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INTERCITY GEOGRAPHIES:
An Analytics for Situating Cities in the Global Economy [1]

As recently as the 1970s, many of our great cities were in physical decay and losing population, firms, key roles in the national economy, and share of national wealth. As we move into the 21st century, a rapidly growing number of cities have re-emerged as strategic places for a wide range of activities and dynamics. Critical, and partly underlying all the other dimensions, is the new economic role of cities in an increasingly globalized world, and the associated architectural and technical revolutions.

Much is known about the wealth and power of today's global firms. Their ascendance in a globalizing world is no longer surprising. And the new information and communication technologies are typically seen as the handmaiden of economic globalization – both tool and infrastructure.

Less clear is why cities should matter more today in a globalized world than they did in the Keynesian world of the mid-1900s. Today we see a growing number of cities emerge as strategic territories that contribute to articulate a new global political economy. Architecture, urban design and urban planning have each played critical roles in the partial rebuilding of cities as platforms for a rapidly growing range of globalized activities and flows, from economic to cultural and political.

One way of thinking about the global economy is in terms of the many highly specialized circuits that make it up. Different circuits contain different groups of countries and cities. Viewed this way, the global economy becomes concrete and specific, with a well defined geography.

1 There is a vast literature about the variety of subjects covered in this paper. For more detail on this and on specific issues see the following texts by the author. Territory, Authority, Rights: From Medieval to Global Assemblages (Princeton University Press, 2006), especially chapters 5 and 7; the 3rd fully updated edition of Cities in a World Economy (Sage, 2006) for empirical data in support of the various trends described here; A Sociology of Globalization (Norton, 2007) for the social and political aspects; and the co-edited Digital Formations: New Architectures for Global Order (Princeton University Press, 2005), especially chapter 1, for an elaboration of the question of digital networks and how they relate to the city in the global economy; finally, for a full elaboration of the concept, see The Global City (2nd edition; now also translated into Chinese by the Shanghai Academy of Social Sciences).

Globally traded commodities - gold, butter, coffee, oil, sunflower seeds - are redistributed to a vast number of destinations, no matter how few the points of origin are in some cases. With globalization, this capacity to redistribute globally has grown sharply. The planet is criss-crossed by these trading circuits.

In what follows I examine various aspects of these intercity geographies. In a final section I move the focus to the economic and social effects of these developments on cities.

INTERCITY GEOGRAPHIES

The new inter-city geographies can be thought of as a socio-technical infrastructure for a new global political economy, new cultural spaces, and new types of social networks. Some of these inter-city geographies are thick and highly visible – the flows of professionals, tourists, artists, and migrants among specific groups of cities. Others are thin and barely visible – the highly specialized electronic financial trading networks that connect particular cities depending on the type of instrument involved. A bit thicker are the global commodity chains for diverse products that run from exporting hubs to importing hubs.

These circuits are multidirectional and criss-cross the world, feeding into inter-city geographies with both expected and unexpected strategic nodes. For instance, New York is the leading global market to trade financial instruments on coffee even though it does not grow a single bean. But a far less powerful financial center, Buenos Aires, is the leading global market to trade financial instruments on sunflower seeds. Cities located on global circuits, whether few or many, become part of distinct, often highly specialized inter-city geographies. Thus if I were to track the global circuits of gold as a financial instrument, it is London, New York, Chicago, Zurich, that dominate. But if I track the direct trading in the metal, Johannesburg, Mumbai, Dubai, and Sydney all appear on the map.

This networked system also feeds unnecessary mobility, because the intermediary economy of specialized services thrives on mobility. Thus in the case of the UK economy, a study by the New Economics Foundation and the Open University of London found that in 2004, the UK exported 1,500 tonnes of fresh potatoes to Germany, and imported 1,500 tonnes of the same product from the same country; it also imported 465 tonnes of gingerbread, but exported 460 tonnes of the same product; and it sent 10,200 tonnes of milk and cream to France, yet imported 9,900 tonnes of the same dairy goods from France. And it imported 50,000 tonnes of chicken from the world and exported just about the same amount to the world.

To get at the question of cities and the global economy, it helps to specify the multiple global circuits through which cities are connecting across borders. Particular networks connect particular groups of cities. This allows us to recover details about the diverse, often highly specialized and particularized, role of a given city in the global economy.

For instance, we might want to track the affiliates of global firms. If we select the top 100 global service firms we find that together they have affiliates in 315 cities worldwide. If we seek to understand the position of a particular city we need to know more than this (already) specialized

geography; we need to know how exactly that city fits in. In a later section I will discuss a group of 23 very diverse cities out of the 315 total. Lagos and Turin are both in that specialized geography, but they fit in very differently than, for instance, Dubai or Shanghai.

The global map tightens when what is getting traded is not the butter or coffee as such, but financial instruments based on those commodities. The map of commodity futures shows us that most financial trading happens in 20 financial futures exchanges. These 20 include the usual suspects, New York and London, but in perhaps not so familiar roles as well. Besides the already mentioned position of New York as accounting for half of the world's trading in coffee futures, there is the position of London, not necessarily famous for its mining, as the largest futures trader in the metal palladium. The 20 top exchanges also include Tokyo as the largest trader in platinum, Sao Paulo as one of the major traders in both coffee and gold, and Shanghai in copper. Finally, some of these centers are highly specialized in unexpected ways: besides the already mentioned case of Buenos Aires in control of sunflower seeds, we have London in control of potatoes.

The map tightens even further when we aggregate the 73 commodities. Five major global futures exchanges (NYME, LME, CBOT, TCOM and IPE) located in New York, London, Chicago, and Tokyo concentrate 76% of trading in these 73 commodities futures traded globally. Aggregated into three major groups, shows us one single market clearly dominates in each. For agricultural commodities futures, the CBOT (Chicago[2]) controls most global trading, for energy it is the NYME (New York), and for metals, the LME (London).

These increasingly tightening maps and escalations in the capacity for control make visible the multiple global economic spaces that are being generated. Thus the commodities themselves come from well over 80 countries and are sold in all countries of the world, even as only about twenty financial exchanges control the global commodities futures trading. This tighter map of commodities futures trading begins to show us something about the role of cities in today's globalizing and increasingly electronic economy.

And it is here that global cities enter the picture. They are not the places where commodities are produced, but they are the places where commodity futures instruments are invented so as to facilitate the global trading of these commodities and partly manage some of the associated risks. They are also the places where these futures are traded. It brings to the fore the distinction between the sites and networks for producing the actual good, and the sites and networks for managing and coordinating the trading of the actual good and for inventing the financial instruments for this trading. And it makes concrete what is one of the main counterintuitive trends we see in today's global economy, a trend I specified as One of the critical explanatory variables for the global city: that the more globalized and non-material the activity, the more concentrated the global map of those activities. This is counterintuitive because the new information technologies allow global connectivity, because that which can circulate electronically should not need place, and finally, because location in major cities brings added costs to the operations of firms and exchanges. The thesis of the global city contains a number

2 . In July 2007 the CBOT merged with the other major futures exchange in Chicago. This has not changed the top ranking of Chicago, but it has raised its share of the total commodities trading global market.

of explanatory variables that being to solve this puzzle.

But before developing this, let us examine other such global maps, beyond commodities and commodities futures. A focus on the global networks of global service firms, migration flows, and flight patterns, shows us a far more distributed global map.

GLOBAL SERVICE FIRMS: FEEDING INTER-CITY GEOGRAPHIES

Here we examine the same types of questions but with a focus on the top 100 specialized corporate services firms in law, advertising, management consulting, accounting, and insurance. These firms operate in 315 cities worldwide; each firm has offices (either headquarters or branches) in at least 15 countries. Here I take 24 cities out of these 315; this sample encompasses a range of locations, both in the world at large and in the global urban hierarchy. The effort was to understand the inter-city geographies among a somewhat randomly selected group of cities to capture "small worlds" possibly revealing unexpected and often hardly visible or known interconnections. If one only takes the top 20 or so cities in the global hierarchy, these interconnections are easily lost. Exiting the global hierarchies and networks dominated by the most powerful economic centers enables us to discover less visible intercity geographies.

These global firms produce and deliver critical inputs for firms and markets, and even governments, around the world. They service the types of firms involved in the commodity trading and futures markets, and the financial services firms described later. They service mining and manufacturing, trading and warehousing firms. And they service architectural and engineering firms, major international art exhibitions and biennales, and avant-garde circuses. In brief, they are in the business of specialized servicing, and ready to service the latest inventions not only for firms, but also for other types of organizations.

Mapping their global operations shows almost the opposite of the sharp concentration of the financial futures exchanges mentioned above. The servicing operations of these firms are in demand everywhere. When countries open up to foreign firms and investors and allow their markets to become integrated into global markets, it is often foreign service firms that take over the most specialized servicing. This is, clearly, one particular mapping of interconnectivities among a group of very diverse cities. It leaves out a vast range of possible interactions among these cities; at best it captures these through its servicing function.

What follows is confined to the inter-city connections among 24 cities, rather than the 315 cities in the original data-set generated by Peter Taylor and his colleagues (see generally the GaWC website) who have generously put the data in the public domain. What the numbers capture is the extent to which these 24 cities are connected through the office networks of these 100 firms. This information is one microcosm of a pattern that repeats itself over and over with a variety of other types of transactions, ranging between the two extremes of the almost meaningless (since they are everywhere) measure of a city with McDonald's outlets, and the extreme concentration of the commodities futures discussed earlier. Against this background, the connectivity measures of such office networks are a middle ground, very much a part of the infrastructure for

the new inter-city geographies and involving what are the major growth sectors in developed economies.

I should say that I have purposely left out Hong Kong. Speaking to an audience of experts on this city, it seemed to me that speaking about other cities would be a way of inviting experts to explore other or additional variables for the case of Hong Kong – the possibility of a discovery. In another global study of the 50 leading global cities, Hong Kong ranks unexpectedly high – in 4th place. I will be happy to describe some of these results as well.

Except for Turin and Lagos, our 24 cities are in the top third of the 315 cities where these firms either have headquarters or branches. Five of our cities (Table 1, all service sectors) are among the top 10 of the worldwide total for the 315 cities where these firms have operations. London and New York stand out in our sample, as they do in the world generally, with vastly higher levels of connectivity than any other city. A second rather diverse grouping for our 24 cities includes Tokyo, Milan, Los Angeles and Sao Paulo. A third grouping includes Mexico City, Jakarta, Buenos Aires, Mumbai, Shanghai, and Seoul. A fourth grouping includes Moscow, Johannesburg, Istanbul, Manila, and Barcelona. A fifth grouping includes Caracas, Bogota, Berlin, Dubai, and Cairo. Turin and Lagos are at a considerable lower level of connectivity. Yet we should clarify that Turin, with the lowest connectivity of our cities, nonetheless houses offices of 14 of these global firms, pointing to the extent to which these firms network the world, albeit on their specialized and partial terms. Table 1 shows the overall connectivity of these cities among themselves for six major corporate services.

Table 1. Select Cities: Ranking and relative global network connectivity among 24 cities (all sectors)*

Rank	All service sectors	Gross Connectivity	Proportional connectivity	Relative global network connectivity **
1	**London (LON)**	11,789	0.0874	1.000
2	**New York (NEW)**	11,524	0.0855	0.978
3	**Tokyo (TOK)**	8,533	0.0633	0.724
4	**Milan (MIL)**	7,178	0.0532	0.609
5	**Los Angeles (LA)**	7,068	0.0524	0.600
6	**Sao Paulo (SAO)**	6,561	0.0487	0.557
7	**Mexico City (MEX)**	5,824	0.0432	0.494
8	**Jakarta (JAK)**	5,782	0.0429	0.490
9	**Buenos Aires (BUE)**	5,779	0.0429	0.490
10	**Mumbai (MUM)**	5,579	0.0414	0.473
11	**Shanghai (SHA)**	5,293	0.0393	0.449
12	**Seoul (SEO)**	5,210	0.0386	0.442
13	**Moscow (MOS)**	5,079	0.0377	0.431
14	**Johannesburg (JOH)**	5,026	0.0373	0.426
15	**Istanbul (IST)**	5,004	0.0371	0.424
16	**Manila (MAN)**	4,847	0.0359	0.411
17	**Barcelona (BAR)**	4,770	0.0354	0.405
18	**Caracas (CAR)**	4,317	0.0320	0.366
19	**Bogota (BOG)**	4,182	0.0310	0.355
20	**Berlin (BER)**	4,117	0.0305	0.349
21	**Dubai (DUB)**	4,033	0.0299	0.342
22	**Cairo (CAI)**	4,011	0.0297	0.340
23	**Lagos (LAG)**	1,997	0.0148	0.169
24	**Turin (TUR)**	1,343	0.0100	0.114

* Sectors: Six major specialized corporate services sectors: banking/finance, management consulting, advertising, legal, accounting, and insurance. Uses the Taylor methodology but applies it to a sample of 24 cities; measures the connectivity among these 24 cities.

** London =100

Some of these outcomes reflect key patterns in the remaking of space economies. Thus Berlin and Turin rank low because the major international financial and business centers in their respective countries, Frankfurt and Milan, are extremely powerful in the global network and concentrate a growing share of whatever the global components in their national economies. This pattern of simultaneous concentration in one or two major centers in a country along with integration into a global network recurs in just about all countries. In this context it is interesting to see how China's growth has sharpened the power of Hong Kong, and even Shanghai has not been able to unseat Hong Kong. I return to this pattern in the next section. In banking and finance, Jakarta's connectivity is high because it is a major and long established banking center for the Muslim world in Indonesia's geopolitical region, and hence of great interest to Western

firms but also in need of these firms to bridge into the West. Shanghai's connectivity is high because it is one of the major financial centers for the region, and has become the leading national stock market in China – with Hong Kong having strengthened its position as China's leading international financial center. South Korea is the tenth largest economy in the world, and has undergone significant deregulation after the 1997 Asian financial crisis. It has made Seoul an attractive site for Western financial firms as foreign investors have been buying up a range of holdings in both South Korea and Thailand since the 1997 financial crisis.

Dubai is an interesting case that points to the making of a whole new region, one not centered in the operational map of our top 100 global service firms. Only in the last few years has Dubai become an important financial and business center at the heart of a new emergent region that stretches from the Middle East to the Indian Ocean; until just about two years ago its financial global connectivity was not principally derived from Western financial firms but its own and its region's firms. Its specific financial connectivity is not picked up when we focus on the interactions among our cities, but its accounting connectivity is extremely high for the very simple reason that western style accounting rules the world. Over the last two years, Dubai has crossed yet another threshold, becoming a genuinely global platform for the operations of a growing range of types of activities; and it has strengthened its character as a destination.

When we disaggregate these global connectivity measures by specialized sectors, there is considerable reshuffling because of the high level of specialization that marks the global economy.

In accountancy, Mexico City and, perhaps most dramatically, Dubai and Cairo, move to the top. They are becoming deeply connected with global economic circuits, they mediate between the larger global economy and their regions, and hence they offer the top global accounting firms plenty of business. In contrast Shanghai moves sharply down – the global accounting firms have set up their operations in Beijing because going through the Chinese government remains critical. Hong Kong is a different matter given its long standing role as a global platform.

The other sectors evince similar reshufflings. The often sharp changes in the degree of connectivity for different sectors in a given city is generally due to misalignments between global standards for legal and accounting services and the specifics of the national systems. Global insurance firms have clearly decided that locating in Johannesburg and Shanghai makes sense, as these cities move to the top ten among our cities. It signals that the domestic insurance sector is either not sufficiently developed or is too "unwestern" to satisfy firms and investors, and hence foreign insurance firms can gain a strong foothold. The low connectivity of Seoul and Mumbai tell us that the domestic insurance sector is taking care of business. The high connectivity for legal services in the case of Moscow, Sao Paulo, and Shanghai, which all move into the top 10, signals the need for western style legal services in a context of growing numbers of foreign investors and firms and vast national economies and growth potential. Sao Paulo, for instance, hosts about 70 financial services firms from Japan alone.

In management and consultancy, Buenos Aires, Sao Paulo, Seoul and Jakarta move into the top ten cities in our sample, in good part due to the almost radical opening up of their national economies in the 1990s, and the resulting opportunities for foreign and national firms and

investors. Barcelona, Mumbai, and Cairo have drawn far fewer of our global 100 service firms because either the domestic sector could provide the services, as is the case in Mumbai and Cairo which were not as radically internationalized as China, Argentina, Brazil, and South Korea. Or, in the case of Barcelona, because the opportunities lied elsewhere, as is suggested by Spain's massive investments throughout Latin America (and, in fact, increasingly also other areas of the world as is illustrate by the recent acquisitions of UK banks), as well as the consolidation of Madrid as the main international business center.

For the top 100 global advertising firms, Mumbai and Buenos Aires, both with rich cultural sectors and industries, were a strong draw. Again, the weaker presence of global advertising firms in Cairo and Dubai's is due to these cities' sharp embeddedness in their emerging region.

London has the strongest presence of these global firms in accounting, banking/finance, insurance, and New York is strongest in advertising and management consulting. It should be noted that in the leading cities, dominance is due mostly to the sharp concentration of headquarters, as well as branches. In many of the other cities it is mostly branches or, at best, regional headquarters.

The global map produced by the operations of the top 100 service firms is dramatically different from that produced by the financial trading of commodity futures, which is in turn different from that of the trading in the actual commodities. The extreme concentration evident in finance would stand out even more if we compared it to the global map of goods trading and the innumerable criss-crossing circuits connecting points of origin and destination. In this regard, Hong Kong is at the center of the major global financial and goods trading geographies.

OTHER FEEDERS OF INTERCITY GEOGRAPHIES:
Airline Traffic and Immigration

The global maps of immigration flows and airplane travellers are far broader and involve hundred and hundreds of cities.

Many of our cities receive immigrants. The highest share is, not unexpectedly, Dubai, with 82% of its population foreign born, followed by Los Angeles, and New York with well over 30%, London just under 30%, to under ten percent in most of our cities, and about 1 % in Jakarta, Cairo, and Mexico City.

Table2. Global Immigrant Cities

	City	City Population	Foreign Born Population	% Foreign Born	Year	Source
1	Dubai	857,233	702,931	82.00	2002	Dubai Development and Investment Authority, 2002
2	Miami	2,253,362	1,147,765	50.94	2000	Census Bureau, 2000
3	Amsterdam	735,328	347,634	47.28	2002	Amsterdam Bureau of Research and Statistics, Key Figures Amsterdam, 2002
4	Toronto	4,647,960	2,091,100	44.99	2001	Statistics Canada, Census 2001
5	Muscat	661,000	294,881	44.61	2000	Statistical Yearbook 2000, Ministry of National Economy
6	Vancouver	1,967,475	767,715	39.02	2001	Statistics Canada, Census 2001
7	Auckland	367,737	143,417	39.00	2001	Auckland City Council, 2001
8	Geneva	427,700	164,118	38.37	2002	Statisque Geneve, 2002
9	Mecca	4,467,670	1,686,595	37.75	1996	Central Department of Statistics, Statistical Yearbook 1997
10	The Hague	441,595	161,509	36.57	1995	Swing Online, Den Haag, ABF Research
11	Los Angeles	9,519,338	3,449,444	36.24	2000	Census Bureau, 2000
12	Tel Aviv	2,075,500	747,400	36.01	2002	Central Bureau of Statistics, Israel, 2002
13	Kiev	2,616,000	941,760	36.00	1992	Ukrainian Ministry of Statistics, Statistical Yearbook 1997
14	Medina	5,448,773	1,893,213	34.75	2000	Demographic Survey, AD 2000, Central Department of Statistics
15	New York	9,314,235	3,139,647	33.71	2000	Census Bureau, 2000
16	San Francisco	1,731,183	554,819	32.05	2000	Census Bureau, 2000
17	Perth	1,336,239	422,547	31.62	2001	Western Australia Office of Multicultural Interests, 2001
18	Riyadh	4,730,330	1,477,601	31.24	2000	Demographic Survey, AD 2000, Central Department of Statistics
19	Sydney	3,961,451	1,235,908	31.20	2001	Community Relations Commission for a Multicultural New South Wales, 2001
20	Jerusalem	678,300	208,700	30.77	2002	Central Bureau of Statistics, Israel, 2002. Statistical Yearbook of Jerusalem, 2000
21	Melbourne	3,367,169	960,145	28.51	2001	Victoria Office of Multicultural Affairs, 2001
22	Frankfurt	650,705	181,184	27.84	2000	Source: Annual Statistics, City of Frankfurt, 2001
23	Tbilisi	1,339,105	370,932	27.70	1999	State Department for Statistics, 1999
24	London	7,172,091	1,940,390	27.05	2001	National Statistics, Census 2001
25	Brussels	978,384	260,040	26.58	2002	National Statistical Institute, Demographic Statistics
26	Munich	1,247,934	282,148	22.61	2001	Source: Unknown
27	Zurich	1,247,906	280,779	22.50	2000	Statistisches Amt des Kantons Zurich, Census 2000
28	Calgary	943,310	205,000	21.73	2001	Statistics Canada, Census 2001
29	San Diego	2,813,833	606,254	21.55	2000	Census Bureau, 2000
30	Brisbane	1,609,116	338,150	21.01	2001	State of Queensland Department of the Premier and Cabinet, 2001
31	Houston	4,177,646	854,669	20.46	2000	Census Bureau, 2000
32	Montreal	3,388,640	664,435	19.61	2001	Statistics Canada, Census 2001
33	Honolulu	876,156	168,246	19.20	2000	Census Bureau, 2000

We looked at flights among the group of 24 cities to get a measure of each city's percentage of the total of flights among these 24 cities. This information was derived from a far larger sample produced by Ben Derudder at the University of Ghent, who kindly has put this in the public domain. To avoid the distortion of hubs, that data set uses the full trip.

Table 3. Airline Traffic: City rank and percentage in the 24-city system

Rank 24-Cities World	Cities	Number of Passengers	% in the total 24 cities
1	**New York (NEW)**	5,894,498	17.4
2	**London (LON)**	5,608,799	16.6
3	**Los Angeles (LA)**	4,228,342	12.5
4	**Tokyo (TOK)**	2,131,225	6.3
5	**Milan (MIL)**	1,606,643	4.7
6	**Seoul (SEO)**	1,556,053	4.6
7	**Dubai (DUB)**	1,499,039	4.4
8	**Mumbai (MUM)**	1,120,655	3.3
9	**Mexico City (MEX)**	1,106,001	3.3
10	**Manila (MAN)**	1,055,638	3.1
11	**Barcelona (BAR)**	1,052,455	3.1
12	**Sao Paulo (SAO)**	976,122	2.9
13	**Buenos Aires (BUE)**	915,310	2.7
14	**Johannesburg (JOH)**	709,505	2.1
15	**Cairo (CAI)**	695,659	2.1
16	**Istanbul (IST)**	603,942	1.8
17	**Shanghai (SHA)**	583,653	1.7
18	**Berlin (BER)**	563,827	1.7
19	**Moscow (MOS)**	491,618	1.5
20	**Caracas (CAR)**	453,746	1.3
21	**Bogota (BOG)**	419,126	1.2
22	**Lagos (LAG)**	243,215	0.7
23	**Jakarta (JAK)**	220,399	0.7
24	**Turin (TUR)**	131,598	0.4
	Total (24 cities)	33,867,068	100.0

We selected 24 cities out of a total data set of 100. For details of the data set see Derudder, Ben and F. Wiltox, 2005: *"An appraisal of the use of airline data in assessing the world city network: A research note on data"*, Urban Studies 42 (13): 2371-2388. We applied the methodology to a 24 city sample to measure air traffic among these 24 cities.

Not unexpectedly New York, London and Los Angeles have the largest number of connections within the group of 24, and with the world. NY dominates traffic with Latin America and Los Angeles with Asia, London dominates global routes. Links among these three top hubs are strong. Further, there are strong connections between particular sets of cities: Dubai and Cairo, Mumbai and Johannesburg; Johannesburg and London; Lagos and London, New York, and Johannesburg. One of the strongest links is Shanghai and Tokyo, and also Shanghai and Taipei.

Six of our cities are among the top 20 of the 315 cities as measured by airline passenger traffic. In actual numbers of arrivals and departures, several of our cities are among the top of the 150 cities with the largest numbers: London between 30 and 32 million, New York between 28-30 million, Paris 18-20 million, Los Angeles 16-18 million, Milan 8-10 million, Madrid and Tokyo between 6 to 8 million. The numbers for Mexico, Dubai, Sao Paulo, Berlin, Mumbai, Johannesburg, and Seoul, each ranges from 4 to 6 million. Buenos Aires, Cairo, Istanbul, Shanghai, Jakarta, and Moscow handle from 2 to 4 million, and the remaining cities below 2 million.

There follow three maps that cover three very diverse possibilities, one familiar and expected (New York), the others perhaps less (Shanghai and Moscow).

Table 3.a New York: Flight connectivity

Rank - Cities World	New York	Number of Passengers	% in the total 24 cities
1	**Los Angeles CA)**	**1,697,593**	**28.80**
2	**London**	**1,609,337**	**27.30**
3	Tokyo	312,208	5.30
4	Mexico City	281,749	4.78
5	Milan	207,392	3.52
6	Seoul	197,243	3.35
7	São Paulo	189,167	3.21
8	Mumbai	176,124	2.99
9	Buenos Aires	161,274	2.74
10	Cairo	140,307	2.38
11	Barcelona	116,815	1.98
12	Manila	105,530	1.79
13	Caracas	104,273	1.77
14	Istanbul	104,146	1.77
15	Moscow	97,044	1.65
16	Bogotá	95,104	1.61
17	Shanghai	70,488	1.20
18	Johannesburg	67,894	1.15
19	Berlin	56,789	0.96
20	Dubai	45,547	0.77
21	Lagos	40,492	0.69
22	Jakarta	8,996	0.15
23	Turin	8,986	0.15
TOTAL 23		**5,894,498**	**100.00**

Table 3.b. Moscow: Flight connectivity

Rank -Cities World	Moscow	Number of Passengers	% in the total 24 cities
1	**London**	**137,281**	**27.92**
2	**New York (NY)**	**97,044**	**19.74**
3	**Milan**	**54,727**	**11.13**
4	**Berlin**	**54,136**	**11.01**
5	**Istanbul**	**29,351**	**5.97**
6	**Barcelona**	**24,012**	**4.88**
7	**Los Angeles (CA)**	**21,168**	**4.31**
8	Tokyo	16,732	3.40
9	Dubai	16,147	3.28
10	Mumbai	6,056	1.23
11	Seoul	5,289	1.08
12	Cairo	5,017	1.02
13	Johannesburg	4,164	0.85
14	Buenos Aires	3,685	0.75
15	Mexico City	3,617	0.74
16	Shanghai	3,211	0.65
17	Turin	2,986	0.61
18	São Paulo	2,151	0.44
19	Caracas	1,428	0.29
20	Manila	1,063	0.22
21	Lagos	883	0.18
22	Bogotá	773	0.16
23	Jakarta	697	0.14
	TOTAL 23	**491,618**	**100.00**

Table 3.c. Shanghai: Flight connectivity

Rank - Cities World	Shanghai	Number of Passengers	% in the total 24 cities
1	**Los Angeles CA)**	**151,019**	**25.87**
2	**Tokyo**	**131,956**	**22.61**
3	**Seoul**	**127,118**	**21.78**
4	**New York (NY)**	**70,488**	**12.08**
5	**London**	**38,475**	**6.59**
6	Milan	13,284	2.28
7	Manila	8,184	1.40
8	Berlin	7,068	1.21
9	Barcelona	6,468	1.11
10	Istanbul	5,326	0.91
11	Jakarta	4,286	0.73
12	Dubai	3,432	0.59
13	Mumbai	3,284	0.56
14	Moscow	3,211	0.55
15	Johannesburg	2,964	0.51
16	Turin	2,075	0.36
17	São Paulo	2,047	0.35
18	Buenos Aires	948	0.16
19	Mexico City	849	0.15
20	Cairo	822	0.14
21	Lagos	192	0.03
22	Caracas	128	0.02
23	Bogotá	29	0.00
	TOTAL 23	**583,653**	**100.00**

THE MOST STRATEGIC AND TIGHTEST INTER-CITY GEOGRAPHY

Finance is probably the most extreme case for examining the question as to why the thick places that are cities should matter for global and largely electronic economic sectors. And we know that they do matter. Global finance today moves between electronic space and a network of about 40 very material financial centers worldwide. The question we actually need to ask is why does a global electronic market for the trading of digital instruments need financial centers at all, let alone a network of them? If anything, we might argue that one super financial center should do. Examining the utility of the network of financial centers provides the most extreme answer to the general question as to why cities matter.

The geography of global finance evinces three major patterns. One is that the number of globally articulated financial centers began to grow sharply in the 1990s with the deregulation of their respective economies, a trend that continues today but at a slower rate. Mexico City, Buenos Aires, Istanbul, Mumbai, Shanghai, and numerous other financial centers joined the

global network in the 1990s. Such integration does not mean that all financial centers are located on the same financial circuits. Global finance is made up of multiple specialized circuits, well beyond those briefly discussed for commodity futures. Each of these specialized circuits involves specific groups of cities. Thus although London and New York are the largest financial centers in the world, when we disaggregate global finance into these specialized circuits, several other cities dominate in some of these circuits, notably Chicago in commodity futures trading.

A second major pattern is that notwithstanding the growth in the number of centers and in the overall volume of global finance, there is sharp concentration in the major centers. The commodities futures made this clear already. It is also evident in stock markets.

A third major pattern is the growing concentration of global finance within countries in a single financial center, even when that country has multiple financial centers. Further, this consolidation of one leading financial center in each country is due to rapid financial growth, and not because the other centers are declining. There are exceptions, but they are rare. In France, Paris today concentrates larger shares of most financial sectors than it did 10 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 10 regional markets. Frankfurt now concentrates a larger share of the financial market in Germany than it did in the early 1980s, and so does Zurich, which once had Basel and Geneva as significant competitors.

We might think that this concentration inside countries is due to the relatively small size of these countries. But that is not the case. In the U.S. for instance, the aggregate global financial sector in New York dwarfs all other financial centers, including Chicago. The fact that Chicago concentrates far more of the global commodity futures than New York, does not significantly override New York's aggregate financial concentration. The question then becomes why such enormous concentration in one financial center in this vast country with a multi-polar urban system? Sydney and Toronto have equally gained power in continental-sized countries and have taken over functions and market share from what were once the major commercial centers, respectively Melbourne and Montreal. So have Sao Paulo and Mumbai, which have gained share and functions from respectively Rio de Janeiro in Brazil and New Delhi and Calcutta in India. These are all huge countries with several major cities; one might have thought that they could sustain several similarly weighty financial centers.

Why is it that at a time of rapid growth in the network of financial centers, in overall volumes, and in placeless electronic transactions, we have such sharp trends towards concentration both at the global level and within each country? Both globalization and electronic trading are about expansion and dispersal beyond what had been the confined realm of national economies and floor trading. Geographic dispersal would seem to be a good option given the high cost of operating in major financial centers. Further, the geographic mobility of financial experts and financial services firms has risen sharply. In brief, the weight of major centers inside each country is, in a way, countersensical, especially given multiple cities in each of these countries. But so is, for that matter, the existence of an expanding network of financial centers. Indeed, one might well ask why financial centers matter at all.

THE ONGOING WEIGHT OF CENTRALITY AND DENSITY: THE OTHER SIDE OF GLOBAL DISPERSAL

Cities have historically provided national economies, polities and societies with something we can think of as centrality. The usual urban form for centrality has been density, specifically the dense downtown. The economic functions delivered through urban density in cities have varied across time. But it is always a variety of agglomeration economies, no matter how much their content might vary depending on the sector involved. While the financial sector is quite different from the cultural sector, both benefit from agglomeration; but the content of these benefits can vary sharply. One of the advantages of central urban density is that it has historically helped solve the risk of insufficient variety. It brings with it diverse labor markets, diverse networks of firms and colleagues, massive concentrations of diverse types of information on the latest developments, diverse marketplaces.

The new information and communication technologies (ICTs) should have neutralized the advantages of centrality and density. No matter where a firm or professional is, there should be access to many of the needed resources. In fact, the new ICTs have not quite eliminated centrality and density, and hence the role of cities as economic and physical entities. Even as much economic activity has dispersed, the centers of a growing number of cities have expanded physically, at times simply spreading and at times in a multi-nodal fashion. The outcome is a new type of space of centrality in these cities: it has physically expanded over the last two decades, a fact we can actually measure, and it can assume more varied formats, including physical and electronic formats. The geographic terrain for these new centralities is not always simply that of the downtown; it can be metropolitan and regional. In this process, the geographic space in a city or metro area that becomes centralized often grows denser than it was in the 1960s and 1970s. This holds for cities as different as Zurich and Sydney, Sao Paulo and London, Shanghai and Buenos Aires.

The global trend of expanded newly built and rebuilt centralized space suggests an ironic turn of event for the impact of ITCs on urban centrality. Clearly, the spatial dispersal of economic activities and workers at the metropolitan, national and global level that began to accelerate in the 1980s actually represents only half of what is happening. New forms of territorial centralization of top-level management and control operations have appeared alongside these well-documented spatial dispersals. National and global markets as well as globally integrated operations require central places where the work of globalization gets done, as shown by the case of financial centers.

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 center was synonymous with the downtown or the CBD. Today, partly as a result of the new ICTs, the spatial correlates of the center can assume several geographic forms, ranging from the CBD to the new global grid comprising the forty global cities discussed earlier.

There are several logics that explain why cities matter to the most globalized and digitized

sectors in a way they did not as recently as the 1970s. Here I briefly focus on three of these logics.

The first one concerns technology and its many misunderstandings. When the new ICTs began to be widely used in the 1980s, many experts forecast the end of cities as strategic spaces for firms in advanced sectors. But it was the routinized sectors that left cities while advanced sectors kept expanding their operations in more and more cities. Today's multinationals have over one million affiliates worldwide. But they also have expanded their central headquarter functions and fed the growth of a separate specialized services sector from which they are increasingly buying what they once produced in-house. Why were those experts so wrong? They overlooked a key factor: when firms and markets use these new technologies they do so with financial or economic objectives in mind, not the objectives of the engineer who designed the technology. The logics of users may well thwart or reduce the full technical capacities of the technology.[3] When firms and markets globalize their operations thanks to the new technologies, the intention is not to relinquish control over the worldwide operation or appropriation of the benefits of that dispersal. Insofar as central control is part of the globalizing of activities, their central operations expand as they expand their operations globally. The more powerful these new technologies are in allowing centralized control over globally dispersed operations, the more these central operations expand. The result has been expanded office operations in major cities. Thus the more these technologies enable global geographic dispersal of corporate activities, the more they produce density and centrality at the other end – the cities where their headquarter functions get done.

A second logic explaining the ongoing advantages of spatial agglomeration has to do with the complexity and specialization level of central functions. These rise with globalization and with the added speed that the new ICTs allow. As a result global firms and global markets increasingly need to buy the most specialized legal, accounting, consulting and other such services. These service firms get to do some of the most difficult and speculative work. To do this work they benefit from being in complex environments that function as knowledge centers because they contain multiple other specialized firms and high level professionals with worldwide experience. Cities are such environments – with the forty plus global cities in the world the most significant of these environments, but a growing number of other cities developing one or another element of such environments.

A third logic concerns the meaning of information in an information economy. There are two types of information. One is the datum, which may be complex yet is standard knowledge: the level at which a stock market closes, a privatisation 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 and increasingly in the rest of the world thanks to the digital revolution. But it is the second type of information that requires a complicated mixture of elements -- the social

3 Elsewhere I have explained in detail this thwarting of technical logics by the economic, financial, or for that matter cultural and political logics of users see Sassen, 2006: Chapter 7.

infrastructure for global connectivity -- which gives major financial centers a leading edge. When the more complex forms of information needed to execute major international deals cannot be gotten from existing data bases, no matter what one can pay, 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 credit rating agencies, for instance. 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 making inferences/interpretations into "information" takes quite a mix of talents and resources.

In brief, the density of central places provides the social connectivity which allows a firm or market to maximize the benefits of its technological connectivity.

SPECIALIZED URBAN SPACES AND INTERCITY CONNECTIVITIES: A WORLD APART

The network of about 40 global cities in the world today provides the organizational architecture for cross-border flows. A key feature of this organizational architecture is that it contains both the capabilities for organizing enormous geographic dispersal and mobility and the capabilities for maintaining centralized control over that dispersal. The management and servicing of much of the global economic system takes place in this growing network of global cities and regions. While this role involves only certain components of urban economies, it has contributed to a re-positioning of cities both nationally and globally.

The types of activities described above are part of a new type of urban economy that is most pronounced in global cities but also is emerging in smaller and less globalized cities. This new urban services-centered core has mostly replaced the older typically more manufacturing oriented core of service and production activities. In the case of cities that are global business centers, the scale, power, and profit levels of this new core suggest that we are seeing the formation of a new urban economy. Even though these cities have long been centers for business and banking, since the early 1980s there have been dramatic changes in the structure of the business and financial sectors, and a sharp ascendance of a cultural sector. The sharp increases in the overall magnitude of these sectors, their weight in the urban economy, and the critical mass of high-income professional jobs they generate, all have altered the character of cities. This mix has contributed distinct economic, social, and spatial patterns in cities beginning in the late 1980s and early 1990s in much of the highly developed world, and in the 1990s and onward in major cities in the rest of the world.

The growth of this services core for firms is also evident in cities that are not global. Some of these cities serve regional or subnational markets; others serve national markets and/or global markets. While regionally and nationally 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, and the full range of corporate business services -- insurance, legal, accounting, advertising and other such services. Also in these cities we see an increase in high-income professional jobs, and

thereby growth in sectors linked to quality of life, including the cultural sector. Thus the specific difference that globalizations makes in this general trend of growing service intensity in the organization of the economy is to raise the scale and the complexity of transactions, and the orders of magnitude of profits and incomes.

The implantation of global processes and markets has had massive consequences for the restructuring of large stretches of urban space. The meanings and roles of architecture and urban design are destabilised in cities marked by digital networks, acceleration, massive infrastructures for connectivity. Older meanings of architecture and urban design do not disappear, they remain crucial. But they cannot always comfortably address these newer meanings of, and presences in the urban landscape.

Particular urban spaces are becoming massive concentrations of new technical capabilities. Particular buildings are the sites for a multiplication of interactive technologies and distributed computing. And particular global communication infrastructures are connecting specific sets of buildings worldwide, producing a highly specialized interactive geography, with global firms willing to pay a high premium in order to be located in it. AT&T's global business network now connects about 485,000 buildings worldwide. This is a specific inter-city geography that actually fragments the cities where these buildings are in. The most highly valued areas of global cities, particularly financial centers, now contain communication infrastructures that can be separated from the rest of the city, allowing continuous upgrading without having to spread it to the rest of the city. And they contain particular technical capabilities, such as frame relays, which most of the rest of the city does not. This specialized layer of connectivity is perhaps most visible and easiest to appreciate if we take the types of global networks that AT&T, for instance, has set up for multi-national firms. The network depicted below is one such case. Multiplying this case for thousands of multinational firms begins to give us an idea of these new inter-city connectivities, largely invisible to an average citizen.

Such globally networked spaces of centrality are in their aggregate a platform for global operations of firms and markets. (One separate question this raises, though perhaps outside the parameters of this meeting, is whether they can also be used for governance purposes: can networks of specific groups of cities begin to function as platforms for the global governance of a broader series of issues that even if not urban per se tend to materialize in cities, from social and cultural to economic [see Sassen, 2007]).

The globalized sector has imposed a new valorization dynamic in the urban economy; a new set of criteria for valuing or pricing various economic activities and outcomes. The result is not simply a quantitative transformation. It can have devastating effects on large sectors of the urban economy, even as it contributes enormous dynamism. At different times different cities have been emblematic of this creative destruction: New York, Tokyo and London in the 1980s, Buenos Aires and Mumbai in the 1990s (and Mumbai again today), and Shanghai as we moved into the 21st century.

THE GROWING ECONOMIC WEIGHT OF CITIES AND CITY-REGIONS

One way of measuring the weight of cities in their national economies, and indirectly thereby in the global economy, is through their share of national gross product. A growing number of cities in OECD countries today generate half or more of their GNP, among which are cities as diverse as Budapest, Seoul, Copenhagen, Dublin, Helsinki, Randstad-Holland, and Brussels concentrate nearly half of their national GDP.[4] The major cities in Canada - Toronto, Montreal and Vancouver - each generates half or more of the output of their provinces' which in turn account for a very large share of the national economy. The Oslo, Auckland and Prague metro areas, each generates one-third or more of their very diverse countries output. London, Stockholm, Tokyo, and Paris each generates around a third of national GDP. We can see a positive correlation between size and income when they concentrate at least 20% of national GDP.

But there are qualifiers to these trends. Thus:

- Bigger means richer until a certain threshold (around 7 million), and then the correlation between metro-region size and income becomes negative, suggesting the existence of diseconomies of agglomeration in mega-cities (*e.g.* Seoul, Mexico City, Istanbul, and probably Tokyo).

These metro-regions also tend to have higher growth rates in several, though not all, variables. If we just consider OECD countries to ensure high quality data, we find that 66 out of 78 metro-regions have higher GDP per capita than their national average, 65 out of 78 metro-regions have higher labour productivity, and many tend to have higher growth rates. The more favourable pattern of metro-regions' industrial mix is closely linked with their capacity to concentrate R&D activities and generate innovation. For instance, more than 81% of OECD patents are filed by applicants located in urban regions.

But again, there are exceptions to this trend. Some metro areas show lower growth than their countries for almost all indicators: income, growth, productivity, skills, old-age dependency ratio, employment and unemployment. Among these are Berlin (Germany), Fukuoka (Japan), Lille (France), Naples (Italy) and Pittsburgh (US). In many cases, GDP and labour productivity growth do not differ from national averages. Out of a sample of 44 metro-regions, less than half grew faster than their country average over the period 1995-2002 and only 6 (Prague, Krakow, Budapest, Busan, Vienna and Stuttgart) out of 38 registered a higher productivity growth between 1999 and 2002. Large cities also tend to contain disproportionate numbers of people who are inactive (or who work in the informal economy).

There are a broad range of negatives:

Low activity rates and unemployment:

- Metro regions can concentrate large pockets of high unemployment, often above national average unemployment

4 OECD countries are mostly highly developed. The data produced by OECD are among the best about cities; they cover 78 metro areas.

- Lower employment growth than their national average: 1999-2002: Paris, Milan, Barcelona, Tokyo, Vienna
- Lower activity rates than other regions: for example, in 2003, 44% against 49.7% in intermediate and 44.5% in rural regions.
- Out of a sample of 44 metro-regions in OECD countries, less than half grew faster than their country average over the period 1995-2002
- And only 6 (Prague, Krakow, Budapest, Busan, Vienna and Stuttgart) out of 38 registered higher productivity growth between 1999 and 2002.

Inequality and Exclusion:

- Poverty: for instance, Mexico City is estimated to have a 50% poverty rate.
- But poverty is also growing in rich countries that have had sharp economic restructuring: Rotterdam, Lille, Detroit.
- And it is growing in the suburbs of some of the richest urban regions: Paris, London
- Difficulty of incorporation among foreign born: for example, in Sweden, only 44% of university graduates from a non-EU country have a qualified job, compared to 90% of Swedes.
- Greater inequality in most dynamic regions between high-income workers in high value-added services, and those engaged in servicing them and even more with those that have not found jobs.

Exclusion and poverty do not, of course, take the same form or intensity in every city but most metro-regions, including the wealthiest ones, have pockets of population with low standards of living and experiencing social problems. Cities and now also their metro regions are marked increasingly by spatial polarization. The OECD surveyed ten countries and found that 7 to 25% of the population live in distressed neighbourhoods; this accounts for up to 10% of their national population.

Much of this is part of ongoing growth patterns, so we can expect it to continue (at least for a while). There is a strong trend towards larger scales, the consolidation of metro-areas. However, the size of metro-regions varies widely, from mono-centric city regions common in Europe (e.g., Dublin and Helsinki) with less than 2 million inhabitants to mega-cities in Asia such as Tokyo (34 million) and Seoul (23.5 million), and, though on a smaller scale, North America, with New York (18.7 million) and Mexico City (18.4 million). Some European metro-regions are far larger than the average (which is ca. 5 million) for all OECD cities: London (7.4 million), Paris (11.2 million), Istanbul (11.4 million), and the polycentric metro-regions of Randstad-Holland (7.5) and Rhine-Ruhr in Germany (13.4). Most recently, there has been increasing interest in the formation of what could become megaregions; for instance, there is some consensus that the US is today moving towards having ten megaregions (RPA, 2007).

THE OTHER ECONOMY IN GLOBAL CITIES

In these cities we also see a rapid proliferation of types of firms and types of economic spaces we think of as backward, as unconnected to the advanced urban economy. This is most visible and controversial in the global cities of highly developed counties. Involved are mostly familiar

activities: garment manufacturing, construction, transport, packaging, catering, auto repair, and so on. These are all licit activities. But they are taking place outside the regulatory framework in a context where those activities are regulated. We call these informal economies, and in a context of state regulation these economies can only be understood in their relation to the formal economy, that is to say, income generating activity that adhere to existing regulations. Such informal economies have long existed in the cities of the less developed world, and they include today's vast numbers of shanty dwellers – the largest group of builders in the world.

One problem in understanding the meaning of these informal economies in the global cities of the highly developed world is that analysts and policy makers often group informal and illegal activities. Both are simply classified as breaking the law. This obscures the two questions we should really be asking. Why have these licit activities gone informal? These are activities that could be done above ground, unlike illegal activities such as tax evasion or trading in banned drugs. Secondly, why have they gone informal now after a century of successful effort to regulate them in most developed countries, and certainly in Europe and in Japan.

Seen this way, the recent growth of informal economies in major global cities in North America, Western Europe, and to a lesser extent, Japan, raises a number of questions about what is and what is not part of today's advanced urban economies. Typically this informalization is seen as caused by a failure of government regulation and as an import from the less developed world brought in by immigrants – immigrants replicating survival strategies typical of their home countries. Related to this view is the notion that backward sectors of the economy are kept backward or even alive, because of the availability of a large supply of cheap immigrant workers. The assumption is that if there is an informal economy in highly developed countries, the sources are to be found in Third World immigration and in backward sectors of the economy. Thirdly, the notion of government failure and economic backwardness also leads to excluding the possibility of a new type of informal economy emerging in the global cities of the less developed world; the assumption is that nothing has really changed in the long standing informal economies of the global south.

In my reading of the evidence all three of these notions are inadequate. They capture only a small part of this new reality in the making. Much of today's informalization is actually linked to key features of advanced capitalism, as I discuss in the next section. In this regard, they are new types of informal economies. This in turn also explains the particularly strong presence of informal economies in global cities. And it contributes to explain a mostly overlooked development: the proliferation of an informal economy of creative professional work in these cities – artists, architects, designers, software developers. Finally, we are seeing similar trends towards the emergence of the new types of informal economy also in major cities in Latin America, Africa, and much of Asia.

In brief, the new informal economy in global cities is part of advanced capitalism. One way of putting it, is that the new types of informalization of work are the low cost equivalent of formal deregulation in finance, telecommunications and most other economic sectors in the name of flexibility and innovation. The difference is that while formal deregulation was costly, and tax revenue as well as private capital went into paying for it, informalization is low-cost and largely on the backs of the workers and firms themselves.

In the case of the new creative professional informal economy these negative features are mostly not there, and informalization greatly expands opportunities and networking potentials. Nonetheless, there are strong reasons why these artists and professionals operate at least partly informally. It allows them to function in the interstices of urban and organizational spaces often dominated by large corporate actors and to escape the corporatizing of creative work. In this process they contribute a very specific feature of the new urban economy: its innovativeness and a certain type of frontier spirit. In many ways this represents a reinvention of Jane Jacobs urban economic creativity.

Rather than assume that Third World immigration is causing informalization in the global cities of the North, we need to examine the role such immigration might or might not play in this process. Immigrants, in so far as they tend to form communities, may be in a favorable position to seize the opportunities represented by informalization. But the opportunities are not necessarily created by immigrants. They may well be a structured outcome of current trends in advanced economies. Again the case of growing informal professional creative economies in cities as varied as Berlin, New York and Buenos Aires, makes this link more transparent given the value put today on the "creative classes". But in fact, the immigrant informal economy is as valuable in many of these cities to the new urban economy.

Similarly, government failure may well be involved but governments had solved the issue of informal work by mid 20th century. And for decades this was not an issue: Why now? Further, if there is indeed a global infrastructure for running and servicing the global economy then it is also quite possible that the global cities of the south are undergoing a similar transformation, albeit with their own specificities. Conditions akin to those in global cities of the North may also be producing a new type of informal economy in global cities of the south, including a professional creative informal economy. Why assume these cities are not developing a new emergent informal economy that responds to the needs of their advanced economic sectors? These new informal economies need to be distinguished from the old ones that continue to operate in the global south and are still more a result of poverty and survival than of the needs of advanced economic sectors.

The same politico-economic restructuring that led to the new urban economy emerging in the late 1980s and onwards, also contributed to the formation of new informal economies. The decline of the manufacturing-dominated industrial complex that characterized most of the 20th century, and the rise of a new, service-dominated economic complex provide the general context within which we need to place informalization if we are to go beyond a mere description of instances of informal work.

SPATIO-ECONOMIC SEGMENTATIONS IN THE CITY

The ascendance of the specialized services-led economy, particularly the new finance and services complex and to some extent the cultural sector, brings with it the elements for a new urban economic regime because although this sector may account for only a fraction of the economy of a city, it imposes itself on that larger economy. One of the new pressures is towards

a type of spatio-economic polarization that goes well beyond the older forms of inequality that have always marked cities.

Critical here is that the leading sectors can produce superprofits for firms and super-incomes for high level workers. The possibility for superprofits in the leading sectors contributes to devalue urban sectors that cannot generate superprofits, no matter how much the city needs their products and services. The growing demand for state-of-the-art office districts and for the spaces of luxury urban living displaces lower-profit firms and lower-income households. The more modest sectors of the middle class often leave the cities, as do firms that do not need to be in the city. Poor people easily become homeless, including significant numbers of women and children. Low-profit firms who need to be in the city struggle for survival, with many either closing down or informalizing part of their production.

High prices and profit levels in the globalized 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. The ascendance of expertise in economic organization in turn has contributed to a whole new valuing of specialized services and professional workers. And it has contributed to mark many of the "other" types of economic activities and workers as unnecessary or irrelevant to an advanced economy.

In this mix of conditions lie some of the key sources for informalization of both low-wage and professional creative informal work. The rapid growth of industries with strong concentration of high and low income jobs has assumed distinct forms in the consumption structure which in turn has a feedback effect on the organization of work and the types of jobs being created.

The expansion of the high-income work force in conjunction with the emergence of new cultural forms has led to a process of high-income gentrification that rests, in the last analysis, on the availability of a vast supply of low-wage workers. High-income gentrification is labor-intensive, in contrast to the typical middle-class suburb that represents a capital-intensive process -- tract-housing, road and highway construction, dependence on private automobile or commuter trains, marked reliance on appliances and household equipment of all sorts, large shopping malls with self-service operations. High-income gentrification replaces much of this capital intensity with workers, directly and indirectly. Similarly, high-income residents in cities depend to a much larger extent on hired maintenance staff than the middle-class suburban home with its concentrated input of family labor and machinery.

Behind the specialty food-shops and boutiques that have replaced many large self-service supermarkets and department stores in cities lies a very different organization of work from that prevalent in large, standardized establishments. This difference in the organization of work is evident both in the retail and in the production phase. High-income gentrification generates a demand for goods and services that are frequently not mass-produced or sold through mass outlets. Customized production, small runs, specialty items, fine food dishes are generally produced through labor-intensive methods and sold through small, full-service outlets.

Subcontracting part of this production to low-cost operations, and also sweatshops or households, is common. The overall outcome for the job supply and the range of firms involved in this production and delivery is rather different from that characterizing the large department stores and supermarkets where standardized production prevails. Mass production and mass distribution outlets facilitate unionizing; specialty food shops and designer furniture, do not.

Yet another condition driving informalization in this process of high-income gentrification is the rapid increases in the volume of building renovations, alterations, and small scale new construction associated with the transformation of many areas of the city from low-income, often dilapidated neighborhoods into higher income commercial and residential areas. What in suburban or peripheral areas in cities might involve a massive program of new construction, can easily be mostly rehabilitation of old structures in central urban areas which are likely to offer the highest returns on older renovated buildings. The volume of work, its small scale, its labor intensity and high skill content, the pressures of time, and the short-term nature of each project all are conducive to a heavy incidence of informal work.

The expansion in the low-income population has also contributed to the proliferation of small operations and the move away from large-scale standardized factories and large chain stores for low-price goods. In good part the consumption needs of the low-income population are met by manufacturing and retail establishments which are small, rely on family labor, and often fall below minimum safety and health standards. Cheap, locally produced sweatshop garments, for example, can compete with low-cost imports. A growing range of products and services, from low-cost furniture made in basements to "gypsy cabs" and family daycare is available to meet the demand for the growing low-income population. The inadequate provision of services and goods by the formal sector also contributes to informal ways of securing these. This inadequacy may consist of excessively high prices, inaccessible or difficult to reach locations of formal providers, or actual lack of provision. It would seem that this inadequacy of formal provision involves mostly low-income individuals or areas.

The existence of a cluster of informal shops can eventually generate agglomeration economies that induce additional entrepreneurs to move in. This is illustrated by the emergence in just about all global cities of auto-repair "districts", vendors' "districts", or clusters of both regulated and informal factories in areas not zoned for manufacturing; these areas are emerging as among the few viable locations for such activity given the increased demand for space by high bidders. The far more regulated cities in much of Europe and in Japan have kept these developments to a minimum compared with the US and the rest of the world. Once a city has a diverse set of informal firms that use a variety of labor supplies, the entry costs for new entrepreneurs are lower and hence they can function as a factor inducing the further expansion of the informal economy.

In any large city, there also tends to be a proliferation of small, low-cost service operations made possible by the massive concentration of people in such cities and the daily inflow of commuters and of tourists. This will tend to create intense inducements to open up such operations as well as intense competition and very marginal returns. Under such conditions the cost of labor is crucial and contributes to the likelihood of a high concentration of low-wage jobs. This tendency is confirmed by a variety of data sets that show that each one percent increase in, for instance,

retail jobs results in an 0.8 percent increase in below poverty level jobs in large metropolitan areas of the global north.

Against this larger background we can now ask what then is the place in an advanced urban economy of firms and sectors which appear to be backward or lack the advanced technologies and human capital base of the leading industries? Are they superfluous? And what about the types of workers employed by such firms? The available evidence shows several sources for the expansion of informal activities.