

# Part I

## Systems of Cities and Cities of Finance

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# Introduction

This first part of the book explores the urban system. In particular, it charts the existence of major global cities that are linked together by trading and business activity, skilled labour migration, cultural factors and, above all, by financial flows. Starting from basic models of the role of towns and cities and explanations of urban growth, it seeks to explain the evolution of a system of international cities that play a critical role in coordination of global financial activity and which capture an increasing share of that activity. Such an understanding not only requires a knowledge of the operation of international finance but it also demands a historical perspective. It is easy to fall into the trap of assuming that the changes observed today mark a fundamental, a structural break with the past – missing important continuities. It will be argued that the international financial centres (IFCs) have their origins in the earlier, pre-1914, era of global capital flows; that their current manifestation is an evolution not a revolution. Nonetheless, the growing concentration of financial activity in a small number of global centres has profound implications – not least for the urban structure of those cities themselves.

Chapter 1 traces ideas about the development of cities and the evolution of a global urban system. Much of the early research on the growth and location of cities was national or regional in nature. It aimed to explain variations in the size of cities and to understand the spatial distribution of urban settlements. Two strands of theories emerge, one that examines the issue of whether cities should be specialised or diversified, the other relating the location of cities of different sizes to their role in supplying services to the surrounding catchment – central place theory. In different forms, these two strands appear and reappear in urban social science. Major cities, though, perform functions that transcend national boundaries – acting to coordinate foreign investment and as the base for multinational enterprises, playing global political, cultural and financial roles. In a world where barriers to movement of commodities, goods, services and people appear to be reducing, that global role becomes more important. Theories of a world urban system and the growing importance of ‘global cities’ are examined – as are critiques of those theories for being based on a northern trans-Atlantic model of the world that is insensitive to regional differences and to the political economy that a world system of cities implies.

Chapter 2 narrows the focus to consider the role of major cities in coordinating a financial system that is increasingly global in nature. Financial activity is heavily concentrated nationally and, within nations, by a small

number of cities. Those cities – IFCs – capture a growing market share of equity trading, bond dealing, foreign currency exchange, derivatives markets, investment banking and wealth management. A small group of IFCs dominates global financial activity and are increasingly global in nature with financial firms from many countries having a presence there. How do IFCs evolve and what are the factors that create and sustain their dominance? Why do the major IFCs perform multiple functions and not specialise in particular activities? The chapter sets out possible factors: the need to achieve a critical mass of trading to allow specialisation of activity and attract support services, the need for a liquid international labour market, agglomeration and scale economies that cut across individual financial sectors and knowledge spillovers and interactions that contribute to innovation. With the growth of the internet and telecommunications technologies, what does it mean to be ‘in’ an IFC and what types of activity actually *need* an urban location?

Chapter 3 tries to provide some historical perspective. Much of the literature on the ‘New International Financial System’ – which, in turn, underpins much of the literature on the evolution of global cities – argues for a qualitative change in financial markets, generally dated to the breakdown of the Bretton Woods agreement in the mid-1970s but driven by technological change that both permits concentration of activity and allows financial capital to flow around a system of global finance with international cities as the nodes in this financial network. However, an examination of the history of international finance shows that global interconnection is no new phenomenon. The early evolution of specialist financial cities in Europe was driven by placement of foreign debt and securities and by currency exchange and, by the nineteenth century, international finance is dominated by a small number of cities whose activities were by no means confined to imperial regions, many of which remain key financial centres into the twenty-first century. Many of the claimed features of the ‘new international financial system’ appear in that earlier era of global capitalism – including financial crises that might start in one country but, through contagion, spill over into many other cities, often in different regions. To this extent, it is the 1914–1970 era that seems the aberration, rather than the 1970s marking a new era of international finance. Technology changes the dynamics of transmission; but does it fundamentally alter the key features of global finance?

The existence of major IFCs as the key nodes in a system of international financial flows has important implications for the structure of those cities. For all the advances in communications technologies, cities of finance require a physical presence, a base for the banks, equity, bond and derivative dealers, commodity and currency traders, institutional and private investors, the hedge funds and the wealth managers – and all the business and

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professional services that support their activity. That physical presence requires a critical mass of office space: and the demands for proximity and interaction generally mean that that office space will be centrally located. As IFCs grow, as they become more functionally specialised, there will be a demand for more office space, larger space, higher quality space – with profound impacts on the physical structure and development of those cities.

# 1

## The Urban Hierarchy and Global Cities

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### 1.1 Introduction

Offices exist to provide a business environment for business, professional and financial services. Given the spatial distribution of these service sectors, this means that the city is the natural habitat for offices and the geography of office markets is the geography of cities. To understand the distribution of offices, we need to understand the evolution of the urban system. In this process, there is an internal and an external geography. The internal geography is the structure of cities, the patterns of land-use, the location of activity within the urban area. The external geography is concerned with the distribution of cities and the interrelationship between cities. It is the latter that is the subject of this chapter.

In a highly urbanised nation, the distinction between urban and rural is blurred. The idea of the city as a point in space – a central market place, with the centre as the point of maximum accessibility and the location of key service activities, surrounded by a wider hinterland that is both a market and a source of factors of production – is clearly deficient. The costs of crowding and congestion, improvements in communications technology, tax differentials and socio-political issues have created suburban office nodes, edge cities and rural office clusters. Nonetheless, such developments represent adjustments to the existing system of cities which evolved precisely because of the economic benefits and accessibility advantages of a central location. The pre-existing geography of cities is an inertial force and creates a path dependency in the location of office-based services. Further, the establishment of a large office market can create agglomeration economies, scale economies that have a key influence on the competitiveness of a city.

In examining the influence of the spatial impact of cities on office markets, then, the starting point must be the tradition models of the urban system based on the idea of the city as a central market place. Such models have been adapted and evolved to deal with more complex economic,

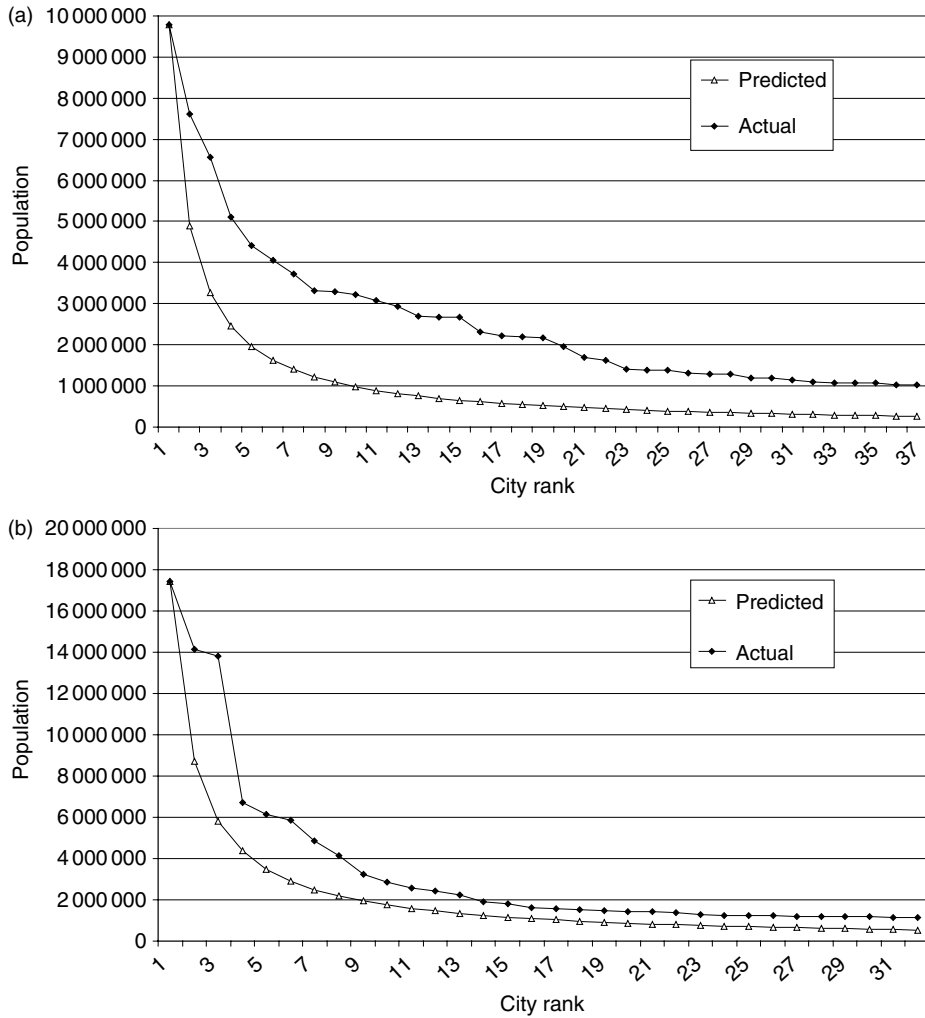
social and technological contexts but still provide valuable insights about the location decisions of firms and the distribution of office space. Central place models, however, point to the city as being multifunctional. Another strand of urban economics points to the benefits of sectoral (or functional) specialisation. Do cities benefit from being specialised or diversified? If specialist cities are favoured, what does that imply?

Most models of cities have been developed within a national or regional framework of analysis. National economies, though, are not closed and most major cities have been international in nature, linked to other countries and other cities through trade and the financing of trade and production. The second half of the chapter examines theories that attempt to explain the global distribution of cities and the position of cities within a world urban hierarchy: World cities, global cities. In turn, this will point to the existence of specialised international financial centres, the subject of the next chapter.

## 1.2 Cities and the urban hierarchy

It is evident that cities within a national system vary considerably in size whether measured in terms of employment or population. There have been many attempts to explain the distribution of city size, building from the work of Auerbach (1913) and Zipf (1949). Zipf's 'law' is based on the idea that the distribution of cities is approximated by a Pareto distribution of the form  $y = Ax^{-\alpha}$  where  $y$  is the population of a city,  $A$  is the size of the largest city and  $x$  is the rank of the city. Zipf argued that  $\alpha$  should take on the value 1 – which suggests that the size of the  $n$ th ranked city should be  $1/n$  times the size of the largest city. Subsequent empirical research has sought to test whether the Zipf rule holds for countries or regions, with the general finding that  $\alpha$  is, on average, slightly greater than one (Soo, 2005). Nonetheless, many countries exhibit a population size distribution similar to that predicted by the Zipf rank size law (see Figure 1.1).

The rank size rule explores regularity in the size distribution of cities, but does not provide a theoretical explanation of why such distributions should arise (in principle, they could result from random fluctuations in growth over long periods, hence the Pareto distribution), nor does it provide a prediction of the spatial distribution of cities. As a general explanation, cities benefit from economies of scale, agglomeration economies and other positive externalities, which encourage growth and allow those cities that gain a size advantage to compete successfully against nearby cities; therefore the largest cities in a nation or region are likely to be separate geographically. There are also diseconomies of scale: congestion and transport costs which rise with size and density, pollution and environmental factors, for example,



**Figure 1.1** (a) European Union urban agglomeration: population by rank. (b) India urban agglomeration: population by rank. *Source:* Calculated from UN urban agglomeration estimates reported in Geltner *et al.* (2007). *Note:* Population estimates for EU pre-date the expansion of the European Union.

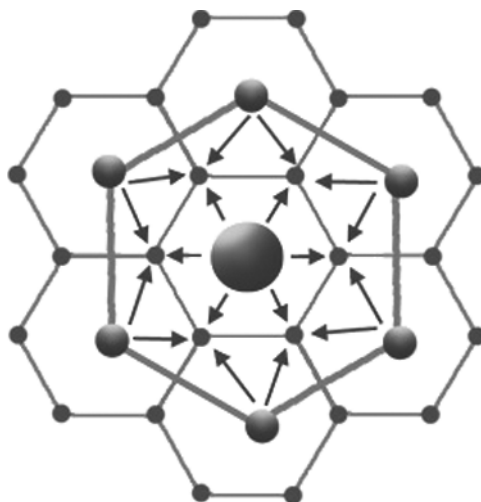
which serve to limit the concentration of population and the size of cities. This general balancing of forces of concentration and dispersion, however, does not amount to a formal model of the geographical distribution of cities within an economy.

Perhaps the most familiar spatial model of the urban system is Christaller's (1933) central place system – at least in its market format. The starting point for the model has an agricultural population distributed across a plain. This population both markets and consumes goods and there are costs

associated with distance. To minimise distance and costs, a market should be established that is central to a catchment area. The catchment area will be circular – but will meet with competition from other markets. The nearest form to a circle that fills the plain leaving neither gaps nor overlaps (that is, that tessellates) is a hexagon and, therefore, the initial market structure consists of a plain of hexagonal market areas, each with a central settlement. The size of the hexagon is determined by the range of the good (the maximum distance that a household will travel to consume that good/that a producer can travel to sell the good) and the threshold of the good: the minimum population (market) size to sustain production and sale.

The model then allows for goods differentiation and there may be different scales of production or different transport costs. Some goods are purchased frequently or have a short range (perishable foodstuffs, for example). These will be sold in each of the central settlements. Other goods are purchased infrequently and may have a larger threshold. The provision of these goods, then, must be concentrated in a smaller number of settlements. Positive demand externalities also suggest that the sale of different high-order goods should be concentrated in the same settlements. This creates a higher order of settlements. Distance minimisation again creates a hexagonal pattern of market areas, superimposed on the lower order network. As more high-order goods are introduced, a settlement hierarchy emerges, the standard  $K=3$  hexagonal structure of central place theory (Figure 1.2).

Although the  $K=3$  structure is the most commonly taught, Christaller allowed for other drivers of centrality – transport-driven and administrative-driven networks that have the same hexagonal form but a different



**Figure 1.2** Central place  $K=3$  lattice.

distribution of settlements. Lösch (1940) extended the Christaller model by combining these formats. Central place theory has had a major effect on thinking about systems of cities (possibly because it is taught in high school geography!) and has influenced regional spatial planning policy and retail location models. However, its underlying assumptions – of a dispersed population and of consumer behaviour driving the creation of settlements – do not explicitly deal with the profit-maximising behaviour of firms within the system, nor the production of goods themselves: in effect it is a model of the dispersed production and central sale of agricultural goods. As such, it might be effective in explaining the origins of settlement patterns, the evolution of the urban system but might be less effective in explaining why those patterns should sustain in an economic system dominated by manufacturing or by services and with a population that is concentrated, not dispersed.

Models of the urban hierarchy that are based on Christaller's ideas imply that cities will be multifunctional. High-order cities offer a wide range of goods and products to consumers, while lower order cities offer less of a range. Such models define city status in terms of the range of services offered to the residents and the hinterland. An alternative explanation of cities focuses on production and employment structure. Here, the existence and growth of cities depend on the location decisions of firms and workers (and the supply of space and land by developers). The equilibrium state will depend on the cost structures facing firms and workers, the production function of firms, transport and trading costs and the mobility of factors of production. In general, firms will benefit from economies of scale and from agglomeration – favouring city growth and a force for centralisation – but will experience congestion and crowding costs as cities grow beyond some optimal threshold. Agglomeration economies are considered in more detail in Chapter 3, but some discussion is necessary here. For more complete reviews see Combes *et al.* (2005) and Duranton and Puga (2000, 2005).

Henderson (1974) argued that the agglomeration economies that benefit firms are Marshallian externalities – that is, they are derived from the proximity of *similar* types of firms within a sector (a larger specialised labour pool, expertise, specialist factor inputs and the possibility of vertical and horizontal integration). With the assumption that goods can be freely traded across all cities and that labour is fully mobile, productivity increases with total employment in a sector. However, the congestion and crowding costs associated with population growth limit the optimal size of the city. Henderson's model allows for profit-oriented developers and the ability to create new urban spaces (an entrepreneurial local government might have a similar effect) – given some credence in a North American context with the development of 'edge cities' (Garreau, 1991). With these assumptions, the equilibrium solution is for cities to specialise. Differences in production costs and profits mean that cities will be different sizes.

The restrictive assumptions of the Henderson model can be relaxed and extended. First, production can be viewed as a multi-stage process where producers of final goods obtain services from separate providers of non-tradable goods – producer services. The larger the sector in a city, the more producer services can be supported and the more specialisation can take place. This favours larger cities. Even here, specialisation is favoured. However, another possibility is that agglomeration economies exist that are cross-sectoral in nature. In addition to the specialisation of producer services possible from scale, there are benefits from cross-sectoral learning, technology transfer, the existence of a large multi-skilled workforce and greater interaction, which creates more opportunity for innovation and firm creation. These urban economies are sometimes labelled Jacobian economies after Jane Jacobs (1960), but similar ideas can be found in the work of Chinitz (1961) *inter alia*. Jacobian economies point to the advantages of diversified cities. There is thus a tension between localisation and urbanisation economies, with different urban outcomes depending on which dominates.

A further complication comes from transport costs. The early Henderson model assumes that all goods are freely traded across cities. However, as in the Christaller model, it is more appropriate to assume that shipping costs increase with distance. In the Henderson model, diversification is costly (since there are lower localisation economies but the same congestion costs) but specialisation is also costly since goods must be imported and exported. The higher the costs, the more likely it will be that cities will be diversified. The implication is that if there are significant falls in transport costs, then cities are more likely to become specialised (Abdel-Rahman, 1996). Allowing for differentiated goods, larger cities benefit by being able to offer variety for consumers: migration creates bigger markets, which may attract more firms, in a process of cumulative causation. However, if the economy of the city and its hinterland is sufficiently large, it may be profitable for developers and firms to create new smaller cities to provide for local consumption. With multiple production sectors and differential centres, Fujita *et al.* (1999a) suggest that the outcome is a hierarchy of cities, but not one that necessarily conforms to the regular spatial patterns generated by the Christaller model.

A final issue to be confronted is economic change in the area containing our system of cities. Sectors grow and decline, the urban system is dynamic. A city that is specialised in a sector that is subject to decline in productivity and products may suffer – as evidenced by the manufacturing restructuring of the 1980s and many examples from history. The specialised city has developed producer services that serve its dominant production sector and consumer services that serve the workforce in the final goods production and producer services sectors, so decline has potentially significant effects. With full labour mobility, one might expect to see outmigration and a decline in

the size of the city, although empirically, there appears to be considerable inertia – which can only partially be explained by government intervention. In this sense, a diversified city diversifies risk from sector shocks in the same way that a diversified portfolio of investment assets diversifies away specific risk.

Furthermore, the innovative capacity of a city will allow new industries to arrive and new production technologies to be developed. Duranton and Puga (2000) suggest that a long established specialised city may be slower to adopt new technology since ‘learning by doing’ means that the initial productivity of a new technology will be lower than that of the existing technology and hence there is limited incentive to adopt production methods that reduce profits relative to competitors. Innovation can occur either in a new and smaller city (where the lower congestion costs permit the application of initially less productive technologies) or in a diversified city where shared learning across sectors can occur and where there is a wider range of producer services (from specialisation effects) that can generate and implement new processes. Additionally, given that not all innovations will prove to be effective, the more a city can generate interactions, the more likely it is to produce successful new processes – in effect a version of the incubator hypothesis, but played out across a system of cities rather than within a city-region.

It should be stressed that the urban systems originating in Christaller’s and Henderson’s models are *normative*: that is, they represent a settlement pattern that is efficient given a set of implicit and explicit assumptions. That actually observed settlement patterns do not conform to the theoretically expected patterns do not ‘disprove’ the theories, since the differences may be due to violations of the underlying assumptions. Thus labour is not perfectly mobile (and, indeed, nor necessarily is capital); transportation costs are not a smooth function of distance; there are differences in topography, resource endowment and environment; there are distortions caused by political boundaries and, above all, there is the legacy of the past, the historic pattern of settlements that shapes transportation patterns, population distribution and political jurisdiction and establishes a pattern of land-use and built form. Nonetheless, to have any use and validity, the theoretical models should be translatable into *positive* models that demonstrate explanatory power in examining the pattern of cities in space.

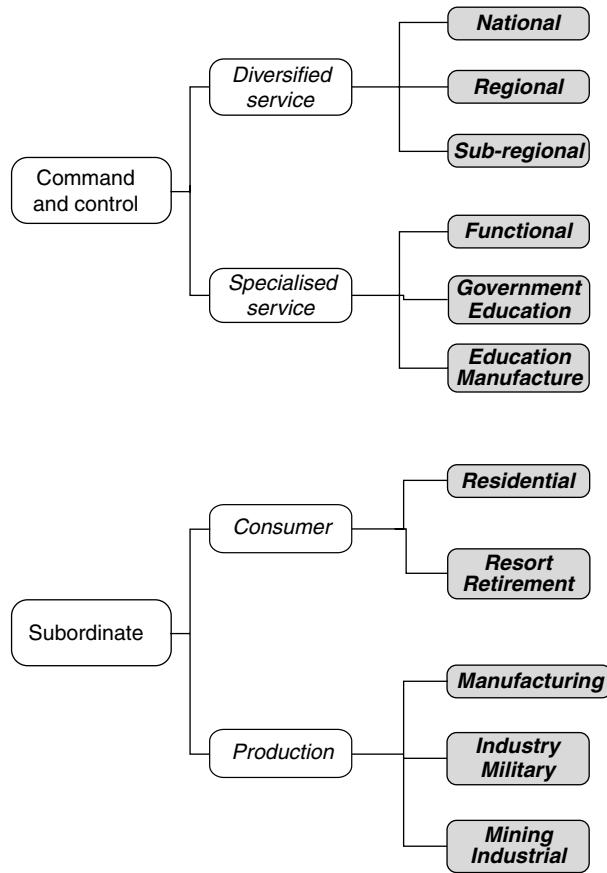
### *Empirical evidence*

What, then, is observable? First, cities in a region are of different sizes and do perform different functions, with high-order retail, service and governmental functions concentrated in the largest cities at the top of the urban hierarchy. Second, in developed economies at least, the distribution and rank

of cities by size remains remarkably stable over long periods of time, even in the face of substantial economic restructuring (Eaton & Eckstein, 1997; Duranton & Puga, 2000; Combes *et al.*, 2005). Third, larger cities perform a range of functions, but often take on specialist characteristics. The evidence on the performance of specialist versus diversified cities is mixed. For North American and UK cities, there is evidence that firm growth, firm turnover and innovation is faster in diversified cities and growth seems more linked to diversity and human capital within cities than to specialised employment structures (e.g. Malpezzi *et al.*, 2004, suggest using shift-share analysis that growth is more closely associated with urban level agglomeration economies than with employment structure). This tends to support a Jacobs view of the city as an arena for innovation and exchange, but the results may be distorted by the restructuring of manufacturing in the 1980s and the 'deindustrialisation' of Western economies. Against that, Markusen and Schrock (2006) argue that city growth for second-tier cities in the United States is associated with 'distinctiveness' in employment structure, consumption and identity. They suggest this results from competition between cities and public-private attempts to distinguish and market individual cities as the relationship between city and immediate hinterland breaks down. They also present evidence that while some high-level service functions are clustered in the largest cities, others – they cite computing, engineering, life and physical sciences, architecture – appear to favour smaller cities (albeit that some of these specialist clusters appear to be relatively close to cities at the top of urban hierarchy).

The idea of specialised cities lies behind attempts to classify cities using clustering techniques. For the United States, for example, Noyelle and Stanback (1984) separate cities into two main categories: 'command and control' cities and subordinate cities (see Figure 1.3). The command and control cities have high proportions of headquarters (HQs) buildings, concentrate finance, high-level producer services and governmental functions. This, clearly, has implications for the built form of cities, in that the presence of such functions demands a mass of high-quality, large office space. Command and control cities are further subdivided into diversified or specialised service centres and then by scale and function: hence national diversified cities include New York and Los Angeles; Atlanta would be a regional diversified service city, while Washington, DC would be a specialised government and education city. In turn, subordinate cities are separated into those focused on consumption and those focused on production. The idea of command and control functions being increasingly concentrated in a small number of large, powerful cities is the basis of the 'global cities' literature discussed in Section 1.3.

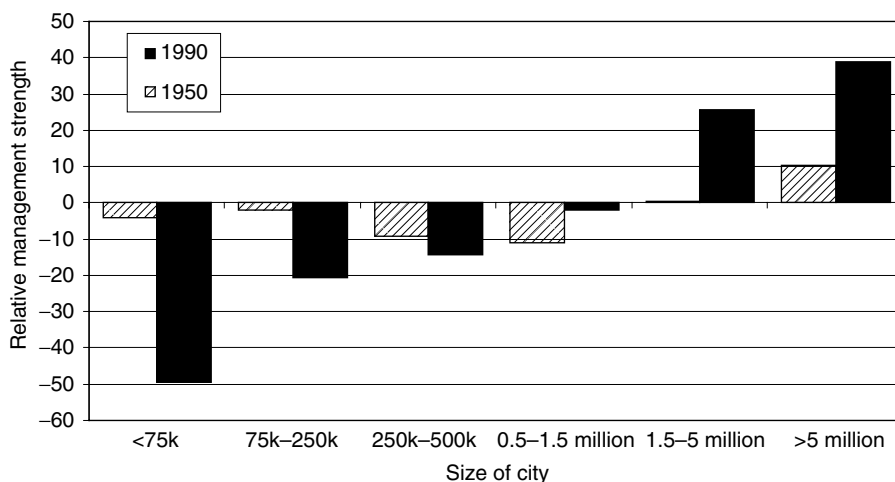
Duranton and Puga (2005) extend the concept of city specialisation by noting that increasingly firms have been separating their management and



**Figure 1.3** The US urban hierarchy. *Source:* Adapted from Noyelle and Stanback (1984) and Ball *et al.* (1998).

production facilities. The former, benefiting from agglomeration economies by co-locating with other management offices, are increasingly clustered in larger cities, while smaller cities have become more specialised in production. They cite evidence from Kim (1995) that stand-alone HQs increased in the United States by 79% between 1958 and 1987, while employment in those separated HQs rose by 69%.<sup>1</sup> Their own analysis of functional specialisation by city size for 1950 and 1990 shows clear evidence of specialist control and management functions up the urban hierarchy (see Figure 1.4). At the same time, there was evidence that sectoral specialisation (at least at two-digit SIC level) was declining although smaller cities

<sup>1</sup> For an international perspective, see Markusen (1995).



**Figure 1.4** Functional specialisation in US cities. *Source:* Estimated from Duranton and Puga (2005), Table 1. Figures show percentage difference in ratio of managers to production workers to national average ratio.

remained more specialised than larger cities. They note that their results have been replicated for Germany.

Why might this functional specialisation occur? Increasingly, HQs buildings outsource business service functions and so location decisions will be influenced by the existence of concentrations of business services and, as noted above, that concentration allows further specialisation in the services offered. There are labour market effects, too, which will be explored in more depth later. This will tend to create a self-reinforcing cycle: the greater the clustering of HQs buildings, the more attractive the city is for business service firms. Shilton and Stanley (1999) found that 40% of their sample of 5000 HQs in the United States were found in just 20 major urban agglomerations.

This clustering alone, though, is not sufficient to explain the separation of HQ and production plant at firm level. There are costs to the separation: the costs of communicating, monitoring and coordinating across multiple locations. These must be set against the efficiency gains from locating the HQ in a core metropolitan area with a good supply of business and producer services. The efficiency gains must outweigh the coordination costs *and* the additional congestion and crowding costs of locating the HQ in a large city. Those congestion and crowding costs preclude locating the production plant in the larger city: these will tend to locate in lower cost locations and also (in general) in relatively specialist cities to capture localisation economies and reduce the costs of production. Since there appears to have been a historical shift, the most likely explanation is that there has been a reduction in the costs of coordination over the last quarter of the twentieth century: through

increased speed (and reduced real cost) of individual travel, through changes in management practices but, above all, through improvements in communications technology that have dramatically reduced the costs and difficulties of passing information and instructions around the firm.

These shifts in the nature of activities in cities have direct implications for land-use and property. With cities as the base for manufacturing activity, offices play a role as the base for the internal and administrative services of those organisations (and, separately, to coordinate trade between firms). As manufacturing activity and other primary functions move out of city centres, the office activities often remained – with a first wave of separation of HQs and production plants following the development of telegraph, telephone and national transport systems and a second wave with twentieth-century communications, which enabled the decentralisation of lower order office and service activities. Thus that economic activity not linked to consumption in the centre of cities became more specialised and more dominated by office space.<sup>2</sup>

Once again, this appears to have significant implications for the occupational demand for space: major office requirements occur in large diversified cities (and, as we will see, in the *centre* of large diversified cities), while office requirements in smaller, specialist production cities will tend to reduce. They will not disappear. In addition to branch offices, the producers of intermediate goods and services in the production process themselves require business services – accounting, legal, taxation, financial services, albeit not at the same scale as demanded by the clusters of HQs buildings. This leaves one unanswered question: if communications technologies have improved so much and have had such a significant cost effect, why are the economies of scale and scope from outsourcing business and producer services conditional on location and proximity? Why is it not possible to source such high-level services from multiple locations? That question is addressed later.

### *Cities outside states: a global hierarchy?*

The traditional models of the urban hierarchy and of the relationship between population and rank of the city discussed above have generally been conceived in relation to national states or, if across states, to defined regional groupings. Many of the measures used in empirical research are similarly defined by national boundaries (for example, the denominator in location quotients or specialisation indices is usually the national employment share by sector). In an era of strong state control over population, goods and capital flows, this approach might have a logical justification. In an era

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<sup>2</sup> Thanks are due to Steve Devaney for this point.

characterised by more open economies, rapid flows of capital and goods, ease of international transport and global telecommunications networks, confining analysis to the nation state seems inappropriate. How do urban hierarchy arguments play out on a global scale?

United Nations figures for 2000 (UN, 2004) suggest that 48.3% of the world's population live in urban agglomerations. In more-developed regions, 74.5% of the population is urban – although, in practice, and given extended commuting patterns, the proportion that is in practice 'urbanised' may be higher still (for example, residents of commuter villages travelling into cities for work are clearly urbanised). In the less-developed regions, just 42% of the population is urban – and within those regions, 73% of the population resident in those countries classified as 'less-developed' reside in rural areas. Table 1.1 shows the 20 largest urban agglomerations in 2000 and in 1975 (such tables depend critically on the definition of agglomeration and urban boundary, where administrative boundaries fail to adapt to growth and

**Table 1.1** Largest urban agglomerations, 2000 and 1975.

Rank and City (2000)	Population (millions)	Rank and City (1975)	Population (millions)
1. Tokyo	35.3	1. Tokyo	26.6
2. Mexico City	19.0	2. New York – Newark	15.9
3. New York – Newark	18.5	3. Shanghai	11.4
4. Mumbai	18.3	4. Mexico City	10.7
5. Sao Paulo	18.3	5. Osaka Kobe	9.8
6. Delhi	15.3	6. Sao Paulo	9.6
7. Calcutta	14.3	7. Buenos Aires	9.1
8. Buenos Aires	13.3	8. Los Angeles – Laguna Beach	8.9
9. Jakarta	13.2	9. Paris	8.6
10. Shanghai	12.7	10. Beijing	8.5
11. Dhaka	12.6	11. Calcutta	7.9
12. Los Angeles – Laguna Beach	12.1	12. Moscow	7.6
13. Karachi	11.8	13. London	7.6
14. Rio de Janeiro	11.3	14. Mumbai	7.4
15. Osaka-Kobe	11.3	15. Chicago	7.2
16. Lagos	11.1	16. Seoul	6.8
17. Beijing	10.8	17. Rhein-Ruhr	6.4
18. Manila	10.7	18. Cairo	6.4
19. Moscow	10.7	19. Tianjin	6.1
20. Paris	9.9	20. Milan	5.5

Source: Data taken from United Nations (2004), *World Urbanization Prospects*.

absorption of surrounding settlements in the urban system). Agglomerations moving into the top 20 are Delhi, Dhaka, Lagos, Manila and Rio de Janeiro – all from developing regions. The UN estimates that by 2015, 54% of the world’s population (and 77% of the developed regions’ population) will live in urban areas. However, these major urban areas by no means contain a high proportion of the world’s population: the largest 20 urban agglomerations account for around 4%, with a further 3% living in cities of between five and ten million.

While many of the cities that are considered to be at the top of the urban hierarchy feature in the UN’s list of the largest agglomerations, it is clear that population alone does not determine global status. PricewaterhouseCoopers (2007) have attempted to estimate the GDP of urban agglomerations. Table 1.2 lists their estimate of the top 30 cities ranked by GDP in US\$ at purchasing power parity. Sixteen of the 30 are US cities. Their projections to 2020 have this falling to 12 of 30, with Beijing, Istanbul, Manila, Mumbai and Shanghai entering the list. This ranking is probably closer to most lists of the leading cities in the world economy with some obvious exceptions (Amsterdam, Frankfurt, Singapore, Sydney, Zurich, for example) and emphasises the importance of wealth and earnings in determining global status.

Table 1.2 also maps more closely onto investment interest in real estate in general and in offices in particular. Population alone does not generate

**Table 1.2** Cities ranked by GDP.

City	GDP \$bn @ ppp	City	GDP\$bn @ ppp
1. Tokyo	1191	16. Atlanta	236
2. New York	1133	17. Houston	235
3. Los Angeles	639	18. Miami	231
4. Chicago	460	19. Sao Paulo	225
5. Paris	460	20. Seoul	218
6. London	452	21. Toronto	209
7. Osaka-Kobe	341	22. Detroit	203
8. Mexico City	315	23. Madrid	188
9. Philadelphia	312	24. Seattle	186
10. Washington, DC	299	25. Moscow	181
11. Boston	290	26. Sydney	172
12. Dallas–Fort Worth	268	27. Phoenix	156
13. Buenos Aires	245	28. Minneapolis	155
14. Hong Kong	244	29. San Diego	153
15. San Francisco Oakland	242	30. Rio de Janeiro	141

Source: Data taken from PricewaterhouseCoopers (2007).

demand for large, high-specification office space – that requires the presence (actual or desired) of major financial, business or producer service firms, the international or regional HQs of major corporations and/or the presence of significant government departments. Only such firms can generate the turnover to be able to afford the rents that underpin office market development, financing and investment. By implication, this suggests that an understanding of the growth and development of a global real estate market requires an understanding of the evolution of the global urban hierarchy.

### 1.3 World cities, global cities

Since the 1980s, a body of work has attempted to map and explain the development of a global urban hierarchy and the key role of a limited number of major cities in coordinating and controlling an international network of flows of capital, goods and workers: world or global cities. Although – as will be explored below – the idea of the existence of an elite group of cities with a dominant role in the world economy is by no means new and although the ideas underlying the world city model have been subject to trenchant criticism, an initial review of that literature provides a useful starting point for a consideration of the global urban hierarchy. If such a global hierarchy does exist, then the highest level of producer and business services should be located in those leading cities that are at the pinnacle – with consequences for the development of, and investment and occupational demand for, office space therein.

#### *Friedman and Sassen*

The world city/global city literature generally cites the work of John Friedman and Saskia Sassen (with the early contributions of Anthony King often cited but rarely developed) as the basis for theories of an international system of cities. From Friedman, we have the idea of a ‘world city hierarchy’; from King ‘a global network of cities’, and from Sassen ‘global cities’ and the ‘transnational urban system’. Sassen’s ideas, in particular, have become important in urban debates and feature in governmental reports and even in private consultancy briefings (see, for example, Mastercard Worldwide, 2007), despite their origins in critical social science and their focus on social polarisation and equity issues in cities. The essential idea, prominent from the late 1980s, is that cities or urban regions form part of a global hierarchy with position determined by the degree of integration into, and influence on, the global system of capital flows.

Friedman’s starting point (Friedmann & Wolff, 1982; Friedmann, 1986) is the idea that major corporate firms, operating across the globe, have freed

themselves from national constraints and organise production on a global, not a national, scale. This draws on work on the organisation of multinational firms (e.g. Hymer, 1979), on ideas of a 'new international division of labour' and on the concept of a 'world system' found in the work of Wallerstein (1974). Enabled by communications technologies and the erosion of barriers to trade and capital flows, private firms' operations are 'no longer' confined to national markets but are organised on a multinational basis, with a division of labour and activity expressed geographically: the separation of resourcing extraction, production and assembly, sales and management, coordination and financing across national borders. Firms operate internationally by virtue of their size and access to capital and grow organically, or through mergers, acquisitions and strategic alliances. The controlling HQs and financial/ownership bases of these transnational corporations (TNCs) are spatially concentrated in powerful and wealthy 'Northern' states – Wallerstein's core states, with a semi-periphery and periphery of states providing labour, resources and market outlets for the TNCs. The key feature here is that within a world economy or world system there is a division of labour that transcends national boundaries.

The urban manifestation of the growth of transnational firms is the concentration of HQs of multinationals – and of service providers for those HQs – in a small number of cities in the core regions/states. The spatial dominance of those cities in terms of control of finance and production is expressed over a global scale, or over a multinational regional area, not confined to national boundaries. These, then, are 'world cities'. Friedman argues that this is qualitatively different from the role played by imperial cities in history: the world economy is no longer defined by imperial reach but by a linked set of markets and production units organised and controlled by multinationals, concentrated in cities for economic reasons.

Friedmann and Wolff (1982) note that, in addition to acting as a location for transnational HQs, world cities also act as a 'safe haven' for capital in the form of real estate investment. Unfortunately, this concept is not developed in their later work, and the real estate *investment* dimension has largely been ignored in the world city and global city literature with few exceptions – for example, Fainstein (1993) and Haila (1997) both emphasise the production of the built form – with most mentions of offices treating them as a by-product, a derived demand or as a *symbolic* representation of the status of the city, rather than as a store of value and as *both* a cause and a consequence of the flow of capital around the global urban system. Presaging Sassen's research, Friedman and Wolff note that the development of an urban area as a world city must entail an economic restructuring with the cities needing to accommodate a growing 'transnational elite' of management, legal, financial and technical professionals to support the HQs operations.

Although Friedman and Wolff stress the need for empirical research to establish which cities were world cities and to explore the linkages between them, Friedmann (1986) sets out candidates for world cities. The world is divided into Wallerstein's Core, Semi-periphery and Periphery and, within the Core and Semi-periphery, cities are divided into Primary and Secondary world cities:

Core: Primary	New York, Chicago, Los Angeles, London, Paris, Tokyo
Core: Secondary	Toronto, San Francisco, Miami, Houston, Madrid, Milan, Vienna, Sydney, Johannesburg
Semi-periphery: Primary	Singapore, Rio de Janeiro and Sao Paulo
Semi-periphery: Secondary	Mexico City, Caracas, Buenos Aires, Manila, Bangkok, Hong Kong, Taipei, Seoul

These 26 cities (Rio de Janeiro and Sao Paulo are shown as a single city) are drawn with linkages shown between core cities and 'other linkages' (see Figure 1.5). Friedman suggests that this creates a 'linear character of the world city system which connects, on an East–West axis, three distinct subsystems: an Asian subsystem based on the Tokyo–Singapore axis... an American system based on the primary core cities of New York, Chicago and Los Angeles... and a West European subsystem focused on London (and) Paris'. This interpretation relies on the validity of the drawn linkages, which must be open to considerable doubt. Thus, Sydney's connections to the primary cities of the core region are to Tokyo and Los Angeles (and not to London); Buenos Aires connects to the Brazilian cities and then to New York (not Miami) and to London (not Madrid); there is no link between Hong Kong and London, or between Hong Kong and Toronto, for example. The linkages are asserted and are not supported by evidence.

With the benefit of hindsight, it is also striking that 'the world' is a constrained place in Friedman's presentation. India and China are unconnected; to the East of Vienna, three years before the fall of the Berlin Wall, is the *terra incognita* of the Soviet Union; the Middle East does not feature at all. If nothing else, this demonstrates that the world city system cannot be a static concept, but must evolve with developments in the political economy of the world. This would be consistent with Wallerstein's approach which sees the world system evolving and changing over long periods of time, starting in the sixteenth century and characterised not only by expansion of influence over larger spatial areas but also by significant changes in power, position and influence. However, the lack of an evidential base and questions over some of the asserted linkages cast doubt on the robustness of Friedman's initial analysis.

Sassen's contributions to the debate on global cities (e.g. Sassen, 1991, 2000) begin with a focus on the cities at the very top of the urban

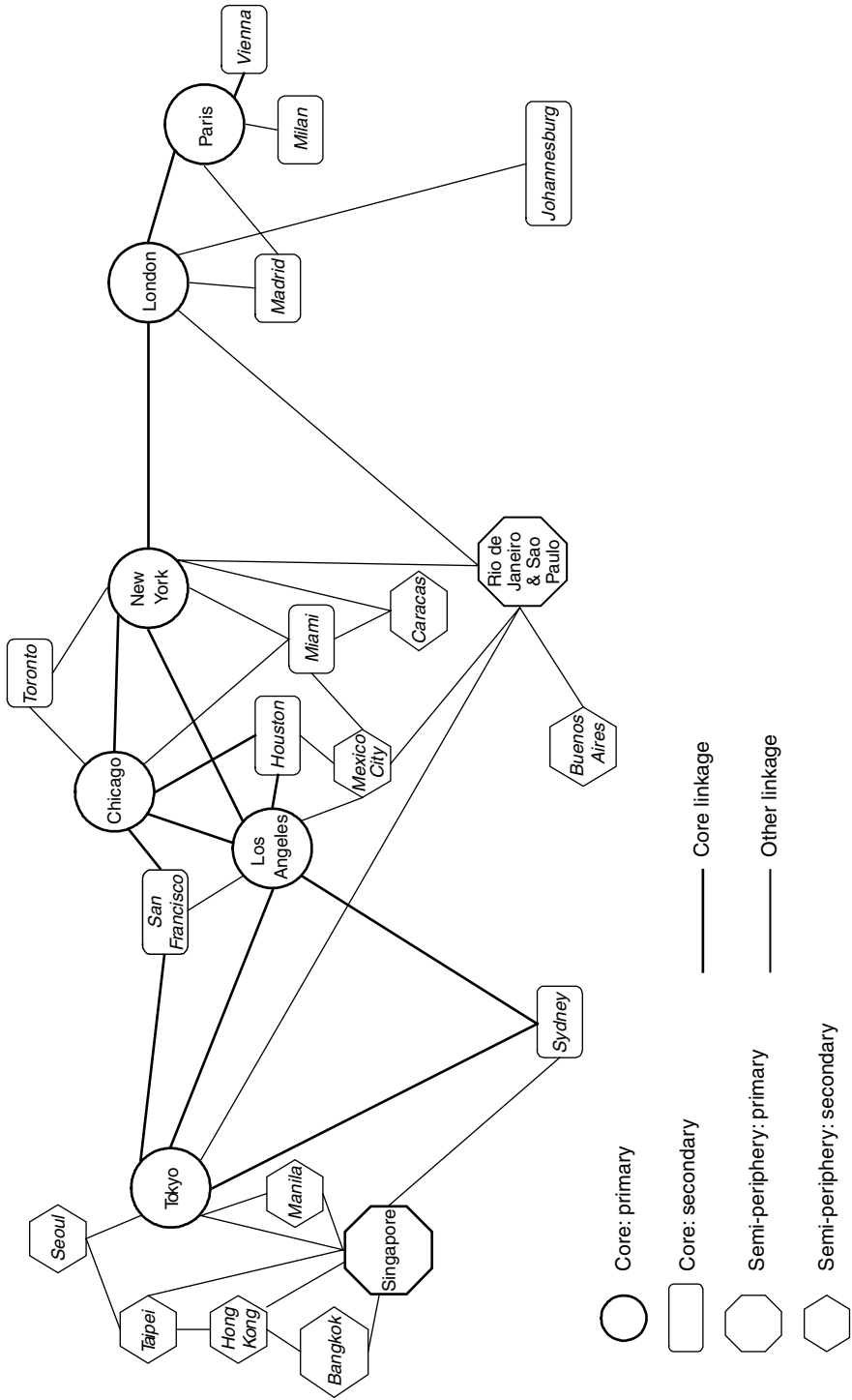


Figure 1.5 Friedmann's hierarchy of world cities. Source: Adapted from Friedmann (1986).

hierarchy: the global cities of London, New York and Tokyo. These three cities play a critical role in the global economy because they function as 'command and control points' – as key locations for finance and for the essential producer services required by TNCs and as sites for the production and consumption of innovations in the organisation and financing of economic activity. Two trends drive this process: the globalisation of economic activity and the organisation of the 'producer services' industries (which include accounting, advertising, banking and finance, legal services, management consultancy and marketing). Economic drivers include the shift to services and finance in the core economies and a focus on control of production downstream; the rapid growth and specialisation of producer services and spatial clustering for agglomeration economies lead to a concentration of command and control activities in a small number of cities of which London, New York and Tokyo are the most important. Sassen produces descriptive evidence of the concentration of producer services within those city-regions.

One insight from Sassen's emphasis on the key role of global producer services is the emphasis on global flows – not so much of goods as of capital, information, people – around the world urban network. This extends the global city concept beyond a mere concentration of multinational HQs in particular cities and provides a link with social theories such as Castells's 'network society'. For Castells, the rise of information technology has led to a significant shift in the organisation of the economy on a global scale. He envisages three levels; the first is the material basis for the flows: this would include global internet linkages (discussed in more detail in Chapter 3), airline and rapid transit systems and so on; the second consists of the 'nodes and hubs in the space of flows' – from which would spring the multinational enterprise (MNE) generated system of world cities; the third is the spatial organisation of the managing elite, the geography of the workers in MNEs and their associated business, financial and professional services. The emphasis on flows and networks provides a theoretical base for understanding a world urban hierarchy. However, the evidence produced for this is largely anecdotal and informal.

Much of the thrust of Sassen's work has emphasised the social impacts of urban restructuring in global cities. In Sassen's model, the growing concentration of high-level producer service firms require space to function and an elite professional and managerial workforce. Manufacturing and lower-level business service firms are unable to compete for space and are driven from the cities. Urban redevelopment creates new workspaces and new residential areas for the producer service firms while the presence of the firms and their staff produce a demand for low-skill, low-wage services, often accompanied by casualisation of the workforce. The result is a rapid social polarisation of global cities, with a hollowing out of middle-income groups and with much

of the economic gains captured by the 'new' elite – a growing inequity in the distribution of income and wealth. Much of the subsequent development of the global cities idea has emphasised this social dimension. This is, in part, an explanation of the neglect of the real estate investment component – in that new development is viewed almost exclusively in terms of planning conflict and its symbolic role in the image of the global city, rather than in terms of its role as a store of value, as an investment asset class and as a determinant of location and agglomeration within the city itself. Another theme in the later developments of Sassen's work concerns the globalisation of major cities in low- and middle-income countries: Sao Paulo, Buenos Aires, Bangkok, Taipei, Shanghai, Manila, Mexico City.

### *The evidence base for world cities*

Short *et al.* (1996) argued that much of the literature on world city was characterised by a lack of evidential base. They concede that the study of the global urban system is hampered by lack of available data but suggest that the literature to that point had done little to confront the problem. As a result, any assertions about relationships or policy suggestions must be, at best, preliminary. Knox (1998, cited in Beaverstock *et al.*, 2000) makes a similar point: '...few of the available data reveal anything about the flows and interdependencies that are at the heart of the idea of world cities as basing points for transnational capitalism'. Beaverstock *et al.* (2000) stress this relational point: the global cities thesis emphasises flows around the world urban system – but most flow data are collected at national level, not at city level. They identify a number of possible direct research avenues but point to the difficulties posed by each of them. It is possible to identify proxy measures: airline flights, telephone communications and, more tenuously, internet connections, which provide some indication of the interconnectedness of cities, but there is limited empirical testing of the world cities model.

In a series of papers, Taylor and co-workers (grouped around the Globalisation and World Cities (GaWC) project at Loughborough University) have sought to explore the linkages between world cities based on the common presence of major TNC and producer services firms. Their work – which emphasises flows between cities – is perhaps theoretically closer to Castells's (1989) 'space of flows' than Sassen's global cities, although much of the empirical work seeks to identify and classify cities, albeit in terms of their interconnectedness. The starting point is a database of leading corporate service providers from four sectors – accountancy, advertising, banking and law. For the firms in their sample, they seek to identify their presence in different cities (the existence of HQs, regional HQs, branch offices and affiliates) and to assess the significance of that presence in each city. It is

argued that the presence of offices of major firms in multiple cities acts as a proxy for information flows between those offices and, hence, helps measure integration and significance in the global urban system. This then allows them to estimate the connectivity and significance of each city in terms of corporate services. From the perspective of this book, the approach has the advantage of focusing on *offices* – although the actual built form is strikingly absent from the GaWC publications.

Beaverstock *et al.*'s (1999) paper uses the GaWC database to identify a 'roster of world cities'. Using a relatively simple taxonomic approach, they divide cities into four types: alpha, beta and gamma world cities (which are defined in terms of the relative significance of the service presence in each of their four service sectors) with sub-groupings within those types, and cities that 'show evidence of world city formation' – cities where there is some indication of the presence of global service providers. The cities included in their estimations are shown in Table 1.3. While there are no major surprises in the alpha group of world cities, it is interesting to see the emergence of Moscow, Prague, Bratislava, Beijing and Shanghai in the table from the *terra incognita* in Friedman's original world city hierarchy, along with the emergence of Indian and Middle Eastern cities as showing world city characteristics. Based on the evidence of the GaWC data, there appears to be still greater integration of the global urban system – although it must be emphasised that the presence of a corporate service provider is not evidence of a command function, nor any guarantee of growth of wealth and capital in that city.

In subsequent work, the GaWC database has been augmented and reanalysed. Taylor *et al.* (2002) construct a relational measure that enables them to measure interconnection between cities: the ten most connected cities

**Table 1.3** World cities by corporate service provision.

Alpha world cities	London, Paris, New York, Tokyo Chicago, Frankfurt, Hong Kong, Los Angeles, Milan, Singapore
Beta world cities	San Francisco, Sydney, Toronto, Zurich Brussels, Madrid, Mexico City, Sao Paulo Moscow, Seoul
Gamma world cities	Amsterdam, Boston, Caracas, Dallas, Dusseldorf, Geneva, Houston, Jakarta, Johannesburg, Melbourne, Osaka, Prague, Santiago, Taipei, Washington, DC Bangkok, Beijing, Rome, Stockholm, Warsaw Atlanta, Barcelona, Berlin, Buenos Aires, Budapest, Copenhagen, Hamburg, Istanbul, Kuala Lumpur, Manila, Miami, Minneapolis, Montreal, Munich, Shanghai
Evidence of world city formation (selected cities)	Almaty, Bratislava, Cairo, Dublin, Delhi, Dubai, Luxembourg, Mumbai, Rio de Janeiro, Riyadh

Source: Adapted from Beaverstock *et al.* (1999).

are the alpha cities of the Beaverstock *et al.* paper, although on certain measures Madrid performs strongly. They suggest that the results imply, rather than a hierarchical structure, a complex, interconnected network, with London and New York distinct and central. Washington, DC is shown to be strongly significant with respect to legal firms, but more weakly connected along other dimensions. Taylor and Walker (2001) apply multivariate exploratory analysis to the database, using principal components analysis. Distinct regional groupings emerge (which do not conform clearly to a core-periphery model): a 'world cities' component features high factor loadings for New York, London and Los Angeles but not for Tokyo or Paris (which only has high loadings on 'European' factors, just as Chicago only loads on North American factors).

Derudder *et al.* (2003) apply a fuzzy clustering technique that produces a hierarchical and regional structure around the core central cities of London and New York. The 'Band I' cities – those most connected outside of the core – are divided into three groups: Frankfurt, Hong Kong, Paris (B), Singapore and Tokyo; Chicago, Los Angeles and San Francisco (C); and a larger cluster consisting of Amsterdam, Milan, Madrid, Zurich, Mexico City, Sao Paulo, Buenos Aires, Sydney and Toronto (D). Brussels and Barcelona fall between groups B and D. Derudder and Taylor (2005) apply a connectivity analysis to define sub-groups or cliques of cities, clusters of cities with strong interconnections. The findings emphasise the importance of London and New York (the core of all cliques). Other cities in this analysis, notably Frankfurt, Brussels and Washington, DC, appear more important than aggregate service firm presence might indicate. Tokyo and Hong Kong appear to be strongly linked with other Asian cities while minor US cities have weaker regional and international links than have European cities.

Taylor and Aranya (2008) produce yet another GaWC analysis with an updated 2004 database. Compared to 2000 rankings, there is considerable stability: the top six cities are unchanged and the shifts in the top 20 are relatively minor. Toronto advances to seventh while a number of US cities fall in rank. In terms of connectivity, Western European cities rise, US cities fall and there is tentative evidence of an increasing connectivity for Eastern European and Middle Eastern cities. The different GaWC analyses produce distinct results but a common thread of a global core of London and New York and then a structure that is both hierarchical and regional in nature. Of course, all these analyses rest on the data collected: both the validity of the office location measure as a proxy for connectivity and the representativeness of the service producers included in the analysis (and specifically the extent to which, for example, Asian producer service firms are fully represented in the database).

Another line of investigation has been to examine the interconnections between cities based on airline trips. World cities should be characterised

by a high number of international journeys and linkages with other high-order cities in the global hierarchy. This approach was adopted by Smith and Timberlake (2001) and Alderson and Beckfield (2004). Derudder and Witlox (2005) identify some of the problems faced by the use of airline journey data. First, a focus on international journeys (partly driven by data) misses out key links – for example, New York–Toronto journeys would be included but New York–Chicago or New York–Los Angeles would be excluded. Second, aggregate trip data does not distinguish between business and tourist flights (of course, the facilities that act as attractors for the managerial and professional elite also act as a tourist attractor, so there will be an overlap) – which explains why, for example, Orlando or Mallorca appear much more important than their significance in the global economy might suggest. Third, airline hub and spoke models tend to emphasise gateway cities (it is difficult to fly to Germany from the United States without flying first to Frankfurt, Milan playing a similar role in Italy). It may be that the airline hubs are, or will become, linked to global city status, but this does represent a data distortion.

Derudder and Witlox use a database derived from on-line bookings through global distribution systems (such as Galileo or Sabre) and examine the linkages among over 300 cities. They examine aggregate trips and trips between pairs of cities (see Tables 1.4 and 1.5). The list of leading cities by

**Table 1.4** Airline trips: leading city pairs.

Rank	City pair	Rank	City pair
1	Hong Kong–Taipei	6	Cape Town–Johannesburg
2	Los Angeles–New York	7	Los Angeles–San Francisco
3	London–New York	8	Amsterdam–London
4	Melbourne–Sydney	9	Chicago–New York
5	Milan–Rome	10	Bangkok–Hong Kong

Source: Adapted from Derudder and Witlox (2005).

**Table 1.5** Airline trips: leading cities, aggregate trips.

Rank	City	Rank	City
1	New York	11	Madrid
2	London	12	Toronto
3	Los Angeles	13	Washington, DC
4	Paris	14	Rome
5	Chicago	15	Bangkok
6	San Francisco	16	Milan
7	Hong Kong	17	Amsterdam
8	Miami	18	Dallas–Fort Worth
9	Frankfurt	19	Boston
10	Atlanta	20	Singapore

aggregate bookings is similar to that produced by Smith and Timberlake (2001) but with some striking differences – notably the higher ranking for the major US cities as a result of the inclusion of intra-national regional trips – with Atlanta, Washington, DC, Dallas and Boston appearing on the Derudder and Witlox top 20 but not in Smith and Timberlake. Of international cities only appearing in the top 20 in one of the rankings, Derudder and Witlox include Rome, Milan and Toronto on their list, Smith and Timberlake include Seoul, Vienna, Dubai, Osaka, Tokyo and Brussels. The map of airline links has some similarities to Friedman's world city hierarchy, with London dominant within Europe (with Paris acting as a second hub), New York the main centre in North America with a strong New York–Los Angeles internal link, the latter city exhibiting strong links to the Asian cities. The Asian cities seem to be less interconnected than the European and North American cities, although it is not possible to discern whether this is a real phenomenon or a manifestation of the data. Tokyo, regularly cited as one of the three key cities in the global cities literature, is ranked eleventh by Smith and Timberlake and does not feature in the Derudder and Witlox top 20.

### *Questions, anomalies and critiques*

There is a sense that the world urban system/global cities thesis lacks a sense of history. What is genuinely new about the world cities models proposed by Friedman and Sassen? Wallerstein's world systems analysis begins by suggesting that the system has been evolving from the sixteenth century. Before that, empires existed with, at their core, controlling cities – the Alexandrian and Roman empires, the Ottoman empire after its initial expansion, the Chinese expansion all had, at their heart, systems of cities acting to coordinate and control, some more powerful than others. Drawing on Braudel and other authors, it has been suggested that the material difference between those imperial situations and the current world system is that the former were bounded by the limits of state power, while the latter exists independent of states. Yet Wallerstein's world system includes the period of *Pax Britannica* and the role of London, superseding Amsterdam – as part of (and financed by) a substantial shift in the international division of labour. Wallerstein's core–periphery structure, adopted by Friedman, has echoes of Myrdal and Latin American dependency theory, which saw the development of urban systems and transport networks in the economic south as being linked to colonial trade routes.

Peter Hall (1966) suggests that Patrick Geddes used the term 'world cities' in 1915. Hall's description of world cities – in part reprinted as the prologue to *the Global City Reader* (Brenner & Keil, 2006) – talks of such cities in terms of political power, trade, wealth, and also of their attraction for

professional talent, arts, media, culture, consumption and as cosmopolitan places of innovation. The description will have resonances for anyone familiar with the global cities literature. Yet it is applied not just to the cities of the present, but to cities of the past. Hall emphasises continuity – not in the activities in world cities which evolve in line with the shifts in the global economy, but in their power, status and prestige. He notes that world cities may decline – he cites Bruges – but that the most striking feature is continuity. It is hard to reconcile this sense of continuity with the structural break that seems implicit in much of the world cities literature. Descriptions of many of these cities historically stress their cosmopolitan nature: New York is, almost by definition, a city of immigrants, but waves of immigration and the establishment of businesses by non-nationals shape the development of London, Amsterdam, Paris, Venice and Genoa. So, the idea of the city as a node in a global trading network and as a cosmopolitan market for ideas is hardly a new one.

The more recent shift towards service industries in the developed economies undeniably changes the space requirements for cities – with a growing need for office space in the centre and, increasingly, at the periphery of cities. As noted above, the growth of a strong business, financial and professional service sector has been accompanied by specialisation and outsourcing of activities that would traditionally have been performed within a firm or corporation. These specialised activities concentrate higher up the urban hierarchy. But is this qualitatively different from the past? What flows between these firms is capital and information, so any concentration of activity is predicated on the existence of communications networks that are fast and reliable. Technology enables the rapid transmission of commands and capital around the world urban network. Ironically, though, the development of advanced telematic systems would seem to *reduce* the need for proximity, to free firms from expensive, congested city locations. We return to this topic, and the importance of agglomeration economies in high-order business and financial services activities, in Chapter 3.

Another difference asserted is the growing importance of MNEs or TNCs. Again, how new is this? The Dutch East India Company was founded in 1602, the Muscovy Company 50 years before that. Trading companies such as these established trading posts across wide geographical areas, often functioned as the *de facto* government in their areas of operation and have been argued to have many of the features of multinational companies (Carlos & Nicholas, 1988). More recently, the idea that MNEs and TNCs are instrumental in shaping urban restructuring and in the creation of global cities has been called into question, with much recent research on ‘resurgent cities’ stressing the role of local, regional and national state institutions in enabling and shaping urban change – albeit a role that calls for partnership with private capital and that gives a priority to economic competition over

social equity (as an example, see the papers in the special issue of *Urban Studies* devoted to resurgent cities and urban policy – Cheshire (2006)). This suggests that state involvement and public–private partnership produces divergent outcomes that work against a convergence and homogenisation of cities in the global system.

The world city/global city model has been accused of having a Eurocentric/Atlantacist bias – in particular that developments are viewed from a North American and UK frame that sees a decline in the role of the state and national boundaries as an inevitable global trend (e.g. King, 1990; Hill & Kim, 2000; Waley, 2002). This raises questions about the status of Asian cities in the global city model. Friedman included Tokyo in his preliminary list of first-tier world cities as a ‘major site for the concentration and accumulation of international capital’ but did express some reservations about whether it fitted with the world hierarchy model. Sassen, in her earlier writings, suggests that Tokyo is unique but that it is likely to converge. However, Tokyo – and other Asian cities including Seoul and Singapore – does appear to be different in character both in the extent of international penetration and in the role of the state.

Hill and Kim, in particular, are highly critical of Sassen. They argue that ‘Tokyo departs from the world city paradigm on most salient parameters ... [it] has many fewer foreigners and many more factories than do either London or New York ... global capital is not a major factor’. They argue that in Tokyo in particular, but also in many other Asian states, ‘developmentalist’ state institutions have played a strong role in urban restructuring and economic restructuring. Within Japan, the strong links between the Ministries of Finance and International Trade & Investment, the *keiretsu* networks and the interlinkage of Japanese banks, manufacturing firms and politicians have both ‘protected’ Japan from foreign penetration *and* enabled the modernisation of the economy and the physical and social restructuring of the Tokyo region. Machimura (1992), similarly emphasises the role and influence of local and national state institutions in shaping the transformation of urban functions and land-use. Waley (2007), while arguing that private capital plays a more important role in the restructuring of Tokyo than is often suggested, emphasises that this is predominantly Japanese capital, derived from the ability of Japanese corporations to earn profits domestically and internationally, linked to the state by the informal ties and structures that create a distinctiveness that does not fit well with the ‘North Atlantic’ model of a global city.

Similar reservations can be expressed for other Asian cities typically included in the tables of world cities. Hill and Kim note the strong manufacturing base of Seoul and the strength of major corporations (Samsung, Daewoo, Hyundai and LG) as sources of capital and reinvestment. Olds and Yeung (2004) seek to distinguish city states like Singapore from cities

embedded within larger nations: they argue that the enhanced ability of a government that is both the national and the city authority to organise, enable and direct activity (and protect indigenous business) means that global processes have different outcomes. Olds and Yeung include Hong Kong alongside Singapore in their city-state model, but that must be open to question. The historic ties to Britain up to handover and its special status within the People's Republic of China after handover and, hence, its role as an international entry point to the evolving Chinese market suggest a much greater integration into a world economic system.

Massey (2007), in echoing these criticisms, also questions the criteria used to select global cities – specifically the importance given to financial and business services in their role as commanding and controlling production. She points out that other cities are dominant in other areas: Hollywood and Mumbai for film, cities as the focus for particular religions<sup>3</sup>: 'we need to value and build on the diversity between cities'. She goes on to argue that in creating a very specific stereotype of a world city – in effect modelled on London and New York – city governments and managers are pressurised into striving for the same thing, which can distort planning policy and economic policy. Nonetheless, it is clear that the world city concept is a powerful one shaping both research and practice in the urban realm.

Specific aspects and predictions concerning social structure within the global cities model have been subject to analysis and critique. Sassen's model, for example, emphasises growing social polarisation in global cities as middle-ranking occupations are squeezed out and as migrant labour performs low-wage insecure services for the elite firms and professionals. This has been subject to considerable criticism. For example, Fainstein (2001a) argues that observed inequality in high-order cities is almost entirely attributable to rapid real income growth in the top decile(s) of the income distribution, but that should not be taken to imply that other groups have experienced income growth lower than that found in other cities, nor that the 'middle classes' have disappeared. Hamnett (1994) makes a similar point in relation to the employed population of the Randstadt. Hamnett additionally argues that Sassen ignores variations in national and local institutions in mitigating the impact of economic structure. In a similar vein, White (1998) provides contradictory evidence for Paris and Tokyo. While these arguments are tangential to this study of office markets, they emphasise that the Friedman and Sassen global city models, while providing valuable insights, do not constitute a fully rigorous and accepted model of urban development.

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<sup>3</sup> She cites Jerusalem as the sole example, which is perhaps ironic given her insistence on diversity.

## 1.4 Cities, space and finance

If there are problems with the global cities/world urban system model, it nonetheless has value in emphasising the importance of the interconnections between the major trading cities of the world: that their place in the urban hierarchy has less to do with the attributes of their immediate geographical hinterland and is more a function of their role and status in global trading. That has important consequences for the economic activity that creates the demand for occupational space in the commercial property market. Specifically, the drivers of demand are global drivers, conditioned by a city's ability to capture a share of the financial, legal, professional and business service activity, in competition with other global cities. The competitiveness of the city will be linked to its scale: the size, quality and flexibility of its labour markets, the breadth and depth of its capital markets, its ability to generate agglomeration economies. Competitiveness will be enhanced or constrained by institutional factors: barriers to flows of people, goods, capital and information, the regulatory framework, political stability, transparency and governance. And competitiveness will be determined by the physical environment for business: the communications networks, the transport infrastructure, the availability of quality office space.

Office space in this process is not simply a derived demand, with global business services firms making location decisions and magically calling forth space. It plays a key role in determining those business decisions. For a global city near the top of the urban hierarchy, a large office market is a prerequisite. The scale must be sufficiently large to accommodate not only the major global firms but also all the producer, business and professional firms that serve those firms. There needs to be a range of space in terms of size, specification and quality to meet those needs. Hence scale is not simply an issue of population or workforce, but also of the built form.

That built space is more than just a box for the functioning of global firms. It is also a store of value. Space is created, through development and redevelopment, requiring capital to finance and fund the process. Once created, that space has value as an investment asset – the capitalisation of the rental income stream produced by the firms that occupy that space. That ownership, as we will see later, may be distributed widely and is rarely confined to the city, or even the nation within which the city lies. But, unlike financial assets, the physical nature of the real asset – its 'locational fixity' – means that the value of the real estate adheres to the city. As cities become more successful in global competition, so this store of value grows. That value, though, is linked critically both to the competitiveness of the city *and* to the state of the global economy. In seeking greater integration into the global economy, cities tie themselves into a global business cycle.

This can be seen most clearly in relation to international financial services. The global cities literature has focused attention on advanced producer services – the mix of business and professional services that support the global operation of TNCs. The usual list covers accountancy, advertising, banking, executive recruitment, legal services, management consulting, marketing and more. The emphasis on *producer* services perhaps results from the origins of much of the global city literature in critical social science, where value ultimately must be derived from manufacturing. From this frame, the services and functioning of the global city is to accumulate the value created from globally dispersed manufacturing activity. Yet, from a different perspective, the real defining feature of the cities at the very top of the global urban hierarchy is that they are cities of finance. It is not 'banking' that is their distinctive feature: it is investment, wholesale and merchant banking, bond markets, equity markets, foreign exchange, derivatives markets, asset and wealth management – all the mix of financial activities that characterise international financial centres.

In almost all the urban agglomerations identified as the major global cities – GaWC's alpha cities, Friedman's core primary cities – international financial services activity plays a key and critical role in the employment structure and in the generation of wealth. International financial services activity plays a key symbolic role as well: New York, London, Frankfurt, Hong Kong, Chicago, Singapore, even Tokyo and Paris are known as financial centres. The next chapter focuses on financial centres and the development of a small group of dominant cities that act as the key nodes in the network of global finance and capital flows – the international financial centres or IFCs.