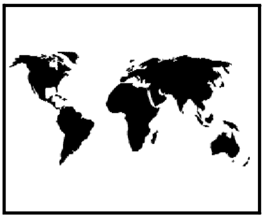

Locating cities on global circuits

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SUMMARY: *This paper discusses the cities that have the resources which enable firms and markets to be global. It considers the new intensity and complexity of globally-connected systems of production, finance and management which may disperse production, yet need (relatively few) networks of cities to provide their organizational and management architecture. This produces new geographies and hierarchies of centrality – particular cities and regions that have key roles in globalization. Many such cities become far more closely linked to the global economy than to their regional or national economies – and this can have harsh consequences locally, pushing out firms and people that are not within the internationalized sector. The paper discusses why certain cities retain such importance, when production is so dispersed and when telecommunications and rapid transport systems have limited the advantages of spatial concentration. It also considers the dependence of global cities on each other; a crisis in one key centre often brings problems rather than opportunities for others.*

I. INTRODUCTION

THERE HAVE LONG been cross-border economic processes – flows of capital, labour, goods, raw materials, travellers. And over the centuries there have been enormous fluctuations in the degree of openness or closure of the organizational forms within which these flows took place. In the last hundred years, the inter-state system came to provide the dominant organizational form for cross-border flows, with national states as its key actors. It is this condition that has changed dramatically over the last decade as a result of privatization, deregulation, the opening up of national economies to foreign firms and the growing participation of national economic actors in global markets.

In this context, we see a re-scaling of the strategic territories that articulate the new system. With the partial unbundling or at least weakening of the national as a spatial unit come conditions for the ascendance of other spatial units and scales. Among these are the sub-national, notably cities and regions; cross-border regions encompassing two or more sub-national entities; and supra-national entities, i.e. global digitized markets and free-trade blocs. The dynamics and processes that become terrritorialized or which are sited at these diverse scales can in principle be regional, national and global. There is a proliferation of specialized global circuits for economic activities which both contribute to these new scales and are enhanced by their emergence.

The organizational architecture for cross-border flows that emerges from these re-scalings and articulations increasingly diverges from that of the inter-state system. The key articulators now include not only national states but also firms and markets whose global operations are facilitated by new policies and cross-border standards produced by willing or not-so-willing states. Among the empirical referents for these non-state forms of articulation are the growing number of cross-border mergers and acquisitions, the expanding networks of foreign affiliates and the growing number of financial centres that are becoming incorporated into global financial markets. As a result of these and other processes, a growing number of cities today play an increasingly important role in directly linking their national economies with global circuits. As cross-border transactions of all kinds grow, so do the networks binding particular configurations of cities. This, in turn, contributes to the formation of new geographies of centrality that connect cities in a growing variety of cross-border networks.

A key feature of this organizational architecture is that it contains both the capability for enormous geographic dispersal and mobility as well as pronounced territorial concentrations of resources necessary for the management and servicing of that dispersal. The management and servicing of much of the global economic system takes place in a growing network of global cities and cities that might best be described as having global city functions. The expansion of global management and servicing activities has brought with it a massive upgrading and expansion of central urban areas, even as large portions of these cities fall into deeper poverty and infrastructural decay. While this role involves only certain components of urban economies, it has contributed to a repositioning of cities both nationally and globally. Further, by emphasizing the fact that global processes are at least partly embedded in national territories via their concentration in cities, such a focus introduces new variables in current conceptions of economic globalization and the shrinking regulatory role of the state. That is to say, insofar as it is partly embedded in this network of territorially-sited cities, the geography for major new global economic processes partly overrides the notion that the global and the national are two mutually exclusive zones as is assumed in much analysis of the impact of the global economy on state authority. National states have had to participate in creating the enabling institutional and legal environments that contribute to the formation of this cross-border geography of centrality largely embedded in the network of global cities.

This paper aims to contribute to the empirical and theoretical specification of this organizational architecture.(1) There are many factors involved, including state policy; the opportunities offered by telecommunications and the new networking technologies; older histories of economic advantage enjoyed by some cities; and location in global hierarchies. In examining how cities become articulated to global circuits, there are several possible units of analysis: current global and local architectures of technical connectivity; firms and their overseas affiliates; cross-border transactions such as investment and trade; alliances among financial markets and, more generally, the operations of the global capital market; and the growth of transnational labour markets for professionals and specialized service workers. But there are, in principle, many other units of analysis that one might have considered, including illegal trafficking networks in people, drugs and stolen goods; immigration networks; art biennales and the art market; tourism patterns, not just indi-

1. The book on whose introduction this article is based focuses particularly on how cities in the mid-range of the global hierarchy become articulated with cross-border economic circuits, and on the capabilities of the new communications technologies for reducing inequality in this hierarchy. The positioning of these cities in the mid-range of the global hierarchy provides a somewhat distinct cast to the operation of the key dynamics involved and fills a gap in the scholarship on this subject. But perhaps more importantly for the purposes of research and theorization, it allows us to capture a dynamic in formation, unlike the case in well-established global cities.

vidual tourists, such as the stops in major cruises; immigrant business networks; activist networks ranging from environmentalist and human rights efforts to poor peoples' activist networks. It is impossible to cover such a diverse range of possible units of analysis here.

Among the features that are examined are the combination of centralization and dispersal trends; the disproportionate concentration of value and transactions in the North Atlantic; the role of cities in an increasingly digitalized global economy, especially as illustrated by the growth of finance and specialized services; and the impact of information technologies on urban economies.

II. WORLDWIDE NETWORKS AND CENTRAL COMMAND FUNCTIONS

THE GEOGRAPHY OF globalization contains both a dynamic of dispersal and of centralization. The massive trend towards the spatial dispersal of economic activities at the metropolitan, national and global level which we associate with globalization has contributed to a demand for new forms of territorial centralization of top-level management and control functions. Insofar as these functions benefit from agglomeration economies, even in the face of telematic integration of a firm's globally-dispersed manufacturing and service operations, they tend to locate in cities. This raises a question as to why they should benefit from agglomeration economies, especially since globalized economic sectors tend to be intensive users of the new telecommunications and computer technologies, and increasingly produce a partly dematerialized output such as financial instruments and specialized services. There is growing evidence that business networks are a crucial variable that is to be distinguished from technical networks. Such business networks were crucial long before the current technologies were developed. Business networks benefit from agglomeration economies and hence thrive in cities, even today, when simultaneous global communication is possible. I have examined this issue elsewhere[2] and have found that the key variable contributing to the spatial concentration of central functions and associated agglomeration economies is the extent to which this dispersal occurs under conditions of concentration of control, ownership and profit appropriation.

This dynamic of simultaneous geographic dispersal and concentration is one of the key elements in the organizational architecture of the global economic system. I will first give some empirical referents and then examine some of the implications for theorizing the impacts of globalization and the new technologies on cities.

The rapid growth of affiliates illustrates the dynamic of simultaneous geographic dispersal and concentration of a firm's operations. By 1999, firms had well over half a million affiliates outside their home countries, accounting for US$ 11 trillion in sales, a very significant figure if we consider that global trade stood at US$ 8 trillion. Firms with large numbers of geographically-dispersed factories and service outlets face massive new needs for central coordination and servicing, especially when their affiliates involve foreign countries with different legal and accounting systems.

Another current instance of this negotiation between a global cross-border dynamic and territorially-specific sites is that of the global financial markets. The orders of magnitude in these transactions have risen

2. Sassen, Saskia (2001), *The Global City; New York, London, Tokyo*, Princeton University Press, Princetown, NJ (new updated edition of the book originally published in 1991), chapters 2 and 5.

sharply, as illustrated by the US$ 65 trillion in the value of traded derivatives, a major component of the global economy. These transactions are partly embedded in electronic systems that make possible the instantaneous transmission of money and information around the globe, and much attention has been paid to these new technologies. But the other half of the story is the extent to which the global financial markets are located in an expanding network of cities, with a disproportionate concentration in cities of the global North. Indeed, the degrees of concentration internationally and within countries are unexpectedly high for an increasingly globalized and digitized economic sector. Within countries, the leading financial centres today concentrate a greater share of national financial activity than even ten years ago, and internationally, cities in the global North concentrate well over half of the global capital market. This is discussed empirically in a later section. One of the components of the global capital market are the stock markets. The late 1980s and early 1990s saw the addition of stock markets such as Buenos Aires, Sao Paulo, Mexico City, Bangkok, Taipei and Moscow, with a growing number of non-national firms listed in most of these markets. The growing number of stock markets has contributed to a rise in the capital that can be mobilized through these markets, reflected in the sharp worldwide growth of stock market capitalization which reached over US$ 31 trillion for high-income countries. This globally-integrated stock market which makes possible the circulation of publicly-listed shares around the globe in seconds, is embedded in a grid of very material, physical strategic places.

The specific forms assumed by globalization over the last decade have created particular organizational requirements. The emergence of global markets for finance and specialized services, the growth of investment as a major type of international transaction, all have contributed to the expansion in command functions and in the demand for specialized services for firms.(3)

By central functions, I do not only mean top-level headquarters but, rather, all the top-level financial, legal, accounting, managerial, executive and planning functions necessary to run a corporate organization operating in more than one country, and increasingly in several countries. These central functions are partly embedded in headquarters, but also in good part in what has been called the corporate services complex, that is, the network of financial, legal, accounting and advertising firms that handle the complexities of operating in more than one national legal system, national accounting system, advertising culture, etc. and do so under conditions of rapid innovation in all these fields. Such services have become so specialized and complex, that headquarters increasingly buy them from specialized firms rather than producing them in-house. These agglomerations of firms producing central functions for the management and coordination of global economic systems are disproportionately concentrated in the highly-developed countries – particularly, though not exclusively, in global cities. Such concentrations of functions represent a strategic factor in the organization of the global economy and they are situated in an expanding network of global cities.(4) It is important analytically to unbundle the fact of strategic functions for the global economy or for global operation, and the overall corporate economy of a country. These global control and command functions are partly embedded in national corporate structures but also constitute a distinct corporate sub-sector. This sub-sector can be conceived of as part of a network that connects global cities across the globe through firms' affiliates or other

3. A central proposition here, developed at length in my work, is that we cannot take the existence of a global economic system as a given, but rather need to examine the particular ways in which the conditions for economic globalization are produced. This requires examining not only communication capacities and the power of multinationals but also the infrastructure of facilities and work processes necessary for the implementation of global economic systems, including the production of those inputs that constitute the capability for global control, and the infrastructure of jobs involved in this production. The emphasis shifts to the practice of global control: the work of producing and reproducing the organization and management of a global production system and a global marketplace for finance, both under conditions of economic concentration. The recovery of place and production also implies that global processes can be studied in great empirical detail.

4. We are seeing the formation of an economic complex with a valorization dynamic that has properties clearly distinguishing it from other economic complexes whose valorization dynamic is far more articulated with the public economic functions of the state, the quintessential example being Fordist manufacturing. Global markets in finance and advanced services partly operate through a "regulatory" umbrella that is not state-centred but market-centred. This, in turn, raises a question of control linked to the currently inadequate capacities to govern transactions in electronic space.

representative offices, and the specialized servicing and management of transactions in the global capital market and of foreign investment.[5] For the purposes of certain kinds of inquiry this distinction may not matter; for the purposes of understanding the global economy, it does.

This distinction also matters for questions of regulation, notably regulation of cross-border activities. If the strategic central functions – both those produced in corporate headquarters and those produced in the specialized corporate services sector – are located in a network of major financial and business centres, the question of regulating what amounts to a key part of the global economy will entail a different type of effort from what would be the case if the strategic management and coordination functions were as distributed geographically as the factories, service outlets and affiliates generally. We can also read this as a strategic geography for political activisms that seek accountability from major corporate actors, among others, concerning environmental standards and workplace standards. National and global markets, as well as globally-integrated organizations, require central places where the work of globalization gets done. Finance and advanced corporate services are industries producing the organizational commodities necessary for the implementation and management of global economic systems. Cities are preferred sites for the production of these services, particularly the most innovative, speculative, internationalized service sectors. Further, leading firms in information industries require a vast physical infrastructure containing strategic nodes with hyper-concentration of facilities; we need to distinguish between the capacity for global transmission/communication and the material conditions that make this possible. Finally, even the most advanced information industries have a production process that is at least partly place-bound because of the combination of resources it requires even when the outputs are hyper-mobile.

Theoretically, this addresses two key issues in current debates and scholarship. One is the complex articulation between capital fixity and capital mobility and the other, the position of cities in a global economy. Elsewhere, I have developed the thesis that capital mobility cannot be reduced simply to that which moves nor can it be reduced to the technologies that facilitate movement. Rather, multiple components of what we keep thinking of as capital fixity are actually components of capital mobility. This conceptualization allows us to reposition the role of cities in an increasingly globalizing world, in that they contain the resources that enable firms and markets to have global operations.[6] The mobility of capital, whether in the form of investments, trade or overseas affiliates, needs to be managed, serviced and coordinated. These are often rather place-bound, yet are key components of capital mobility. Finally, states – place-bound institutional orders – have played an often crucial role in producing regulatory environments that facilitate the implementation of cross-border operations for their national firms and for foreign firms, investors and markets.[7]

In brief, a focus on cities makes it possible to recognize the anchoring of multiple cross-border dynamics in a network of places, prominent among which are cities, particularly global cities or those with global city functions. This, in turn, anchors various features of globalization in the specific conditions and histories of these cities, in their variable articulations with their national economies and with various world economies across time and place.[8] This optic on globalization contributes to identifying a complex organizational architecture which cuts across borders and

5. In this sense, global cities are different from the old capitals of erstwhile empires in that they are a function of cross-border networks rather than simply the most powerful city of an empire. There is, in my conceptualization, no such entity as a single global city as there could be a single capital of an empire; the category global city only makes sense as a component of a global network of strategic sites. The corporate sub-sector which contains the global control and command functions is partly embedded in this network.

6. There are multiple specifications to this argument. For instance, and going in the opposite direction, the development of financial instruments that represent fixed real-estate repositions the latter in various systems of circulation, including global ones. In so doing, the meaning of capital fixity is partly transformed and the fixed capital also becomes a site for circulation. For a fuller elaboration, see reference 2, chapter 2.

7. Sassen, Saskia (2003), *Denationalization: Territory, Authority and Rights in a Global Digital Age*, Princeton University Press, Princeton, NJ.

8. See, for example, Abbott, Carl (1996), "The internationalization of Washington DC", *Urban Affairs Review* Vol 31, No 5, pages 571-594; also Abu-Lughod, Janet L (1999), *New York, Los Angeles, Chicago: America's Global Cities*, University of Minnesota Press, Minnesota; Cochrane, Allan, Jamie Peck and Adam Tickell (1996), "Manchester plays games: exploring the local politics of globalization", *Urban Studies* Vol 33, No 8, pages 1319-1336; Lo, Fu-chen and Yue-man Yeung (editors) (1996), *Emerging World Cities in Pacific Asia*, United Nations University, Tokyo; and Santos, Milton, Maria

is both partly de-territorialized and partly spatially concentrated in cities. Further, it creates an enormous research agenda in that every particular national or urban economy has its specific and partly inherited modes of articulating with current global circuits. Once we have more information about this variance, we may be able also to establish whether position in the global hierarchy makes a difference, and the various ways in which it might do so.

III. THE GEOGRAPHY OF CROSS-BORDER CAPITAL FLOWS

THIS TYPE OF analysis of globalization, which seeks to map the strategic sites with hyper-concentration of resources as well as the cross-border networks that link these sites and others, helps us understand to what extent there is a specific geography of globalization and the fact that it is not a planetary event encompassing all of the world.(9) It is, furthermore, a changing geography, one that has changed over the last few centuries and over the last few decades,(10) and most recently has come to include electronic space.

A first step in capturing this geography of globalization is to examine some of the patterns of cross-border capital flows. These are often used as (partial) indicators of economic globalization. The empirical patterns of foreign direct investment and global finance show both a sharp concentration in certain areas of the world and a growing incorporation of particular sites in the less-developed world.

The evidence makes it clear that the centre of gravity lies in the North Atlantic region. The northern trans-Atlantic economic system (particularly the links between the European Union, the US and Canada) represents the major concentration of processes of economic globalization in the world today. This holds whether one looks at foreign direct investment flows generally, at cross-border mergers and acquisitions in particular, at overall financial flows or at the new strategic alliances among financial centres. This region accounts for two-thirds of the worldwide stock market capitalization, 60 per cent of inward foreign investment stock, 76 per cent of outward stock, 60 per cent of worldwide sales in mergers and acquisitions, and 80 per cent of purchases in mergers and acquisitions. There are other major regions in the global economy receiving capital flows, namely Japan, South-East Asia and Latin America. But with the exception of some of the absolute levels of capital resources in Japan, they are dwarfed by the weight of the northern trans-Atlantic system.

A second major pattern is the significant growth in the absolute level of flows going to other parts of the world, even though they do not compare with the North Atlantic region. Disaggregating these patterns makes it clear that the capital is actually going to a select number of sites. Flows in Latin America reflect these two patterns well: a massive increase in foreign investment but mostly concentrated in Brazil, Mexico and Argentina.

We are seeing the consolidation of a transnational economic system that has its centre of gravity in the north-Atlantic system both in terms of the intensity and value of transactions, and in terms of the emerging system of rules and standards. This system is articulated with a growing network of sites for investment, trade and financial transactions in the rest of the

Adelia A de Souza and Maria Laura Silveira (editors) (1994), *Territorio Globalizacao e Fragmentacao*, Editorial Hucitec, Sao Paulo.

9. In contrast to the notion of globalization as signalling the transformation of the world into a single place or as denoting the "global human condition", it can be argued that globalization is also a process that produces differentiation. But the alignment of differences is of a very different kind from that associated with such differentiating notions as national character, national culture and national society. For example, the corporate world today has a global geography but it isn't everywhere in the world. In fact, it has highly defined and structured spaces; and second, it also is increasingly sharply differentiated from non-corporate segments in the economies of global cities or countries where it operates. There is homogenization along certain lines that cross national boundaries, and sharp differentiation inside these boundaries. The hierarchical nature of global networks is yet another form of differentiation, even within the somewhat homogenized geography of centrality discussed earlier. Globalized forms and processes, while homogenizing, tend to have a distinct geography.

10. We need to recognize the specific historical conditions for different conceptions of the international or the global (see Arrighi, Giovanni and Beverly J. Silver (1999), *Chaos and Governance in the Modern World System*, University of Minnesota Press, Minneapolis, 336 pages). Today, there is a tendency to see the internationalization of the economy as a process operating at the centre, embedded in the power of

world. Thus, while globalization does indeed entail dispersal, it is also evident that the combination of concentration and network expansion makes for a strongly hierarchical system.

The weight of the North Atlantic system in the global economy raises a number of questions. One concerns its features, the extent to which there is interdependence and, in that sense, the elements of a cross-border economic system. The weight of these trans-Atlantic links needs to be considered against the weight of established zones of influence for each of the major powers – particularly, the Western Hemisphere in the case of the US, and Africa, Central and Eastern Europe for the European Union.

Elsewhere, I have argued that it is through this incorporation in a hierarchical global network that has its centre in the North Atlantic that the relations with their zones of influence is now constituted. Thus, while the US is still a dominant force in Latin America, several European countries have become major investors in Latin America, on a scale that far surpasses past trends. And while several European Union countries have become leading investors in Central and Eastern Europe, US firms are playing a role they have never played before.

What we are seeing today is a new grid of economic transactions superimposed on the old geo-economic patterns. The latter persist to variable extents but they are increasingly submerged under this new cross-border grid. These new configurations are particularly evident in the organization of global finance and, although to a lesser extent, in foreign direct investment, especially cross-border mergers and acquisitions.[11]

Cross-border mergers and acquisitions today dominate global foreign direct investment (FDI) flows. Mergers and acquisitions are heavily concentrated in OECD countries, which account for 89 per cent of purchases and 72 per cent of sales. A growing number of firms opt for mergers as a mode of overseas expansion or consolidation. For instance, acquisitions represented 90 per cent of total FDI in the US in 1996. In 1998, mergers and acquisitions in the North Atlantic reached US$ 256.5 billion, up from US$ 69.4 billion in 1995.

The average transnationality index for the EU is 56.7 per cent compared to 38.5 per cent for the US (but 79.2 for Canada). This index is an average based on ratios of the share that foreign sales, assets and employment represent in a firm's total of each. The index has grown for the 100 largest TNCs in the world since it was first used in 1990. Most of the US and EU TNCs in this top 100 list have very high levels of foreign assets as a percentage of total assets: for instance, 51 per cent for IBM, 55 per cent for Volkswagen Group, 91 per cent for Nestle, 96 per cent for Asea Brown Boveri, and so on. The US, the UK, France, Germany and Japan together accounted for three-quarters of these 100 firms in 1997; this has been roughly so since 1990.

IV. IMPACTS OF NEW COMMUNICATION TECHNOLOGIES ON CENTRALITY

HISTORICALLY, CITIES HAVE provided national economies, polities and societies with something we can think of as centrality. In terms of their economic function, cities provide agglomeration economies, massive concentrations of information on the latest developments and a marketplace. How do the new technologies of communication alter the role of centrality and hence of cities as economic entities?

the multinational corporations today and colonial enterprises in the past. One could note that the economies of many peripheral countries are thoroughly internationalized due to high levels of foreign investments in all economic sectors, and of heavy dependence on world markets for "hard" currency. What the highly developed countries have is strategic concentrations of firms and markets that operate globally, the capability for global control and coordination, and power. This is a very different form of the international from that which we find in the global South.

11. The fact of systemic conditions in the new geo-economics is a significant factor for the question of regulation. The orders of magnitude and the intensity of transactions in the north-Atlantic system facilitate the formation of standards even in the context of, relatively speaking, strong differences between the US and Continental Europe in their legal, accounting, anti-trust and other rules. It is clear that even though these two regions have more in common with each other than with much of the rest of the world, these differences matter when it comes to the creation of cross-border standards. The fact of shared western standards and norms, however, in combination with the enormous economic weight, has facilitated the circulation and imposition of US and European standards and rules on transactions involving firms from other parts of the world. There is a sort of globalization of western standards. Much has been said about the dominance of US standards and rules, but European standards are also evident, for instance in the new anti-trust rules being developed in Central and Eastern Europe.

As earlier sections have indicated, centrality remains a key feature of today's global economy. But today there is no longer a simple straightforward relation between centrality and such geographic entities as the downtown or the central business district (CBD). In the past, and up to quite recently in fact, the centre was synonymous with the downtown or the CBD. Today, partly as a result of the new communication technologies, the spatial correlates of the centre can assume several geographic forms, ranging from the CBD to a new global grid of cities.

To simplify, one could identify three forms assumed by centrality today.[12] First, while there is no longer a simple straightforward relation between centrality and such geographic entities as the downtown, as was the case in the past, the CBD remains a key form of centrality. But the CBD in major international business centres is one profoundly reconfigured by technological and economic change. Graham and Garcia examine the variety of impacts of the new communication technologies on this reconfiguration.[13]

Second, the centre can extend into a metropolitan area in the form of a grid of nodes of intense business activity, a case well illustrated by recent developments in cities as diverse as Buenos Aires[14] and Paris.[15] One might ask whether a spatial organization characterized by dense strategic nodes spread over a broader region does or does not constitute a new form of organizing the territory of the "centre" rather than, as in the more conventional view, an instance of suburbanization or geographic dispersal. Insofar as these various nodes are articulated through digital networks, they represent a new geographic correlate of the most advanced type of "centre". The places that fall outside this new grid of digital highways, however, are peripheralized. This regional grid of nodes represents, in my analysis, a reconstitution of the concept of region. Far from neutralizing geography, the regional grid is likely to be embedded in conventional forms of communications infrastructure, notably rapid rail and highways connecting to airports. Ironically perhaps, conventional infrastructure is likely to maximize the economic benefits derived from telematics. I think this is an important issue that has been lost somewhat in discussions about the neutralization of geography through telematics.

Third, we are seeing the formation of a trans-territorial "centre" constituted via telematics and intense economic transactions. The most powerful of these new geographies of centrality at the inter-urban level binds the major international financial and business centres: New York, London, Tokyo, Paris, Frankfurt, Zurich, Amsterdam, Los Angeles, Sydney and Hong Kong among others.[16] But this geography now also includes cities such as Sao Paulo and Mexico City. The intensity of transactions among these cities, particularly through the financial markets, trade in services and investment has increased sharply, and so have the orders of magnitude involved. Finally, we see emergent regional hierarchies, as is illustrated by the growth corridors in South East Asia,[17] the case of Sao Paulo in the Mercosur free-trade area[18] and by the relation between the participating entities in the Iran-Dubai corridor.[19]

Besides their impact on the spatial correlates of centrality, the new communication technologies can also be expected to have an impact on inequality between cities and inside cities. There is an expectation in much of the literature on these technologies that they will override older hierarchies and spatial inequalities through the universalizing of connectivity that they represent. The available evidence suggests that this is not quite the case. Whether it is the network of financial centres and foreign direct

12. There is a fourth case which I have addressed elsewhere (see reference 2, chapters 4 and 5), which is represented by new forms of centrality constituted in electronically generated spaces.

13. Graham, Steven (2002), "Communication grids: cities and infrastructure" and Garcia, Linda (2002), "The architecture of global networking technologies" in Sassen, Saskia (editor), *Global Networks/Linked Cities*, Routledge, London and New York.

14. Ciccollela, Pablo and Iliana Mignaqui (2002), "The spatial reorganization of Buenos Aires" in Sassen, see reference 13.

15. Veltz, Pierre (1996), *Mondialisation Villes et Territories*, Presses Universitaires de France, Paris; also Landrieu, Josee, Nicole May, Dirige Par, Therese Spector and Pierre Veltz (editors) (1998), *La Ville Eclatee*, La Tour d'Aigues, Editiones de l'Aube.

16. In the case of a complex landscape such as Europe's, we see in fact several geographies of centrality, one global, others continental and regional. A central urban hierarchy connects major cities, many of which, in turn, play central roles in the wider global system of cities: Paris, London, Frankfurt, Amsterdam, Zurich. These cities are also part of a wider network of European financial/cultural/service capitals, some with only one, others with several of these functions, which articulate the European region and are somewhat less oriented to the global economy than Paris, Frankfurt or London. And then there are several geographies of marginality: the East-West divide and the North-South divide across Europe, as well as newer divisions. In Eastern Europe, certain regions and cities, notably Budapest, are

investment patterns discussed in this chapter or the more specific examinations of the spatial organization of various cities, the new communication technologies have not reduced hierarchy nor spatial inequalities.[20] And this is so even in the face of massive upgradings and state-of-the-art infrastructure in a growing number of cities worldwide. There is little doubt that connecting to global circuits has brought with it a significant level of development of expanded central urban areas and metropolitan grids of business nodes, and considerable economic dynamism. But the question of inequality has not been engaged.

Further, the pronounced orientation to the world markets evident in many of these cities raises questions about the articulation with their nation-states, their regions, and the larger economic and social structure in such cities. Cities have typically been deeply embedded in the economies of their region, indeed often reflecting the characteristics of the latter; and they still do. But cities that are strategic sites in the global economy tend, in part, to disconnect from their region. This conflicts with a key proposition in traditional scholarship about urban systems, namely, that these systems promote the territorial integration of regional and national economies. There has been a sharpening inequality in the concentration of strategic resources and activities between each of these cities and others in the same country, although this tends to be evident only at fairly disaggregated levels of evidence. For example, Mexico City today concentrates a higher share of some types of economic activity and value production than it did in the past, but to see this requires a very particularized set of analyses, as Parnreiter shows.[21]

V. THE INTERSECTION OF SERVICE INTENSITY AND GLOBALIZATION

TO UNDERSTAND THE new or sharply expanded role of a particular kind of city in the world economy since the early l980s, we need to focus on the intersection of two major processes. The first is the sharp growth in the globalization of economic activity, which has raised the scale and the complexity of transactions, thereby feeding the growth of top-level multinational headquarter functions and the growth of advanced corporate services. It is important to note that even though globalization raises the scale and complexity of these operations, they are also evident at smaller geographic scales and lower orders of complexity, as is the case with firms that operate regionally. Thus, while regionally-oriented firms need not negotiate the complexities of international borders and the regulations of different countries, they are still faced with a regionally-dispersed network of operations that requires centralized control and servicing.

The second process we need to consider is the growing service intensity in the organization of all industries. This has contributed to a massive growth in the demand for services by firms in all industries, from mining and manufacturing to finance and consumer services[22] industries with mixed business and consumer markets; they are insurance, banking, financial services, real estate, legal services, accounting and professional associations.[23] Cities are key sites for the production of services for firms. Hence, the increase in service intensity in the organization of all industries has had a significant growth effect on cities, beginning in the 1980s and continuing today. It is important to recognize that this growth in serv-

rather attractive for purposes of investment, both European and non-European, while others will increasingly fall behind, notably in Rumania, Yugoslavia and Albania. We see a similar differentiation in the south of Europe: Madrid, Barcelona and Milan are gaining in the new European hierarchy, whilst Naples, Rome and Marseille are not.

17. See reference 8, Lo and Yeung (1996).

18. Schiffer Ramos, Sueli (2002), "Sao Paulo: articulating a cross-border regional economy" in Sassen, see reference 13.

19. Parsa, Ali and Reiman Keivani (2002), "The Hormuz Straights: towards a cross-border growth corridor" in Sassen, see reference 13.

20. Graham 2002, see reference 13; Castells, Manuel (1996), *The Networked Society*, Allen, Oxford.

21. Parnreiter, Christoff (2002), "The making of a global city: Mexico City" in Sassen, see reference 13. This also holds in the highly developed world. For instance, the Paris region accounts for over 40 per cent of all producer services in France and for over 80 per cent of the most advanced ones. New York City is estimated to account for between one-fourth and one-fifth of all US producer services exports, al though it has only 3 per cent of the US population. London accounts for 40 per cent of all UK producer services exports. Similar trends are also evident in Zurich, Frankfurt and Tokyo, all located in much smaller countries.

22. We can think of the producer services, and most especially finance and advanced corporate services, as industries producing the "organizational

ices for firms is evident in cities at different levels of a nation's urban system. Some of these cities cater to regional or sub-national markets; others cater to national markets and yet others to global markets. In this context, globalization becomes a question of scale and added complexity.

The key process from the perspective of the urban economy is the growing demand for services by firms in all industries and the fact that cities are preferred production sites for such services, whether at the global, national or regional level. As a result, we see in cities the formation of a new urban economic core of banking and service activities that comes to replace the older typically manufacturing-oriented core.

In the case of cities that are major international business centres, the scale, power and profit levels of this new core suggest that we are seeing the formation of a new urban economy. This is so in at least two regards. First, even though these cities have long been centres for business and finance, since the late 1970s there have been dramatic changes in the structure of the business and financial sectors, as well as sharp increases in the overall magnitude of these sectors and their weight in the urban economy. Second, the ascendance of the new finance and services complex, particularly international finance, engenders what may be regarded as a new economic regime, that is, although this sector may account for only a fraction of the economy of a city, it imposes itself on that larger economy. Most notably, the possibility for superprofits in finance has the effect of devalorizing manufacturing insofar as the latter cannot generate the superprofits typical in much financial activity.

This is not to say that everything in the economy of these cities has changed. On the contrary, they still show a great deal of continuity and many similarities with cities that are not global nodes. Rather, the implantation of global processes and markets has meant that the internationalized sector of the economy has expanded sharply and has imposed a new valorization dynamic – that is, a new set of criteria for valuing or pricing various economic activities and outcomes. This has had devastating effects on large sectors of the urban economy. High prices and profit levels in the internationalized sector and its ancillary activities, such as top-of-the-line restaurants and hotels, have made it increasingly difficult for other sectors to compete for space and investments. Many of these other sectors have experienced considerable downgrading and/or displacement as, for example, neighbourhood shops tailored to local needs are replaced by upscale boutiques and restaurants catering to new high-income urban élites.

Although of a different order of magnitude, these trends also became evident, beginning in the late 1980s and early 1990s, in a number of major cities in low and middle-income nations that have become integrated into various world markets: Sao Paulo, Buenos Aires, Bangkok, Taipei, Shanghai, Manila, Beirut and Mexico City are a few examples. Here also, the new urban core was fed by the deregulation of various economic sectors, the ascendance of finance and specialized services, and integration into the world markets. The opening of stock markets to foreign investors and the privatization of what were once public sector firms have been crucial institutional arenas for this articulation. Given the vast size of some of these cities, the impact of this new core on the broader city is not always as evident as in central London or Frankfurt, but the transformation is still very real.

It is important to recognize that manufacturing remains a crucial sector in all these economies, even when it may have ceased to be a dominant

commodities" necessary for the implementation and management of global economic systems (see reference 2, Sassen (2001), chapters 2-5). Producer services are intermediate outputs, that is, services bought by firms. They cover financial, legal and general management matters, innovation, development, design, administration, personnel, production technology, maintenance, transport, communications, wholesale distribution, advertising, cleaning services for firms, security and storage.

23. For more detailed discussions see, for example, Noyelle, T and A B Dutka (1988), *International Trade in Business Services: Accounting, Advertising, Law and Management Consulting*, Ballinger Publishing, Cambridge, MA; also Veltz 1996, see reference 15.

sector in major cities. Indeed, several scholars have argued that the producer services sector could not exist without manufacturing.[24] A key proposition for these and other authors is that producer services are dependent on a strong manufacturing sector in order to grow. There is considerable debate around this issue. Drennan et al. argue that a strong finance and producer services sector is possible in major US cities notwithstanding a decline in their industrial base, and that these sectors are so strongly integrated into the world markets that articulation with the larger region becomes secondary.[25]

In a variant on both positions, I argue that manufacturing indeed feeds the growth of the producer services sector, but that it does so whether located in the area in question, somewhere else in the country or overseas.[26] Even though manufacturing plants – and mining and agriculture, for that matter – feed growth in the demand for producer services, their actual location is of secondary importance in the case of global level service firms: thus, whether manufacturing plants are located offshore or within a country may be quite irrelevant as long as it is part of a multinational corporation likely to buy the services from those top-level firms. Second, the territorial dispersal of factories, especially if international, actually raises the demand for producer services. This is yet another meaning, or consequence, of globalization: the growth of producer services firms headquartered in New York or London or Paris can be fed by manufacturing located anywhere in the world as long as it is part of a multinational corporate network. Third, a good part of the producer services sector is fed by financial and business transactions that either have nothing to do with manufacturing, as is the case in many of the global financial markets, or for which manufacturing is incidental, as in much merger and acquisition activity, which is centred on buying and selling firms rather than on buying manufacturing firms as such.

24. Cohen, SS and J Zysman (1987) *Manufacturing Matters: The Myth of the Post-Industrial Economy*, Basic Books, New York; also Markusen, A and V Gwiasda (1994), "Multipolarity and the layering of functions in the world cities: New York City's struggle to stay on top", *International Journal of Urban and Regional Research* Vol 18, pages 67-93.

25. Drennan, Matthew P, Emanuel Tobier and Jonathan Lewis (1996), "The interruption of income convergence and income growth in large cities in the 1980s", *Urban Studies* Vol 33, No 1, pages 63-82.

26. See reference 2, Sassen (2001).

VI. THE LOCATIONAL AND INSTITUTIONAL EMBEDDEDNESS OF GLOBAL FINANCE

SEVERAL OF THE issues discussed thus far assume particularly sharp forms in the emerging global network of financial centres. The global financial system has reached levels of complexity that require the existence of a cross-border network of financial centres to service the operations of global capital. This network of financial centres will increasingly differ from earlier versions of the international financial system. In a world of largely closed national financial systems, each country duplicated most of the necessary functions for its economy; collaborations among different national financial markets were often no more than the execution of a given set of operations in each of the countries involved, as in clearing and settlement. With few exceptions, such as the off shore markets and some of the large banks, the international system consisted of a string of closed domestic systems.

The global integration of markets pushes towards the elimination of various redundant systems and makes collaboration a far more complex matter, one which has the effect of raising the division of labour within the network. Rather than each country having its own centre for global operations, the tendency is towards the formation of networks and strategic alliances with a measure of specialization and division of functions. This may well become a system with fewer strategic centres and more hierarchy, even as it adds centres. In this context, London and New York, with their enormous concentrations of resources and talent, continue to be powerhouses in the global network for the most strategic and complex operations for the system as a whole. They are the leading exporters of financial services and, typically, part of any major international public offering, whether it is the privatization of British Telecom or of France Telecom. The formation of the Eurozone is strengthening the positions of Frankfurt and Paris, each of which are becoming part of a criss-cross of alliances among major European centres.

The financial centres of many countries around the world are increasingly fulfilling gateway functions for the circulation in an out of national and foreign capital. The incorporation of a growing number of these financial centres is one form through which the global financial system expands: each of these centres is the nexus between that country's wealth and the global market, and between foreign investors and that country's investment opportunities. Gateway functions will be their main mechanism for integration into the global financial market, rather than the production of innovations to package the capital flowing in and out. The complex operations tend to be executed by the top investment, accounting and legal services firms, through affiliates, branches, direct imports of those services or some other form of transfer.

These gateways for the global market are also gateways for the dynamics of financial crises: capital can flow out as easily and quickly as it flows in. And what was once thought of as "national" capital can now as easily join the exodus: for instance, during the Mexico crisis of December 1994, we now know that the first capitals to flee the Mexican markets were national, not foreign; and in the flight out of Brazil of an estimated US$ 1 billion a day in the early autumn of 1999, which reached over US$ 40 billion, not all of it was foreign.

In my reading, the globally-integrated financial system is not only about competition among countries. The trend is towards an increase in specialized collaborative efforts among these centres. Further, insofar as markets are integrated, growth overall is maximized with growth in all centres. The crisis in Tokyo or Hong Kong does not create advantages for other centres, except perhaps in some very particular segments of the market. The sharp growth of London, New York, Paris or Frankfurt is in part a function of a global network of financial centres. Since its inception, Hong Kong has been a crucial intersection of different worlds, forever a strategic exchange node for firms from China to the rest of the world and from the rest of the world to China, as well as among all the overseas Chinese communities.[27] Few other centres can replicate this advantage but they can benefit from Hong Kong's specialized role.[28] Today, even after a severe crisis, Hong Kong still has the most sophisticated concentration of advanced services after London and New York. A parallel argument can be made for Tokyo: even as its economy is in crisis, it will continue to be a crucial cog in the global financial system, given its enormous concentration of financial resources.[29]

The rapid growth of electronic networks and markets raises a question about the ongoing importance of financial centres.[30] Insofar as they combine multiple resources and talents necessary for executing complex operations and servicing global firms and markets,[31] financial centres cannot be reduced to their exchanges. They are part of a far more complex architecture and they constitute far more complex structures within that architecture. The trend is towards intensifying the networks connecting

27. Meyer, David (2002), "Synergy between Hong Kong's global networks of capital and its telematics" in Sassen, see reference 13.

28. Its historic advantage as a nexus between the world and China, and its concentration of state of-the-art specialized services secure a strategic role for Hong Kong. David Meyer's impressive *Hong Kong as a Global Metropolis: Social Networks of Capital* is one of the best explanations of this peculiar Hong Kong advantage as an intermediary for global networks of capital.

29. For instance, Japan has US$ 1 trillion in assets under institutional management and US$ 10 trillion in savings and similar accounts which are about to be deregulated.

30. Electronic trading will also contribute a radically new pattern, whereby one market, for instance Frankfurt's Deutsche Eurex, can operate on screens in many other markets around the world, or whereby one brokerage firm, Cantor Fitzgerald, can (as of September 1998) have its prices of Treasury futures listed on screens used by traders all around the US.

31. For instance, the typical emphasis on the electronic futures market in Frankfurt veils the fact that this electronic futures network is actually embedded in a network of financial centres. And the brokerage firm Cantor Fitzgerald, which has computerized the sale of US Treasury futures, actually has an alliance with the Board of Trade of New York to handle these sales.

financial centres in strategic or functional alliances. Such alliances may well evolve into the equivalent of the cross-border mergers and acquisitions of firms.[32] How far can the new communications technologies go in eliminating the need for actual financial centres and the network of such centres, especially given the increasingly global and electronic nature of the capital market?

32. Sassen (2001), chapters 4, 5 and 7.

33. Among the main sources of data for the figures cited in this section are the International Bank for Settlements (Basle); IMF national accounts data; specialized trade publications such as the Wall Street Journal's WorldScope; Morgan Stanley Capital International; The Banker; data listings in the Financial Times and in The Economist; and, especially for a focus on cities, the data produced by Technimetrics, Inc. Additional names of standard, continuously updated sources are listed in Sassen (2001), see reference 2.

VII. IN THE DIGITAL ERA: MORE CONCENTRATION THAN DISPERSAL?

WHAT REALLY STANDS out in the evidence for the global financial industry is the extent to which there is a sharp concentration of the shares of many financial markets in a few financial centres.[33] London, New York, Tokyo (notwithstanding a national economic recession), Paris, Frankfurt and a few other cities regularly appear at the top and represent a large share of global transactions. London, followed by Tokyo, New York, Hong Kong and Frankfurt account for a major share of all international banking. London, Frankfurt and New York account for an enormous world share in the export of financial services. London, New York and Tokyo account for over one-third of global institutional equity holdings, this as of the end of 1997 after a 32 per cent decline in Tokyo's value over 1996. London, New York and Tokyo account for 58 per cent of the foreign exchange market, one of the few truly global markets; and together with Singapore, Hong Kong, Zurich, Geneva, Frankfurt and Paris, they account for 85 per cent of this, the most global of markets.

This trend towards consolidation in a few centres, even as the network of integrated financial centres expands globally, is evident also within countries. In the US for instance, New York concentrates all the leading investment banks, with only one other major international financial centre in this enormous country, namely Chicago. Equally, Sydney and Toronto have gained power in continental-sized countries, and have taken over functions and market share from what were once the major commercial centres, Melbourne and Montreal, respectively. So too have Sao Paulo and Bombay, which have gained share and functions from, respectively, Rio de Janeiro in Brazil and New Delhi and Calcutta in India. These are all enormous countries and one might have thought that they could sustain multiple major financial centres. In France, Paris today concentrates larger shares of most financial sectors than it did ten years ago, and once-important stock markets like Lyon have become "provincial," even though Lyon is today the hub of a thriving economic region. Milan privatized its exchange in September 1997 and electronically merged Italy's ten regional markets. Frankfurt now concentrates a larger share of the financial market in Germany than it did in the early 1980s, similarly Zurich, in Switzerland, which once had Basel and Geneva as significant competitors. This pattern is evident in many countries. Further, the trend towards the consolidation of one leading financial centre in each country is a function of rapid growth in the sector, not of decay in the losing cities.

There is both consolidation in fewer major centres across and within countries and a sharp growth in the number of centres that become part of the global network as countries deregulate their economies. Sao Paulo and Bombay, for instance, joined the global financial network after Brazil and India (partly) deregulated their financial systems. This mode of incorporation into the global network is often at the cost of losing functions which they had when they were largely national centres. Today, the leading, typically foreign, financial, accounting and legal services firms enter their markets to handle the new cross-border operations. The incorporation typically happens without a gain in the share of the global market that they can command even as capitalization may increase, often sharply, and even though they add to the total volume in the global market.

Why is it that at a time of rapid growth in the network of financial centres, in overall volumes and in electronic networks, we have such high concentration of market shares in the leading global and national centres? Both globalization and electronic trading are about expansion and dispersal beyond what had been the confined realm of national economies and floor trading. Indeed, one might well ask why financial centres matter at all.

VIII. WHY THE NEED FOR CENTRES IN THE GLOBAL DIGITAL ERA?

THE CONTINUING WEIGHT of major centres is, in a way, counter sensical, as is, for that matter, the existence of an expanding network of financial centres. The rapid development of electronic exchanges, the growing digitalization of much financial activity, the fact that finance has become one of the leading sectors in a growing number of countries, and that it is a sector that produces a dematerialized, hyper-mobile product, all suggest that location should not matter. In fact, geographic dispersal would seem to be a good option given the high cost of operating in major financial centres. Further, the last ten years have seen an increased geographic mobility of financial experts and financial services firms.

There are, in my view, at least three reasons that explain the trend towards consolidation in a few centres rather than massive dispersal. I developed this analysis in *The Global City*, focusing on New York, London and Tokyo,[34] and since then events have made this even clearer and more pronounced.

34. See reference 2.

a. The importance of social connectivity and central functions

First, while the new communications technologies do indeed facilitate geographic dispersal of economic activities without losing system integration, they have also had the effect of strengthening the importance of central coordination and control functions for firms and, even, markets. Indeed, for firms in any sector, operating a widely-dispersed network of branches and affiliates and operating in multiple markets has made central functions far more complicated. Their execution requires access to top talent, not only inside headquarters but also, more generally, from innovative milieux – in technology, accounting, legal services, economic forecasting and all sorts of other, many new, specialized corporate services. Major centres have massive concentrations of state-of the-art resources that allow them to maximize the benefits of the new communication technologies and to govern the new conditions for operating globally. Even electronic markets such as NASDAQ and E*Trade rely on traders and banks which are located somewhere, with at least some in a major financial centre.

One fact that has become increasingly evident is that to maximize the benefits of the new information technologies, firms need not only the infrastructure but a complex mix of other resources. Most of the added value that these technologies can produce for advanced services firms lies in so-called externalities; and this means the material and human resources – state-of-the-art office buildings, top talent and the social networking infrastructure that maximizes connectivity. Any town can have fibre optic cables, but this is not sufficient.

A second fact that is emerging with greater clarity concerns the meaning of "information". There are two types of information.[35] One is the datum, which may be complex yet is standard knowledge: the level at which a stock market closes, a privatization of a public utility, the bankruptcy of a bank. But there is a far more difficult type of "information," akin to an interpretation/evaluation/judgment. It entails negotiating a series of datums and a series of interpretations of a mix of datums in the hope of producing a higher-order datum. Access to the first kind of information is now global and immediate from just about any place in the highly developed world thanks to the digital revolution. But it is the second type of information that requires a complicated mix of elements – the social infrastructure for global connectivity – which gives major financial centres a leading edge.

35. See reference 2, chapter 5

It is possible, in principle, to reproduce the technical infrastructure anywhere. Singapore, for example, has technical connectivity matching Hong Kong's. But does it have Hong Kong's social connectivity? We could probably say the same for Frankfurt and London. When the more complex forms of information needed to execute major international deals cannot be obtained from existing data bases, no matter what one can pay, then one needs the social information loop and the associated *de facto* interpretations and inferences that come with bouncing off information among talented, informed people. It is the importance of this input that has given a whole new importance to, for example, credit rating agencies. Part of the rating has to do with interpreting and inferring. When this interpreting becomes "authoritative", it becomes "information" available to all. The process of transforming inferences/interpretations into "information" takes quite a mix of talents and resources. In brief, financial centres provide the social connectivity that allows a firm or market to maximize the benefits of its technological connectivity.

b. Cross-border mergers and alliances

Global players in the financial industry need enormous resources, which is leading to rapid mergers and acquisitions of firms, and strategic alliances between markets in different countries. These are taking place on a scale and in combinations few would have foreseen just three or four years ago. There are growing numbers of mergers among, respectively, financial services firms, accounting firms, law firms, insurance brokers, in brief, firms that need to provide a global service. A similar evolution is also possible for the global telecommunications industry, which will have to consolidate in order to offer a state-of-the-art, globe-spanning service to its global clients, among which are the financial firms.

I would argue that yet another kind of "merger" is the consolidation of electronic networks that connect a very select number of markets. Europe's more than 30 stock exchanges have been seeking to shape various alliances. Euronext (NEXT) is Europe's largest stock exchange merger, an alliance among the Paris, Amsterdam and Brussels bourses. Also small exchanges are merging; in March 2001, the Tallinn Stock Exchange in Estonia and its Helsinki counterpart created an alliance. A novel pattern is hostile takeovers, not of firms, but of markets, such as the attempt by the owners of the Stockholm stock market to buy the London Stock Exchange (for a price of US$ 3.7 billion). There are a number of looser networks connecting markets that have been set up in the last few years. In 1999 NASDAQ, the second largest US stock market after the New York Stock Exchange, set up Nasdaq Japan and in 2000 Nasdaq Canada. This gives investors in Japan and Canada direct access to the market in the U.S. The Toronto Stock Exchange has joined an alliance with the New York Stock Exchange (NYSE) to create a separate global trading platform. The NYSE is a founding member of a global trading alliance, Global Equity Market (GEM) which includes ten exchanges, among them Tokyo and NEXT. These developments are likely to strengthen inter-city links in the worldwide network of 30 or 40 cities through which the global financial industry operates.

These developments may well ensure the consolidation of a stratum of select financial centres at the top of the worldwide network of 30 or 40 cities through which the global financial industry operates. We now also know that a major financial centre needs to have a significant share of global operations to become such. If Tokyo does not succeed in getting more of these operations, it is going to lose standing in the global hierarchy, notwithstanding its importance as a capital exporter. It is this same capacity for global operations that will keep New York at the top levels of the hierarchy even though it is largely fed by the resources and the demands of domestic (although state-of-the-art) investors. Taking an indicator such as equities under management shows a similar pattern of spread and simultaneous concentration at the top of the hierarchy. The worldwide distribution of equities under institutional management is spread among a large number of cities, which have become integrated in the global equity market, with a deregulation of their economies, and the whole notion of “emerging markets” as an attractive investment destination over the last few years. In 1999, institutional money managers around the world controlled approximately US$ 14 trillion. Thomson Financials, for instance, has estimated that at the end of 1999, 25 cities accounted for about 80 per cent of the world's valuation. These 25 cities also accounted for roughly 48 per cent of the total market capitalization of the world, which stood at US$ 24 trillion at the end of 1999. On the other hand, this global market is characterized by a disproportionate concentration in the top six or seven cities. London, New York and Tokyo together accounted for one-third of the world's total equities under institutional management in 1999.

These developments make clear a second important trend that in many ways specifies the current global era. These various centres don't just compete with each other: there is collaboration and division of labour. In the international system of the post-war decades, each country's financial centre, in principle, covered the universe of necessary functions to service its national companies and markets. The world of finance was, of course, much simpler than it is today. In the initial stages of deregulation in the 1980s, there was a strong tendency to see the relationship between the major centres as one of straight competition between New York, London and Tokyo, which were then, as they are today, the major centres in the system. But in my research on these three centres, I found clear evidence, already in the 1980s, of a division of labour. What we are seeing now is an additional pattern whereby the cooperation or division of functions is somewhat institutionalized: strategic alliances not only between firms across borders but also between markets. There is competition, strategic collaboration and hierarchy.[36]

The trend toward hierarchy in the global network is likely to be further reinforced by Europe's recent monetary union: the elimination of various financial functions, notably the foreign exchange trade, that have fed the existence of an "international" financial centre in each member country; the consolidation of the governments' bond market; a single currency market with a single short-term interest rate; and, eventually, a strong trend towards a basically single equity market.

In brief, the need for enormous resources to handle increasingly global operations, in combination with the growth of central functions described earlier, produces strong tendencies towards concentration and hence hierarchy in an expanding network.[37]

c. Denationalized élites and agendas

Finally, national attachments and identities are becoming weaker for these global firms and their customers. Thus, the major US and European investment banks have set up specialized offices in London to handle various aspects of their global business. Even French banks have set up some of their global specialized operations in London, inconceivable even a few years ago and still not avowed in national rhetoric.

Deregulation and privatization have further weakened the need for national financial centres. The nationality question simply plays differently in these sectors than it did even a decade ago. Global financial products are accessible in national markets and national investors can operate in global markets.[38] For instance, some of the major Brazilian firms now list on the New York Stock Exchange and bypass the Sao Paulo exchange, a new practice that has caused something of an uproar in specialized circles in Brazil.

One way of describing this process is as an incipient denationalization of certain institutional arenas.[39] It can be argued that such denationalization is a necessary condition for economic globalization as we know it today. The sophistication of this system lies in the fact that it only needs to involve strategic institutional areas – most national systems can be left basically unaltered. China is a good example. In 1993, it adopted international accounting rules, necessary for engaging in international transactions, but to do so, it did not have to change much of its domestic economy. Also, Japanese firms operating overseas adopted these standards long before Japan's government considered requiring them. In this regard, the "wholesale" side of globalization is quite different from the global consumer markets, in which success necessitates altering national tastes at a mass level. This process of denationalization has been strengthened by state policy which enables privatization and foreign acquisition. In some ways, one might say that the Asian financial crisis has functioned as a mechanism to denationalize, at least partly, control over key sectors of economies which, while allowing the massive entry of foreign investment, never relinquished that control.[40]

Major international business centres produce what we could think of as a new sub-culture, a move from the "national" version of international

36. For a fuller development of all these issues see reference 2, Sassen (2001), chapter 7.

37. For instance, the globalization of investment banking and fund management, two areas where New York firms are major players, may well have been more important in strengthening London's position as a financial centre than UK national growth per se. In *The Global City*, I posited that the globalization of markets reduces the importance of national economic health for major cities to thrive as international business centres – not necessarily a desirable feature of the global economic system. This seems to be happening in several European countries where thriving stock markets go along with slow economic growth and high unemployment. See reference 18.

38. For example, investment banks used to split up their analysts' team by country to cover a national market; now they are more likely to do it by industrial sector. (See, for example, *Latin American Finance*, various issues).

39. See reference 7, Sassen (2003), chapter 1.

40. Olds, Kris, Peter Dicken, Philip F Kelly, Lilly Kong and Henry Wai-Chung Yeung (editors) (1999), *Globalization and the Asian Pacific: Contested Territories*, Routledge, London. For instance, Lehman Brothers bought Thai residential mortgages worth half a billion dollars for a 53 per cent discount. This was the first auction conducted by the Thai government's Financial Restructuring Authority which is conducting the sale of US$ 21 billion of financial companies' assets. It also acquired the Thai operations of Peregrine, the HK investment bank that failed. The fall in prices and in the value of the yen has

activities to the "global" version. The longstanding resistance in Europe to mergers and acquisitions, especially hostile takeovers, or to foreign ownership and control in East Asia, signal national business cultures that are somewhat incompatible with the new global economic culture. I would posit that major cities, and the variety of so-called global business meetings (such as those of the World Economic Forum in Davos and other similar occasions), contribute to de-nationalizing corporate élites. Whether this is good or bad is a separate issue, but it is, I would argue, one of the conditions for setting in place the systems and sub-cultures necessary for a global economic system.

IX. IN CONCLUSION

ECONOMIC GLOBALIZATION AND telecommunications have contributed to producing a spatiality for the urban which pivots on cross-border networks and territorial locations with massive concentrations of resources. This is not a completely new feature. Over the centuries, cities have been at the crossroads of major, often worldwide, processes. What is different today is the intensity, complexity and global span of these networks, the extent to which significant portions of economies are now dematerialized and digitalized and hence the extent to which they can travel at great speeds through some of these networks, and the numbers of cities that are part of cross-border networks operating on vast geographic scales. What is different today also, is the elaboration of cross-border regulatory regimes and the extent to which national states have worked to produce the legal instruments necessary to accommodate the global economic system.

The growth of mostly highly specialized transactions connecting cities is forming patterned networks. These include, among others, the global networks of firms' affiliates; the particular architecture of connectivity emerging from the interests of those actors with the powers to shape it; the formation of regional cross-border hierarchies enabled by free-trade zones and international growth corridors; and the integration of a growing number of financial centres into the global capital market.

Engaging in these highly specialized transactions has required often massive transformations in growing portions of these cities and major policy changes by the states involved. The development of global city functions is embedded in infrastructural, structural and policy developments that can amount to a new political, economic and spatial order in these cities, alongside the continuing dynamics of older orders. The depth of these transformations can be submerged partly in some of these cities under the megacity syndrome and the fact of multiple social, economic and spatial dynamics which characterizes large cities. The new urban spatiality produced as cities become sites for cross-border transactions is, then, partial in a double sense: it accounts for only part of what happens in cities and what cities are about, and it inhabits only part of what we might think of as the space of the city. New articulations with global circuits and disarticulations inside the city are thus produced.

made Japanese firms and real-estate attractive targets for foreign investors. Merrill Lynch has bought 30 branches of Yamaichi Securities; Societe Generale Group is buying 80 per cent of Yamaichi International Capital Management; Travellers Group is now the biggest shareholder of Nikko, the third largest brokerage firm; and Toho Mutual Insurance Co announced a joint venture with GE Capital. These are but some of the best known examples. Much valuable property in the Ginza – Tokyo's high-priced shopping and business district – is now being considered for acquisition by foreign investors, in a twist on Mitsubishi's acquisition of Rockefeller Centre a decade earlier.