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The London financial services cluster since the 1970s: expansion, development and internationalisation

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1 Introduction

This paper examines the growth and development of London as an international financial centre since the 1970s. [1] It locates London in the hierarchy of international financial centres. It tracks London's expansion in recent decades, identifies the driving forces and key developments. It examines the contribution of clustering and economies of scale, scope and agglomeration to sustaining London's leading position. Finally, it briefly raises the question as to whether technology and terrorism have made financial centres redundant?

2 London's Position in the Financial Centre Hierarchy

There have been numerous attempts to define the taxonomy of the international financial centres hierarchy.[2] My contribution, published in 1994, specified a four-tier model: global; regional; national and offshore centres. Today twowo cities fulfil the criteria of global financial centres, the top tier of the world hierarchy - London and New York. Among the second tier of regional financial centres, the leading cities are:

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[1] For a more detailed study of London see Richard Roberts, *The City: A Guide to London's Global Financial Centre* (The Economist, 2008)
[2] See Y C Jao, *Hong Kong as an International Financial Centre* (1997); Richard Roberts, *International Financial Centres* vol I (1994)

Frankfurt, Paris and Zurich in Europe; Tokyo, Hong Kong and Singapore in Asia; and Chicago, Boston and Toronto in North America.

London and New York have significantly larger concentrations of financial services than the regional financial centres and provide a comprehensive array of wholesale financial services for a worldwide clientele of major corporations, governments and international institutions. They have strong ties with each other and links with all the major regional, national and offshore centres. London and New York have similarly sized wholesale financial services industries and rank roughly as equals, though with different strengths. London's business orientation is primarily international, while New York services both its huge domestic economy and a worldwide clientele. Activity in both is dominated by the same set of international banks and investment banks and in many ways their operations are complementary.

Estimates of the output of wholesale financial services in EU countries are shown in Table 1:

Table 1 **Estimated output of wholesale financial services in the European Union, 2006**

	E billion	%
United Kingdom (mostly London)	73.3	38
Germany (mostly Frankfurt)	31.5	16
France (mostly Paris)	21.3	11
Italy	15.7	8
Spain	12.1	6
Netherlands	10.7	5
Belgium	8.3	4
Ireland	4.9	3
Rest of EU	17.3	9
Total EU-25	195.1	100

Source: CEBR, *The Importance of Wholesale Financial Services to the EU Economy 2007* (May 2007)

These estimates suggest that the output of wholesale financial services in London in 2006 was more than double Frankfurt and more than treble Paris. In fact, it is more than the combined total of Frankfurt, Paris and Milan. London has such a substantial lead that the prospect of it being overtaken by Paris or Frankfurt as the EU's foremost financial centre appears to be most unlikely in the foreseeable future.

Employment data is also used as an indicator of the scale of activity in financial centres. In summer 2007, employment in wholesale financial services (including specialist support services) in London totalled 350,000 people. Comprising 8.5% of greater London's active workforce (14.4% for inner London), they generate an estimated 15-20% of London's GDP and many are among the city's highest paid workers. Their demand for goods and services sustains London's top shops, restaurants and outlets, as well as underpinning many more modest undertakings. It is estimated that each job in wholesale finance supports at least one and possibly two further London jobs, meaning that the sector supports perhaps between a fifth and a quarter of London employment.

Estimates of employment in wholesale finance (excluding specialist support services) in 2005 in 10 leading EU financial centres are shown in Table 2:

Table 2 **Estimated employment in wholesale financial services in EU financial centres 2005**

London	248,000
Paris (Ile de France)	100,000
Frankfurt	58,000
Milan (Lombardy)	30,000
Brussels	27,000
Dublin	20,000
Luxembourg	20,000
Amsterdam	19,000
Madrid	19,000

Stockholm	10,000

Sources: CEBR, *The Importance of Wholesale Financial Services to the EU Economy 2007* (May 2007); Dublin and Luxembourg – author's research.

The employment data confirms London's preeminence among EU financial centres. The different ranking of Frankfurt and Paris in Table 1 and Table 2 demonstrates the caution with which comparative international data must be assessed.

Estimates of financial services employment in some of the world's leading financial centres was recently published in *The Economist* (see Table 3). This presents a broader international picture, but the data is derived from national statistics that usually do not differentiate between retail and wholesale financial activities. However, for London the estimate includes only wholesale finance jobs and thus the headcount looks low relative to New York, Paris and elsewhere.

Table 3 ***The Economist* estimates of employment in financial services in leading financial centres**

New York	470,000
London*	350,000
Paris (Ile de France)	340,000
Chicago	300,000
Tokyo	250,000
Shanghai	200,000
Hong Kong	180,000
Singapore	110,000
Frankfurt	80,000
Zurich	60,000
Geneva	40,000
Dubai	5,000

* wholesale only 2007
Source: *The Economist*, 'Special Report on Financial Centres',15 September 2007

Table 4 shows UK official statistics for employment in ‘finance and business services’ in London. This data suggests that combined wholesale and retail finance jobs in London is substantially greater than 350,000, though the inclusion of ‘business services’ in the official data makes it impossible to arrive at a figure for finance alone.

Table 4 **London employment in ‘finance and business services’ 2006**

London (inner)	953,000
London (outer)	388,000
Total greater London	1,341,000
London (inner) wholesale finance (2006)	338,000
London (inner) retail finance and business services	615,000
Total inner London	953,000

Source: UK Office of National Statistics

3 Expansion of the London financial services cluster

Between 1971 and 2007 employment in wholesale financial services in London grew from 200,000 to 350,000 (see Figure 1). For the period as a whole, wholesale financial services employment grew at an estimated annual rate of 1.6%. But expansion was marked by cyclical fluctuations with sharp falls in employment in downturns. There have been three such downturns since 1971:

1974-77 40,000 job losses - 19% fall in employment (oil price shock, stock market slump and international recession);

1987-93 60,000 job losses – 22% fall in employment (stock market crash and recession of the early 1990s);

2000-03 40,000 job losses – 12% fall in employment (end of the dot.com bubble and economic downturn).

The credit crunch since summer 2007 is leading to new job losses, though the magnitude of the downturn is still undetermined and the eventual outcome is unclear.

Despite these reverses, the long-term trend of the London financial services cluster over the last four decades has been expansion. This was the outcome of a combination of a set of underlying factors promoting a general post-war increase in demand for international financial services and a series of historical developments particular to London.

4 Post-war increase in demand for international financial services

The general post-war increase in demand for international financial services was principally due to:

- ***Growth of financial assets***

It is a well-known feature of long-term economic development that the stock of financial assets – deposits, loans, shares, bonds, mortgages etc - grows faster than the rate of increase of overall output; that is, as a society becomes more prosperous and economically more sophisticated, the ratio of financial assets to national product rises.[3] The management of financial assets is the activity performed by the financial services sector; thus as an economy grows and develops, typically the financial services sector increases faster than the growth of national output.

This relationship between economic development and the growth of the financial services sector also applies to the international economy and international financial services; as the international economy grows, the international financial services industry

[3] See Raymond W. Goldsmith, *Financial Structure and Development* (New Haven, CT: Yale University Press, 1969).

expands even more rapidly. In recent decades world output has grown at an average of 3-4% a year leading to an annual rate of growth of output of international financial services expanding of an estimated 7%.[4] As a leading location of the international financial services industry, London has been one of the principal beneficiaries of the secular expansion in demand for international financial services.

- ***Expansion of international trade***

Since 1945 the world economy has grown more or less continuously. This expansion was fostered by the dismantling of restrictions on trade and financial flows under the generally benign regime of the post-war set of international economic institutions, notably the International Monetary Fund (IMF), the World Bank, the World Trade Organisation (initially GATT) and the Bank for International Settlements. International trade grew rapidly - faster than world output. The expansion in post-war world trade provided a direct boost to several wholesale financial services activities in London – trade finance, foreign exchange trading, ship and aircraft broking and international insurance – and an indirect stimulus to others.

- ***Growth of international financial flows.***

Initially, overseas lending was mostly undertaken by banks; but from the 1960s an enormous international capital market - the Eurobond market - grew up as an offshore alternative source of funds for borrowers. The bulk of international financial flows were between developed countries, but emerging countries also began to borrow from Western banks and in the international capital market to fund economic development and for other purposes. As the leading international banking centre and the foremost Eurobond market location, London benefitted greatly from these developments.

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[4] Lombard Street Research, *Growth Prospects of City Industries* (2003)

- ***Internationalisation of investment.***

The internationalisation of investment has been fostered by the abolition of bureaucratic barriers to free financial flows and by advances in communications. In the 1950s and 1960s many countries operated exchange controls to support the value of their currencies under the post-war system of fixed exchange rates. Following the collapse of the Bretton Woods system in the early 1970s countries gradually dismantled exchange controls. This allowed the international diversification of investment.

Advances in communications enhanced the opportunities and reduced the risks of cross-border investment. Improvements in telecommunications dramatically improved the availability of information and the speed of dissemination, and cut the cost. Developments in aviation technology reduced the time and cost of air travel, making it easier for asset managers and private investors themselves to visit financial centres in foreign countries. Extended horizons and a quest for enhanced performance led to the international diversification of assets by pension funds and other investors.

In the 1980s, the London emerged as a leading provider of international asset management services to institutional investors. It also expanded international bond dealing, pioneered trading in international equities, which soon dwarfed transactions in domestic equities, and led the way in Europe in the development of financial derivatives in 1982. Cross-border mergers and acquisitions work developed, as did other international corporate finance advisory work such as privatisation.

- ***Growth of 'offshore' transactions***

Since the 1960s there has been a rapid expansion in 'offshore' financial transactions. An offshore transaction is denominated in a currency other than that of the financial centre in which it is conducted (which is subject to that centre’s domestic constraints). Initially most offshore transactions were conducted in US dollars held on deposit with European banks (eurodollars), but subsequently financings have been made in other convertible currencies.

Offshore transactions are subject to the regulatory and legal framework that is selected by the contracting parties, not those of their domicile. This enables borrowers to find cheaper funds or more flexible types of finance than are available in their ‘onshore’ domestic market, and for lenders to achieve better rates of returns. Pursuit of business led to product innovation and expansion of the product range, enhancing the competitiveness of offshore markets relative to more regulated and restricted onshore markets. In theory, offshore financial transactions can take place anywhere. But in reality, offshore activity has concentrated in a few centres particularly London, the leading location of the euromarkets, but also Singapore (Asian dollar market), Switzerland and elsewhere.

5 Deregulation and Internationalisation

In the 1950s and 1960s, New York was the principal beneficiary of the general growth of demand for international financial services. Beginning in the 1960s and increasingly from the 1970s, the underlying trends also contributed to London’s growth and development as an international financial centre.

Rise of the eurodollar market: 1950s and 1960s

In the 1930s in response to the economic slump, the collapse of international trade and the virtual cessation of international capital flows, London’s financial services sector shifted to focus on servicing the requirements of domestic clients. The predominance of the domestic client base continued in the 1940s, 1950s and 1960s.

A novel development from the late 1950s was the growth of a new international business parallel to the predominant domestic business - the eurodollar market. A eurodollar is a dollar held on deposit in a bank outside the US. The rise of a market in offshore dollars in Europe in the late 1950s was the outcome of a mixture of economic and political factors. The most important was the recurrent US balance of payments deficits, resulting in a large pool of externally held dollars. These were augmented by dollars placed offshore by US corporations and investors, where they earned higher rates of interest than available domestically because of a regulatory ceiling on the rate that US banks could pay. Another source was the dollar balances of Communist countries that were wary of placing them on deposit in New York lest they be taken hostage by the US government in a Cold War crisis.

The euromarkets comprise a range of markets spanning the maturity spectrum: short-term, the eurocurrency market; medium-term, syndicated loans and euro notes; and long-term, the eurobond market. Each had a different pattern of development.

The first to develop was the *eurocurrency market*, a market for short-term deposits and loans, mostly between banks. It expanded rapidly in the late 1950s and 1960s: in 1963 the overall market was estimated at $12 billion; by 1970 it was $65 billion, an annual compound rate of growth of 31%. The establishment of the eurocurrency market in London was encouraged by the Bank of England and it was UK commercial banks that nurtured the new market at the beginning. But it was major US commercial banks that really developed the market in London, soon being joined by

European and Japanese banks: in 1960, 77 foreign banks had a presence in London; by 1970 the number had more than doubled to 163.

The *eurobond market* developed to meet the requirements of governments and corporations for long-term finance. It was the creation of European banks and was developed as a means of competing with the US investment banks that dominated the international capital market in New York and thus got the lion's share of the fees and commissions, while the European banks that handled most of the distribution to European investors received only meagre sales commissions. The eurobond market was launched in July 1963 in London with a $15 million issue on behalf of Autostrade, the Italian national highways authority. London merchant bank Warburgs was the lead manager of the issue, with prominent German, Belgian and Dutch banks as co-managers.

Within weeks of the opening of the eurobond market, President Kennedy announced the introduction of a tax on foreign borrowing in the US capital market to curb the outflow of dollars that was contributing to the gaping US balance of payments deficit. This was a stroke of fortune for the new eurobond market and London where it was based, ensuring that a substantial volume of international capital market activity shifted from New York to London. Seeing the writing on the wall, leading Wall Street international bond firms, including Morgan Stanley, First Boston, Smith Barney and Lehman Brothers, established offices in Europe in the years 1964-67. Between 1963 and 1970 the volume of eurobond new issues rose from $148 million to $2.7 billion. A few of the London merchant banks and the UK commercial banks were significant players in the market's first decade, but in the 1970s they were sidelined by the leading Wall Street investment and commercial banks and the major European universal banks that built up a major presence in London to undertake this business.

Expansion and development of the euromarkets: 1970s and 1980s

The quadrupling of the oil price in 1973 triggered a global recession in 1974-75. But the oil price rise had a silver lining for the euromarkets. Over the years 1972-80, international commercial banks mostly in London and New York were recipients of $150 billion in short-term petrodollar deposits. These funds were lent to countries with balance of payments deficits because of the oil shock. The bulk of such ‘petrodollar recycling’ was arranged in London. It mostly took the form of large floating-rate loans with medium-term maturities (three to ten years). Such loans to sovereign borrowers, international institutions and large multinational corporations were often so huge that they were made by syndicates of banks, the risk exposure being too great for even the biggest international banks to be prepared to shoulder alone. The UK clearing banks and major US and European banks were active as arrangers and participants in these syndicated loans.

The innovative development and rapid expansion of these various forms of financings in offshore US dollars constituted a major revival of London’s role as an international financial centre. But the business was soon dominated by non-British players, while the London merchant banks and British banks focused principally on the domestic market.

The eurobond market continued to expand rapidly in the 1970s and 1980s: in 1970 total primary issuance was $2.7 billion; in 1987, $144 billion. The expiry of the US Interest Equalization Tax in 1974 was followed by a surge in dollar-denominated foreign bond issues in New York. In 1974-78, the value of US dollar issues in the US capital market exceeded the amount of US dollar eurobond issues. This led some to predict that the international dollar bond market would return to New York. However, the sharp hike in US interest rates in 1979 to counter inflation wrought havoc in the US bond market and stifled the revival. The international bond market remained largely offshore, principally in London. The weakness of the dollar in the 1970s led to the expansion of other currency sectors, notably eurodeutschemark and euroyen; with the proliferation of currency sectors the eurodollar market evolved into the eurocurrency market.

Abolition of exchange controls, 1979, and 'Big Bang', 1983-86

The 1980s saw the coming together of the domestic City of London and the offshore City and the emergence of the modern London financial services cluster.
The process of transformation began with the surprise announcement in October 1979 by the recently elected Conservative government led by Margaret Thatcher of the immediate removal of sterling exchange controls. This transformed opportunities for investors and set in motion fundamental changes in the UK securities industry. Exchange controls - restrictions on capital movements by investors and companies - had been introduced 40 years earlier at the beginning of the Second World War to direct financial resources to the war effort. They were retained after the war to protect sterling against devaluation under the Bretton Woods system of fixed exchange rates by preventing capital outflows. With the collapse of the Bretton Woods system and the floating of sterling in 1972 that *raison d'etre* disappeared. Yet the controls were retained because politicians and officials were terrified of the foreign exchange market, which had repeatedly humiliated UK governments through the series of sterling devaluation crises of the 1960s.

The late 1970s saw a rapid increase in the output of UK North Sea oil turning sterling into a petro-currency. When the Iranian revolution led to a second OPEC oil price shock in summer 1979, the pound soared. The lifting of exchange controls was an attempt, in vain as it transpired, of curbing the rise in the exchange rate to help UK exporters. But abolition was also consistent with the Thatcher government's avowed devotion to the free market and her determination to roll back the post-war corporatist arrangements. Remarkably, this fundamental financial decision was taken in such haste and secrecy that there was virtually no consultation with City firms or institutions and no careful consideration of its consequences for the City.

Free at last to invest anywhere in the world, UK institutional investors went on an overseas shopping spree, especially for dollar securities. Although it was predictable that some of the purchases of foreign securities would be handled by foreign brokerage firms, especially the London offices of US brokerage houses, the revelation that UK stock-broker firms handled only 5 per cent of the overseas investments made by the twenty leading UK pension funds in the couple of years immediately following abolition shocked the authorities. In part this was due to the predominantly domestic orientation of UK brokers because of four decades of restrictions on foreign investment, but the crucial factor was the Stock Exchange rule on minimum commissions that made it almost impossible for them to win business against foreign houses that were unhindered by constraints on price competition.

The outcome was a set of reforms that transformed the London securities market along Wall Street lines, radically changing the centuries-old market structure. First, minimum commissions were scrapped, permitting competitive pricing in securities brokerage. Second, the institutional separation of the functions of securities brokerage and securities market-making (jobbing) was abolished. Third, restrictions on the ownership of Stock Exchange firms were relaxed, allowing them to be purchased by banks for the first time. Fourth, greater competition was introduced to the UK government bond (gilts) market. This package of reforms that transformed the UK securities industry soon came to be known as ‘Big Bang’.

The end of restrictions on the ownership of Stock Exchange firms led to a wholesale restructuring of the UK securities industry, one of the bastions of the traditional City along with the merchant banks. In the three years up to October 1986 when the new trading and institutional arrangements became fully operational, all but two of the leading UK securities firms were acquired by new owners. In total, 77 of the 225 Stock Exchange firms were sold, turning more than 500 of their former partners into millionaires: 16 were bought by UK merchant banks; 27 by UK commercial banks; 14 by US banks; and 20 by other foreign, mostly European, banks.

The deregulation of the ownership of Stock Exchange firms presented the London merchant banks with an opportunity to develop into investment banks on the ‘integrated’ Wall Street model. The pre-Big Bang business model of the leading merchant banks was a mixture of specialist banking (traditional trade finance and other activities), corporate finance (mergers and acquisitions and capital raising) and asset management. The pattern of business of the leading Wall Street investment banks was a combination of corporate advisory and capital raising plus secondary market securities trading and brokerage, the latter providing distribution capability for securities issues organised by the firm. Securities trading was conducted both as an agent for clients and on the firm’s own account (proprietary trading). The integrated US investment banking model was riskier and required more capital than the traditional UK pattern of business, but it could be very profitable especially in a bull market.

Big Bang opened the door of the UK domestic securities and corporate advisory markets to the major US investment banks, which had hitherto confined their activities to the euromarkets. From the mid-1980s they began to build up their presence in London and to compete aggressively for domestic business. However, the real interest of the Wall Street firms was not the UK market, it was the process of European economic integration, which it was believed would generate an investment banking bonanza.

Canary Wharf

Canary Wharf, the new hub of the London financial services cluster, was the brainchild of the London head of investment bank Credit Suisse First Boston, who was frustrated at being unable to find suitable state-of-the premises for his bank’s rapidly expanding operations. Located in a district of derelict docks, the site had plenty of room to accommodate the vast trading-floors that modern investment banks require. Yet it was only five kilometres down the road from the City, the long-established financial services hub.

Development got underway in summer 1985, in the heyday of Big Bang euphoria. Credit Suisse put together a consortium to undertake the largest real estate development in Western Europe, comprising 8.5 million square feet of office space on a 71-acre site. In July 1987, the world’s foremost commercial property development company Olympia & York, builder of New York’s World Financial Center, took control of the project.

The development enjoyed support from the British government, which in 1981 had designated the London docklands a special development zone where projects were eligible for public subsidies. The initial stages of the Canary Wharf scheme received support of £1.3 billion from UK taxpayers. Prime minister, Margaret Thatcher, was an enthusiast, herself initiating construction in a hard hat with a pile-driver in May 1988. The centrepiece of the vast project, One Canada Square comprising 4.5 million feet of office space, was completed on time in just three years. The first tenants arrived in August 1991. Today 50,000 financial services jobs are based at Canary Wharf, and 50,000 other jobs supported by them.

Since the 1990s, much of the expansion of London's wholesale financial services industry has been accommodated in new custom-built buildings at Canary Wharf. The availability of such accommodation has been a crucial factor in allowing the continued expansion of the London financial services industry cluster. Furthermore, the success of Canary Wharf has prompted high-quality property developments in the traditional City zone and elsewhere.

New Regulatory Regime. 1997

Virtually the first action of the new Labour administration in 1997 was to confer independence on the Bank of England and to give it operational responsibility for UK monetary policy. At the same time it transferred responsibility for bank supervision was transferred to a new unitary super-regulator, the Financial Services Authority (FSA). The FSA developed a 'principles-based, risk-focused' approach to the regulation of the wholesale financial services sector that was welcomed by the industry. In surveys among financial practitioners the regulatory regime is identified as one of London's key competitive strengths, the other being the size and breadth of the specialist financial services labour market.

The new government also decreed ‘five tests’ to assess the readiness of the UK to join the euro, one of which was that membership should not have an adverse impact on the City. Neither in 1999, at the launch of the euro, nor in 2003, when the Treasury conducted an assessment, was the UK deemed ready to join. However, there are no obvious indications that non-membership of the euro-zone has negatively affected London as an international financial centre.

Increasing foreign domination

The process of European economic and financial market integration, in which the launch of the euro was an important milestone, lay behind the expansion of the presence of the leading US investment banks in London. The build-up began in the 1980s, but really got underway in the early 1990s when on the back of record profits in 1992 and 1993 the Wall Street firms launched a world-wide expansion drive, targeting London in particular as the bridgehead for Europe,

The mounting challenge from the US firms and anticipation of a coming boom in European corporate finance and capital market business arising from European integration led some major European banks to seek to enhance their Anglo-Saxon style investment banking capabilities. The most straightforward way to do this was to buy a London merchant bank, creating the capability off the shelf. Deutsche Bank was the first to do so in 1989. Subsequently, between 1995 and 2004, most of the merchant bank sector was acquired by overseas owners. By the opening years of the 21st century, a majority of people working in the London financial services cluster were employed by foreign firms.

Some British bankers and commentators have expressed concern about the foreign domination of London's financial services industry. But mostly it is regarded as an inevitable consequence of globalisation and London's role as a leading international financial centre.

Bust and boom

The rise and fall of the dotcom and technology bubble of 1995-2000 was a spectacular financial finale to the 20th century. Although principally a Wall Street event, it also caught on in the City. The end of the bull market in 2000 was heralded by the melt-down of the NASDAQ market. The FTSE 100 and the Dow Jones Industrial Average were hit too, slipping 50% between 2000 and 2003.

The world economy grew strongly in the opening years of the twenty-first century, with international trade expanding by 10% a year. A key driver was the boom in many emerging economies, especially China, India and Russia. The rapid growth of the world economy generated expansion in the wholesale financial services industry. The boom in the emerging economies, huge global financial imbalances, dynamic technological change and financial product innovation resulted in greater and more rapid global capital flows that were intermediated by the industry from the major financial centres, especially London.

Growth resumed in the London wholesale financial services industry in 2003 and the new boom led to the creation of an additional 50,000 jobs, more than replacing the job losses of 2000-2002. By summer 2007, 350,000 people worked in wholesale financial services jobs in London, a new record.

6 Financial services clustering

For centuries banking and trading involved face-to-face transactions with clients and counterparties, for instance on the floor of a stock exchange. Hosting such markets was the origin of financial centres. Today, modern communications technology means that a physical presence is no longer necessary for the conduct of much wholesale financial activities, for instance most forms of securities trading, banking or investment. Yet financial firms continue to cluster in financial centres. Why?

The study *Financial Services Clustering and its Significance for London* (2003) identified four 'critical benefits' for financial firms from location in the City/Canary Wharf financial services cluster:

- *Access to knowledge* – closeness to competitors, support services and clients facilitates knowledge acquisition and knowledge accumulation. Proximity also fosters social interaction, which continues to be an important means of knowledge transfer. So is proximity between colleagues within firms, one of the factors that leads firms to consolidate high-skill front office activities in large single building premises to internalise the intra-firm exchange of expertise.
- *Proximity to clients, skilled labour and regulatory bodies* – important for winning business, recruitment, specialist staff and contacts, both formal and informal, with regulators and professional bodies.

- *The London 'brand'* – a City/Canary Wharf address confers credibility and status upon firms. For example, a City address turns a law firm into a *City law firm*. Likewise, if an investment bank wants to be taken seriously as an international player it has to have an operation in London.
- *The wider attractions of London* – as a major world city, London has lifestyle attractions few other cities can match. Its cosmopolitanism, arts, shops and restaurants make it a vibrant city – a place where people want to work *and* live.

The report also identified four 'major clustering engines' that promote the growth and sustainability of the City/Canary Wharf financial services cluster:

- *The labour market* – one of London's 'greatest assets'. The supply of skilled labour, both from domestic and international pools, sustains the growth of the City/Canary Wharf cluster. The scale of the London financial services skills pool means that: (a) people are attracted into the cluster because of the prestige of developing a career in the City; (b) the size of the labour market encourages mobility between firms and sectors.
- *Personal relationships* – personal contacts between buyers and sellers of wholesale financial services, suppliers of support services, professional bodies, government and financial regulators are 'vital processes' that sustain London's workings as a financial centre. Face-to-face contact – business and social, formal and informal - remains a 'fundamental requirement' for building trust and acquiring knowledge and the execution of complex transactions that require the input of many parties. Subscription markets work better when participants know each other through face-to-face contact.

So do activities that require close liaison between professional advisers and clients, such as mergers and acquisitions and the development of bespoke financial solutions.

- *Promotion of innovation through close contacts between financial service firms, clients and suppliers of support services* - the encouragement of innovation and access to new products and markets are key benefits for firms of location in a strong financial service cluster.
- *Creative competition between providers* – competition between financial services providers is an important spur to efficiency and innovation. The quest for market share provides an impetus for product innovation and differentiation, the development of new markets and more efficient ways of delivering services and products to clients.

Empirical research has found that financial service firms that locate in strong clusters grow faster than average, a superior performance that is attributed to the benefits of clustering.[5] Clustering bestows efficiency benefits on both the demand and supply sides. Proximity to clients, notably other wholesale financial firms, and superior information flows help to boost demand. On the supply side, physical nearness to other financial firms reduces transactions costs, promotes knowledge transfer and enhances the availability of specialist skilled labour. Firms located in financial centre clusters benefit from the operation of external economies of scale, economies of scope and economies of agglomeration. But these benefits may possibly be diminished by contrary *diseconomies of scale*.

[5] N.R. Pandit and G.A.S. Cook, ‘The dynamics of industrial clustering in British financial services’, *The Services Industries Journal*, vol. 21 (2001) pp.33-61.

7 Financial centre economies of scale, scope and agglomeration

As one of the world's largest international financial centres, London benefits powerfully from the operation of economies of scale, scope and agglomeration. Firms that operate from larger financial services clusters tend to enjoy significant competitive advantages over firms based in smaller centres. Firms benefit from economies of scale when there is a positive correlation between the size of the firm and the efficiency of its operations. *External* economies of scale accrue to firms when a positive relationship exists between efficiency and the size of the industry (financial centre) in which they operate. There are several reasons why a larger financial centre provides a more advantageous operating environment than a smaller centre:

- The larger the *pool of skilled labour* the easier it is for firms to function, grow and diversify.
- The greater the *range of associated financial activities* the more opportunity there is for creative interaction, integration and innovation. These phenomena are known as *external economies of scope*.
- The *quality of financial markets* – that is, their liquidity and efficiency – is strongly correlated with the scale of operations. These are highly desirable features, meaning better prices, lower dealing costs and diminished likelihood of market failure. There may be a positive reinforcement effect – liquidity attracting further liquidity.
- *Innovation* is stimulated by the number of rival financial firms, the quantity and quality of skilled labour, and the variety of financial activities. New business opportunities arise from both customers and other financial practitioners.

- *Competition* between firms promotes keener pricing for transactions, higher quality work, and product innovation. Higher standards help firms operating from a larger financial centres to win business away from firms accustomed to less vigorous competitive environment.
- Activities that require co-ordinated activity on the part of a number of independent firms can be undertaken more readily and effectively with a larger population of firms and specialist personnel. For instance, 'subscription markets', such as loan syndication or the primary issuance of securities.
- Firms and practitioners operating from larger and more prestigious financial centres enjoy a *reputational and credibility* advantage over those operating from smaller centres. Location is an important dimension of a financial firm's brand.

Financial firms operating in large financial centres also enjoy *economies of agglomeration*, which are reductions in transactions costs that result from a concentration of specialist support services and other business services. The ready availability of commercial lawyers, accountants, specialist printers, information technology experts, financial public relations consultants, and many other support services, enhances a firm's efficiency and competitiveness. The bigger the centre, the more extensive, more varied and more keenly priced is the range of complementary specialist support services.
Once established in a financial centre there are powerful reasons for firms to remain there. *Sunk costs* – necessary but irrecoverable expenditures, such as start-up cost – are an important factor. So too is the work of building relationships with clients, other financial firms, the regulatory authorities, and staff. Such relationships make it difficult and costly to relocate and lead to location inertia, unless relocation becomes absolutely essential.

External economies of scale and economies of scope are powerful forces in the global financial services industry, bestowing a big competitive advantage upon well-established and leading financial centres such as London. Indeed in theory, the logical outcome of their operation is that most wholesale international financial activity should concentrate in a single global centre. But centralisation can also generate *diseconomies of scale,* such as crowding and congestion, high costs of accommodation and labour, and perhaps increased information costs because of distance from clients. Moreover, in the real world, political factors, regulatory barriers and incentives, and time zone differences exist that distort the operation of the centralising economic forces. So regional and national financial centres continue to play important roles.

8 The end of financial centres?

The leading financial centres, their streets lined with brash, iconic temples of capitalism, make tempting targets for terrorists. The City was one of the IRA's favourite targets: many attacks were foiled, though not those at the Baltic Exchange in 1992 and Bishopsgate in 1993. Then came the attack on the Twin Towers in September 2001 and mass murder in New York's financial district. The spectre of terrorist attack prompts the question, is there a future for high profile international financial clusters?

For at least a decade communications technology has permitted financial firms to locate almost anywhere. Location is no longer an issue as regards access to financial information or to participation in most markets. Yet the major firms have continued to have their headquarters in the leading financial centres, which have become even greater concentrations of front office staff as back office colleagues have been relocated to less costly places. The reason is that clustering confers advantages both to individual workers and to financial firms. There is the stimulus of being surrounded by like-mined colleagues and competitors, enhancing performance and driving innovation. For individuals, there is also the opportunity to get a new job in an uncertain and rapidly changing industry, while firms have access to a pool of highly skilled, specialist staff.

The transformation of many leading firms in the international financial services industry into giant global financial conglomerates has led to a rising proportion of business being conducted within firms, making face-to-face contact with outsiders less important. Co-location of staff in huge headquarters buildings generates the benefits of human clustering in-house. In theory, this diminishes the importance of location in a financial centre, allowing firms to locate somewhere cheaper, and perhaps safer. But to the extent that relocation has happened so far, it has occurred *within* the major financial cities – to Canary Wharf and the West End in London, and to up-town in New York – not to provincial cities or green field sites.

The reason is another labour market feature – because the key people who work in the international wholesale financial services industry demand the lifestyle amenities of metropolitan life. London and New York are big, bright, cosmopolitan metropolises. As such, their joint status as the world's foremost international financial centres seems set to continue for the foreseeable future.