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# WHEN THE STATE ENCOUNTERS A NEW SPACE ECONOMY: THE CASE OF INFORMATION INDUSTRIES

Saskia Sassen\*

#### INTRODUCTION

Each phase in the long history of the world economy raises specific questions of governance. One of the key properties of the current phase is the ascendance of information technologies and the resulting increase in the mobility and liquidity of capital. This is particularly evident in today's leading information industries, international finance and the advanced corporate services, which lie at the heart of the global information economy. The hypermobility of these industries has led to a distinct line of theorization about economic globalization in general. Theorists increasingly conceptualize the global economy in terms of the new technical capacities for instantaneous transmission of information outputs over any distance and the associated neutralization of place. This in turn feeds into propositions about the shrinking role of the state in an increasingly global economy.

This article examines the underside of globalization to show that the dominant line of theorization, with its emphasis on the hypermobility and liquidity of capital, is a partial account. Further, this account is partial in a way that carries significant implications for questions of state-and non-state-centered regulatory capacities and, more generally, questions of governance in a global economy.

This article seeks to recover such categories as place, infrastructure, and production process in the analysis of economic globalization. To do so, it focuses on industries that are among the most intensive users of telecommunications and computer networks, the indispensable technology

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of today's global economy. Understanding the role of place, and specifically of place-bound infrastructures and place-bound work processes, in these highly mobile industries may illuminate aspects of the role of the state in economic globalization, that qualify the notion of the state's shrinking regulatory capacity vís-a-vís multinationals and global finance.

Precisely because advanced information industries are deeply embedded in telematics, they also shed light on questions of control in the global economy that not only go beyond the state but also transcend the notions of non-state-centered systems of coordination prevalent in the literature on governance. These questions of control arise partly due to the orders of magnitude that financial markets can achieve thanks to the speed of transactions. This is well exemplified by the foreign currency markets; these markets operate largely in electronic space and have reached volumes that leave the central banks incapable of exercising their expected influence on exchange rates. These are questions of control that arise directly out of the properties of the new information technologies rather than out of the extension of the economy beyond the state.

Such questions have become particularly important over the last fifteen years, beginning with the disintegration of the international order ruled by the Bretton Woods agreements and United States dominance. They cannot be subsumed under more traditional conceptions which see the world economy as consisting of international trade relations and certain types of foreign investment—two categories of international activity that do indeed operate through governmental control. The collapse of the Bretton Woods agreement and of United States dominance appears to have created an organizational void filled by the rules of multinational corporations and global financial markets. These major economic actors now impose criteria for economic performance on rich and poor nations through mechanisms that escape traditional forms of accountability<sup>1</sup>

These developments signal an urgent need to produce new regimes for international governance in the world economy, some conceivably in-

<sup>1.</sup> The concept "regulatory fracture" is used here rather than, say, violation, in order to name a specific dynamic: that the materialization of global processes in a place often produces a regulatory void. One result is that both "regulation" and "violation" become problematic categories and, at the limit, do not apply. One might think of it analytically as a border-land, rather than a borderline—a terrain for action/activity that remains underspecified at least from the perspective of regulation. See Saskia Sassen, Regulatory Fractures: The Impact of Economic Globalization on Concepts of Compliance and Violation, (forthcoming in J. INT'L L. & POL'Y, 1995).

volving states and others not. The growth of a global economy has transformed the meaning of, and the sites for, governance and accountability. Because the space economy of information industries is transnational and operates partly in cyberspaces that override administrative boundaries, it demonstrates the difficulties in implementing new systems and sites for governance and accountability. At the same time, it reveals new possibilities for governance resulting from the leading industries' need for strategic sites situated in national territories, containing vast concentrations of resources and infrastructure that are far less mobile than much of the general commentary on the global economy suggests.

Two propositions organize this analysis.<sup>2</sup> The first is that the global economy materializes in concrete processes situated in specific places. This holds for the most advanced information industries as well. This proposition distinguishes the fact of global transmission/communication from the material conditions that make it possible. And it overrides the national-global duality, and therewith traditional conceptions of territoriality contained in the notion of national sovereignty.

The second proposition is that the spatial dispersal of economic activity made possible by telematics will contribute to an expansion of central functions if this dispersal occurs under the continuing concentration in control, ownership, and profit appropriation that characterizes the current economic system. More conceptually, the issue is whether an economic system with strong tendencies towards such concentration can have a space economy that lacks points of physical agglomeration.

From these two propositions a series of analytic pathways leads to questions of place and production and to the place-boundedness of various aspects of economic globalization. Recovering this place-boundedness also reshapes the notion of the shrinking role of the state in today's global information economy because these places are largely embedded in national territories, and hence fall under various state-centered regulatory umbrellas. The organizing focus in this brief essay is the space economy of information industries at a time when the development of telematics maximizes the potential for geographic dispersal and mobility. The essay seeks to add to our understanding of questions of governance in the global economy by showing how the space economy for major new transnational economic processes diverges in significant ways from the global/national duality which much analysis of the

<sup>2.</sup> See Saskia Sassen, The Global City: New York, London, Tokyo (1991) [hereinafter The Global City]; Saskia Sassen, Cities in a World Economy (1994) [hereinafter Cities in a World Economy].

global economy presupposes.

#### I. WHEN THE STATE ENCOUNTERS A NEW SPACE ECONOMY

A focus on the space economy of advanced information industries can illuminate three issues that are central to discussions about the role of the state in the global economy. The first of these is the need for firms operating transnationally to ensure the functions that the state has traditionally exercised in the national realm of the economy, notably guaranteeing property rights and contracts.

The second issue is the deregulation of key operations and markets, which can be seen as a negotiation among nation-based legal regimes and the formation of a consensus among a growing number of states about furthering the world economy. A focus on the space economy of information industries elaborates and specifies the meaning of deregulation insofar as important components of these industries are embedded in particular sites within national territories and others are located in electronic spaces that escape all conventional jurisdictions or borders.

The third issue is the formation of non-state institutions and non-state forms of authority with regulatory capacities. This includes the new valorization dynamic embedded in both the ascendance of finance and the advanced corporate services briefly described below.<sup>3</sup> A new economic complex is emerging with a valorization dynamic that is far less articulated with the public economic functions of the state than the valorization dynamics of other economic complexes, specifically Fordist manufacturing.<sup>4</sup> Global markets in finance and advanced services partly operate through a "regulatory" umbrella that is market-centered rather than state-centered. This raises a question of control linked to the currently inadequate capacities to govern transactions in electronic space.

<sup>3.</sup> See SASKIA SASSEN, CITIES IN A WORLD ECONOMY, supra note 2, ch. 4 and 6.

<sup>4.</sup> THE GLOBAL CITY, supra note 2. 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. Id. 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, neighborhood shops tailored to local needs are replaced by upscale boutiques and restaurants catering to new high income urban elites.

Certain aspects of these three issues merit special mention.<sup>5</sup> Economic globalization extends the economy beyond the nation-state's boundaries and hence beyond its sovereignty, an observation that has become a basic proposition in discussions of the global economy. This process is particularly evident in the leading information industries. Existing systems of governance and accountability for transnational economic activities and entities leave much ungoverned when it comes to these industries and they do so in a very specific way. The forms of transnationalization that have emerged over the last two decades are distinct from those typical of other international systems, particularly the era referred to as Pax Americana. This distinction may be described as transnationalization or globalization versus internationalization.

#### A. THE EFFECTS OF GLOBALIZATION ON THE STATE

The state plays a distinct role in the long history of the construction of global capitalism. As capital becomes global it does not necessarily escape the state; rather, it forms a global economic system that operates beyond the regulatory umbrella of a single state. In the three decades after World War II, the period of the Pax Americana, economic internationalization had the effect of strengthening the interstate system. International trade regimes organized the leading economic sectors, especially manufacturing and raw materials extraction, reinforcing this system. Individual states adjusted national economic policies to further this version of the world economy. But certain sectors did not fit comfortably under this largely trade dominated inter-state regime: out of their escape emerged the Euro-markets and off-shore tax havens of the 1960s

The breakdown of the Bretton Woods system produced an international governance void that multinationals and global financial markets rapidly filled. This fed the notion of the shrinking role of the state<sup>6</sup> and the debate about non-state centered systems of governance.<sup>7</sup> According

<sup>5.</sup> See id.

<sup>6.</sup> Cf. Bob Jessop, Thatcherism: The British Road to Postfordism? (1989).

<sup>7.</sup> J.N. Rosenau, Governance, Order, and Change in World Politics, in Governance Without Government: Order and Change in World Politics 1-29 (J.N. Rosenau & E.O. Czempiel eds., 1992); O.R. Young, International Cooperation: Building Regimes for Natural Resources and the Environment (1989); Jan Kooiman & Martin van Vliet, Governance and Public Management, in Managing Public Organizations: Lessons from Contemporary European Experience 58-

to some,<sup>8</sup> a new doctrine now redefines the role of states. Inside the state we see a further shift of power away from those agencies most closely tied to domestic social forces, which dominated during the Pax Americana, and towards those closest to the transnational process of consensus formation.<sup>9</sup>

A focus on international finance and corporate services highlights the extent to which the forms of internationalization evident in the last two decades have not necessarily had the effect of strengthening the interstate system as was the case with the Pax Americana. These new forms have produced regulatory voids that lie beyond not only states but also the inter-state system. In this regard, an analysis of these industries underlines the distinction between earlier forms of internationalization, and the role of the state within these forms, and the current globalization of economic activity evident in some (by no means all) economic sectors.

This raises a question about the state's role in the new space economy of advanced information industries. At the least, one effect of changes in the leading information industries is a transformation in the role of the state in these industries. Where industries have been deregulated and are increasingly international, the significance of the nation-state declines. If the significance of the national state in the world economy is declining, then many existing systems of governance for international activity may have become increasingly inadequate insofar as they rest inordinately on the nation-state.

<sup>72 (</sup>K.A. Eliassen & Jan Kooiman eds., 1993); A. Leftwich, Governance, the State, and the Politics of Development, 24 DEV. & CHANGE 363-86 (1994).

<sup>8.</sup> See Leo Panitch, Rethinking the Role of the State in an Era of Globalization, in 9 YEARBOOK ON INTERNATIONAL POLITICAL ECONOMY (J. Mittelman ed., 1995).

<sup>9.</sup> Many of these changes, of course, required explicit government action. Pastor's study on the arduous legislative road to open up the United States to foreign investment is a good case in point. ROBERT A. PASTOR, CONGRESS & THE POLITICS OF U.S. FOREIGN ECONOMIC POLICY, 1929-1976 (1980).

<sup>10.</sup> And it raises a question about a declining significance of nation-based citizenship, at least in many of the advanced industrialized countries that receive large numbers of immigrants and are the site for the new transnational professional class. Saskia Sassen, On Governing the Global Economy: The 1995 Leonard Hastings Schoff Memorial Lectures, Published by Columbia Univ. Press (forthcoming 1996) [hereinafter Governing the World Economy]. This raises a question about the possible emergence of new forms of "citizenship." One is reminded of Lefebvre's proposition about the right to the city, as well as of the new rights of European Economic Community "citizens." See Henri Lefebvre, The Production Of Space (1986).

There are various sites for governance in the world economy beyond the nation-state, but many of these ultimately derive their authority from the latter. Among these are organizations involved with international economic issues, from the International Chamber of Commerce and the Court of Justice at The Hague, to the documents for, and authorized committees working on, the Single European Market and the free trade agreement between the United States, Canada, and Mexico.

The existence of such international bodies raises the question whether their inadequacy to regulate global markets results from the particular institutional forms through which they rest on the national state, or from the "obsoleteness" of the modern state itself. The former hypothesis compels an inquiry into other possible modes of articulation between national states and international governance that could restore the effectiveness of international systems of governance. The latter requires an investigation of alternative conceptions of systems for international governance that may not rest at all on national states."

#### B. DEREGULATION

Deregulation and transnationalization are key characteristics of the space economy of today's leading information industries. Deregulation has been a crucial mechanism to negotiate the juxtaposition of the global and the national. Deregulation of financial markets has had the effect of partly de-nationalizing national territory; the international banking facilities in the United States are an example. In other words, it is not simply a matter of a space economy extending beyond a national realm

There are parallels here with the formation of transnational legal regimes.<sup>12</sup> National legal fields are becoming more internationalized in some of the major developed economies and transnational legal regimes are growing more important as they begin to penetrate national fields hitherto closed. The hegemony of neo-liberal concepts of economic relations, with its strong emphasis on markets, deregulation, and free international trade, influenced policy in the United States and the United

<sup>11.</sup> For a full development of some of these issues, see GOVERNING THE GLOBAL ECONOMY, supra note 10.

<sup>12.</sup> E.g., DAVID M. TRUBEK ET AL., GLOBAL RESTRUCTURING AND THE LAW: THE INTERNATIONALIZATION OF LEGAL FIELDS AND CREATION OF TRANSNATIONAL ARENAS (Global Studies Research Program, University of Wisconsin, Working Papers Series on the Political Economy of Legal Change, No. 1, 1993).

Kingdom in the 1980s and is now increasingly influential also in continental Europe. This has contributed to the formation of transnational legal regimes that are centered on Western economic concepts. Through the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD), as well as the General Agreement on Tariffs and Trade (GATT), this vision has spread to the developing world.

Transnational economic processes inevitably interact with systems for the governance of national economies. Insofar as global processes materialize in concrete places, they continue to operate under sovereign regulatory umbrellas. Furthermore, the state continues to function as the guarantor of the domestic and global rights of capital and it does so for both national and foreign capital. The challenge the state faces in fulfilling these functions as the space economy of key industries extends beyond the national borders need not have as its sole outcome a shrinking role for the state. It might well entail internal transformations in the state.

#### II. PLACE AND PRODUCTION IN THE GLOBAL ECONOMY

The analysis of the space economy developed here is centered in the notion 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 entails examining not only communication capacities and the power of multinationals, but also the underside of the global economy.

The capabilities for global operation, coordination and control contained in the new information technologies and in the power of the multinationals need to be produced. Focusing on the production of these capabilities adds a neglected dimension to the familiar issue of the power of large corporations and the dispersal potential of new technologies. The emphasis shifts to the *practice* of global control: producing and reproducing the organization and management of a global production system and a global marketplace for finance, both under conditions of economic concentration.

<sup>13.</sup> An issue that is emerging as significant in view of the spread of western legal concepts is the critical examination of the philosophical premises about authorship and property that define the legal arena in the West. See, e.g., Rosemary J. Coombe, The Properties of Culture and the Politics of Processing Identity: Native Claims in the Cultural Appropriation Controversy, 6 CANADIAN J. L. & JURISPRUDENCE 249-85 (1993).

Producer services, and most especially finance and advanced corporate services, are industries that produce the organizational commodities necessary for the implementation and management of global economic systems.<sup>14</sup> Over the last few years a rich literature has developed on the producer services, including major information industries such as international finance and advanced corporate services.15 With a few exceptions,16 this literature has not necessarily been concerned with the global economy, nor has it been seen as part of the literature on globalization. Introducing this type of research into the analysis of the global economy helps explore how the categories of place and production, which are easily overlooked in analyses of the hypermobility of capital and the power of multinationals, are involved in economic globalization. Developing categories such as place and production process does not negate the centrality of hypermobility and power. It adds other dimensions and in so doing intersects with the regulatory role of the state in a distinct way; one that diverges from much international political econo-

Much attention has focused on the territorial dispersal of economic activity on a national and world scale made possible by the massive development of telematics. Less attention has been paid to the need that this dispersal creates for expanded central control and management, if the dispersal is to occur under conditions of continued economic concentration.

The domestic and international dispersal of loci of growth and the globalization of finance bring to the fore questions concerning the incorporation of such growth into the profit-generating processes that contrib-

<sup>14.</sup> THE GLOBAL CITY, supra note 2, chs. 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. Central components of the producer services category are a range of industries with mixed business and consumer markets. They are insurance, banking, financial services, real estate, legal services, accounting, and professional associations.

<sup>15.</sup> PETER W. DANIELS, SERVICE INDUSTRIES: A GEOGRAPHICAL APPRAISAL (1985); see, e.g., Peter W. Daniels, Producer Services and the Development of the Space Economy, in The Changing Geography of Advanced Producer Services (Peter W. Daniels & Frank Moulaert eds., 1991); Jean Claude Delauney & Jean Gadrey, Les Enjeux de la Societe de Service (1987).

<sup>16.</sup> MANUEL CASTELLS, THE INFORMATIONAL CITY (1989); THE GLOBAL CITY, supra note 3, chs. 2-5; Mathew P. Drennan, Information Intensive Industries in Metropolitan Areas of the United States, 21 ENV'T & PLANNING 1603-18 (1989).

ute to economic concentration. While in principle the territorial decentralization of economic activity could have been accompanied by a corresponding decentralization in ownership and hence in the appropriation of profits, there has been little movement in that direction. Though large firms have increased their subcontracting to smaller firms and many national firms in the newly industrializing countries have grown rapidly, this form of growth is ultimately part of a chain in which a limited number of corporations continue to control the end product and to reap the profits associated with selling on the world market.<sup>17</sup> Even industrial homeworkers in remote rural areas are now part of that chain.<sup>18</sup>

This is evident not only with respect to firms, but also with respect to places. The internationalization and expansion of finance has brought growth to a large number of smaller financial markets, feeding the expansion of the global industry. But top level control and management have become concentrated in a few leading financial centers. These continue to account for a disproportionate share of all financial transactions, notwithstanding rapid growth since the early 1980s.

The fundamental dynamic posited here is that the more globalized the economy becomes the higher the agglomeration of central functions. The extremely high densities evident in the downtown districts of global cities are one of the spatial expressions of this logic. The widely accepted notion that agglomeration has become obsolete when global telecommunication advances allow for maximum dispersal is only partly correct. Indeed, it is precisely because of the territorial dispersal facilitated by telecommunication advances that agglomeration of centralizing activities has expanded sharply.<sup>19</sup> This is a key dynamic that explains the place of major cities in the world economy: certain cities concentrate the

<sup>17.</sup> U.N. Conf. on Trade & Dev., Programme on Transnat'l Corps., World Investment Report 1992: Transnational Corporations as Engines of Growth, U.N. Sales No. E.92.II.A.19 (1992); U.N. Conf. on Trade & Dev., Programme on Transnat'l Corps., World Investment Report 1993: Transnational Corporations & Integrated International Production, U.N. Sales No. E.93.II.A.14 (1993).

<sup>18.</sup> Lucie Cheng & Gary Gereffi, U.S. Retailers and Asian Garment Production, in Global Production: The Apparel Industry in the Pacific Rim (Edna Bonacich et al. eds., 1994); Lourdes Beneria, Subcontracting and Employment Dynamics in Mexico City, in The Informal Economy: Studies in Advanced & Less Developed Countries (Alejandro Portes et al. eds., 1989).

<sup>19.</sup> It is incorrect in my view to confine such central roles to headquarter's functions. Some such functions are embedded in the producer services complex, others in electronic markets.

infrastructure and the servicing that produce a capability for global control. The latter is essential if geographic dispersal of economic activity—whether factories, offices or financial markets—is to take place under continued concentration of ownership and profit appropriation. This is not a mere continuation of old patterns of agglomeration but, one could posit, a new logic for agglomeration.

Information technologies make possible the geographic dispersal and simultaneous integration of many activities. But the distinct conditions under which such facilities are available have promoted centralization of the most advanced users in the most advanced telecommunications centers. Even though a few newer urban centers have built advanced telecommunications facilities, entry costs are increasingly high, and there is a tendency for telecommunications to be developed in conjunction with major users—typically firms with large national and global markets.<sup>20</sup> Indeed, there is a close relationship between the growth of international markets for finance and trade, the tendency for major firms to concentrate in major cities, and the development of telecommunications infrastructures in these cities. Firms with global markets or global production processes require advanced telecommunications facilities. And the acceleration and internationalization of financial markets make access to advanced telecommunications facilities essential. The main demand for telecommunication services comes from information-intensive industries which, in turn, tend to locate in major cities which have such facilities. For instance, in 1992, New York City had well over 700 buildings served by fiber optic cable—the largest concentration in world-followed by over 500 such buildings each in London and Tokyo, with significantly smaller concentrations in other cities.

Looking at cities as production sites for the leading service industries of our time makes it possible to recover the infrastructure of activities, firms, and jobs that is necessary to run the advanced corporate economy, including its global components. Specialized services are usually understood in terms of specialized outputs rather than the production process involved. A focus on the production process in these service industries allows us both to capture some of their locational characteristics, and to examine the proposition that there is a new dynamic for agglomeration in the advanced corporate services because they function as a production complex that serves corporate headquarters, yet has distinct locational and production characteristics. It is this producer services complex, more than headquarters of firms generally, that benefits and often needs a city

location.

We see this dynamic for agglomeration operating at different levels of the urban hierarchy, from the global to the regional. At the global level, some cities concentrate the infrastructure and the servicing that produce a capability for global control. With the potential for global control capability, certain cities are becoming nodal points in a vast communications and market system. Advances in electronics and telecommunication have transformed geographically distant cities into centers for global communication and long-distance management. But centralized control and management over a geographically dispersed array of plants, offices, and service outlets does not come about inevitably as part of a "world system." It requires the development of a vast range of highly specialized services and of top-level management and control functions. Much analysis and general commentary on the global economy and the new growth sectors does not incorporate these multiple dimensions.

## III. THE INTERSECTION OF GLOBALIZATION AND THE SHIFT TO SERVICES

These developments need to be seen against the intersection of two major processes. One is the sharp growth in the globalization of economic activity. The second is the growing service intensity in the organization of all industries. Economic globalization has raised the scale and the complexity of transactions, thereby feeding the growth of top-level multinational headquarters functions and the growth of producer services. But such operations 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.<sup>21</sup> 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.<sup>22</sup>

<sup>21.</sup> THE GLOBAL CITY, supra note 2.

<sup>22.</sup> THE GLOBAL CITY, supra note 2, at 166-68. The expansion of producer services is a central feature of current growth in developed countries. In country after country, we see a decline or slowdown in manufacturing alongside sharp growth in producer services. Elsewhere it has been argued that the fundamental reason for this growth lies in the increased service intensity in the organization of all industries. Id.

Cities are key sites for the production of services for firms. The increased service intensity in the organization of all industries has had a significant growth effect on cities beginning in the 1980s. Again, one must recognize that this growth in services for firms occurs in cities at different levels of a nation's urban system. Some of these cities cater to regional or subnational markets; others serve national markets; and yet others support global markets. In this context, globalization becomes a question of scale and added complexity.

The key process from the perspective of the space 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, a new urban economic core of banking and service activities comes to replace the older, typically manufacturing-oriented, core.<sup>23</sup> In the case of cities that are major international business centers, the scale, power, and profit levels of this new core are vast.<sup>24</sup>

at 166-68. Whether in manufacturing or in warehousing, firms use more legal, financial, advertising, consulting, and accounting services. These services can be seen as part of the supply capacity of an economy because they facilitate adjustments to changing economic circumstances; they are part of a broader intermediary space of economic activity.

23. Though disproportionately concentrated in the largest cities, producer services are actually growing at faster rates at the national level in most developed economies. The crucial process feeding the growth of producer services is the increasing use of service inputs by firms in all industries. Households have also raised their consumption of services, either directly (e.g., the growing use of accountants for preparation of tax returns), or indirectly via the reorganization of consumer industries (e.g., buying flowers or dinner from franchises or chains rather than self-standing and privately owned "mom-and-pop" shops). Services directly bought by consumers tend to be located wherever population is concentrated. In that regard they are far less concentrated than producer services, especially those catering to top firms. The demand for specialized services by households, from accounting to architects, is one key factor contributing to the growth of these services at the national level.

24. It suggests that the formation of a new urban economy is taking place in these major cities. This is so in at least two regards. First, even though these cities have long been centers 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 devaluing manufacturing insofar as the latter cannot generate the superprofits typical in much financial activity. This is not to say

The evidence on the locational patterns of the leading information industries shows sharp concentration in major cities. For instance, New York City accounts for thirty-five percent of national earnings in producer services, compared to little over three of the national population, and between a fourth and a fifth of all producer services exports in the United States (which total about forty billion dollars annually). London accounts for about forty percent of producer services exports in the United Kingdom, and Paris accounts for forty percent of all producer services employment in France and over eighty percent of the advanced corporate services. There are many other such examples.

According to standard conceptions about information industries, the rapid growth and disproportionate concentration of producer services in major cities should not have happened. Because they are thoroughly embedded in the most advanced information technologies, producer services could be expected to have locational options that bypass the high costs and congestion typical of major cities. In order to understand their sharp concentration in large cities, we need to focus on the actual production process in these industries.

#### IV. THE FORMATION OF A NEW PRODUCTION COMPLEX

The production process in these services benefits from proximity to other specialized services. This is especially the case in the leading and most innovative sectors of these industries. Complexity and innovation often require multiple highly specialized inputs from several industries. The production of a financial instrument, for example, requires inputs from accounting, advertising, legal expertise, economic consulting, public relations, designers, and printers. The particular characteristics of production of these services, especially those involved in complex and innovative operations, explain their pronounced concentration in major cities. The commonly heard explanation that high level professionals require face-to-face interactions needs to be refined in several ways. Producer services, unlike other types of services, are not necessarily dependent on spatial proximity to the consumers, i.e. firms served. Rather, economies occur in such specialized firms when they locate close to others that produce key inputs or whose proximity makes possible joint production of certain service offerings. The accounting firm can service its clients

that everything in the economy of these cities has changed; it hasn't.

<sup>25.</sup> Drennan, supra note 16.

<sup>26.</sup> CITIES IN A WORLD ECONOMY, supra note 2.

at a distance, but the nature of its service depends on proximity to specialists, such as lawyers and programmers. Moreover, concentration arises out of the needs and expectations of the people likely to be employed in these new high-skill jobs who tend to be attracted to the amenities and lifestyles that large urban centers can offer. Frequently, what is thought of as face-to-face communication is actually a production process that requires multiple simultaneous inputs and feedbacks. At the current stage of technical development, immediate and simultaneous access to the pertinent experts is still the most effective way, especially when dealing with a highly complex product. The concentration of the most advanced telecommunications and computer network facilities in major cities is a key factor in what I refer to as the production process of these industries.<sup>27</sup>

Further, time replaces weight in these sectors as a force for agglomeration. In the past, the pressure of the weight of inputs, from iron ore to unprocessed agricultural products, was a major constraint pushing toward agglomeration in sites where the heaviest inputs were located. Today, the acceleration of economic transactions and the premium put on time have created new forces for agglomeration, this is increasingly not the case in routine operations. But where time is of the essence, as it is today in many of the leading sectors of these industries, the benefits of agglomeration are still extremely high—to the point where it is not simply a cost advantage, but an indispensable arrangement.

There is a general trend toward high concentration of finance and certain producer services in the downtowns of major international financial centers around the world: from Toronto and Sydney to Frankfurt and Zurich, there is a growing specialization in financial districts everywhere. It is worth noting that this trend is also evident in the multipolar urban system of the United States: against all odds, New York City has

<sup>27.</sup> M. Moss, Telecommunications and the Future of Cities, 3 LAND DEV. STUDIES 33-44 (1986); M. Moss, New Fibers of Urban Economic Development, 4 PORTFOLIO: A QTLY. REV. OF TRADE & TRANSP. 11-18 (1991). The telecommunications infrastructure also contributes to concentration of leading sectors in major cities. Long-distance communications systems increasingly use fiber optic wires. These have several advantages over traditional copper wire: large carrying capacity, high speed, more security, and higher signal strength. Fiber systems tend to connect major communications hubs because they are not easily spliced and hence not desirable for connecting multiple lateral sites. Fiber systems tend to be installed along existing rights of way, whether rail, water or highways. Moss, supra; Moss, New Fibers, supra. The growing use of fiber optic systems thus tends to strengthen the major existing telecommunication concentrations and therefore the existing hierarchies.

kept its place at the top in terms of concentration in banking and finance.

All of this strongly suggests that the agglomeration of producer services in major cities actually constitutes a production complex. This producer services complex is intimately connected to the world of corporate headquarters. While the two are often thought of as forming a joint headquarters-corporate services complex, it is necessary to distinguish them. Although it is true that headquarters still tend to be disproportionately concentrated in cities, over the last two decades many have moved out. Headquarters can indeed locate outside cities, but they need a producer services complex somewhere in order to buy or contract for the needed specialized services and financing. Further, headquarters of firms with very high overseas activity or in highly innovative and complex lines of business tend to locate in major cities. In brief, firms in more routinized lines of activity, with predominantly regional or national markets, appear to be increasingly free to move or install their headquarters outside cities. Firms in highly competitive and innovative lines of activity and/or with a strong world market orientation appear to benefit from being located in major international business centers, no matter how high the costs.

Both types of firms, though, need a corporate services complex to be located somewhere. The location of this complex is probably increasingly unimportant from the perspective of many, though not all, head-quarters. From the perspective of producer services firms, such a specialized complex is most likely to be in a city rather than, for example, a suburban office park. The latter will be the site for producer services firms but not for a services complex. And only such a complex is capable of handling the most advanced and complicated corporate demands.

#### A. SPATIAL CONCENTRATION: SOME EMPIRICAL REFERENTS

Elsewhere, a somewhat detailed empirical examination of several cities served to explore different aspects of this trend towards spatial concentration in leading sectors of finance and the producer services.<sup>28</sup> Here, there is space only for a few observations.<sup>29</sup>

<sup>28.</sup> CITIES IN A WORLD ECONOMY, supra note 2.

<sup>29.</sup> Though at a different order of magnitude, these trends also became evident during the late 1980s in a number of major cities in the developing world that have become integrated into various world markets: Sao Paulo, Buenos Aires, Bangkok, Taipei, and Mexico City are only a few examples. Also here the new urban core was fed by the deregulation of financial markets, ascendance of finance and specialized

The case of Toronto, a city whose financial district was built up only in recent years, makes it possible to see to what extent the pressure towards physical concentration is embedded in an economic dynamic rather than simply being the consequence of a built infrastructure inherited from the past (as one could think was the case in older centers such as London or New York). But the case also shows that it is particular industries which are subject to the pressure towards spatial concentration, notably finance and its sister industries.<sup>30</sup> We see a similar growth in the financial concentration and specialization of the downtowns of such cities as Frankfurt and Zurich.

The case of Sydney illuminates the interaction of a vast, continental economic scale and pressures towards spatial concentration. Rather than strengthening the multipolarity of the Australian urban system, the developments of the 1980s—increased internationalization of the Australian economy, sharp increases in foreign investment, a strong shift towards finance, real estate and producer services—contributed to a greater concentration of major economic activities and actors in Sydney. This included a loss of share of such activities and actors by Melbourne, long the center of commercial activity and wealth in Australia.<sup>31</sup>

Finally, the case of the leading financial centers in the world today is of continued interest since one might have expected that the growing number of financial centers now integrated into the global markets would have reduced the extent of concentration of financial activity in the top centers.<sup>32</sup> One would further expect this given the immense

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.

<sup>30.</sup> Gunter Gad, Toronto's Financial District, 1 CANADIAN URBAN LANDSCAPES 203-07 (1991).

<sup>31.</sup> M.T. Daly & R. Stimson, Sydney: Australia's Gateway and Financial Capital, in New Cities of the Pacific Rim (E. Blakely & T.J. Stimpson eds., 1992).

<sup>32.</sup> THE GLOBAL CITY, supra note 2, ch. 7. Furthermore, this unchanged level of concentration has happened at a time when financial services are more mobile than ever before: globalization, deregulation (an essential ingredient for globalization), and securitization have been the key to this mobility—in the context of massive advances in telecommunications and electronic networks. One result is that much of the growing competition for hypermobile financial activity is confined largely to about ten major centers. There has been an overemphasis on competition in general and in specialized accounts on this subject. There is also a functional division of labor among various major financial centers. *Id.* In that sense we can think of a transna-

increases in the global volume of transactions. Yet the levels of concentration remain unchanged in the face of massive transformations in the financial industry and in the technological infrastructure this industry depends on.<sup>33</sup>

For example, international bank lending grew from \$1.89 trillion in 1980 to \$6.24 trillion in 1991—a fivefold increase in a mere ten years. New York, London, and Tokyo accounted for forty-two percent of all such international lending in 1980 and for forty-one percent in 1991, according to data from the Bank of International Settlements, the leading institution worldwide overseeing banking activity. There compositional changes: Japan's share rose from 6.2% to 15.1% and the United Kingdom's fell from 26.2% to 16.3%; the United States share remained constant. All increased in absolute terms. Beyond these three. Switzerland, France, Germany, and Luxembourg bring the total share of the top centers to sixty-four percent in 1991, which is just about the same share these countries had in 1980. One city, Chicago, dominates the world's trading in futures, accounting for sixty percent of worldwide contracts in options and futures in 1991.

#### B. THE GEOGRAPHY OF CENTRALITY

The two preceding sections describe a geography of centrality, a geography of the center in a global information economy. 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 center was synonymous with the downtown or the CBD. Today, the spatial correlate of the center can assume several geographic forms. The space economy of the leading information industries is increasingly transnational and has several geographic correlates.

The central business district, as it still is largely in New York City or London, remains a powerful fact, and one that regained critical mass in the 1980s. A second geographic correlate is the metropolitan area, particularly in the form of a grid of nodes of intense business activity connected via telematics, as we see in Frankfurt or Zurich.<sup>34</sup> A third

tional system with multiple locations.

<sup>33.</sup> Much of the discussion around the formation of a single European market and financial system has raised the possibility, and even the need if it is to be competitive, of centralizing financial functions and capital in a limited number of cities rather than maintaining the current structure in which each country has a financial center.

<sup>34.</sup> HANSRUEDI HITZ, FINANCIAL METROPOLES IN RESTRUCTURING: ZURICH AND

correlate has elsewhere been described as the formation of a transterritorial "center" constituted via telematics and intense economic transactions; New York, London and Tokyo could be seen as constituting such a transterritorial terrain of centrality with regard to a specific complex of industries and activities.<sup>35</sup> Fourth, we may increasingly see non-geographic terrains for the operations of the leading information industries, disembodied spaces that lack any geographic correlate, existing only in the electronically generated space sometimes called cyberspace. Certain components of the financial industry, particularly the foreign currency markets, can be seen as operating partly in cyberspace.<sup>36</sup>

In brief, the combination of spatial dispersal and global integration has contributed to a strategic role for certain types of places in the current phase of the world economy. This is most evident with major cities. Beyond their sometimes long history as centers for world trade and banking, such cities now function as command points in the organization of the world economy, as key locations and marketplaces for the leading industries of this period, finance and corporate services, and as sites for the production of these services.

#### CONCLUSION

The analysis of the space economy of finance and the advanced services brings two distinct dimensions to the discussion about economic globalization and the shrinking role of the state. On the one hand it shows how global processes materialize in place-specific complexes, including vast concentrations of advanced infrastructure. These specific sites do in many ways fall under the regulatory umbrella of the state and insofar as they are strategic sites, which they are, this is not a minor regulatory foothold for the state. On the other hand, in these industries more so

FRANKFURT EN ROUTE TO POSTFORDISM (1995).

<sup>35.</sup> THE GLOBAL CITY, supra note 2.

<sup>36.</sup> This also tells us something about cyberspace—often read as a purely technological event and in that sense a space of innocence. The cyberspaces of finance are spaces where profits are produced and power is thereby constituted. Insofar as these technologies strengthen the profit-making capability of finance and make possible the hyper-mobility of finance capital, they also contribute to the often devastating impacts of the ascendance of finance on other industries, on particular sectors of the population, and on whole economies. Cyberspace, like any other space, can be inscribed in a multiplicity of ways: some benevolent or enlightening; others not. See CITIES IN A WORLD ECONOMY, supra note 2.

than in many others, a significant component of transactions and markets operate in electronic space which is not subject to conventional jurisdictions.

These two dimensions signal two opposing conditions. One is that there are state-centered regulatory capacities which could be deployed to govern strategic components of this new space economy. The other is that the questions of control and regulation being engendered by the electronic and telecommunications side of this new space economy lie beyond much of the discussion about the shrinking role of the state in a global economy. Once transactions are embedded in these new technologies, speed alone creates problems of control that are new and cannot be handled through conventional state-centered or non-state forms of authority. The most familiar case is that of the foreign currency markets where volumes made possible by multiple transactions in a single day have left the existing institutional apparatus, notably the central banks, impotent to affect outcomes in these markets the way they once expected to.

The space economy of these industries points to a reconfiguration of key parts of the governance debate. It is not simply a matter of globalization extending the economy beyond the reach of the state. It is also a matter of control that goes beyond the issue of inter-organizational coordination at the heart of governance theory. Insofar as speed is one of the logics of the new information technologies, it is not always in correspondence with the logic of the economic institutional apparatus.

The transformation in the composition of the world economy, especially the rise of finance and advanced services as leading industries, is contributing to a new international economic order, one dominated by financial centers, global markets, and transnational firms. The significance of other political categories, both sub- and supra-national, may grow accordingly. Cities that function as international business and financial centers are sites for direct transactions with world markets that take place without government inspection, as for instance the Euro-markets or New York City's international financial zone (International Banking Facilities).

These cities and the globally oriented markets and firms they contain mediate in the relation of the world economy to nation-states and in the relations among nation-states. Transnational economic processes inevitably interact with systems for the governance of national economies. Further, the material conditions necessary for many global economic processes—from telematics infrastructure to the producer services production complex—represent a potentially strategic regulatory site. New forms of regulation and conditions for accountability need to be invent-

ed: an exclusive focus on the hypermobility of capital will not lead to such invention.