PRINCETON STUDIES IN INTERNATIONAL FINANCE NO. 36

The Formation of Financial Centers: A Study in Comparative Economic History

Charles P. Kindleberger

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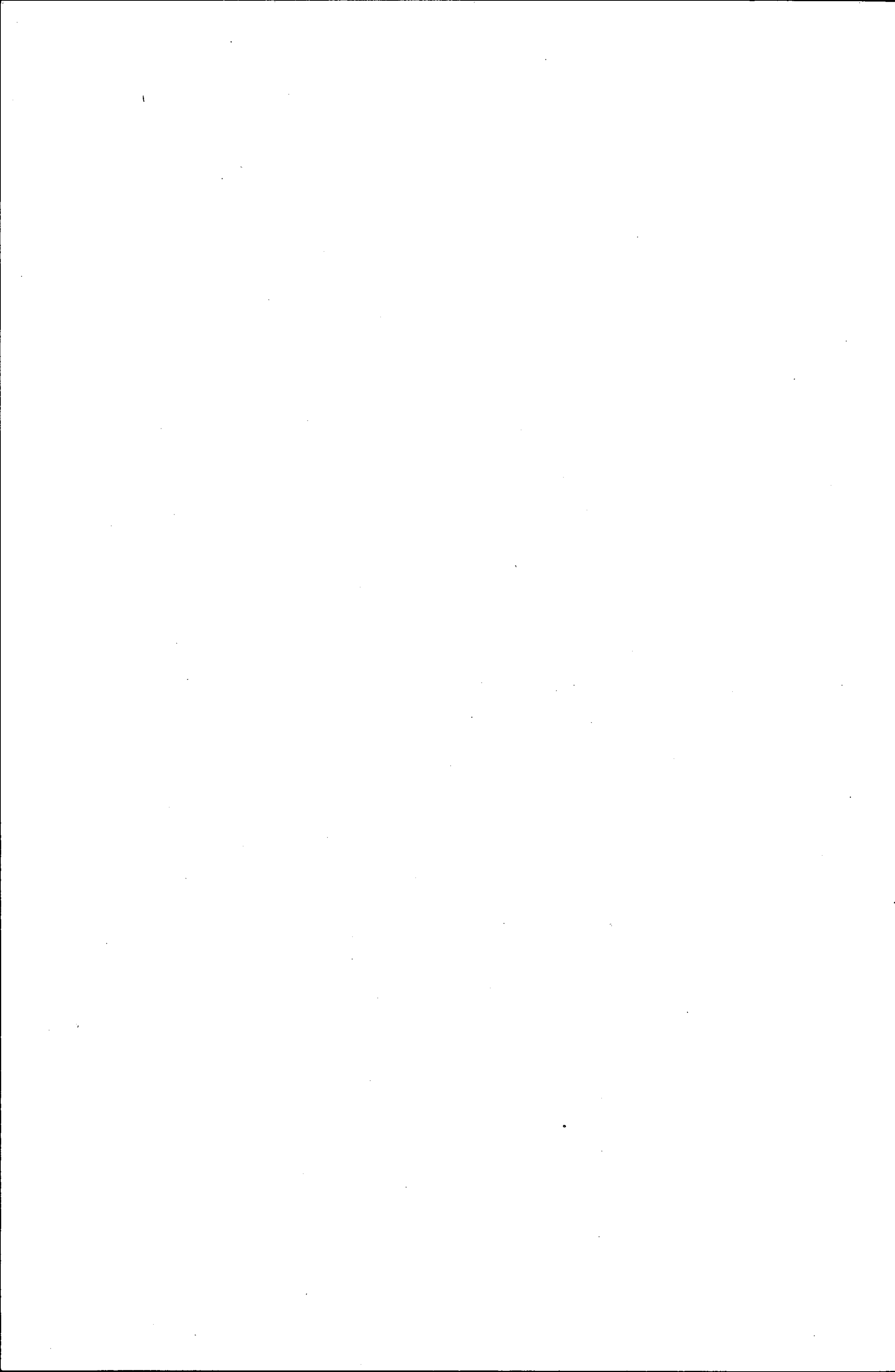

I. INTRODUCTION

It is a curious fact that the formation of financial centers is no longer studied in economics, perhaps because it falls between two stools. Urban and regional economics, which concern themselves with cities, discuss the location of commerce, industry, and housing but rarely that of finance. [An exception should perhaps be made for Canada (Kerr, 1965, 1967) and for France (Labasse, 1955).] Pred's (1966) study of urban growth in the United States deals exclusively with commerce and industry, making no mention of banking or financial markets. A recent U.S. survey of urban economics mentioned finance only once in the text and referred to no work on the subject in a bibliography of 438 items (Goldstein and Moses, 1973). Only the study of the New York metropolitan area led by Vernon (1960) devotes attention to it. At the same time, a vigorous new literature on money and capital markets and their role in economic development takes no interest in geographical location or the relationships among financial centers (Goldsmith, 1969; McKinnon, 1973; Sametz, 1972; Shaw, 1973). Apart from a sentence or two, one would think that the money and capital market was spread evenly throughout a given country.

The "geography of finance," to borrow Kerr's phrase, is relevant to contemporary issues as well as being of considerable historical interest. Contemporary relevance is provided partly by the tasks of building money and capital markets in developing countries, which McKinnon (1973) and Shaw (1973) regard as vital to economic development, more important, indeed, than foreign aid or export expansion. Among developed countries, there is the issue of which center, if any, will emerge as the leading money and capital market of the European Economic Community if it achieves monetary integration. Economic analysis may not be equal to the task of predicting the answer to this question, or of recommending the policy measures a government or intergovernmental body should follow if it wishes to affect the outcome of the market process.[1]

Historically, an explanation is needed as to why money and capital markets were centered at the capital in Great Britain, France, and

[1] An up-to-date report on the subject is Interbank Research Organisation (1973). There are, moreover, indications that the U.S. government is interested in contemplating the steps that would be required to restore the supremacy of New York as the leading world financial center.

Germany but not in Italy, Switzerland, Canada, the United States, or Australia. One can formulate an aspect of the issue as a riddle: What do the Midlands Bank, the *Crédit Lyonnais*, the *Dresdner Bank*, the *Banca Tiberina*, the Bank of Nova Scotia, and the First Boston Corporation have in common? The answer: Their executive offices are located in a different place from that implied by their name—the Midlands Bank in London, the *Crédit Lyonnais* in Paris, the *Dresdner Bank* in Berlin (from 1892 to 1945), the *Banca Tiberina* (after 1879) in Turin, not along the Tiber, the Bank of Nova Scotia in Toronto, and the First Boston Corporation in New York. The two historical curiosities can be combined. A year after the Midlands Bank transferred its headquarters from Birmingham to London in 1891, there was a simultaneous movement of the *Schaffhausen'schen Bankverein* from Cologne to Berlin (i.e., from a provincial city to the capital) and of the *Eidgenössische Bank* from Bern, the capital, to Zurich. The affinity of finance and locations is underlined by the fact that so many banks have places rather than functions (Merchants, Farmers, etc.) in their names. (Private banks, where confidence is all-important, are named for people.)

An historical approach is also called for because, if modern analysts have little interest in spatial finance, the same cannot be said of their grandfathers. Two generations ago, before and after World War I, economics displayed an interest in the functions of and relations among financial centers that is rare in current research. Fanno (1913, Chap. III) had a chapter on the centralization process in banking and money markets, including geographic centralization. In his *Evolution of the Money Market*, Powell (1915) presented a detailed account of the processes by which congeries of isolated banks were formed into a financial structure centered on London, with many physiological analogies, including "natural selection" and "survival of the fittest." The most highly developed analysis, however, was provided by Gras (1922, Chaps. V, VI), the economic historian, who described the stages of development from village and town to metropolitan economy, specifying the development of specialized financial institutions as a metropolitan function.

In the pages that follow, a comparative analysis is presented in literary rather than statistical or econometric form. It is perhaps unnecessary to defend the comparative method after having shown that the administrative capital sometimes serves as the financial center and sometimes does not. I go further, however, and suggest that the study

of single cases, valuable as it is, frequently tempts the economic historian to rely too heavily on single analytical models and that the comparative method, for limited problems at least, is of value in showing what is general and what special in historic process. The qualification that the comparative method is most effective with limited problems—as a rule, of a partial-equilibrium sort—reflects concern that, as the analyst moves from one to another country, society, polity, or economy, general-equilibrium issues like business cycles, stages of growth, and backwardness embody too many degrees of freedom to enable him to generalize with confidence.

That the comparative historical account is qualitative rather than quantitative derives from the limitations of the writer, the great size of the task of rendering comparable data from a wide number of countries, and an interest more in process than in the detailed outcome. Even such an impressive study as Goldsmith's *Financial Structure and Development* (1969), which shows conclusively that financial machinery becomes more elaborate as a country grows in productive process, does not examine the detailed processes, particularly the spatial ones. Extending this study to measure the process described would make it unduly long.

Chapter II briefly reviews the literature on the location of cities and their functions, the roles of money and capital markets in the development process, and the evolution of banks and banking. Its main purpose is to identify the economies inherent in a central organization of financial markets and banking machinery, and to show why financial centers tend to be organized spatially in a hierarchy, with a single center as the keystone of the arch. The description is largely limited to banks and banking, with little explicit attention to other elements of money and capital markets. Some reference is made to clearinghouses, stock exchanges, government and private security markets, mortgages, foreign bonds, and insurance, though none to factoring, consumer finance, or pension funds. As economic growth proceeds, the importance of banks as financial intermediaries diminishes relative to other institutions, but it is always strategic.

Chapter II, which concentrates on the why of a single financial center, is followed by seven case studies designed to show the processes by which a given locality is chosen. Chapters III, IV, and V deal with England, France, and Germany, where the political capital became the financial center as well. The contrast between the English and French centers, on the one hand, and the German, on the other, is provided by their respective political histories, especially the late

unification of Germany in 1870, which furnishes a sort of "instant replay" of the process. Chapters VI and VII deal with the Italian and Swiss examples, each with late unification, in 1860 and 1848 respectively, but different from the German example because the financial center turns out to be a different city from the political capital. Canada and the United States, in Chapters VIII and IX, furnish cases of financial centers emerging in countries developed from the wilderness; here, again, the political and financial leadership chose different sites. The Canadian experience is of particular interest. The country felt obliged to free itself successively from money- and capital-market reliance on London and New York, experienced two shifts of the financial center, from Halifax to Montreal, then—long-drawn out and still incomplete—from Montreal to Toronto. Lately, moreover, a relatively independent market has begun to develop in Vancouver.

Chapter X deals in summary fashion with the question of a world financial center, arching over and connecting indirectly national money and capital markets. London held the position during most of the nineteenth century, though with challenges from France and Germany. In the twentieth century, a shift to New York occurred, and a second shift is now in progress from New York to the Eurodollar market. That market is spread all over the world but its heart, to use a well-worn image, beats in the American and British banks in London. A concluding Chapter XI seeks to use the lessons derived from the historical studies to throw light on the question of whether a financial center for the European Economic Community will emerge, and if so where.

II. BANKING DEVELOPMENT AND THE METROPOLIS

A recent spate of books has focused anew on the role of banking in economic development. Two of the earliest writers in the field were Hoselitz (1956) and Gerschenkron (1952), who emphasized especially the role of the *Crédit Mobilier,* founded in 1852, in stimulating rapid industrial expansion in France. German banking was said to be as powerful as the steam engine (Gerschenkron, 1962, p. 137). These leads were followed up and developed by Cameron (1961, 1967, 1972), in his own book on France and in the case studies he edited. Some of these cases, particularly Austria, Italy, and Spain, suggested that banking may or may not make a positive contribution to economic development, depending not on the personal qualities of the bankers but on the "structural characteristics of the system, and the laws, regulations and customs" (Cameron, 1972, p. 8). The contribution of the *Crédit Mobilier* to the industrial development of France has also been downgraded (Fohlen, 1972, p. 37); its interests, and those of many of its imitators, lay in speculation, not in industrial growth.

Much of this historical literature, however, focused on banking as an agent of growth through stimulation of demand. By contrast, the analytical contributions of Goldsmith, McKinnon, and Shaw emphasize the role of banking in mobilizing and allocating liquid resources. Goldsmith (1969, p. 400) points out that the development of financial intermediaries "accelerates economic growth and improves economic performance to the extent that it facilitates the migration of funds to the best user, i.e. to the place in the economic system where the funds will find the highest social return." Shaw equates "deep" with liberalized finance, which opens the way to superior allocations of savings by widening and diversifying the financial markets in which investment opportunities compete for the savings flow. In his only reference to space, he goes on: "The market for savings is extended. . . . Local capital markets can be integrated into a common market, and new opportunities for pooling savings and specializing in investment are created" (Shaw, 1973, p. 10). McKinnon's (1973) emphasis is on raising the rate of interest on financial capital to equality with the rate of interest on real capital. This makes it worthwhile for entrepreneurs to save in money form for later investment and increases the availability of external finance, enabling entrepreneurs, who would otherwise be limited to their own savings, to start businesses sooner and on a larger

scale. Financing trade and production at a rate of interest equal to the return on real assets is a shot in the arm to development. Integration of capital markets eliminates local and sectoral monopoly and monopsony, but especially stimulates the formation of savings and its pooling (Shaw, 1973). Here is an echo of Powell's (1915, p. 274) reference to banking as a "magnet which pulls out hoards."

As noted, these discussions of banking innovation and financial intermediation or deepening lack a spatial dimension. Financial centers are needed not only to balance through time the savings and investments of individual entrepreneurs and to transfer financial capital from savers to investors, but also to effect payments and to transfer savings between places. Banking and financial centers perform a medium-of-exchange function and an interspatial store-of-value function. Single payments between separate points in a country are made most efficiently through a center, and both seasonal and long-run surpluses and deficits of financial savings are best matched in a center. Furthermore, the specialized functions of international payments and foreign lending or borrowing are typically best performed at one central place that is also the specialized center for domestic interregional payments. (This is not always the case. For twenty years after Berlin became the undisputed center for German domestic finance, Hamburg continued its role as the leading city for foreign-trade finance.)

To limit ourselves again to domestic interregional payments, the efficiency of a single center is akin to the contribution to utility of a single numeraire. Each locality deals not with each other locality in making and receiving payments, but with a single center; $n-1$ conduits are needed instead of $n(n-1)/2$. Small localities are typically clustered about a provincial financial center but are linked to others through the central financial market. When country clearing was established in London in 1858, the National Provincial Bank thought it "preposterous" for a bank at Manchester to collect a check on Newcastle-on-Tyne through London (Taylor, 1964, p. 229). At that time, the National Provincial Bank had offices in Manchester and Newcastle, whereas its banking office in London was opened only in 1866. Later, however, the National Provincial Bank must have cleared among its branches through a central point such as London. French centralization of distribution through Paris has been much criticized; the efficiency of central clearing for such purposes as moving artichokes from Dijon to Bordeaux obviously declines as costs of transport rise. But for money payments there can be no doubt of the efficiency of a central financial market as the apex of a national system, and of a single international

market as the apex of national financial centers. An African student once complained to me that Latin-American payments to a country such as Kenya were made in dollar checks on New York; he was persuaded that the system was devised to enable imperialist extortionists to exploit the periphery. He found incredible the truth that the centralization of payments and use of a vehicle currency are efficient.

As an efficient system of payment develops, utilizing the medium-of-exchange function of banking, firms find themselves able to economize on working balances by centralizing them at the metropolitan pivot. Companies above a certain size tend to establish financial offices in the metropolis to deal in financial markets as well as to finance a larger flow of payments with smaller working balances. Increasingly competitive security markets provide larger and cheaper security issues for those who need capital, as well as more liquid investments for lenders. Economies of scale are found not only in the medium-of-exchange and store-of-value functions of money, but also in the standard-of-deferred-payment function insofar as it relates to loans, discounts, and bond issues.[1]

The origins of banking are diverse. Elementary textbooks imply that they can be traced mainly to the storage function of goldsmiths, but this is oversimplification. The goldsmiths in England, congregated in London, were an important source of private banking but by no means as important as merchant houses. Other bankers originated as scriveners or notaries, tax receivers or tax farmers who lent out funds being held for remittance to the Treasury, court bankers who provided advances and personal services to profligate princes, and industrial companies that paid wages in tokens, moving a stage beyond the truck system (payments in commodities), and found that the tokens remained in circulation. Some manufacturers lent out business profits rather than plowing them back in industrial expansion. But the bulk of bankers started as merchants, gradually becoming specialized in the financial side of commerce. Ten of fourteen private bankers in Liverpool—a commercial city, to be sure—sprang from wholesale houses (Pressnell, 1956, p. 49). Often a merchant devised a system for making or collecting payments at a distance and was asked to perform such services for others. The Bank of England was started during the Nine Years' War by wine merchants who found themselves with liquid capital as they sold their stocks and had no opportunity to replace them.

[1] I can scarcely refrain from pointing out that these economies tend to be lost in the international system when there are fluctuating exchange rates, no international money, and a disintegrated international capital market.

Beer also involved capital accumulation that in a number of instances led the brewer into banking.

Both banking and commerce involve the overcoming of distance, and the geographical pattern of banking was linked to commerce. Cities are typically located at a break in transport, and such a break must lie across a trade route (Duncan *et al.*, 1960, p. 39). London, Paris, Cologne, Rome, and Montreal lie on major rivers at the first ford or shallow part up from the sea. Berlin lies at the point of transshipment for bulk cargoes moving from the Oder to the Elbe (Henning, 1971). Lyons and Frankfurt were historic fair towns on international caravan trails, and the *furt* in Frankfurt stands for ford—the ford of the Franks on the river Main. As we shall see, the coming of the railroad, a major innovation in transport in the nineteenth century, changed the character of banking and the location of some financial centers, and only timely action by communities to influence the shape of the railroad network prevented other changes adverse to them.

Not all commodities are identical in their impact on transport or the location of financial activity. It is possible to construct a "staple theory" of finance, at least for the early stages of banking development, to explain the particular impact of different commodities on the size and pattern of financial flows. Seasonality of financial requirements is one aspect; unique production processes, a need for bought inputs, and time needed to consume outputs are others. Ports are dominated by particular commodities financed in certain ways, and this affects their financial development: Liverpool by cotton and wheat, Glasgow by sugar and tobacco, Cherbourg by cotton, Bremen by cotton and coffee (financed in London), etc.

The mechanism by which the location of a city, the transport network, and the economic characteristics of the goods and services in which an area specialized determined the financial pattern was partly Darwinian and partly the result of deliberate action by government or private individuals. The Darwinian evolution of the banking pattern is illustrated by depressions that wiped out both badly located banks and bankers and those who were well-located but incautious. State policy is reflected by the centralizing policies of the Bank of France and French government, which in 1848 wiped out the provincial banks established during the 1830s, and by the decentralizing pressures in Canada and the United States. The strength of regional banking in France in the period before World War I was in spite of, not owing to, state action, which typically operated at that time to discourage regional autonomy. At the private level, local action fostered means of

transport and opposed rival financial centers. Of great interest, banks, bankers, corporation head offices, and the like deliberately changed locations, often saving face by professing loyalty to their birthplace. Goldstein and Moses (1973, p. 485, note 40) describe Webber's game-theoretic model of location decisions under uncertainty with the assumption that "once the firm is located, it is impossible to relocate." For banks, as will be evident later, such an assumption lacks historical validity.

Some allowance must also be made for pure accident. I am informed by Juan Linz that Bilbao flourishes in Spain as the second financial center outside of Madrid because Prieto, the Socialist Finance Minister in the 1930s, came from that region and saved its banks while allowing those of Barcelona to fail. The history of European and North American banking is filled with accounts of bankers' quarrels based on personal, social, political, and religious differences, which may or may not be superficial rationalizations of deep-seated economic forces.

On a staple-theory showing, banking starts out to serve the needs of sovereigns and nobles; develops in connection with commerce; then less personally with governmental finance; next with transport, including shipping, canals, turnpikes, and railroads; then with industry; and finally with intermediation in insurance, mortgages, consumer finance, factoring, pension funds, and the like. In a highly developed setting like New York or London, the money market in a broad sense includes (1) a money market with many specialized segments for commercial paper, acceptances, collateral loans, Treasury bills, federal funds (in New York), certificates of indebtedness, etc., and (2) a capital market, both private and governmental, dealing in new issues and secondary distribution, together with (3) trading in commodities, foreign exchange, bullion (in London, Paris, and Zurich), and, to a lesser degree, ships and ship charters, and insurance (Madden and Nadler, 1935, p. 110). The borrowing and lending pattern starts locally and extends to a national center, with perhaps intermediate regional stops, finally becoming international. Specialization grows in instruments and functions and by hierarchical market. Inflations, depressions, wars, and the like distort or intensify the pattern.

The hierarchical character of financial specialization was originally discussed by an economic historian, N. S. B. Gras (1922), who developed a theory of stages of metropolitan development in which finance was the apex. There is a national credit market in a country, but it is spatially concentrated in a hierarchical pattern. As summarized by Duncan (1960, p. 84), Gras traces through four phases the growth of

the metropolis to serve a hinterland: (1) commerce, (2) industry, (3) transport, (4) finance. Finance is more concentrated than commerce, industry, or residence. In 1929, 4 counties had one-quarter of the savings deposits in the United States—a poor measure of financial concentration—whereas 11 counties shared one-quarter of retail sales, and 27 counties shared one-fourth of the population (McKenzie, 1933, p. 62). In 1955, New York had $4.4 billion of nonlocal loans, compared with $1.2 billion for Chicago and $490 million for San Francisco—another measure of metropolitan character (Duncan *et al.*, 1960, p. 117). Similar data for Canada in the 1960s are given in Chapter VIII.

Cities, according to Vernon (1960, pp. 70, 73), attract industries or services in which there is great uncertainty and need for face-to-face contact, those in which speed of interaction is a requisite. Unstandardized outputs lead to agglomeration as a convenience for the shopper. The port of New York attracted the wholesalers, who pulled in the financial institutions, which attracted the central offices of national corporations (Vernon, 1960, p. 80). A detailed study of New York's financial functions (Robbins and Terleckyj, 1960, p. 38) supports this view and discusses the external economies arising from specialization, joint facilities, and the services of other industries such as printing. Shopping convenience is mentioned, but perhaps too little is made of the fact that the broader the financial market, the greater the liquidity of security issues, with the result that lenders and borrowers from other regions will transfer to that market their gross demands and supplies, not just net excess demand or supply. The borrower pays a lower rate of interest and/or is able to issue a larger loan. The lender acquires a qualitatively different investment because it is traded on a broader secondary market, which is why he is willing and often eager to accept a lower interest rate (Kindleberger, 1963, pp. 191–192). Insurance companies are less centralized than most other segments of the money and capital market because of a pronounced preference by consumers in the United States for locally issued insurance policies (Robbins and Terleckyj, 1960, Chap. VI).

In addition to economies, there are diseconomies which work against centralization and favor regional markets. The foremost is cost of information, which gives local credit markets an advantage in dealing with small firms in an area. Unfamiliarity with local personalities and character may discourage central money and capital markets from lending locally. The difference in time is another diseconomy of centralization that has supported the growth of North American markets as against European, the Eurocurrency market as against New York,