 | 40.0 | 2.9 | |
| Glass and non-metallic minerals Electrical and electronic | 9.1 | 10.2 | 51.2 | 21.0 | 3.8 | -11 | 1.0 | 6.2 | 25.1 | 4.4 | |
| equipment and machinery | 7.5 | 34.6 | 53.2 | 16.8 | 2.8 | -383 | 2.2 | 7.3 | 39.2 | 4.5 | |
| Food, beverages and tobacco | 7.3 | 9.5 | 61.0 | 27.3 | 2.2 | -18 | 10.1 | 5.9 | 38.6 | 2.3 | |
| Pharmaceutical industry | 6.0 | 3.5 | 68.3 | 6.8 | 1.7 | -518 | 2.2 | 4.0 | 53.5 | 2.6 | |
| Fuels and petroleum derivatives | 4.8 | 7.4 | 72.0 | 16.8 | 2.0 | -87 | 7.5 | 3.1 | 30.6 | 2.2 | |
| Publishing/graphics industry | 2.9 | 19.7 | 97.3 | 17.0 | 0.1 | -35 | 0.4 | 0.4 | 0.0 | 0.4 | |

 $\it Source$: Prepared by the authors on the basis of external trade statistics.

^a All ratios calculated as an average of individual company ratios. X = exports, M = imports.

^b Exports (imports) to (from) Mercosur as a percentage of total exports (imports).

^c Exports to non-Mercosur destinations as a percentage of total sales.

^d Sales of each sector as a percentage of total sales by multinationals.

^e Includes wool, fruit, etc.

f This category covers companies that distribute imported goods (essentially goods connected with information technology and telecommunications and inputs for the agricultural sector) and that, in addition to marketing, provide technical assistance services to purchasers. This category was introduced to distinguish operations of this type from others where the activity is exclusively commercial (retail trade, household goods stores, etc.).

One group with very well defined characteristics is the group of sectors in which resource-seeking FDI predominates, attracted by Argentina's natural comparative advantages. In 1997, companies in this grouping (which is much the smallest one) accounted for 12% of the total turnover of the multinationals ranking among the country's 1,000 largest firms. Of the four groups, this resource-seeking one is the only one to show a trade surplus. It includes companies that are clearly oriented towards the external market (the average export ratio is in excess of 70%, and they generally export over 50% of sales), and that operate with very low import levels. Mercosur provides only a very small proportion of these companies' few imports, and although it is a fairly important market for exports (particularly of petroleum and, to a lesser extent, of oils and grains and meat products), in 1997 the non-Mercosur export ratio of this group of sectors (i.e., exports outside the area as a percentage of each company's total sales) averaged about 60%. It may be imagined that the subsidiaries of multinationals in this category are only loosely integrated into their parent companies and that inter-subsidiary complementation and/or specialization strategies are uncommon. Each subsidiary's operating links with the rest of the company consist essentially in exports of commodities from Argentina, which implies that the dominant operating methodologies in this group of companies are of the stand-alone type.

The other extreme as regards market orientation is found in sectors whose strategies are purely marketseeking: trade, services, transport, construction. This grouping is the largest one, accounting for 38% of all sales by the multinationals ranking among Argentina's largest companies. The multinationals operating in these sectors hardly export at all, and only a few industries have high import coefficients (imports of final goods in the case of trade, and essentially of equipment and inputs in the case of telephony services). For them, Mercosur is not by and large a significant source of imports. The companies in this grouping run a large trade deficit, since although their average import ratio is not particularly high by the standards of multinationals in Argentina generally, their exports, as mentioned above, are virtually nil. Strong intersubsidiary integration and/or specialization strategies seem to be equally lacking here, at least in goods trade, although consideration should be given to the possibility that such strategies might be found in other areas (such as television, multimedia or telephony services). In any event, the evidence available indicates that in this grouping, as in the previous one, it is stand-alone strategies that predominate.

The other two groupings (market-seeking sectors with low exports and market-seeking sectors with moderate exports) include industrial sectors whose main focus is on the domestic market. In 1997, each of these two groups accounted for about 25% of all sales by the multinationals ranking among the country's largest companies. The distinction between the two was established on the basis of the average export ratio of the Argentine economy in 1997, which was a little over 9%. Thus, sectors whose ratios were similar to or lower than the national average were classified as low-export sectors, while those activities whose export ratios were higher than this average were classed as moderate exporters, the year taken being 1997 in all cases.

Many of the low-export sectors are producers of consumer goods (pharmaceuticals, food, drinks and tobacco), and product differentiation, be it by branding, technical characteristics, advertising or other aspects, is crucial to the way they compete. The electrical and electronic equipment and machinery sector also produces some consumer goods for markets with similar forms of dominant competition. This type of competition is also important in fuels and petroleum derivatives. Multinationals operating in these sectors have an average export ratio of 6.7%, which is well below their average import ratio of 16.6%; unsurprisingly, then, the operations of this group generate a large trade deficit. Table 1 shows that in the electrical and electronic equipment and machinery sector and the pharmaceutical sector, the import ratio is about five times the export ratio on average, and in the publishing and graphics industries it is over six times. Mercosur takes 62% on average of what companies in this group export. Thus, we find that exports beyond Mercosur average a bare 2.3% of lowexport market-seeking multinationals' sales. The percentage of imports sourced from Mercosur is much lower at 20%.

Lastly, in the group of sectors that export moderately (but are still focused on the domestic market) there is a discernible tendency to follow more open external trade strategies and to seek strong integration with Mercosur, particularly where exports are concerned. The average export ratio of these companies (16%) is lower than their import ratio (29%). As a result, they run a large trade deficit, particularly in the chemicals/petrochemicals sector.

Even the sectors in this more export-oriented group basically concentrate on Mercosur, and non-Mercosur

exports average just 6.1% of sales. Only in the chemicals/petrochemicals and cellulose/paper sectors does the non-Mercosur export ratio exceed this, while sectors such as household electrical appliances/consumer electronics and textiles export almost exclusively to Mercosur. In other words, manufacturing multinationals are now following market-seeking strategies in the broader ambit of Mercosur, but export very little to markets beyond it (4.4% is the average for all subsidiaries in this group).

What happens when we compare the indicators for 1992 with those for 1997? Two groups show little change: the resource-seeking group of sectors (although the proportion of exports going to Mercosur increased) and the purely market-seeking group of sectors. In both low-export and moderate-export manufacturing sectors, the average export coefficient rose (most markedly in those sectors that exported moderately in 1997) and the proportion of external sales going to Mercosur increased sharply. Thus, in both groupings the share of non-Mercosur markets in total sales tended to fall between 1992 and 1997. In other words, whereas consideration of changes in export ratios might give the impression that the strategies of multinationals became less market-seeking between those two years, when the Mercosur dimension is brought in we find that the opposite was what tended to happen, since non-Mercosur exports as a proportion of total sales were lower in 1997 than in 1992. The only exceptions to this general rule were the chemicals/petrochemicals sector and, very marginally, the household electrical/consumer electronics sector and the plastic and rubber products industry.5

The evidence that market-seeking strategies are strongly dominant in the subsidiaries of multinational companies is consistent with the findings of previous studies into the subject (Chudnovsky, Porta and others, 1996; Kosacoff and Porta, 1997 and Porta, 1999), which also agree that the size and growth rate of the domestic market were the main attractions for FDI going into Argentina in the 1990s. As was noted in the introduction, the same was true of the strategies and determinants of FDI in the ISI stage. There are two significant differences, however, from the dynamic that prevailed in that period.

Firstly, as has just been noted, the market that multinationals are trying to succeed in is not just the Argentine one, but in many cases the wider regional market, Mercosur. This offers scope, in principle, for greater economies of scale and specialization and hence greater efficiency than in the ISI phase. According to the standard literature, it is essentially through efficiency-seeking strategies (of which more later) that these gains can be realized.

Secondly, at a time of freer trade market-seeking strategies need to include rationalization and modernization measures designed to improve the productivity and quality of local processes and products. Earlier studies (Chudnovsky, Porta and others, 1996 and Kosacoff and Porta, 1997) show that multinationals have indeed taken action of this type, although efficiency gains have not always been passed on "downstream" to customers or consumers. Whether this has happened or not has generally depended on whether there is real competition in the markets concerned (something that is not always guaranteed by trade liberalization alone) and/or whether there are effective systems of regulation to constrain the ability of companies in particular sectors to abuse their dominant position (this is a crucial issue for privatization; in the case of Argentina, the scope of regulatory requirements and the degree of enforcement have varied very greatly among the different sectors involved).

The need for the subsidiaries of multinationals to implement efficiency measures is part of the restructuring process seen in the Argentine productive sector in the 1990s. Multinationals, it should be remembered, have been in a privileged position because of their greater technological and financial capabilities, their ability to use the know-how and experience accrued in other subsidiaries of the company to rationalize and modernize local structures, and the ease with which they can take advantage of freer trade through intracompany trade flows. Thus, multinationals have mainly led what Kosacoff (ed., 1998) has defined as "offensive restructurings", making what have often been large investments and implementing profound organizational changes, as a result of which they have secured major productivity improvements that have brought them closer to international best practice.

These efficiency measures, though, do not always form part of efficiency-seeking strategies as defined by Dunning. When forced to reduce costs (by trade liberalization), the subsidiaries of multinationals may implement rationalization or efficiency measures that

⁵ To ascertain how far the changes in the indicators referred to were due to shifts in the strategies of existing multinationals or to the entrance of new "players", a homogeneous panel of companies was analysed (i.e., companies operating both in 1992 and in 1997). In general, the results were consistent with the exercise just described, and bore out its conclusions.

do not necessarily involve closer links with other subsidiaries of the same company.

Efficiency-seeking strategies are taking on greater importance as well, however, particularly within Mercosur. Many multinationals operating in tradable sectors have tended or are tending to adopt a strategy of specialization in certain products or lines of production, and of complementation with other subsidiaries of the same company (particularly those operating in Brazil), shaping a production function that is open in respect of processes (inputs) and products.

Kosacoff and Porta (1997) detected the presence of strategies with efficiency-seeking components in certain sectors, namely food and beverages (branded products), cleaning and toiletry articles, household electrical appliances, packaging and cars and car parts. These strategies, logically enough, were implemented more quickly by "newcomers", whose planning included specialization and complementation among subsidiaries from the outset, than among established firms. With the latter, the specialization process began with the importation, generally from another subsidiary of the multinational concerned, of finished products to extend the variety of supply or test the market, or of inputs to bring down the cost of local production, while progress towards specialization systems based on relocation of activities among subsidiaries was at an early stage, and varied among the different companies and sectors studied. Thus, it was no surprise to find that in many cases trade flows of this type were still heavily dependent on demand cycles in the local markets concerned.

Examination of current trade flows by company and by sector yields new evidence that use is being made of specialization strategies designed to improve efficiency. This is clear from the fact that a number of companies' exports are heavily concentrated in one or just a few product lines (and are heavily focused on Mercosur, as was mentioned earlier), while imports of both inputs and finished goods are very diverse.

It is only in the automotive industry, though, that solid, efficiency-oriented integration strategies, mainly within Mercosur, seem to be becoming the rule. This is chiefly the result of two factors: i) the importance that Mercosur has taken on in the globalized competition among the major car manufacturers, and ii) the

existence of different regimes for car production activities in Argentina and Brazil, which have encouraged specialization and integration between the two countries' industries.

In other sectors, specialization strategies still seem to depend on macroeconomic fluctuations, as has been seen since the devaluation of the real in January 1999 and the long recession that began in Argentina in late 1998. These events have led a number of multinationals to shut down production lines or even whole plants in Argentina, with production being shifted in many cases to Brazil.

As efficiency-seeking strategies begin to be implemented, so at the same time a gradual shift is taking place from the type of stand-alone subsidiaries characteristic of ISI to working methods based on forms of simple integration. The evidence available indicates that, by and large, greater integration is confined almost entirely to part of the product range on offer and does not include transfer of any of the multinational's strategic functions. In particular, Argentine subsidiaries do not carry out research and development or process and product design in-house, and they are given only partial responsibility for marketing and market development activities (Kosacoff and Porta, 1997). These authors maintain that the simple integration taking place in industries such as branded foods, cleaning and toiletry articles, household electrical appliances and car parts is weak, and only in the automotive sector, where efficiency-seeking strategies are more highly developed, do strong forms of integration appear to be emerging.

Lastly, asset-seeking strategies focus on the acquisition of existing companies. It is found that, generally speaking, the market position of the company being taken over has mattered far more as an investment determinant than its level of equipment. Multinationals acquiring public service enterprises did not generally set a high value either on the physical and technological assets nor on the human capital that these had before privatization (Chudnovsky, Porta and others, 1996). In any event, the strategic character of the assets sought by some multinationals to invest in depends essentially on these companies' operations in Argentina or, at most, in Mercosur, and they are rarely strategic for the global performance of the company concerned.

Ш

The external trade of multinational companies

In the previous section we ascertained that the subsidiaries of multinationals tend to export little—and less than they import— and that their external trade, particularly exports, is largely bound up with Mercosur. We now need to look a little more closely at the trading patterns of companies of this kind, and contrast them with those of locally owned companies operating in Argentina.

To what extent does the trade performance of multinationals resemble or differ from that of local ones? The information available reveals a striking contrast in the trade balances of the two types of firms. In 1997, when the Argentine balance of trade was in deficit by US\$ 2.126 billion (using FOB values for both imports and exports and taking the 1,000 companies with the largest sales), we find that multinationals had a surplus of US\$ 803 million, while local firms had a surplus of US\$ 5.042 billion (table 2). Excluding companies that exported commodities or products with a low degree of processing (oils, grains, leather, meat products, fish, petroleum, wool, fruit, etc.), multinationals ran a deficit of US\$ 4.943 billion in 1997. By contrast, if the same exercise is carried out for locally owned companies, the outcome is still a positive trade balance of US\$ 991 million.

Part of the explanation for the tendency of multinationals (excluding those that export commodities or products with a low degree of processing) to run trade deficits could lie in the difference between their sectoral distribution and that of local companies. Thus, we find that sectors dominated by multinationals, such as the automotive and car parts sector or the telephony services sector, have large trade deficits. In a number of sectors, however, multinational companies run deficits while local ones run surpluses or much smaller deficits, examples being chemicals/petrochemicals, electrical and electronic equipment and machinery, pharmaceuticals, and foods, beverages and tobacco. Again, other than in sectors producing commodities or goods with a low degree of processing, the import ratios of multinationals in all industries are higher than their export ratios. The same is not true of domestic firms, which export more than they import in the food, beverages and tobacco, fuel, electrical equipment and

machinery, iron, steel and aluminium and chemicals/petrochemicals industries. In other words, although the "sector" variable may be important in explaining the differences between the trade balances of the two types of companies, the "origin of capital" variable is significant too, meaning that multinationals may have a tendency to generate negative trade balances irrespective of the business they are in.

Again, taking the 1,000 largest firms by sales, multinationals had higher export ratios on average than local ones in both 1992 and 1997 (table 2). This tendency holds if the most export-oriented sectors are excluded (those working with agricultural or mineral commodities), although when this is done there is a very significant diminution in the export orientation of the leading Argentine companies. If commodity sectors are excluded from the 1997 figures, the average export ratio of subsidiaries of multinationals is just 8.1%, while that of local firms is 4.2%.

It can also be seen that the export orientation of both domestic and multinational firms weakened between 1992 and 1997. This can mainly be put down, however, to a problem with the composition of the sample, as the representation of export-oriented sectors among the largest firms declined. It should also be noted that when these sectors are excluded, average export ratios rose slightly between the years concerned. If non-Mercosur export ratios are taken, however, the conclusions from this comparison are reversed.

Where import levels are concerned, the average ratio of multinational firms was more than double that of domestic ones in 1997 (table 2). In a context of freer trade, the tendency towards global sourcing⁶ and the greater ease with which multinationals can supplement the output of their local subsidiaries with products imported from other subsidiaries largely accounts for the propensity of multinationals to import more than their local counterparts.

⁶ The global sourcing system involves a special relationship between producer and supplier, in which the latter is in a position to supply all of its customer's plants wherever they may be. This may take the form of centralized provision from a factory in a particular country or decentralized provision from plants in the country where the producer is operating.

TABLE 2

Argentina: Trade balance and export and import ratios by sector and origin of capital, 1992 and 1997

| | Trade | balance | | Export | ratio | | Import ratio | | | |
|---|-------|-----------------|------|--------|-------|------|--------------|------|--|--|
| Sector | 1 | 997 | 199 | 92 | 199 | 97 | 199 | 97 | | |
| | LCa | MC ^a | LC | MC | LC | MC | LC | MC | | |
| Total | 5,042 | 803 | 12.9 | 17.6 | 10.2 | 15 | 8 | 18.8 | | |
| Total excluding commodities ^b | 991 | -4,943 | 4.2 | 6.7 | 4.2 | 8.1 | 8.5 | 20.2 | | |
| Oils and grains | 2,373 | 4,570 | 62.1 | 88.4 | 63.4 | 84.5 | 1.1 | 1 | | |
| Food, beverages and tobacco | 246 | -18 | 5.6 | 5.9 | 7 | 7.3 | 4.2 | 9.5 | | |
| Cars and car parts | -9 | -335 | 4.7 | 11.1 | 2.6 | 24.8 | 10.7 | 31.7 | | |
| Cellulose and paper | -83 | -14 | 6.7 | 4.3 | 5 | 15.1 | 20.6 | 17.2 | | |
| Fuels and derivatives thereof | 1,574 | -87 | 8.6 | 3.1 | 14.2 | 4.8 | 7.3 | 7.4 | | |
| Import trade with technical assistance component | -41 | -471 | 0 | 4 | 0.8 | 4.7 | 11.9 | 41.2 | | |
| Wholesale and retail trade | -527 | -675 | 0.1 | 1 | 1.4 | 0.1 | 8.3 | 32.1 | | |
| Construction and engineering | -56 | -9 | 0.2 | 0.7 | 0.3 | 0.1 | 2.1 | 2.9 | | |
| Leather and manufactures thereof | 450 | 194 | 67.8 | 64.5 | 76.5 | 76.2 | 12.2 | 8.3 | | |
| Publishing/graphics industry | -77 | -35 | 7.4 | 0.4 | 4.7 | 2.9 | 10.2 | 19.7 | | |
| Electricity, gas and water | 0 | -134 | 0 | _ | 0 | 0.8 | 0.1 | 5.1 | | |
| Household electrical/consumer electronics | -227 | -207 | 0.4 | 0.1 | 2.2 | 10 | 30.5 | 38.3 | | |
| Pharmaceutical industry | -68 | -518 | 2.3 | 4 | 9.8 | 6 | 12.7 | 33.5 | | |
| Meat products | 468 | 143 | 37.3 | 53.9 | 26.3 | 44.1 | 4.1 | 1.8 | | |
| Plastics and rubber products industry | -54 | -170 | 7.8 | 2.3 | 15.8 | 11.2 | 16.4 | 31.1 | | |
| Electrical and electronic equipment and machinery | 6 | -383 | 6 | 7.3 | 24.3 | 7.5 | 0.7 | 34.6 | | |
| Engineering and machinery | -89 | -194 | 6.9 | 12.5 | 5.2 | 10.3 | 13.1 | 30.1 | | |
| Mining | -11 | -3 | 1.2 | 0 | 1 | 63.3 | 6.7 | 58.5 | | |
| Fisheries | 94 | 137 | 57.8 | 64.7 | 56.9 | 87.7 | 1.2 | 2.9 | | |
| Petroleum | 417 | 522 | 10.4 | 15.4 | 45.1 | 45.3 | 4.3 | 1.6 | | |
| Chemicals and petrochemicals | 37 | -757 | 18.5 | 11.8 | 23.7 | 14.6 | 20.3 | 27.2 | | |
| Telephony services | _ | -774 | 0 | 0 | _ | 0.1 | _ | 24.2 | | |
| Iron, steel and aluminium | 520 | _ | 8.1 | _ | 22.5 | _ | 12.4 | _ | | |
| Textiles and wearing apparel | 47 | -6 | 3.6 | 14.4 | 5.7 | 17.5 | 11.2 | 32.1 | | |
| Commodities marketing | 249 | 180 | 57.3 | 81.2 | 47.9 | 81.6 | 5 | 2.9 | | |
| Transport and storage | -115 | -71 | 0.1 | 0 | 0 | 0 | 5 | 3 | | |
| Television and multimedia | -8 | -67 | 0 | _ | 0 | 0 | 6.8 | 7.4 | | |
| Glass and non-metallic minerals | -49 | -10 | 5.2 | 6.2 | 6.2 | 9.1 | 9.3 | 10.2 | | |

Source: Prepared by the authors on the basis of Argentine external trade statistics and data from Mercado and Prensa Económica magazines.

To verify more rigorously the hypothesis that the external trade practices of multinationals are different from those of locally owned firms, we proceeded as follows. Pairs of firms were selected from the 1,000 largest companies by sales, one of them locally owned and the other foreign-owned. The companies in each pair belonged to the same sector and differed in size (as measured by sales) by no more than 15% in 1997. This made it possible to compare the external trade performance of multinationals with that of an appropriate control group, removing the biases that differences of sector and size can introduce (table 3).

What this exercise shows, confirming the findings set forth previously, is that multinational companies export and import more in relation to sales than domestic ones, but that while the latter export more than they import, the opposite is true of multinationals. The exercise described above also allows us to ascertain whether the differences in export/import orientation between multinational and local companies are statistically significant or not. The answer is that they are where import orientation is concerned, but not where export orientation is concerned. In other words, while the statistical evidence supports the theory that

^a LC = local companies, MC = multinational companies.

b Excludes oils and grains, leather and manufactures thereof, meat products, fisheries, petroleum and commodities marketing.

TABLE 3

Argentina: Comparison of transnational and local companies' trade performance, 1997 (Pairs of companies)

| | Exports/ sales | Imports/ sales |
|---|-------------------|-------------------|
| No. of pairs | 88 | 115 |
| Average (%) | 15 | 15 |
| Multinational companies | 16 | 20 |
| - Local companies | 13 | 10 |
| Standardized difference (%) | 24 | 58 |
| Z value | 1.59 | 5.24 |
| Statistically significant at 5% | No | Yes |
| Statistically significant at 1% | No | Yes |

Source: Prepared by the authors on the basis of Argentine external trade statistics and data from Mercado and Prensa Económica magazines.

multinationals tend to import more than local firms, the same does not hold true for exports.

Geographically, the external trading pattern of the subsidiaries of multinationals⁷ is quite similar to the external trading pattern of Argentina generally. In 1997, a greater proportion of these companies' exports than of total Argentine exports went to Mercosur, with a smaller proportion therefore going to NAFTA, East Asia and the European Union. As for imports, there was a slight tendency for multinationals to import less from East Asia and NAFTA and to import disproportionately from the "rest of the world" and Europe (table 4, p. 162).

When the export patterns of multinationals and the wider national economy are compared we find, firstly, that multinationals tended to export more commodities (particularly agricultural ones) and less industrial goods, 8 although the differences from the general

pattern of the economy are not very significant (table 5, p. 162). Within the industrial goods category, it is found that multinationals exported more natural resource-based products, agricultural products once again being preponderant.

It might be thought that the classification used, by grouping all agricultural or agro-industrial products in a single category, could be masking the possibility that multinationals might be exporting products that are more sophisticated, either technically or in terms of the market niche they are aimed at, than those of local companies within these groupings. This does not seem to be the case in Argentina, however. There, about 85% of multinationals' agricultural commodity exports are wheat, maize and soya. These are obviously the type of products that have long been the country's traditional export staples. In the case of agro-industrial manufactures, the bulk of these are flours and oils, which have been one of the country's largest export categories for two decades (over 80% of multinationals' exports in this category are of these products).

As for manufactures, multinationals export few labour-intensive products, and most of their exports are from industries in which economies of scale are important. Of these, the greatest contribution is made by the automotive industry, which accounts for over 80% of exports in this group. In 1997, multinationals were less likely than the rest of the economy to export manufactures requiring the use of skills or know-how (specialized suppliers and research and developmentintensive industries). Again, the automotive complex (engines and engine parts) also weighs heavily in the exports of the specialized suppliers group, generating about 70% of its external sales. When this is considered along with the importance of this complex for exports involving economies of scale, it can be seen that it is essentially through the automotive industry that multinational companies participate in Argentine industrial exports.

What happens when the composition of multinationals' trade flows is analysed by region (table 6, p. 163)? In the case of exports, it transpires that Mercosur is the leading destination for exports of non-natural resource-based industrial products. In fact, Mercosur and LAIA between them take about 90% of these exports. Exports of commodities and natural resource-intensive manufactures display a different geographical pattern, although Mercosur is important once again as a destination market, particularly in the case of mining- and energy-related products. Countries that do not form part of any regional grouping ("rest of

⁷ To process the information on the geographical pattern and composition of multinationals' trade, a sample of the 140 largest multinationals with production operations in the country was put together. This group therefore excluded multinationals that were exclusively importers and those specializing purely in trade and services. The exports of this smaller sample accounted for 22% and 33%, respectively, of all Argentine exports in 1992 and 1997, and for 21% of Argentine imports in 1997. In relation to the entire range of multinationals, this sample accounted for 66% and 71% of exports in 1992 and 1997, respectively, and for 36% of imports in 1997.

⁸ The classification employed is useful for depicting the pattern of specialization by multinationals in terms of technology content, factor intensity and the degree of industrialization of the goods marketed by them. This classification was developed by CTP-Data group (Universities of Paris I, XI and XIII) on the basis of Pavitt's traditional classification (1984), which was subsequently adapted by Guerrieri and Milana (1989) and Guerrieri (1992).

TABLE 4

Argentina: Exports and imports by economic area of destination, 1997

(Millions of dollars and percentages)

| | | Ex | ports | Imports | | | | | |
|-----------------------|---------|---------|--------|---------|----------------|-------|--------|-------|--|
| | Multina | tionals | Argei | ntina | Multinationals | | Arge | ntina | |
| Economic area | Value | % | Value | % | Value | % | Value | % | |
| Total | 8,779 | 100.0 | 26,357 | 100.0 | 5,899 | 100.0 | 28,487 | 100.0 | |
| LAIA ^a | 791 | 9.0 | 3,134 | 11.9 | 150 | 2.5 | 1,050 | 3.7 | |
| Mercosur ^b | 3,618 | 41.2 | 9,466 | 35.9 | 1,449 | 24.6 | 7,213 | 25.3 | |
| NAFTA ^c | 342 | 3.9 | 2,445 | 9.3 | 1,268 | 21.5 | 6,634 | 23.3 | |
| Rest of world | 2,148 | 24.5 | 4,643 | 17.6 | 798 | 13.5 | 2,203 | 7.7 | |
| East Asiad | 727 | 8.3 | 2,730 | 10.4 | 350 | 5.9 | 3,558 | 12.5 | |
| European Unione | 1,153 | 13.1 | 3,939 | 14.9 | 1,883 | 31.9 | 7,828 | 27.5 | |

Source: Prepared by the authors on the basis of external trade statistics.

TABLE 5

Argentina: Exports by product type, 1997
(Millions of dollars and percentages)

| | Exports | | | | | | |
|---|---------|----------|-----------|-------|--|--|--|
| | Multina | ntionals | Argentina | | | | |
| Sector | Total | % | Total | % | | | |
| Total | 8,779 | 100.0 | 26,357 | 100.0 | | | |
| Subtotal | 8,754 | 99.7 | 26,317 | 99.8 | | | |
| 1. Commodities | 2,842 | 32.4 | 8,335 | 31.6 | | | |
| 1.10 Agricultural | 2,433 | 27.7 | 5,916 | 22.4 | | | |
| 1.20 Mining | 0 | 0.0 | 114 | 0.4 | | | |
| 1.30 Energy | 409 | 4.7 | 2,305 | 8.7 | | | |
| 2. Industrial products | 5,912 | 67.3 | 17,982 | 6.2 | | | |
| 2.1 Natural resource-intensive industries | 3,353 | 38.2 | 9,619 | 36.5 | | | |
| 2.11 Labour-intensive agricultural industries | 2,831 | 32.2 | 6,913 | 26.2 | | | |
| 2.12 Other agricultural resource-intensive industries | 119 | 1.4 | 860 | 3.3 | | | |
| 2.13 Mining | 144 | 1.6 | 832 | 3.2 | | | |
| 2.14 Energy | 259 | 2.9 | 1,006 | 3.8 | | | |
| 2.2 Manufactures | 2,559 | 29.2 | 8,362 | 31.7 | | | |
| 2.22 Labour-intensive industries | 92 | 1.1 | 2,048 | 7.8 | | | |
| 2.23 Industries that exploit economies of scale | 1,838 | 20.9 | 4,303 | 16.3 | | | |
| 2.24 Specialized suppliers | 370 | 4.2 | 1,133 | 4.3 | | | |
| 2.25 R&D-intensive industries | 259 | 2.9 | 881 | 3.3 | | | |

Source: Prepared by the authors on the basis of external trade statistics and Porta and Anllo (1998).

^a Latin American Integration Association (excluding Mexico and Mercosur).

^b Southern Common Market.

^c North American Free Trade Agreement.

^d Includes China, Hong Kong, Indonesia, Japan, Malaysia, the Philippines, the Republic of Korea, Singapore, Taiwan Province of China and Thailand.

e European Union.

TABLE 6

Argentina: Geographical distribution of external trade conducted by the subsidiaries of multinational companies, by product type, 1997
(Percentages)

| | | L | AIA | Mer | cosur | NA | FTA | RW | | SE A | ASIA | | EU | To | tal |
|---------|--|---------|------|------|-------|------|------|------|------|--------|------|------|-------|-------|-------|
| | | X | M | X | M | X | M | X | M | X | M | X | M | X | M |
| Total | | 9.0 | 2.5 | 41.2 | 24.6 | 3.9 | 21.5 | 24.5 | 13.5 | 8.3 | 5.9 | 13.1 | 31.9 | 100.0 | 100.0 |
| 1. Com | nmodities | 11.4 | 7.7 | 28.4 | 19.5 | 3.3 | 5.6 | 34.9 | 54.4 | 10.9 | 10.1 | 11.1 | 2.6 | 100.0 | 100.0 |
| 1.10 | Agricultural | 9.9 | 7.4 | 22.5 | 44.9 | 1.5 | 11.8 | 40.8 | 7.3 | 12.3 | 23.3 | 13.0 | 5.3 | 100.0 | 100.0 |
| 1.20 | Mining | 25.2 | 0.2 | 20.7 | 10.3 | 50.9 | 26.4 | 3.3 | 44.4 | 0.0 | 0.4 | 0.0 | 18.3 | 100.0 | 100.0 |
| 1.30 | Energy | 19.9 | 8.2 | 63.4 | 0.0 | 14.1 | 0.2 | 0.0 | 91.6 | 2.6 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 |
| 2. Indu | strial products | 7.9 | 2.4 | 47.2 | 24.7 | 4.2 | 21.9 | 19.6 | 12.2 | 7.05.8 | 14.2 | 33.1 | 100.0 | 100.0 | |
| 2.1 | Natural resource- | | | | | | | | | | | | | | |
| | intensive industries | 7.9 | 5.9 | 17.9 | 18.5 | 5.5 | 29.0 | 32.9 | 12.9 | 11.9 | 4.6 | 24.0 | 29.2 | 100.0 | 100.0 |
| | 2.11 Labour-intensive agricultural | | | | | | | | | | | | | | |
| | industries | 7.9 | 12.8 | 12.2 | 24.7 | 3.6 | 32.4 | 36.6 | 4.0 | 13.3 | 2.0 | 26.4 | 24.1 | 100.0 | 100.0 |
| | 2.12 Other agricultural resource-intensive | | | | | | | | | | | | | | |
| | industries | 12.0 | 2.6 | 29.8 | 58.6 | 7.3 | 15.9 | 14.6 | 2.0 | 10.5 | 0.1 | 25.8 | 20.7 | 100.0 | 100.0 |
| | 2.13 Mining | 11.1 | 4.9 | 44.0 | 15.6 | 13.3 | 32.8 | 23.6 | 10.8 | 5.3 | 4.8 | 2.7 | 31.2 | 100.0 | 100.0 |
| | 2.14 Energy | 4.5 | 6.5 | 59.9 | 6.3 | 21.6 | 8.4 | 5.2 | 43.1 | 0.2 | 8.7 | 8.8 | 27.0 | 100.0 | 100.0 |
| 2.2 | Manufactures | 7.7 | 1.5 | 85.6 | 26.1 | 2.5 | 20.3 | 2.1 | 12.0 | 0.7 | 6.1 | 1.3 | 34.0 | 100.0 | 100.0 |
| | 2.22 Labour-intensive | | | | | | | | | | | | | | |
| | industries | 23.8 | 3.1 | 64.2 | 31.8 | 1.2 | 23.7 | 6.7 | 14.4 | 0.0 | 7.1 | 4.0 | 19.9 | 100.0 | 100.0 |
| | 2.23 Industries that | | | | | | | | | | | | | | |
| | exploit economies | | | | | | | | | | | | | | |
| | of scale | 5.2 | 2.1 | 89.9 | 34.3 | 1.9 | 17.5 | 1.8 | 9.6 | 0.7 | 6.5 | 0.6 | 30.0 | 100.0 | 100.0 |
| | 2.24 Specialized supplie | ers 5.6 | 1.1 | 82.6 | 17.8 | 5.4 | 22.6 | 2.3 | 12.1 | 0.6 | 4.6 | 3.6 | 41.7 | 100.0 | 100.0 |
| | 2.25 R&D-intensive | | | | | | | | | | | | | | |
| | industries | 23.5 | 0.3 | 67.5 | 15.5 | 3.1 | 22.8 | 2.3 | 17.2 | 1.4 | 7.1 | 2.3 | 37.1 | 100.0 | 100.0 |

Source: Prepared by the authors on the basis of external trade statistics.

the world"), and to a lesser extent the European Union and South-East Asia, are the main recipients of agriculture-related goods, while NAFTA is a significant purchaser of mining/energy products exported by the subsidiaries of multinational companies in Argentina. In other words, multinationals export their most sophisticated products (in terms of technology and production techniques) to the Latin American countries, particularly Mercosur, while what they sell to the developed countries are mainly commodities or natural resource-intensive manufactures.

What about imports? The pattern clearly has the opposite tendency to the one described for exports. Mercosur is important as a source of imports for the subsidiaries of multinationals in almost all industries, but particularly in the case of commodities and agriculture-linked manufactures. By contrast, manufacturing imports, and especially those included in the specialized suppliers and R&D-intensive

categories, tend to come mainly from the European Union and the NAFTA countries.

Lastly, it is interesting to analyse the extent to which the external trade of multinationals is conducted with the home countries of their respective parent companies. In the case of exports, these home countries are of very little importance as destination markets. In 1997, only Brazilian and Chilean companies showed some tendency to export disproportionately to their respective home countries. In all other cases, the percentage of exports sent by subsidiaries to the countries in which their parent companies were located was generally between zero and 3%. The situation is no different if the regional blocs to which the home countries of parent companies belong are considered. Thus, neither NAFTA nor the European Union were export destinations of any particular importance for Canadian or United States companies, in the former case, or European ones, in the latter.

The picture changes when the imports of companies in the sample are analysed. The proportion of imports coming from the home countries of subsidiaries' parent companies in 1997 was 61% for Brazil, 60% for France, 54% for Japan, 42% for Switzerland, 36% for Germany, 32% for Great Britain and almost 30% for the United States

and Canada. Again, NAFTA was the source for 80% of Canadian companies' imports, and the European Union for 91% of Belgian companies', for example. By contrast with the situation for exports, in other words, there is quite a clear association in many cases between the origin of multinationals and the origin of their imports.

IV

General conclusions and policy suggestions

Let us return to the questions asked in the introduction to this article. Do the strategies and objectives of multinational companies in an open economy differ from those seen during the ISI phase? Yes, but not as much as might be imagined, considering how the ground rules changed in the 1990s.

The basic objective of subsidiaries of multinationals in Argentina is still to exploit the domestic market. It is clear, however, that there are two substantial differences from the ISI phase: access to the Brazilian market under Mercosur has made greater economies of scale and specialization possible, and increased competition in many tradable sectors is forcing subsidiaries to bring their production operations more into line with international best practice.

These differences are not reflected, however, in the trading patterns of subsidiaries, which the findings of this study suggest are not much different from what they were under ISI.

Manufacturing exports, which are only a small proportion of total sales, go mainly to Mercosur; exports to the developed countries consist essentially of commodities and natural resource-based manufactures with a low degree of processing. Manufacturing imports, and particularly more technologically complex ones, come mainly from the developed countries, largely from the home country or region of the subsidiary's parent company.

Other than in a few industries that exploit economies of scale (essentially the automotive sector, where the prevailing regime has encouraged the regionalization of Argentine subsidiaries), multinationals' exports are essentially based on the use of resources. There are almost no exports of R&D-based

goods or products from specialized suppliers. Thus, rather than being agents of change in the pattern of export specialization, multinationals have generally helped entrench the traditional composition.

Although the subsidiaries of multinationals have substantially higher import ratios than local firms, which ought to give them cost and quality advantages (where purchases of inputs and capital goods are concerned) or advantages of scale and scope (when finished products are imported), the differences in their respective export ratios are not statistically significant when sector and size are adjusted for. In fact, multinationals' exports outside Mercosur as a proportion of total sales fell between 1992 and 1997: in the latter year, only a little over 4% of multinationals' sales were exports of this kind, while their export ratio barely exceeded 8%.9 This would suggest that multinationals have not helped increase the access of Argentine products to outside markets, considering that Mercosur became a "natural" market for Argentine exports in the 1990s.

It could be argued that FDI helped to increase Argentine exports indirectly, e.g., through investment in communications, energy and transport infrastructure, but this effect does not seem to have been very substantial in the 1990s. In fact, although exports grew strongly during that decade, largely because of

⁹ Another interesting fact is that, according to estimates by the Bureau of Economic Analysis of the United States Department of Commerce, if the exports of subsidiaries of United States multinationals in Argentina in 1983 and 1998 are compared, no increase whatsoever is seen in the average ratio of exports to sales between the two years.

increased external sales by sectors with natural comparative advantages (cereals, oilseeds, oils and petroleum, and activities strongly supported by the public sector, such as car manufacturing), ¹⁰ exports did not rise significantly as a proportion of GDP, and this proportion is still low by international standards (the export/GDP ratio rose from 7.8% in 1991-1995 to 10.4% in 1996-1999).

While stand-alone operations are still usual among the subsidiaries of multinationals, there has been a shift towards integration strategies. These, however, are generally of the "simple" type, and in most cases links with the company are weak. Only in the automotive complex has there been more vigorous integration of subsidiaries (basically within Mercosur) owing both to public policies and to the global strategies of multinationals, although invariably, as in other sectors, local subsidiaries have little independence and innovation and strategic activities are almost never decentralized.

Thus, there is as yet no sign in Argentina of the tendencies that, according to the literature examined, should be leading multinationals to implement new, more active strategies to integrate their subsidiaries into intracompany trade, production and technology networks. In particular, innovation and strategic management activities are not being decentralized, and there is no move towards the sort of "world product mandates" that would give subsidiaries exclusive responsibility for worldwide sales of a particular product, measures that entail a high degree of independence for subsidiaries and that yield major externalities for the recipient economy.

Taken all together, in short, the data examined in the study suggest that the private gains accruing to the "winners" among the country's top companies from improved microeconomic performance have not yet had any major spillover effects in the Argentine economy. This is amply illustrated by the low export ratios of the subsidiaries of multinationals and by the limited diversification of their destination markets and the low degree of linkage seen hitherto between exports and clearly defined intracompany specialization and integration strategies. Although they have not been specifically examined in this paper, the spillover effects generated by multinationals up and down the country's

production chains seem to be weak as well, as do the effects on local technology efforts and the transfer of efficiency gains to consumers in areas where the discipline of trade liberalization is not enough to promote competition.

Has FDI, then, helped the restructuring of the Argentine economy to achieve the results expected by its advocates? Clearly, more issues than have been covered here would need to be analysed for this question to be answered. To confine ourselves to what has been dealt with in this article, however, we can say that its contribution has at any rate been less than might have been expected, considering both the new situation in Argentina and the differences between the way FDI works now and the way it worked during the ISI phase.

What policy conclusions does this analysis yield? The fact that many of the world's leading multinationals have operations in Argentina is certainly a useful asset which, in our opinion, has not yet been sufficiently capitalized upon to improve the country's competitiveness in a globalized economy. We do not believe, therefore, that the only possible line of policy is the one followed hitherto, i.e., increasing the general attractiveness of the country for investors and trusting that the performance of multinationals will produce greater spillover effects as time passes and stability and growth in the economy are secured.

This stance, the dominant one in Argentina, is challenged by another current of thinking that attributes to FDI (or, more vaguely, to globalization) a variety of social costs, such as rising unemployment or the bankruptcy of many local firms. According to this view, the costs of FDI clearly exceed its benefits. Certainly, the rationalization measures adopted by multinationals have generally resulted in labour being shed, and their rise has meant the closure of many local firms that were unable to compete with them, or could not meet the conditions of price, quality, etc., that they demanded of their suppliers. In our opinion, though, these effects can mainly be put down to the particular way in which the switch to the new economic regulation model was made in the 1990s. To offset costs of this type, it is better to adopt policies that complement trade liberalization, something that has long been put off in Argentina, than to reject the participation of multinationals in the country's economy.

We believe, and international experience suggests, that the potential contribution of FDI will only be realized fully once a more "proactive"

¹⁰ About 75% of the increase in Argentine exports between 1990 and 1998 was due to higher sales of cereals, oilseeds, oils, leather, fish products, fruit and vegetables, petroleum and cars.

strategy has been adopted. A more aggressive export promotion and market diversification policy, ¹¹ measures to attract investment projects with export potential and initiatives by multinationals that boost the development of local suppliers ought to be some of the components of this "proactive" strategy, which would have to be compatible with World Trade Organization (WTO) rules and be designed with a view to ensuring that trade and industrial policy instruments do not consolidate situations of inefficiency within the local production system, as they did in the past.

In summary, there is a broad positive agenda for policy towards multinationals. This agenda is more active than the one followed by the national Government in the 1990s but, unlike the one put forward by "anti-globalization" movements, what it proposes are not restrictions on the operations of multinationals but measures to increase the benefits and reduce the costs deriving from them. If this is done, the privilege of belonging to the small club of developing countries that attract large quantities of FDI will translate far more clearly than it has so far into tangible benefits for economic development in Argentina.

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- ¹¹ The objective of increasing exports should certainly be one of the central pillars of any economic development strategy in Argentina, and this means working in different areas to lower costs, improve market access, boost microeconomic competitiveness, etc. In the case of multinationals, however, there are some specific factors that suggest there is scope for raising export levels significantly by means of negotiations whereby the country can capitalize more fully on the potential access that multinationals have to developed country markets by virtue of the global nature of their operations.

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Bolivia's commodity price shock

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Central Bank of Bolivia Gloza@mail.bcb.gov.bo The adverse shock affecting commodity prices has received little attention, at least by comparison with the recent financial crisis. The latest fall in international prices shows that, contrary to what is claimed in the empirical literature, most of these prices tend to move in unison during periods of expansion and contraction in the economic cycle. Constant shocks help account for the variability of Bolivian export prices, and the inclusion of a new sector, soya, in the export portfolio has not reduced overall risk. The conclusion is that Bolivia's policy of diversifying commodity exports has not had the effect of reducing risk, evening out cycles, reducing price volatility or increasing real export revenue. It is suggested that manufacturing exports be developed to make the country less vulnerable to shocks.

I

Introduction

The recent international crisis and international financial shocks have focused debate on capital flows, the great volatility of these, and the contagion effect. The sharp fall in international commodity prices has not received as much attention, however. Indeed, the commodity price shock, with all the harm it has entailed for developing economies that depend on commodity exports, was one of the severest and most virulent shocks in many years, yet it appears to have gone unnoticed.

Because Bolivia is not an active participant in the international bond and share market —i.e., direct portfolio investment is not high and short-term capital mobility is low¹— and because it is heavily dependent on commodity exports, international commodity price shocks need to be analysed with great care. There has been such a shock in recent years, and this has resulted in great instability and lower export revenues and real incomes in Bolivia. It has to be asked whether the price falls seen are temporary reverses that will tend to correct themselves or can be coped with by using export revenue stabilization measures, or whether, conversely, they are persistent and structural in nature, and require further-reaching measures.

Despite the shift in its economic policy since August 1985, Bolivia has not been able to increase manufacturing exports as a proportion of total exports. It has succeeded in diversifying its commodity exports, however, unlike 57 developing countries in Africa and Latin America that rely on three commodities for over 50% of their exports. According to portfolio theory, this situation should mean lower risk as long as the prices of the commodities in the export basket do not behave in the same way, i.e., as long as there are negative covariances. In the recent crisis, the prices of most of the commodities in the Bolivian export basket fell.

Because prices moved in the same direction, portfolio risk increased.

Situations like those described have major policy implications, since if risk is rising rather than falling, if periods of declining prices coincide and shocks are persistent, it would be wrong to rely solely on an implicit policy of commodity export diversification. Rather, structural measures would be needed to raise the share of manufacturing exports.

The recent literature on commodity price fluctuations is small compared to the literature on financial crises. There is Dehn's study (2000a) of the effects of commodity price uncertainty and shocks on growth, and the work of Cashin and Patillo (2000) on terms of trade shocks in Africa. Cashin, Liang and McDermott (1999) have analysed the persistence of commodity price shocks, and Cashin, McDermott and Scott (1999b) have examined the myth of comovement in these prices. The main reference work, however, is still Reinhart and Wickham's study (1994) on the persistence or otherwise of commodity price shocks.

Against this background, the main goal of this paper is to ascertain whether the diversification of commodity exports during the crisis years of 1998 and 1999 acted as a kind of countercyclical policy that offset the negative effects of large falls in international prices, or whether, conversely, it neither lowered the portfolio risk of the export basket nor reduced the country's external vulnerability.

The specific objective is to analyse the behaviour of Bolivia's export commodity prices during the recent crisis, in order to ascertain in broad terms whether shocks are persistent or transitory, whether there are comovements in cyclical price behaviour, how volatile prices are and what degree of risk attaches to the export commodity basket.

The period of analysis, based on monthly series, runs from January 1992 to September 2000. Information on the commodity basket in this period has been produced by the Central Bank of Bolivia using December 1996 as the baseline. This provides a reference framework for analysing the external price shock in 1998 and 1999.

To this end, section II of this article reviews the theoretical and empirical literature on commodity price

This paper is part of a wider study being conducted by the author at the Central Bank of Bolivia. The opinions expressed herein are not necessarily those of the Bank. The author is grateful to Boris Zambrano for drafting the econometric part of the paper under the supervision of Oscar Lora, and to Raúl Mendoza, Oscar Lora and Boris Gamarra for their comments and suggestions.

¹ The economy has become more internationalized in recent years with the appearance of foreign banks in the country's financial system.

behaviour, laying stress on Prebisch's theory (1962, originally published in Spanish in 1949) of commodity price volatility and long-term deterioration in the terms of trade. Section III then analyses the trend and composition of Bolivian exports in the 1990s, the commodity price indices that are available and the behaviour of the terms of trade. Sections IV and V set

out the empirical evidence for determining whether external shocks are persistent or temporary, how volatile commodity prices are, and what level of portfolio risk attaches to the export commodities basket. Section VI, lastly, sets forth some conclusions and offers some policy recommendations concerning the need to develop manufacturing exports.

II

Commodity prices: some theoretical and empirical considerations

The subject of declining commodity prices was introduced into the economic literature by the theories of Prebisch (1962, originally published in Spanish in 1949) and Singer (1950), who stated that, in the long term, there was a permanent tendency for the terms of trade to decline, as commodity prices rose by less than those of manufactures (ECLAC, 1969).

There were originally two versions of the theory. According to Bielschowsky (1998), the first, expounded in the so-called "Latin American manifesto" (Prebisch, 1962, originally published in Spanish in 1949), stated that in the down phase of the cycle, unions in the industrialized countries managed to prevent the prices of industrial goods from falling, thereby more than offsetting the gains accruing to the periphery from cyclical upturns in commodity prices. The second version, expounded by Prebisch (1952) and subsequently developed by Lewis (1960), alluded to an excess of agricultural labour in the periphery that could not be transferred to the developed countries, and that therefore depressed the prices of that sector's output. Ultimately, as Ros (1998) shows, both versions centre on the relative rigidity of labour markets in developed and developing countries.

A third, more elegant version, based on Singer (1950), focused on differences in the price elasticity of demand and income elasticity for commodities, which were less than one. The expanded version given in ECLAC (1969), however, suggests that if prices strictly reflected the cost reductions yielded by technical progress, industrial prices would fall by more than commodity prices, because productivity rises by more in industry than in primary activities. Since technical progress is distributed unevenly among countries, the

periphery tends to transfer some of the benefits of its technical progress to the central countries, while the latter retain the benefits of theirs.

Pure international trade theory saw deteriorating terms of trade as an esoteric technical problem, while in the political sphere it was a very emotionally charged issue. Besides the long-term decline of commodity prices, there was the subject of export price instability, although Krueger (1984) maintains that strictly these are two separate issues. The empirical literature downgraded the proposition to the level of a hypothesis,² considering that the evidence was not conclusive. The empirical basis taken by Prebisch covered the period from 1870 to 1930 and used British export prices as a proxy for manufactured goods prices and British import prices as a proxy for commodity prices. In a 1980 study, Spraos concluded that there probably was a long-term decline in the period looked at by Prebisch, but that it was very questionable whether the same had occurred since the post-war period. Even Michaely stated in 1982 that poor countries' export prices rose more quickly in the 1952-1973 period than those of rich countries.

Sprout (1992) notes that efforts to prove the theory have produced discouragingly inconsistent results and concludes, using a quantitative criterion, that a third of the most important studies bear out Prebisch's hypothesis while a quarter refute it.

The subject of price instability has also been seen as quite contradictory and inconclusive, and the view

² Concerning this point and the references to Spraos and Michaely further on in the paragraph, see Borensztein, Khan and others (1994).

taken has been that even in the short term this instability has been exaggerated (Krueger, 1984, p. 595).

The policies recommended by IMF for coping with balance-of-payments disequilibria caused by declining export revenues basically come down to two: compensatory emergency financing, established in 1964, and price stabilization funds for specific products. These measures were based on the assumption that imbalances were temporary.

In the mid-1990s, stress was again placed on the persistence of commodity price shocks by the empirical work of Reinhart and Wickham (1994), who found the following patterns for the period 1957-1993 by breaking down time series between long-term and cyclical tendencies:

- The weakness of real commodity prices is longterm and persistent, and is not due to temporary deviations from the trend.
- The relative importance of permanent price shocks varies depending on the product group taken, being lowest for metals and highest for beverages (coffee, tea).
- The characteristics of the cycle vary by product, being less persistent for metals and more persistent for beverages.
- Average prices are strikingly low and a steady increase is seen in the variance of commodity prices. The coefficient of variation rises sharply and prices become more volatile around the mean.

The recommendations of the study cited emphasized the need to adopt structural policies like export diversification, given that price weakness was long-term. Because prices were so volatile, however, they also considered it advisable to use coverage strategies and stabilization funds.

Only in the late 1990s, however, did the empirical literature show a renewed interest in commodities. Cashin, Liang and McDermott (1999) relied on estimation of the unbiased median, which is better than the unit root test for determining the persistence of commodity price shocks, and used monthly information on 60 commodities for the period 1957-1998. Their study found that, for most commodities, price shocks were typically long-lasting and that their persistence was quite variable. It also found differences among groups of products, persistence being greater for metals than for woods. Consequently, it concluded that it was wrong to see commodity price shocks as a temporary phenomenon: when they are persistent, an adverse shock is likely to depress prices for a long time. It

follows from this that measures such as compensatory financing and stabilization funds are probably not effective and that consumption smoothing is unsustainable.

In their analysis of the duration and scale of commodity price cycles, based on monthly series for 36 products, Cashin, McDermott and Scott (1999a) find the following for 1957-1999:

- Price cycles are asymmetrical, with the down stage lasting at least a year longer than the up stage.
- Prices fall by more in the down phase of the cycle than they rise in the recovery phase, while they move faster in the up stage than in the down stage.
- There is little evidence that the price cycle takes a consistent form.
- There is no relationship of dependence between the duration of the down phase and the duration of the up phase. If large adverse price movements continue for a long time, this does not make it more likely that the down phase will end with the beginning of the recovery phase.

A recent study by Cashin, McDermott and Scott (1999b), using monthly information for the period 1957-1999, finds empirical evidence that commodity prices do not move in unison, except where the products are directly related (in the same sector or branch). Defining comovement as concordance, i.e., the proportion of time spent by the prices of two commodities in the same upward or downward phase, it does not find any evidence that these prices move together, except for gold and petroleum. The policy conclusions that can be drawn are important, since if commodity prices moved together, risk could only be reduced by diversifying into manufactured exports, for which the country concerned might have no comparative advantages. Conversely, if there are no comovements then commodity exports themselves can be diversified.

After many years, the subject of terms of trade shocks has been reinvigorated. Cashin and Patillo (2000) note that this is one of the most important relative prices and that economists are ignorant of many of its empirical properties. In their study of 42 countries in sub-Saharan Africa in the period 1990-1996, they find that in half of them shocks are short-lived, lasting less than four years, whereas in a third shocks are permanent. Discussing the policy implications, they say that if shocks are short-lived then there is scope for smoothing the path of national consumption by

modifying patterns of national saving and international financing. But if shocks are long-lasting, countercyclical policies will be of little help in establishing a new equilibrium.

The effects of shocks on economic growth has been dealt with in Dehn (2000b); dependence on commodity exports means that adverse shocks have not just an *ex post* effect but also an *ex ante* one of uncertainty, a combination which reduces growth prospects. Positive shocks, by contrast, are rapidly diluted and do not have any major long-term effects.

To sum up, the recent empirical and theoretical literature has not attached the same importance to commodity price shocks as to financial crises. Empirical evidence has now been found to show that these shocks are persistent and that the downward phase of price movements lasts longer than the upward phase. In other words, certain facts seem to bear out the idea that there is a long-term trend towards lower prices. There is also empirical evidence, however, which goes against the perception that commodity prices move together, and this seems to rule out price falls across the board.

Ш

The trend and composition of Bolivian exports

This part of the paper will briefly analyse the trend and composition of Bolivian exports, and will present the price index for the country's commodity export basket and the monthly terms of trade index for commodities against manufactures.

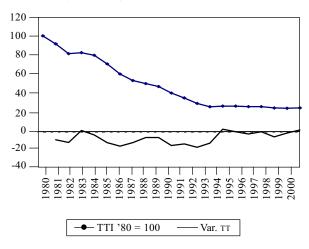
Over a longer period, the latter index shows that the terms of trade for the Bolivian economy have been deteriorating steadily and persistently since 1980. Prices fell twice in the 1980s, first in 1981 and 1982, when they dropped by 8.3% and 11.2%, respectively, and then between 1985 and 1987, when they declined by about 12% a year. In both cases, lower prices for minerals, particularly tin, were the main cause. Subsequently, in the 1990s, there were two major terms of trade shocks. The first one lasted four years, beginning in 1992 when the terms of trade fell by 16%, partly because of lower gas prices following changes to the contract under which gas was exported to Argentina. The second one, which was briefer, occurred in 1998, and was associated with the Asian crisis and the international financial crisis. This time the decline was 5%.

The terms of trade (figure 1) have fluctuated, with long periods of decline and very few years of recovery between 1980 and 2000.

1. Bolivian exports in the 1990s

Between 1990 and 1999, Bolivia's nominal export revenues averaged US\$ 1,018.7 million dollars a year (15% of GDP). These revenues were quite volatile, with

FIGURE 1 **Bolivia: Terms of trade**^a (1980 = 100)



Source: Prepared by the author on the basis of data from the National Institute of Statistics (INE).

a standard deviation of US\$ 176.8 million, equivalent to 17% of the average.

The nominal value of exports grew by 1.1% a year over the decade, a very low rate when compared, for instance, with the figures for the whole world (5.5%), South America (4.9%) and Chile (7.2%). In real terms, exports fell by 5.7% over 10 years, with two periods of decline: between 1990 and 1992, when they fell by 27%

^a TTI: terms of trade index. Var. TT: percentage variation in TTI.

owing to a drop in gas exports to Argentina, and in 1998 and 1999, when the international crisis resulted in a cumulative fall of 16%. In the 1990s, then, the Bolivian economy experienced two external shocks resulting in large falls in real export revenue (table 1).

The poor performance of Bolivian exports contrasts with the dynamism of world trade. Whereas Bolivian exports increased by just 10% in nominal terms over 10 years, world exports increased by 60%.

The composition of Bolivian exports in the 1990s continued to be dominated by commodities, although their share of the export total fell slightly from 86.6% in 1990 to 84% in 1999. The share of manufactured exports, meanwhile, increased by less than one percentage point in 10 years, from 13.2% to 14%.

Structurally, Bolivian exports are highly asymmetrical compared to world exports. According to WTO (2000), manufactures make up over three quarters of world exports, but less than a sixth of Bolivian exports. This share is lower than that of the African countries (30%), and far below the Latin American average (60%). Consequently, the slow increase in Bolivian exports is basically due to the sluggish growth of its commodity exports. Manufacturing exports rose by more than 3.5% a year over the decade, but are only a small part of the total.

The various primary exports behaved very differently over the decade. Bolivia's agricultural exports grew by 10.3% a year, which is well above the world average of 3.1%, while hydrocarbon exports fell by 11% a year owing, as already mentioned, to the ending of the contract to export gas to Argentina. The country's mining exports were stagnant over 10 years, while exports of this type grew by 1.5% a year worldwide.

This lack of export dynamism was due to falling unit export prices, since while the value index rose by 10%, the volume index rose by 57%, implying a contraction of 30% in the export unit value index. This drop was greater than the decline in world unit prices for mining (22%) and agriculture (8%), and greater too than the fall in the commodity price index (13%). Part of the explanation lies in the drastic two-thirds reduction in the gas price set in the contract with Argentina, which took place between the first quarter of 1991 and the second quarter of 1992.

Not only did Bolivian export prices decline, but unit import prices rose by 17.1%, resulting in a sharp deterioration (40%) in the terms of trade. Excluding the initial effect of the fall in the gas price in the early 1990s, the deterioration was 22%. The effect of the

TABLE 1

Bolivian export values, nominal and real terms^a
(Millions of dollars)

| Year | Nominal | Import price | Real |
|--------------|---------|--------------|---------|
| | value | index | value |
| 1990 | 937.5 | 100.0 | 937.5 |
| 1991 | 873.8 | 105.5 | 828.2 |
| 1992 | 742.1 | 108.5 | 684.0 |
| 1993 | 786.7 | 110.7 | 710.7 |
| 1994 | 1,091.0 | 114.1 | 956.2 |
| 1995 | 1,139.1 | 118.2 | 963.7 |
| 1996 | 1,216.2 | 121.1 | 1,004.3 |
| 1997 | 1,255.6 | 120.0 | 1,046.3 |
| 1998 | 1,110.1 | 118.4 | 937.6 |
| 1999 | 1,034.8 | 117.1 | 883.7 |
| GGR | 1.1 | 1.8 | -0.7 |
| % var. 99/90 | 10.4 | 17.1 | -5.7 |
| Mean | 1,018.7 | 113.4 | 895.2 |
| SD | 176.8 | 7.0 | 120.2 |
| CV | 0.17 | 0.06 | 0.13 |

Source: Prepared by the author on the basis of data from the National Institute of Statistics (INE).

terms of trade on export revenue, as estimated by INE, was such that if export prices had behaved in the same way as import prices in 1999, the country would have had US\$ 597 million more revenue. The deterioration of the terms of trade means that Bolivia is transferring part of its domestic production effort abroad and losing revenue in real terms. What happened in the country in the 1990s is an empirical demonstration of this.

In summary, the poor performance of Bolivian exports stands in contrast to the dynamism of world exports, most of which are manufactures, owing to the country's dependence on commodities whose prices experienced two severe external shocks in the 1990s, with adverse effects for real export revenues.

2. The price index for the Bolivian export commodity basket

The structure of Bolivian exports is heavily skewed towards commodities, which account for 84% of the total. A wide range of commodities is involved, and exports are not dominated by just a handful of products as is usually the case in developing countries. They are drawn from different sectors of the economy, having ceased to depend on any particular one.

The Central Bank of Bolivia uses several indices to measure prices and price variations for commodities

^a GGR: geometric growth rate. SD: standard deviation. CV: coefficient of variation.

in the export basket. The basket consists of 13 commodities, or 11 if hydrocarbons are excluded (table 2).

This basket has the following characteristics:

— For each product on which daily information is available, the price is multiplied by its weighting in the basket as determined by its share of export value in 1996. The Laspeyres index is therefore used, i.e.:

$$LPI = \frac{\Sigma Pn \ Qo}{\Sigma Po \ Oo}$$

- Commodities accounted for 80.5% of the value exported in 1996, falling to 68.8% if hydrocarbons are excluded. The index is calculated with and without fuels (IMF also does this) to separate out the effects of large oil price swings.
- The information is available in real time through the Reuters service, except in the case of woods, for which the information source is the Vice-Ministry of Exports, and of natural gas, information on which is provided by Yacimientos Petrolíferos Fiscales Bolivianos (YPFB), which releases price information a month in arrears.
- The baseline is the December 1996 price. This is consistent with the base year for calculating the effective real exchange rate.

The 13 products in the basket were grouped into three sectors so that sectoral behaviour could be differentiated: the mining sector, which includes four products; the agricultural sector, which includes seven products; and the hydrocarbons sector, which covers gas and petroleum. Since gas and petroleum do not behave alike, however, because of the gas export contract with Argentina, they are considered separately for practical reasons. In the case of agricultural products, a subgroup, the soya complex,

TABLE 2

Bolivia: Export commodity basket, 1996^a
(Percentage share of total exports)

| Commodity | Pricing | 1996 |
|-------------------|-----------|-------|
| Zinc | CUS/FLB | 13.5 |
| Gold | US/FTO | 10.5 |
| Tin | US/FL | 7.5 |
| Silver | US/FTO | 5.6 |
| Soya beans | US/MT | 5.3 |
| Soya meal | US/MT | 9.0 |
| Soya oil | US/MT | 3.6 |
| Woods | US/MT | 6.9 |
| Cotton | US/MT | 2.9 |
| Coffee | CUS/LB | 1.4 |
| Sugar | US/MT | 2.6 |
| Gas | US/TCF | 8.3 |
| Petroleum | US/BARREL | 3.4 |
| Total commodities | | 80.5 |
| Ex-fuel total | | 68.8 |
| Total exported | | 100.0 |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

was created. This includes soya beans, soya meal and soya oil. Each product kept its weighting, so the weighting of the sector in the total is the sum of each of its products.

In summary, the following indicators are available:

- Price indices for each product: 13 in all.
- Overall price index (OPI).
- Overall price index without fuel (OPI w/f).
- Mining price index (MPI).
- Agricultural price index (API).
- Price index for the soya complex.

IV

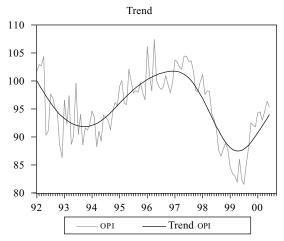
The commodity price trend, shocks and comovements

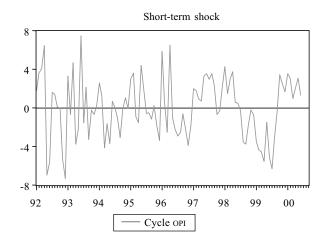
This part of the paper will use empirical indicators to analyse the trend of commodity prices, short-term shocks that have affected them and their recent decline, to determine whether their behaviour is temporary and the shock will tend to subside, or whether there is a permanent or structural component. It will also try to judge whether the prices of commodities in the export basket are moving in unison, i.e., whether their rising

^a US: dollars. CUS: cents. LB: pound. FLB: fine pound. MT: metric tons. TCF: thousands of cubic feet. FTO: fine troy ounce.

FIGURE 2

Commodity price index: trend and short-term shock





Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

and falling periods coincide, or whether they behave countercyclically so that an upward movement in one commodity is offset by a downward movement in another.

1. The trend of commodity prices

To analyse the behaviour of commodity prices in the 1990s, using the overall and ex-fuel indices, price time series were broken down into two components: long-term trend and short-term shock.

From January 1992 onward, commodity prices moved in short bursts (lasting about eight months) of contraction and recovery, but in April 1994 the index began a 25-month period of increase, the longest in the decade, peaking in April 1996 at 107.4 (figure 2). Then the short cycle (six months) of contraction and recovery returned, until in June 1997, with the Asian crisis, the longest downward cycle of the 1990s began (25 months). This ended in July 1999 when the price index bottomed out at 81.5. Only in August 1999 did prices begin to recover steadily, and this lasted until May 2000, after which they climbed more erratically until September the same year. For petroleum the recovery phase began earlier, in March 1999, when the Organization of the Petroleum Exporting Countries (OPEC) decided to cut output.

The longest period of rising prices (25 months) had the same duration as the longest period of falling prices. The drop in prices during the downward phase

(13.8% in the overall index and 15.2% in the ex-fuel index) was larger than the increase during the upward phase (10.8% in the overall index and 11.7% in the exfuel index). The overall index stood at 81.6 at the beginning of the recovery phase in 1999, which is below the 88.6 value at which recovery began in 1993.

The long-term trend, obtained using the Hodrick-Prescott filter smoothing method (Hodrick and Prescott, 1997), has the wave pattern which is a key characteristic of commodity prices³ (figure 2).

The Hodrick-Prescott filter is a two-sided linear filter that computes a smoothed series s of y, minimizing the variance of y around s, while subjecting it to a penalty that constrains the second difference of s. This means that the Hodrick-Prescott filter chooses s_t to minimize the following objective function:

$$\sum_{t=1}^{T} (y_t - s_t)^2 + \lambda \sum_{t=2}^{T-1} \{ (s_{t+1} - s_t) - (s_t - s_{t-1}) \}^2$$

The penalty parameter λ controls the smoothness of the s_t series. The larger λ is, the smoother the series. If $\lambda \to \infty$, s_t approximates to a linear trend. In this paper, $\lambda = 14,400$, following Hodrick and Prescott's suggestion for monthly series.

Smoothing the trend in the 1990s, we end up with a wave pattern that begins with an 18-month-long contractionary phase, lasting until August 1993. This is followed by a long recovery phase, lasting 36 months,

³ See Cashin, McDermott and Scott (1999a).

that ends in August 1996, then by a 49 month contractionary phase and the onset of a recovery phase in mid-1999 and the first three quarters of 2000.

The series showing the short-term price shocks is obtained residually as the difference between the long-term trend series and the original series. It shows that prices are below trend in a falling market and above trend in a rising market. Between 1992 and 1996 they fluctuate greatly, but from December 1996 until April 1998 there is a sustained, 17-month recovery during which prices are above trend. Between May 1998 and September 1999, however, prices are well below trend, suggesting that the adverse effect of the price shock was felt most in this period, although the decline had begun earlier, in June 1997. Prices thus fell to a level nine points below the index trend value, as happened in April and July 1999.

2. Persistent or temporary shock?

To determine how important a role is played by persistent shocks, a two-stage procedure was followed. Firstly, the properties of the time series were established using the Dickey-Fuller and augmented Dickey-Fuller tests for unit roots. Table 3 gives the critical values for the level and first-difference tests. If *y* is stationary, the shocks are transitory; if *y* is an order one integrated process, on the other hand, then there is a permanent component.

In the second stage, the size of the permanent component was determined using Cochrane's methodology, which measures the persistence of shocks by examining the variance of their differences. This has the following form:

$$PS = \left(\frac{1}{k}\right) * \frac{\operatorname{var}(y_t - y_{t-k})}{\operatorname{var}(y_t - y_{t-l})}$$

On the basis of the persistence statistic (PS), if the ratio equals 1, the variable y follows a random walk and all the shocks are permanent. If y is stationary, all the shocks subside so that the ratio tends to zero, indicating that the shocks will be temporary. If y is an integrated order one process, it has transitory and permanent components, so that the ratio will converge on the ratio between the variance of the permanent shock and the total variance of variable y. Thus, the closer the ratio is to one, the larger the permanent component and the less the relative importance of temporary shocks. This measurement was applied for k = 1, 12 and 24 lags as the data are monthly (table 4).

In the case of Bolivia, the price series with and without fuels and by sector (metals, agriculture, soya complex and fuels) are integrated and follow an order one process. It was found that in each price series (overall and sectoral), permanent shocks played a role in explaining the variance of monthly prices.

The effect of the permanent component of shocks is greater for metal prices (accounting for 69% of

TABLE 4

Bolivia: Persistence of shocks in export price indices
(Variance ratios)

| | | Lags (t) | |
|---------------------|---|----------|------|
| | 1 | 12 | 24 |
| Commodities | 1 | 0.34 | 0.26 |
| Ex-fuel commodities | 1 | 0.38 | 0.38 |
| Agricultural | 1 | 0.28 | 0.24 |
| Metals | 1 | 0.69 | 0.35 |
| Soya complex | 1 | 0.41 | 0.40 |
| Fuels | 1 | 0.26 | 0.21 |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

TABLE 3

Unit root analysis: Dickey-Fuller test and augmented Dickey-Fuller test

| Series | | Levels | | Critical values | | First differences | | | Order of | Critical values | |
|--------------|----------|--------|-------------|-----------------|---------|-------------------|-------|-------------|--------------------------|-----------------|---------|
| | No. lags | Model | t-Statistic | 1% | 5% | No. lags | Model | t-Statistic | integration ^b | 1% | 5% |
| OPI | 4 | С | -1.416578 | -4.055 | -3.4561 | 4 | В | -5.217714 | 1(1) | -3.4993 | -2.8915 |
| OPIWF | 4 | C | -1.343285 | -4.0521 | -3.4548 | 4 | A | -4.471892 | 1(1) | -2.5866 | -1.9433 |
| Agriculture | 4 | C | -1.511792 | -4.0521 | -3.4548 | 5 | A | -4.587867 | 1(1) | -2.5868 | -1.9434 |
| Soya complex | 4 | C | -1.5352 | -4.0521 | -3.4548 | 0 | A | -13.7045 | 1(1) | -2.5858 | -1.9432 |
| Metals | 2 | C | -3.0101 | -4.0503 | -3.4539 | 2 | C | -5.35682 | 1(1) | -3.4972 | -2.8906 |
| Fuels | 6 | C | -1.616115 | -4.054 | -3.4557 | 8 | A | -3.1834 | 1(1) | -2.5883 | -1.9436 |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

^a A: Does not include deterministic components. B: Includes constant but not trend. C: Includes constant and trend.

b When the first-differenced t-statistic is above the critical values, the series are integrated series of order one.

monthly variance) than for the agricultural and fuel sectors, where the figure is 25%, or the overall indices (with and without fuels), where it is about 33%. In the metals price series this component displays a low level of persistence, falling from 69% to 35% at 24 months. In the other sectors and the overall index, the permanent component does not fall off in this way. Price stabilization policies, like the ones recommended by the International Monetary Fund (IMF), can be used to deal with transitory shocks.

The presence of permanent shocks, however, indicates that the commodity price weakness seen since 1997 is not just a transitory phenomenon, the effect of an abnormal cycle associated with the Asian crisis (even if the downward phase did begin with this crisis). Consequently the decline did not automatically reverse itself, nor have prices rebounded since the Asian economies recovered in 1999. Likewise, the fall in prices was not associated with cyclical fluctuations in the world economy, as it occurred when the United States economy was in the midst of a high growth period and when the world economy was also growing. Except in the case of petroleum, prices have recovered more slowly than expected, and they have yet to return to the levels seen before the upturn began.

To sum up, in Bolivia commodity price shocks have a permanent component, although it is smaller than the developing country average.⁴ The sector in which this component is largest is metals, although it is not very persistent there. As a result, the recent price shock has not tended to abate rapidly.

Concordance or comovement in the phases of price cycles

The cyclical behaviour of prices raises the question of whether sectoral and product price series move together in the upward and downward phases of the cycle. Concordance is a measure of comovement that can be used to compare the cyclical patterns of price series. The statistical evidence is used to establish the proportion of time for which the prices of two commodities are concurrently in the same phase of the cycle.⁵

For this purpose, a dichotomous variable is specified for each original variable or price series,

taking the value unity when the variable is in the upward phase and zero when it is in the downward phase. The degree of concordance between the cycles of two price series is then:

$$C_{ij} = T^{-1} \left\{ \sum_{t=1}^{T} (S_{i,t} S_{j,t}) + (1 - S_{i,t}) (1 - S_{j,t}) \right\}$$

where C_{ij} is the concordance statistic measuring the proportion of time for which two price series are in the same state, T is the sample size, $S_{i,t}$ is the dichotomous variable associated with the original variable x_i at time t, and $S_{j,t}$ is the dichotomous variable associated with original variable x_i at time t.

When the concordance statistic takes values close to unity, the price series being compared are procyclical; when the statistic is close to zero, the price series are countercyclical, and when the concordance takes values close to 0.5, the series are equally likely to be procyclical or countercyclical. For practical purposes, in this study an arbitrary range of +/- 0.1 is taken⁶ purely to differentiate cases close to 0.5, so that a ratio of over 0.6 would indicate that the series tended to be procyclical and one of under 0.4 that they tended to be countercyclical.

The results for the period January 1992 to September 2000 show (table 5) that the series for the ex-fuel price index displays a high degree of concordance (0.71) with the fuel price series. In other words, they are procyclical variables. Consequently, being a fuel exporter does not insulate a country from the general commodity cycle. Similarly, if fuels are excluded the behaviour of other export commodities is procyclical. This can be seen most clearly at the sectoral level, agricultural commodity prices being more procyclical with fuel prices (0.81) than are metal prices (0.60).

In the 1990s, Bolivia made progress with agricultural exports, particularly those of the soya complex. It was supposed that this diversification would reduce the country's dependence on the mining sector. But the sectoral concordance indicators make it difficult to say whether or not metal prices are procyclical in relation to the prices of agricultural commodities (0.45) or the soya complex (0.48), since the concordance indicators are very close to 0.5.

The next step, however, is to carry out a productby-product analysis to identify any comovements

⁴ See Cashin, Liang and McDermott (1999).

⁵ For a more detailed explanation of concordance, see Cashin, McDermott and Scott (1999b).

⁶ More detailed analysis would be needed to demonstrate what range might be appropriate for differentiating cases close to 0.5.

TABLE 5 Bolivia: Concordance among sectors

| | Metals | Soya complex | Agricultural sector | Fuels | Overall price index (OPI) | Ex-fuel OPI |
|---------------------|--------|-----------------|---------------------|-------|---------------------------|----------------|
| Metals | 1.000 | | | | | |
| Soya complex | 0.476 | 1.000 | | | | |
| Agricultural sector | 0.448 | 0.724 | 1.000 | | | |
| Fuels | 0.600 | 0.533 | 0.810 | 1.000 | | |
| OPI | 0.505 | 0.705 | 0.943 | 0.752 | 1.000 | |
| Ex-fuel OPI | 0.771 | 0.381 | 0.657 | 0.714 | 0.676 | 1.000 |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

between commodity prices in the mining sector and the agricultural sector (table 6). Out of 28 possible combinations between pairs of agricultural and mining products in the export basket, there seem to be nine pairs of commodities (32%) whose price series move together in the phases of the cycle, i.e., these commodities are procyclical. The most procyclical are gold, silver, cotton and soya oil. Fewer pairs (six) are countercyclical, the clearest price relationships being between tin and soya (0.33) and silver and soya (0.22).

As regards fuels, it seems that the prices of mining commodities, except silver, and of agricultural commodities, except soya oil, are procyclical with respect to gas prices. This indicator is significant, since for the decade beginning in 2000 hopes have been centred on exports of gas, in relation to which very few products are countercyclical. As regards petroleum prices, countercyclical products seem to include mining commodities, other than silver, and agricultural commodities, other than woods and sugar.

To sum up, in Bolivia, by contrast with what Cashin, McDermott and Scott (1999b) found for developing countries generally, there is a high degree of concordance at the sectoral level, suggesting that commodity export diversification has not offset the effects of the price cycle, i.e., diversification has not been countercyclical. At the product level, however, a third of exports are found to be countercyclical. The

TABLE 6

Bolivia: Concordance between agricultural commodity and metal prices

| Mining | Agriculture | Concordance |
|--------|-----------------------|-------------|
| | Procyclical commodi | ties |
| Gold | Soya beans | 0.62 |
| Gold | Cotton | 0.73 |
| Gold | Coffee | 0.61 |
| Gold | Sugar | 0.68 |
| Gold | Soya oil | 0.70 |
| Zinc | Cotton | 0.61 |
| Tin | Soya oil | 0.70 |
| Silver | Soya oil | 0.73 |
| Silver | Wood | 0.62 |
| | Countercyclical commo | dities |
| Zinc | Wood | |
| Gold | Wood | 0.39 |
| Tin | Soya beans | 0.33 |
| Tin | Soya meal | 0.37 |
| Silver | Soya beans | 0.22 |
| Silver | Soya meal | 0.18 |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

prices of silver and tin (13.1% of exports in 1996) seem to be countercyclical in relation to soya beans and soya meal (14.3% of exports in 1996), and those of silver seem to be countercyclical in relation to gas (8%).

V

Export price volatility and portfolio risk

This part of the article supplements the examination of export commodity price behaviour with an analysis of price volatility using the coefficient of variation, which relates the standard deviation to the average, 7 and with calculations of portfolio risk for products in the export basket.

1. Export price volatility

It is generally accepted that high volatility is an important characteristic of commodity price behaviour. In the case of Bolivia, both the overall price index and the ex-fuel index have a volatility of 0.06 (table 7). In the overall index volatility is lower than the 0.135 calculated by Cashin, Liang and McDermott (1999) for

a basket of 56 commodities in the period 1957-1998, while it is somewhat higher than the 0.04 calculated for the ex-fuel basket.

At the sectoral level, metal prices (0.05) are the least volatile and fuel prices (0.22) are the most volatile, with agricultural commodity prices somewhere in between (0.11). To turn to specific commodities, prices for soya meal (0.21) and soya oil (0.25) are highly volatile, on a par with fuels, while coffee, sugar and cotton prices are among the most volatile in the Bolivian export basket.

Changes in volatility are calculated here for the period from January 1992 to September 2000, and are measured using cumulative values for annual average coefficients of variation (figure 3). In the case of the overall price index including fuels it is found to have remained fairly steady, with a rise in volatility since 1997, while volatility in the ex-fuel index has been

TABLE 7

Bolivia: Statistics describing commodity price indices,
January 1990 to September 2000

| | Mean | Standard deviation | Coefficient of variation | Coefficient of asymmetry | Coefficient of kurtosis |
|---------------------------|--------|--------------------|--------------------------|--------------------------|-------------------------|
| Zinc | 105.52 | 12.52 | 0.12 | 0.68 | 3.56 |
| Gold | 88.97 | 9.61 | 0.11 | -0.22 | 1.69 |
| Tin | 94.09 | 7.59 | 0.08 | -0.11 | 3.66 |
| Silver | 97.72 | 14.57 | 0.15 | -0.07 | 3.18 |
| Metals index | 97.33 | 5.05 | 0.05 | 0.02 | 3.02 |
| Soya beans | 93.65 | 14.23 | 0.15 | 1.36 | 5.52 |
| Soya meal | 83.10 | 17.27 | 0.21 | 0.66 | 2.82 |
| Soya oil | 104.93 | 27.41 | 0.26 | 2.62 | 18.57 |
| Soya complex | 90.73 | 14.29 | 0.16 | 0.29 | 3.06 |
| Wood | 94.13 | 18.36 | 0.20 | -0.08 | 3.12 |
| Cotton | 91.27 | 29.79 | 0.33 | 2.12 | 11.77 |
| Coffee | 90.66 | 36.05 | 0.40 | 0.71 | 4.63 |
| Sugar | 100.10 | 33.29 | 0.33 | 2.15 | 14.98 |
| Agricultural index | 92.14 | 10.49 | 0.11 | 0.26 | 2.42 |
| Gas | 97.10 | 25.15 | 0.26 | 2.57 | 12.25 |
| Petroleum | 77.11 | 18.26 | 0.24 | 1.02 | 4.92 |
| Fuel index | 86.16 | 19.32 | 0.22 | 1.72 | 7.79 |
| Ex-fuel index | 94.76 | 6.08 | 0.06 | 0.25 | 2.39 |
| Overall price index (OPI) | 95.18 | 5.95 | 0.06 | -0.30 | 2.45 |

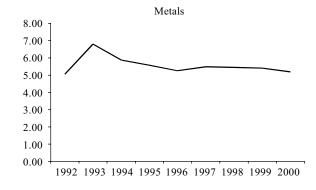
Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

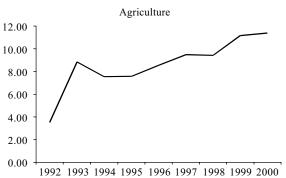
⁷ As fractions of one. The coefficient of variation is usually expressed as a percentage (Moya, 1991).

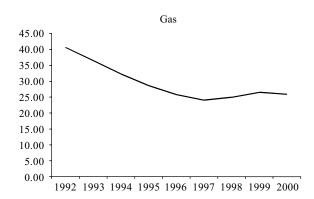
FIGURE 3

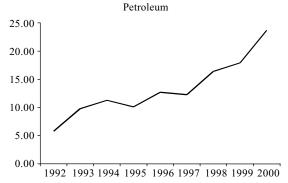
Bolivia: Volatility of export commodity prices

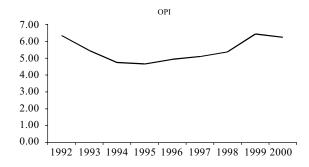
(Coefficient of cumulative annual variability)

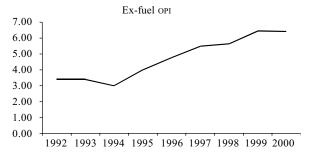












increasing. At the sectoral level, the volatility of metal prices was fairly constant over the period, while both agricultural and petroleum commodities became more volatile. The international crisis led to greater volatility in all export sectors; this increase was neither simultaneous nor constant, however. For metals, volatility rose in 1997 but then fell, while for agricultural commodities it rose in the early stages of the crisis in 1997, fell in 1998 and then rose again in

1999. Fuel prices were more volatile in 1998 and 2000. The end result was that the ex-fuel index was more volatile in 1997 and 1999, while the overall index was more volatile in 1999 only.

For illustrative purposes, and to complete the description of the frequency distributions, the other statistics relating to the directions of price series data dispersion around their centre will be given. The characteristics concerned are asymmetry and kurtosis

or pointedness. The frequency distribution of the overall price index has a negative asymmetry (the mode, the value that occurs most frequently, is higher than the mean), i.e., the distribution has a longer tail to the left, or towards small values of the variable, while the exfuel index has a positive asymmetry (the mode is lower than the mean), i.e., the distribution has a longer tail to the right. Most mining sector commodity prices have a negative asymmetry. The frequency distribution of commodity prices as measured using the overall index and the ex-fuel index presents a flatter (leptokurtic) distribution. However, the main mining commodities, those of the soya complex and fuels present a more pointed or platykurtic frequency distribution than normal, indicating that the values cluster more closely around the average.

To sum up, Bolivia's overall price index does not display high volatility when compared with prices in developing countries generally (see, for example, Reinhart and Wickham, 1994). Metal prices are the least volatile and fuel prices the most volatile. While the volatility of agricultural prices is intermediate, soya meal, soya oil, coffee, sugar and cotton are the most volatile commodities in the Bolivian export basket. The international crisis increased price volatility in 1997 and again in 1999.

2. Commodity export portfolio risk

To ascertain whether the country's implicit strategy of diversifying commodity exports reduced export portfolio risk, the first step was to calculate the matrices of variances and covariances among the product and sectoral price indices, after which portfolio risk was calculated using the following formula:

$$R = w_1^2 s_1^2 + w_1 w_2 s_{12} + \dots + w_1 w_n s_{1n} + \dots + w_{n-1} w_n s_{n-1n} + w_n^2 s_n^2$$

where:

R = portfolio risk

 $W_i = V_i/V_t = \text{value of sector or product } i / \text{total value}$ of the portfolio

 S_i = variance of the price index for sector or product i S_{ij} = covariance of the price indices for sectors and products i and j

n = number of sectors or products

Analysis of the matrix of variances and covariances shows that risk declines when covariances are negative, as fluctuations in product prices offset one another, i.e., there are negative coefficients of correlation that reduce portfolio risk.

In the case of Bolivia, the total risk for the whole commodity export basket is positive (40.67), and the same is true at the sectoral level (38.8), in relation to an index of 100 (table 8). This indicator suggests that while the structure of commodity export sectors is diversified, this has not resulted in risk diversification.

To determine the degree to which inclusion of a new sector increases or reduces risk, the results of including new products from the soya complex in an existing basket like metals are shown (table 9). It can be seen that the original risk of 30.11 in the mining sector rises to a total risk of 35.49 when this complex is included.

When we come to specific product prices, however, the covariance analysis reveals compensation effects, as the following results show:

- Altogether, there are 31 pairs of commodities with negative covariances out of a total of 78 pairs, i.e., the intrasectoral and intersectoral compensation rate is 40%.
- Intrasectoral compensation is greatest in mining with three product pairs out of six, these being zinc and gold (-0.66), zinc and silver (-0.58) and gold and silver (-0.30). This means that, contrary to expectations, price fluctuations within the precious metals sector offset one another. The compensation rate in the agricultural sector is 30% (seven out of 22 product pairs), it being noteworthy that there is no compensation within the soya complex. There is compensation between wood and this complex, between coffee and sugar (-0.11) and between wood and coffee (-0.75).
- There is a significant level of intersectoral compensation, 21 out of a total of 31 product pairs having negative covariances. Setting the mining

TABLE 8

Bolivia: Sectoral matrix of variances and covariances

(Commodity price indices: 1996 = 100)

| | Metals | Agricultural sector | Fuels |
|---------------------|--------|---------------------|-------|
| Metals | 5.91 | | |
| Agricultural sector | 3.24 | 16.26 | |
| Fuels | 2.12 | 3.50 | 7.78 |
| Weighted summation | S | 29.95 | |
| Weighted summation | 8.87 | | |
| Overall risk | 38.82 | | |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

TABLE 9

Bolivia: Metals and soya complex portfolio

A. Starting scenario: metals portfolio

| | Zinc | Gold | Tin | Silver |
|--------------|-------|-------|------|--------|
| Zinc | 20.55 | | | |
| Gold | -3.12 | 7.32 | | |
| Tin | 1.97 | 0.18 | 2.33 | |
| Silver | -2.73 | -1.42 | 0.22 | 4.80 |
| Weighted sur | | 35.00 | | |
| Weighted sur | -4.89 | | | |
| Overall risk | 30.11 | | | |

B. Final scenario: metals portfolio plus soya complex

| | Zinc | Gold | Tin | Silver | Soya | Meal | Oil |
|---------------------------------------|-------|-------|-------|--------|------|-------|-------|
| Zinc | 9.35 | | | | | | |
| Gold | -1.42 | 3.33 | | | | | |
| Tin | 0.90 | 0.08 | 1.06 | | | | |
| Silver | -1.24 | -0.64 | 0.10 | 2.18 | | | |
| Soya | 0.77 | 0.83 | -0.24 | -0.51 | 1.85 | | |
| Meal | 1.95 | 2.49 | 0.12 | -1.02 | 2.89 | 7.94 | |
| Oil | 0.21 | 1.06 | 0.09 | -1.14 | 0.68 | 0.63 | 3.18 |
| Weighted summation of variances 28.90 | | | | | | 28.90 | |
| Weighted summation of covariances | | | | | | 6.59 | |
| Overall risk | | | | | | | 35.49 |

Source: Prepared by the author on the basis of data from the Central Bank of Bolivia.

sector against the agricultural sector, the main features are the negative covariances between silver and agricultural commodities (except wood) and the compensation between the zinc price and the

- prices of woods, cotton and sugar. Taking the agricultural and mining sectors, it is found in particular that soya offsets silver and tin, sugar offsets mining products (except gold) and wood offsets zinc and gold.
- Comparing the fuels and mining sectors shows silver offsetting gas and petroleum and gold offsetting petroleum. Taking the fuel and agricultural sectors, petroleum is found to present negative covariances with everything except cotton. The price of gas, which will be the main export product, moves in a different direction to those of silver, woods and coffee; note that there is no compensation between the gas price and the soya complex. However, the gas price was influenced by the lower rates set in the contract with Argentina, so in future it could behave much like the petroleum price, which moves against the prices of most other products.

In summary, there is no reduction of risk at the sectoral level because prices move in the same direction. At the product level, however, price movements both within sectors and among them produce large compensation effects. These effects are most common among export products in the mining sector, particularly precious metals. As regards intersectoral movements, silver strongly offsets fuels and most agricultural products, and soya strongly offsets silver, tin and petroleum. The gas price is only offset by a very few products.



Conclusions and recommendations

1. Conclusions

The recent empirical and theoretical literature has not attached the same importance to commodity price shocks as to financial crises, although it is once again giving some weight to the subject of persistence in price shocks. Empirical evidence has been found to show that they are persistent, and that the downward phase of price movements lasts longer than the upward phase. In other words, there is information to support the idea that commodity prices are in long-term decline. However,

other evidence runs counter to the perception that commodity prices are falling across the board.

The poor performance of Bolivia's exports stands in contrast to the dynamism of world exports, most of which are manufactures. The reason for this is that Bolivia is highly dependent on commodity exports (84% of total exports in 1999), whose prices declined significantly in the 1990s, resulting in a sharp deterioration in the terms of trade. Nonetheless, the composition of Bolivian exports is not dominated by just a few products, as is the case in most developing

countries, and nor are they dependent on any particular sector. This should have reduced the country's external vulnerability. The results of this study show, however, that risk has not fallen, cycles have not been evened out, and the volatility of export prices has not decreased.

Bolivian export commodity prices display cyclical behaviour against a declining trend, with upward movements having about the same duration as downward movements. In the declining phase following the Asian crisis, price falls slightly exceeded the price rises seen in the upward phase. If the trend is smoothed, the downward phase lasted much longer than the recovery phase. The short-term price shock in Bolivia really made itself felt in May 1998 when prices fell below trend, although the decline had begun in June 1997.

Permanent shocks help explain the variance of monthly prices. There is a permanent component in Bolivia's price shocks, albeit a smaller one than in developing countries generally. At the sectoral level, this component is largest (but not very persistent) for metals. Consequently, the recent price fall has not tended to correct itself quickly. The relative size of permanent shocks is greatest for metal prices, 69% of whose monthly variance is due to the permanent component, while in the agricultural and fuel sectors the figure is about 25%, and in the overall price indices, including and excluding fuels, it is about 30%. For metal prices, the permanent component displays a low degree of persistence.

In the case of Bolivia, by contrast with other developing countries, there was found to be a high degree of concordance at the sectoral level, indicating that commodity export diversification has not served to soften the effects of the price cycle, and thus has not been countercyclical in its effects. At the product level, however, it transpires that a third of all exports are of commodities with countercyclical prices, examples being silver and tin (13.1% of all exports in 1996) against soya beans and soya meal (14.3%), and silver against gas (8%).

The overall index is not highly volatile when compared with the level of volatility identified for developing countries in general by the other studies referred to. Metal prices are the least volatile and fuel prices the most volatile. Agricultural prices in general are of only intermediate volatility, but specific products such as soya meal, soya oil, coffee, sugar and cotton are among the most volatile in the Bolivian export basket. The international crisis increased price volatility in 1997 and again in 1999.

When the portfolio risk method is applied to Bolivia's export basket (it was not used in the similar studies on developing countries mentioned in the theoretical discussion), it transpires that expanding the export portfolio by introducing a new commodity export sector, the soya complex, has not reduced overall risk. If the individual products in the export basket are taken, however, a significant percentage of compensation is found (40%) within and between sectors. Within sectors, the largest effects of this kind are in the mining sector and among precious metals. In the agricultural sector, compensation runs at 30% and is not found within the soya complex.

There is a significant level of compensation between the mining and agricultural sectors. Particularly striking are the negative covariances between silver and agricultural commodities, except wood, and the compensation between the soya price and the prices of silver and tin. Taking the fuel and mining sectors, silver offsets gas and petroleum and gold offsets petroleum. Between the fuel and agricultural sectors, petroleum displays negative covariances with all agricultural products except cotton, but gas displays few compensation effects.

The prospects for the export sector centre on silver mining and gas exports; the two products are found to behave in a complementary way, which lessens the impact of adverse shocks. Firstly, the volatility of the silver price is low while that of the gas price is very high. Secondly, silver and gas prices move in different directions, so that the two products can help to reduce risk and, being countercyclical, to soften the phases of the cycle.

2. Policy recommendations

It is not advisable for the country to persist with a strategy based principally on exporting a diversifying range of commodities. In the 1990s, this did nothing to reduce risk, smooth cycles, reduce export price volatility or increase real export revenues.

The empirical evidence has shown that Bolivia needs to supplement its commodity export diversification strategy with an explicit manufacturing export development strategy which, unlike the neutral policy applied hitherto, should include selective production and export promotion policies with a view to reducing external vulnerability in the face of adverse commodity price shocks. This means that structural measures are needed to reduce the country's high degree of external vulnerability.

Exchange-rate policy should include the behaviour of commodity prices, and most importantly the terms of trade, among the range of indicators it tracks. It should be used to help offset adverse shocks, as these have negative implications for export levels and economic activity.

Permanent shocks, when they occur, lessen the effects of the commodity price stabilization policies

recommended by IMF. But the existence of a large transitory component makes it advisable for Bolivia to apply transitory or short-term measures, such as the provision of funds under IMF financial assistance programmes when export revenues fall, and the application of stabilization funds to some strategic commodity such as soya, following the example of Chile with copper.

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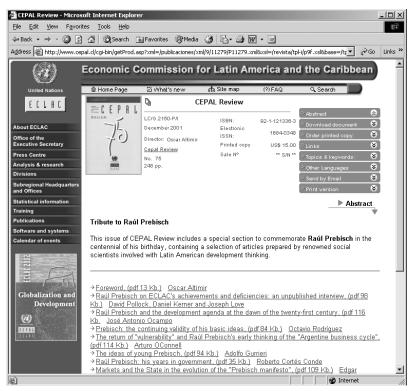
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Periodicals

Preliminary Overview of the Economies of Latin America and the Caribbean, 2001, LC/G.2153-P, United Nations publication, Sales No.: E.01.II.G.182, ECLAC, Santiago, Chile, December 2001, 107 pages.

The severe slowdown in the world economy in 2001 cut short the recovery that had begun in 2000 and dashed hopes that Latin America and the Caribbean were about to embark upon a new growth cycle. Unlike the crises of the 1990s, which were confined to a limited group of countries, the slowdown of 2001 engulfed the region as a whole. Regional output grew by a scant 0.5% and growth prospects for 2002 are not promising (1.1%). Inflation continued to abate, and the increase in the external deficit was fairly small. In an economic environment marked by real currency appreciation almost everywhere, the current-account deficit climbed to US\$ 53 billion. Capital inflows to Latin America and the Caribbean were down sharply, and autonomous flows totalled just US\$ 33 billion, a figure reminiscent of the meagre levels seen in 1999. Against this grim backdrop, intraregional trade -which is more heavily concentrated in manufactures and less easily influenced by international events- was what helped to buoy exports in many countries. Within Mercosur, however, trade activity contracted by 10%.

The impact of the adverse international environment impinged upon all areas of activity; in fact, the consequences of this situation were felt more keenly in domestic economies than in export activities. The steep reduction in growth hurt the labour market. The regional unemployment rate held at 8.4% of the economically active population, and wages either stagnated or fell in real terms. The pace of structural and trade reform processes slowed, and those reform initiatives that were undertaken focused mainly on the financial system.

Nevertheless, the region's economies did quite well in withstanding a large part of these destabilizing shocks and, with the exception of Argentina, in averting domestic or external crises. The countries succeeded in making notable macroeconomic advances under these trying circumstances, although the succession of stop-go cycles experienced over the past decade has resulted in a long-term growth rate that is far below what the region needs if it is to reduce its high level of unemployment and improve the substandard conditions in which a large percentage of its population lives.

Other publications

The Sustainability of Development in Latin America and the Caribbean: Challenges and Opportunities, LC/G.2145 (CONF.90/3), ECLAC/United Nations Environment Programme (UNEP), document prepared as part of the Regional Preparatory Conference of Latin America and the Caribbean for the World

Conference on Sustainable Development (Johannesburg, South Africa, 2002), Rio de Janeiro, 23-24 October 2001, 153 pages.

The 1990s began with major changes in the international agenda. The United Nations Conference on Environment and Development (Rio de Janeiro, 1992), also called the Earth Summit, was the first in a cycle of world conferences held to analyse the problems of development in the light of a new phenomenon that was beginning to spread inexorably: globalization. In this process, known as the "new social cycle" of the United Nations, which launched it in response to the wishes of Member States, there has been a renewal of efforts first made 20 years ago to find solutions to problems that are coming strongly to the fore on the global stage. Steps have also been taken to consolidate the ethical and political underpinnings of a cooperation regime based on new legal principles in the international sphere.

The 1992 Rio de Janeiro Conference marked a major shift away from the previous approach to developing a system of international public law relating to environmental problems of worldwide scope. The issues that had previously dominated related to the oceans, the protection of species through restrictions on international trading, and nuclear threats.

Almost 10 years on from Rio, Latin America and the Caribbean has barely embarked on the path towards sustainable development. The region signed up enthusiastically to the commitments of the Summit in 1992 and set in train initiatives to implement the Rio Declaration and Programme 21, but not enough has yet been achieved. The process was followed not just by national governments, but also by many civil and business organizations, universities and research centres, and innumerable local governments, which became more and more involved in implementing it. There are still many steps to be taken and new challenges to confront, however, some of which did not exist when the Earth Summit was held.

By contrast with those times, the distinctive feature of the international context today is undoubtedly the consolidation of the globalization process, with which the region is now fully involved. Many view globalization as inevitable. Although it is true to say that its main engine is technology and the expansion and integration of markets, however, it is no less true that globalization is not a force of nature, but the result of processes driven by human beings. It needs to be controlled so that it can be put at the service of humanity, which means that it needs to be carefully administered, by sovereign countries at the national level, and through multilateral cooperation at the international level.

It is clear that existing patterns of production and consumption are socially, economically and environmentally unviable. The region is faced with the enormous challenge of devising strategies and setting priorities in pursuit of agreements leading to a global alliance and of a renewed, enhanced commitment to the 1992 Rio consensus, essentially by recreating the spirit of cooperation between developed and less developed societies, something that has been the subject of much rhetoric, but little action.

Financing for Sustainable Development in Latin America and the Caribbean, LC/G.2146 (CONF.90/4), ECLAC/United Nations Development Programme (UNDP), Rio de Janeiro, 23-24 October 2001, 76 pages.

This document was the basis for the deliberations of the Panel on Financing for Sustainable Development organized jointly by ECLAC, the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). It was prepared as part of the Regional Preparatory Conference of Latin America and the Caribbean for the World Conference on Sustainable Development (Johannesburg, South Africa, 2002). This Regional Conference was held in Rio de Janeiro on 23 and 24 October 2001. The document and case studies are the outcome of a joint ECLAC/UNDP project financed by the latter.

The United Nations Conference on Environment and Development (Rio de Janeiro, 1992) was the first in a new round of world conferences whose purpose was to analyse development problems in the light of a new international context shaped by the phenomenon of globalization. The five resolutions passed at the Conference represented the most universal and coordinated policy response at that time to the need to establish an international regime of cooperation, with a view to fully incorporating the environmental dimension into development policies.

One of the central issues of the Conference concerned mechanisms of financing for sustainable development, in keeping with the mandate of General Assembly resolution 44/228 of 22 December 1989.

The publication we are introducing here analyses the manifestation in Latin America and the Caribbean of developments in the following areas: i) efforts to resolve problems of external debt; ii) flows of official development assistance; iii) private international financial flows; iv) financial contributions from international agencies; v) international multilateral funds, and vi) policies of domestic financing for sustainable development. It also broaches the need to move the issues forward, especially with regard to national policies on financing for sustainable development.

Drawing on the preliminary results of seven case studies (in Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Trinidad and Tobago), the publication recommends strengthening institutions in order to achieve better results through public and private environmental management and the mainstreaming of the environmental dimension in sectoral public policies, particularly in crucial areas such as water, energy, mining, infrastructure works, transport and the management of renewable natural resources (including forests and fisheries). This should be viewed in a framework of domestic macroeconomic policies that respond to the need to increase national saving and mobilize domestic resources to finance investment.

It also recommends that regional action be further integrated and coordinated, in order to reap greater benefits from international cooperation and improve the trading position of the countries of the region.

Building Equity from the Beginning: the Children and Adolescents of Ibero-America, LC/G.2144, ECLAC/United Nations Children's Fund (UNICEF)/Secretariat for Ibero-American Cooperation (SECIB), Santiago, Chile, ECLAC, September 2001, 190 pages.

The Tenth Ibero-American Summit of Heads of State and Government, which met in Panama in November 2000, devoted

much of its deliberations to the subject of children and youth. It recognized the importance of their rights, as clearly enshrined in the Convention on the Rights of the Child, which all the Ibero-American countries have signed. It also identified the most urgent problems facing boys, girls and adolescents and, in the Panama Declaration 2000, set forth the strategies for resolving them.

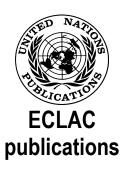
As these priorities were established, it became clear that there was a need for a thorough, detailed evaluation of the living conditions of Ibero-American boys, girls and adolescents at the close of the twentieth century. Accordingly, the heads of State and government concluded that it was essential for a study to be produced to supply such an evaluation, complement the strategies they had decided on and, perhaps most importantly, set specific targets to provide a basis for solid progress towards the much looked-for implementation of the Rights of the Child.

In response to this call from the Tenth Ibero-American Summit of Heads of State and Government, ECLAC, in collaboration with UNICEF and SECIB, prepared the study that we are introducing here. Generous and substantial assistance was provided by a number of international organizations, which are referred to in the study.

The picture it reveals is a mixed one. On the one hand, the last decade of the twentieth century saw substantial progress in overcoming some of the problems that have traditionally affected children and youth in Ibero-America. The greatest achievements were in the field of social rights, i.e., health, nutrition and education, largely as a result of the stimulus provided by the 1990 World Summit for Children (New York, 1990) and the 27 specific goals it laid down. Unfortunately, despite these achievements, there are still pronounced inequalities among countries and among social groups within them. Furthermore, the environment generated by current development models seems to be shaping twenty-first century economic and social events in a way that is limiting the scope for further progress in the short term and perhaps in the medium and long term as well, preventing the social investment of recent years from yielding the return expected, and heightening the tendency towards inequity among and within countries. If this is to be avoided, it is vital that higher priority be given to enforcing the rights of boys, girls and adolescents and that greater resources be put into social investment that benefits them, with a view to achieving substantial improvements in their living conditions and ensuring equality of opportunities.

It is clear, then, that the progress achieved can be consolidated only if renewed, persistent efforts are made. If this does not happen, not only will the basic living conditions with which economic rights are concerned improve more slowly, but the civil, political and cultural rights of boys, girls and adolescents in Ibero-America will increasingly be flouted.

The study we are introducing was thus produced in response to the request made by the Tenth Ibero-American Summit of Heads of State and Government, headed by the President of Panama, Mireya Moscoso, and its purpose is to underpin the strategies set forth in the 2000 Panama Declaration. It is now essential for these strategies to be implemented in the different countries so that genuine respect can be secured for the rights of boys, girls and adolescents in Ibero-America.



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CEPAL Review first appeared in 1976 as part of the Publications Programme of the Economic Commission for Latin America and the Caribbean, its aim being to make a contribution to the study of the economic and social development problems of the region. The views expressed in signed articles, including those by Secretariat staff members, are those of the authors and therefore do not necessarily reflect the point of view of the Organization.

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