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## Localisation, globalisation and finance

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# **Localisation, globalisation and finance**

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## **Abstract**

Recent developments in the global system of cities present a curious paradox. With the cost of communications declining almost to zero and substantial, though less dramatic reductions in transport costs, there is now little technical requirement for most kinds of production to be undertaken in any particular location, or for elements of production chains to be located close to each other. This fact has had dramatic consequences for the organisation of manufacturing industry. Simple production chains involving the import of raw materials, usually from developing countries, for processing in a specialised centre, have been replaced by far more complex structures.

Yet, in important respects, the dominance of a small number of 'global cities' has never been greater. In this paper, it is argued that the dominance of global cities reflects a desire for clustering on the part of finance sector professionals and corporate executives. It seems likely that such clustering provides private benefits by enhancing the value of personal contacts, but reduces the efficiency and profitability of the corporate sector.

## **Localisation, globalisation and finance**

Recent developments in the global system of cities present a curious paradox. At the same time as corporate leaders and financial market analysts have announced the emergence of a borderless world in which ‘location is virtual’, the same leaders and analysts are clustering ever more closely together in a handful of ‘global cities’.

The idea of the borderless world reflects the combined impact of the deregulation of international flows of goods and services, particularly financial services, since the 1970s and the impact of technological changes, most notably those associated with the Internet.

The deregulation of international financial transactions has led to the creation of integrated global capital markets, and facilitated the operations of multinational corporations of all kinds. Technological change has amplified the effects of policy change. With the cost of communications declining almost to zero and transport costs falling as well, there is now no real technical requirement for most kinds of production to be undertaken in any particular place, or for elements of production chains to be located close to each other. Thus, a borderless world could reasonably be expected to be a decentralised world.

Yet, in important respects, the dominance of a small number of “global cities” has never been greater. In this paper, it is argued that the dominance of global cities reflects a desire for clustering on the part of finance sector professionals and corporate executives. It seems likely that such clustering provides private benefits by enhancing the value of personal contacts, but reduces the efficiency and profitability of the corporate sector.

## **Communications costs and transport costs**

The real cost of communications has been declining steadily since at least 1850, when the telegraph, perhaps the most revolutionary single innovation in communications, came into use. A further qualitative change emerged with the invention of the telephone in the late 19th century. These innovations made possible the development of large corporations with dispersed operations in continuous contact. The first corporations of this kind were railroads (Chandler 1977).

Although there were no comparable qualitative innovations in communications between 1900 and 1990,<sup>1</sup> steady technical progress meant that communication services became steadily cheaper relative to goods and services in general, and the volume of communications (measured, for example, by bits transmitted) rose steadily.

Typical estimates of the rate of multifactor productivity growth in the communications sector between 1900 and 1990 are around 5 per cent per year (Butlin, Barnard, and Pincus, 1982, Quiggin 1996), compared to rates of 1 to 2 per cent for the economy as a whole. Although a difference of this magnitude may seem small, over a long period its implications are profound. Relative to the general cost of goods and services, this differential in growth rates implies a cost reduction of 95 per cent over the period from 1900 to 1990.

This steady progress set the stage for a major qualitative change, the rise of the Internet and the World Wide Web. Although the first steps towards the creation of the Internet were taken in the 1970s, it did not emerge as a major global communications network until around 1990. From this point on, and particularly after the development of the World Wide Web, the rate of progress in data

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<sup>1</sup> There were important developments in broadcasting (radio and TV) but the effects of these developments were largely confined to the household sector. Attempts to use broadcast technologies, particularly radio, for two-way communication had little impact outside specialised applications such as military communications.

communications accelerated dramatically, to around 70 per cent per year.

With a fully digital communications technology, the rate of technical progress in communications will be close to that for the computer sector, commonly discussed in terms of ‘Moore’s Law’ (Wikipedia 2005). This long-standing rule has been presented in various versions but the most common is that the speed of computation will double every eighteen months, implying an annual rate of technical progress of around 70 per cent.

Over the period of 15 years from 1990 to 2005, annual technical progress of 70 per cent would be expected to improve productivity by a factor of around  $1.7^{15} = 2^{10} = 1000$ , and this estimate is roughly accurate. A typical dialup modem in 1990 transmitted 2400 bits per second, while a standard cable modem in 2005 receives 1 to 3 million bits per second (‘upstream’ transmission speeds are typically slower, since most users are primarily concerned with download speed).

Initially most communications over the Internet took the form of text files. For illustration, 2400 bits corresponds to about 60 words of unformatted text, so that it would have been possible, in 1990, to transmit the text of this paper in about a minute. By contrast, at current communications speeds, it is possible to transmit a fully formatted book in about a second.

Equally significantly, the range of content that can be transmitted electronically has grown substantially, to include pictures, video images, and sound files. At the same time, most administrative and intellectual work processes have been computerised, so that the relevant information is easily available for transmission.

The result is that for a wide variety of work activities, location is no longer a relevant constraint, at least in technical terms. Academics can collaborate with colleagues on the opposite side of the world, instantaneously sending revised versions of papers and talking freely whenever they

choose. Companies of all kinds can contract out their customer service functions to India or any other country where English-speaking workers are available. Products of all kinds can be designed by teams in a number of locations, with revised designs being transmitted instantly to production facilities located elsewhere.

Progress in transport has been less dramatic but still substantial. Between 1980 and 1999, the total number of containers moved through the worldwide port system increased by over 400% (Paul F. Richardson Associates 2002). Equally importantly, computerised tracking of shipments has greatly reduced the organisational cost of transporting goods. The cost of air travel has also declined, making “fly-in, fly-out” operations of all kinds more appealing.

### **Implications for the goods producing sector**

The effective elimination of communications costs, combined with substantial reductions in transport costs, has had dramatic consequences for the organization of the goods-producing sector.

The effects have been most noticeable in relation to manufacturing industry. Historically, global production chains have involved the import of raw or lightly processed materials from developing countries, for processing in a specialised manufacturing center, and distribution to national and international markets. This simple production chain has been replaced by far more complex structures, involving extensive importing and re-exporting. The production of an item as simple as a pair of shoes might involve physical and design inputs from a dozen different countries.

Some indications of this process may be seen in the growth of intra-industry trade and of trade undertaken within multinational corporations. The OECD (2002) reports that intra-industry trade now accounts for more than 50 per cent of total trade in most OECD countries and the

proportion is increasing in many countries. Although data is available for only a few countries, it appears that intra-firm trade plays a major role. Intra-firm trade accounts for around 30 per cent of goods imports and exports for Japan and the United States.

Even within countries, specialization has declined greatly. “Detroit” is still shorthand for the US motor vehicle industry (or at least for the US-owned section of the industry), but Michigan now accounts for only 25 per cent of US vehicle production. Similarly, although it is harder to obtain quantitative evidence, it seems clear that the ‘Silicon Valley’ region of California has declined in relative importance as a centre for information technology, research, development and manufacturing, losing ground to new US centres such as Seattle, Austin and Fairfax County Virginia, as well as to overseas locations.

The declining importance of location in the production of goods raises problems for theories of economic geography. Problems arise both for traditional theories of economic geography, focusing on the importance of proximity to resources and markets, and for the ‘new economic geography’ focusing primarily on economies of scale and knowledge spillovers (Fujita, Krugman and Venables 1999).

The problems for traditional theories are obvious. As transport and communications costs have declined, it has become increasingly feasible and common to locate manufacturing operations far from sources of raw materials, and to locate corporate management separately from production facilities. Customer relations can be handled by call centres located in distant countries, and these operations can be relocated rapidly in response to movements in relative costs.

Less obviously, perhaps, reductions in the cost of communications pose a significant difficulty for ‘new economic geography’ models. In an environment where most communication (even with

people located quite nearby) is done by email, the exploitation of economies of scale and knowledge spillovers need not involve physical proximity.

The decline of the great manufacturing cities of the developed world has been a major source of social problems. As the locational advantages associated with access to a skilled labour force have diminished, workers have been forced either to migrate to new centres of employment or to seek new occupations, often unsuccessfully or with substantially lower pay. Once-prosperous cities have therefore become centres of unemployment and deprivation. Much of the ‘new economic geography’, focusing on such issues as policies for urban regeneration, may be seen as a response to the breakdown of the traditional economic geography model.

### **Implications for the services sector**

The service sector is large and diverse and the impacts of declining costs of communications and transport have been similarly diverse. For some parts of the service sector, such as customer service and computer programming, location has ceased to be relevant, even more completely than in the case of activities producing goods. The central characteristic of these services is that the output takes a form that can be communicated electronically, using voice telephony and email in the case of customer service and digital file transfer in the case of computer programming.

On the other hand a large and growing segment of the service sector involves the direct provision of personal services ranging from health and education to the services of cafes and restaurants. Although there have been attempts to deliver some of these services remotely, notably including the provision of education services over the Internet, these have met with little success. The growth of the personal services sector is an important constraint on the expansion of international

trade.

On the basis of the distinctions drawn above, it might be expected that of all sectors of the economy, the location of financial market functions should have been most transformed by the reductions in communications costs. Nearly all the work of financial markets can be performed electronically and remotely, and most financial transactions in modern economies involve parties in widely separated physical locations, transacting through intermediaries who are also physically remote.

The financial and business services sector has other characteristics that might be expected to encourage decentralisation. The requirement for detailed, continuous keeping of accurate records implies the need for a high degree of computerisation. As a result, financial services of various kinds were among the first business activities to be computerised. This in turn means that most of the material with which work is undertaken in the financial sector is in a form that facilitates electronic communication.

In addition, some aspects of regulation of the financial sector encourage physical dispersion. Financial sector enterprises are supposed to maintain 'Chinese walls' between different groups of workers, such as securities analysts and investment bankers, in order to ensure that advice given to one group of clients is not compromised by the business interests of other groups within the firms. Similarly, partners in law and accounting firms may be subject to conflicts of interests, precluding them from giving advice to one party in a transaction or dispute, if close colleagues represent other parties. The likelihood that conflicts will be judged material is enhanced if the relevant partners are located in close physical proximity.

## **Global cities**

As many observers have noted, reductions in the cost of transport and communications should be favorable to the emergence of a decentralised global economic structure. Yet, in important respects, the dominance of a small number of 'global cities' has never been greater. This observation is reflected in the steadily growing academic and popular literature on the topic.

The term 'global cities' has largely displaced the older terminology of 'world cities' arising from the work of Hall (1966). The literature on global cities is diverse, but one feature is constant. The defining characteristics of global cities are always taken to include a high concentration of activity in the corporate and financial services sector, including banking and finance, accounting, advertising and corporate headquarters.

Beaverstock, Smith and Taylor (1999) take the concentration of corporate services activity as the primary empirical indicator of global city status. They examine the presence of major service centres in accounting, advertising, banking and legal services and classify global cities into three groups (alpha, beta and gamma) with subdivisions between groups. The highest-ranking group consists of London, New York, Paris and Tokyo.

Beaverstock, Smith and Taylor provide a literature survey indicating that nearly all researchers identify New York, London and Tokyo as part of the core group and most include Paris, Frankfurt, Hong Kong and Singapore, which are identified as the second rank of the alpha cities by Beaverstock, Smith and Taylor, also appear frequently in other rankings.

Alderson and Beckfield (2004) adopt an alternative approach with a more rigorous theoretical basis, but reach very similar conclusions. Alderson and Beckfield examine power relations between 3500 cities in a network analysis. The central idea is to examine relationships between

corporate headquarters and branch offices to determine which cities are centres of power, and which play a merely peripheral role. Network analysis is a formal statistical technique for determining these relationships and providing a representation of a system of relationships, such as the world city system.

Alderson and Beckfield find that the core of the city world system is the block made up of London, New York, Paris and Tokyo, and that these four cities are much more powerful than any of the others. This is consistent with the results derived by Beaverstock, Smith and Taylor (1999), using labour force measures. As this analysis indicates, the new global city system is based on the concentration of corporate headquarters and financial markets in a small number of places.

### **Concentration and the finance sector**

The fact that global city analyses based on measures of corporate headquarters and financial service are feasible, and produce consistent and stable results, is a reflection of the geographical concentration of these activities, particularly at the high levels associated with the operations of the largest corporations. Several categories of explanation for such concentration may be offered. They will be referred to as 'efficiency-based', 'managerial' and 'network' explanations.

In explaining the concentration of the financial sector in global cities, it seems natural to focus on the location of corporate headquarters. Corporate location decisions are discretionary and attract other corporate services such as banking, advertising and legal services.

#### ***Efficiency-based explanations of financial sector concentration***

There are several reasons why efficiency might be enhanced by the location of corporate headquarters in global cities. An obvious possibility is that close proximity to major financial markets

allows corporate management to attract capital more cheaply. An immediate implication is that a decision to locate corporate headquarters in a global city will attract equity investment and therefore increase share prices.

The evidence does not support this prediction. Ghosh, Rodriguez, and Sirmans (1995) examined changes in the share price of companies that announced corporate relocations. The stock market reaction is significantly positive when relocation decisions are attributed to cost savings, indicating that cost savings available at less centralised locations outweigh any loss of enhancements associated with spatial clustering at urban centers.

In contrast, decisions to move to high-cost locations, such as the global cities mentioned above, tend to reduce stock prices. It seems that stock market investors do not believe that relocation to a global city is an efficient move.

Some supporting evidence is provided by analysis of stock market reactions to corporate mergers, which are commonly associated with a move to a more central corporate headquarters location, often in a first-tier or second-tier global city. In general, it has been found that such mergers reduce the value of the acquiring company. A common interpretation of these results is that chief executives pursue mergers to secure personal benefits such as higher salaries, or because of a belief in their own capacities that is, on average, overstated.

The other standard rationale for geographical concentration is that it provides access to a pool of skilled workers. For this to be economically relevant, it must be true that workers with the relevant skills can be hired more cheaply in global city locations. This will be true if, from the viewpoint of such workers, the benefits of living in a global city outweigh the higher cost of living. However, what evidence is available suggests that wages for most categories of workers, adjusted for skill, is higher

in global cities than in more peripheral locations. Anecdotal evidence suggests that lots of people make a temporary move to global cities, attracted by the opportunity to earn big money, before returning home.

In a traditional economic geography model, the most natural choice for a corporate headquarters location would be near a major production centre. It is obvious, however, that such choices are not being made by (nonfinancial) corporations that locate their headquarters in a 'global city'. Manufacturing activity in global cities is limited, and the retail service sector is notable for the representation of high-end luxury providers (Harrods, Tiffany's and so on) rather than as an important location for mass-market service corporations like WalMart and Tesco.

### ***Managerial explanations of financial sector concentration***

An alternative group of explanations for financial sector concentration focuses on the interests and concerns of the executives who actually make location decisions, rather than those of the shareholders on whose behalf they are supposedly acting. Ever since Berle and Means (1932), analysts of the corporation have made the point that corporate managers have a considerable degree of discretion to use the resources of the corporation to pursue their own goals, a point that has been reinforced by the theoretical literature on the principal-agent problem.

A simple version of the managerial interest hypothesis is that managers choose to locate corporate headquarters in global cities because these are pleasant places to live, at least for high-income earners. As has already been noted, global cities are characterised by the availability of a wide range of luxury retail services and of high-prestige cultural activities (opera, Broadway and West End theatre and so on). Global city office locations are prestigious in themselves and are typically more

luxurious than those found elsewhere.

In an environment where executive pay is subject to close scrutiny or even, as in the United States, constrained by law (corporate salaries in excess of \$1 million per year are not deductible) it is natural for executives to seek to maximise returns in kind. The choice of a global city location is ideal in this respect since the benefits are shared by all senior managers, and it is impossible to impute a cost to any individual.

As the results of Ghosh, Rodriguez, and Sirmans (1995) show, investors are aware that global city locations amount to an increase in the compensation of senior managers and react adversely. It might be expected, therefore that increased reliance on stock-based compensation, such as options, would tend to encourage more cost-effective location decisions, and it is notable that the technology firms that pioneered this form of compensation, such as Apple and Microsoft, tend not to be headquartered in global cities. However, no systematic study of this issue appears to have been undertaken.

### ***Network-based explanations of managerial preferences***

An alternative explanation of managerial preference for location in global cities is that such location facilitates the creation and maintenance of personal networks of trust and obligation. Storper and Venables (2004) present this idea as part of a more general discussion of the role of face-to-face contact or 'buzz' in explaining urban agglomeration.

Similarly, Wood and Parr (2004) argue that transactions costs are an important source of agglomeration economies, and may be increasing in importance relative to the technical economies of scale and scope that have previously received more attention. Wood and Parr focus on the trust and

honour relationships that underlie the formation of spatially concentrated personal networks. Like Storper and Venables, they stress the crucial role of face-to-face contact and ‘body language’, particularly in the formation of personal trust.

Networks of personal contacts may connect workers in the same industry, assisting them in such activities as job search. Alternatively, personal networks may connect managers of manufacturing or service enterprises with others in financial, accounting or legal firms. Given the centrality of financial, accounting and legal services in global cities, the latter seem likely to be the most important.

Writers of career advice are unanimous in stressing the importance of networks in promoting ones career. It is less clear, however, that the operations of networks are beneficial to firms as employers. On the one hand, networks can perform a valuable screening function. If existing employees gain or lose reputational capital by recommending good or bad members of their networks, they will have an incentive to screen carefully. In the absence of such incentives, however, reliance on networks may produce inefficiency and nepotism.

These concerns are even more pronounced in relation to personal networks connecting financial enterprises with their clients. It is reasonable to assume that such personal networks facilitate the development of business relationships between the firms in question, leading to flows of payments on services based on relationships of personal trust and shared interests, rather than on formal and transparent contractual relationships.

Such a system is commonly referred to as ‘relationship capitalism’ or, more pejoratively as ‘crony capitalism’. In general, it is viewed favourably during booms, when the disregard of process tends to facilitate rapid generation of wealth, and less favourably during recessions when the

exchange of personal favours and the evasion of formal controls tends to be reclassified (often retrospectively) as corrupt.

A prominent critique of relationship capitalism is that of Rajan and Zingales (2003). Quoted by Postrel (2003), one of the authors (Rajan) says

Relationship capitalism is basically where a lot more is done through contacts -- who you know, how you know them -- rather than through arm's-length contracts, more transparency, more open dealing and so on .... In relationship capitalism, we do less through contracts and more through handshakes.

Postrel uses these ideas to attack the idealised, and largely mythical, small-town bankers of the past in favor of today's more impersonal system. Postrel is correct to say personal relationships with bankers are no longer important for retail borrowers in most developed countries. But while distancing themselves from most of their customers, members of the financial sector have gathered together ever more closely in centres like New York and London. In this respect, the importance of contacts and personal relationships has never been greater.

On balance, the evidence supports the view that socially undesirable forms of networking play an important role in promoting concentration of financial sector activities in global cities. As the dominance of global cities has increased, concerns about corporate governance have grown, as have doubts about the effectiveness of the checks and balances provided by accountants, auditors and rating agencies. There is a clear contradiction between the stated roles of these professionals, which involves judgements based on transparent and impersonal evidence, and their participation in

networks of personal trust and mutual obligation.

### **Concluding comments**

The work that financial institutions are supposed to perform, namely, the trading of assets and the allocation of risk in transparent markets, can be done anywhere on the planet. It is the work that needs to be done without formal records, and with the kind of trust that is needed for a partnership, or a conspiracy, that requires clustering in a central location where social bonds can be cemented by eating, drinking and sleeping together.

As Venables and Storper argue, the ‘buzz’ associated with face-to-face contract remains crucial in the world of business, even as most other aspects of work have been dispersed and become reliant on electronic communication. However, it should not be assumed that such face-to-face contact is socially benign. As Adam Smith (1976 [1776], vol. I, bk. I, ch. 10) observed more than 200 years ago ‘ People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public }.

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