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The effects of nationwide banking on concentration: Evidence from abroad

Economic events in 1984—a chronology

The product market in commercial banking: Cluster's last stand

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The effects of nationwide banking on concentration: Evidence from abroad

Herbert Baer and Larry R. Mote

In thinking about the liberalization of branching and product line restrictions on commercial banks, Americans should not ignore the banking history of other countries. Many observers have relied on casual appraisals of those experiences to conclude that the adoption of unrestricted interstate banking would lead us to duplicate the concentrated banking structures of other countries.[1] The following pages explore both this concern and the impact of product line restrictions on concentration by briefly examining the banking systems of five countries which have adopted some form of nationwide banking: Canada, France, Germany, Japan, and the United Kingdom.

Although data limitations make such a study difficult, the facts that were uncovered suggest that fears of excessive concentration resulting from nationwide branching are exaggerated. In several countries the apparent high levels of concentration are illusory, because many thrift institutions provide the same array of services that commercial banks provide. And in those countries where banking really is concentrated, this appears to result from the existence of barriers to entry which do not and would not exist in the United States.

The problem and its background

The chances for passage of federal legislation to permit interstate branching or interstate acquisitions of banks by bank holding companies appear to have increased greatly over the past decade. Compacts among the states in various regions of the country have already come into existence to achieve the same purpose on a smaller scale. The prospect of nationwide banking has led to considerable concern about the effects of such a development on the financial structure, in particular the number and size distribution of banks, and on the competitiveness and efficiency of the financial system. Many fear that the removal of all restrictions will lead to a highly concentrated banking structure.

Why concentration is of concern

Assuming that elimination of the barriers to interstate banking would in fact lead to sharply increased nationwide banking concentration, why is this a matter of concern? One reason is the potential effects of concentration on economic efficiency in local markets. By making implicit and explicit collusion in local markets easier, the creation of concentrated markets through merger and acquisition may foster economic inefficiency when economies of scale are not important. This collusion affects efficiency by driving a wedge between price and marginal cost and by inducing firms to expend resources inefficiently in order to maintain or increase their share of the oligopolistic rents.[2] While these effects of collusion also occur when economies of scale are significant, they may be partially or completely offset by price reductions due to cost savings. Concentration is most likely to lead to inefficiency when entry and exit are costly. Unfortunately, local banking markets have a number of characteristics that make entry and exit costly.[3]

Evidence from the United States

Nothing in the U.S. experience lends itself directly to predicting the structural effects of interstate banking. Nevertheless, some suggestive evidence is available in the form of studies of economies of scale in banking—the relationship between bank size and costs—and comparisons of states with different branching laws.

Economies of scale studies

Some students of banking have concluded that unrestricted interstate banking would not in fact lead to a highly concentrated banking structure in the United States. This conclusion

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is based on several studies of bank operating costs that failed to show any significant economies of scale beyond the modest asset size of $50-$100 million.[4] However, as was recently pointed out in a critical survey of the literature on bank costs, these studies ignore other possible advantages related to size, such as economies of scale in diversifying risk or in management of the bank's reserve position, and fail to take into account the effect of regulation in obscuring the importance of economies of scale.[5] Moreover, virtually all bank cost studies have shown economies with respect to the size, as opposed to the number, of bank loans, suggesting that large banks may be needed to serve large corporate borrowers.

Comparisons between states

Because the permissibility and geographic scope of branching within each state are governed by the laws of that state, comparisons of banking structures across states having different branching and multibank holding company laws can shed some light on the likely effects of permitting interstate banking. Several clearcut relationships are revealed by such comparisons. For example, Gilbert reports that in June 1982 the five-firm concentration ratio averaged 75 percent in states permitting statewide branching and 41 percent in states that do not permit statewide branching.[6] State comparisons by other authors show similar results and provide the basis for several additional generalizations.[7] States permitting statewide branching tend to have fewer and larger banking organizations and higher statewide concentration. Studies of banking structure in states that have liberalized their branching and multibank holding company laws report results that are broadly consistent with those based on interstate comparisons.[8] In general, states adopting statewide banking experienced increased rates of consolidation, increases in statewide concentration, and declines in the number of banking organizations.

Although these studies suggest that a substantial amount of consolidation is likely to occur if unrestricted interstate banking is permitted, they do not permit a reliable estimate of the ultimate increase in nationwide concentration that would result. There are several reasons for this. First, state measures ignore the importance of out-of-state suppliers of financial services through loan production offices and nonbank subsidiaries. Second, large banks in statewide branching states are protected from competition by large out-of-state banks. Third, to the extent that there are significant economies of scale in banking, but only up to some relatively moderate level of output, they will play a less important role in determining market structure the larger the market in which banks are permitted to operate. Fourth, the pattern of intrastate consolidation has been dictated in part by antitrust legislation. These considerations all suggest that analysis of differences in state banking structures related to differences in branching restrictions provides a useful but not fully adequate basis for forecasting the shape of the U.S. banking structure after the removal of interstate banking restrictions.

Evidence from foreign countries

The experiences of other countries provide the only alternative source of evidence on the effects of nationwide banking. A study based on these experiences has the advantage of using data for geographic areas that are both closer to the United States in size and that have similar conditions of entry for large banks. As was noted earlier, casual observation of the experience of foreign countries permitting nationwide banking suggests that geographic deregulation might lead to a massive increase in concentration of the U.S. banking system. However, such comparisons are not without their own problems. Countries have different policies concerning chartering, interest rate regulation, and permissible activities that may affect the structure of banking. Moreover, many of the comparisons that have been made have not been based on consistent and economically meaningful product market definitions. This increases the difficulty of using foreign experiences with nationwide banking to predict the outcome of its adoption in the United States.

This study is designed to take a more systematic look at foreign experiences, utilizing a more uniform and meaningful definition of "banking" in compiling the data and attempting to relate the structural changes in foreign banking systems to merger, branching, and entry policies. The purpose is to ascertain the degree to which foreign banking systems have

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been shaped by unimpeded market forces and the degree to which they have been shaped by regulatory intervention. The paper draws some conclusions relevant to the situation in the United States.

National market structures

The criteria for including a category of institutions in the market for banking services were that the firms in that category offer payments services and deposit-taking services and engage in consumer and/or commercial lending. Payments services include interest-bearing and non-interest-bearing checking accounts, Giro services, and, in the case of Japan, preauthorized debits.[9] In the case of Canada and the United States, this approach required us to distinguish between the wholesale and retail markets. In the other countries, this was not necessary.

It should be pointed out that the procedure followed here does not guarantee that the concentration figures relate to an economically meaningful product market or that they include all institutions effectively competing in any given product line. However, the approach used here goes beyond the "cluster of services" approach that has resulted in the exclusion of all institutions but commercial banks from the market in judging the competitive effects of bank mergers in the United States. By defining "banking" in terms of two essential products—transaction accounts and some form of non-real estate lending—this paper includes in the market a range of institutions that is broader than that yielded by the traditional cluster approach but narrower, at least in some cases, from that which would result from a strict product line by product line approach.

Because the degree of concentration varied between loan and deposit markets or between total and domestic lending, upper- and lower-bound estimates of national concentration ratios were developed using the most recent data available. In addition, market concentration histories were developed for each country including all the types of institutions believed to be in close competition with the banks. However, for reasons of data availability, all market concentration histories are based on deposit data.

The historical concentration measures were calculated at five-year intervals for the period 1930 to 1975 (excluding World War II) and yearly from 1975 to 1980. The measure of structure used was a five-firm concentration ratio. The levels and trends in this ratio for various countries are discussed in the following pages and summarized in Tables 1 and 2.

An overview

As the estimates of banking concentration in the first column of Table 1 suggest, nationwide concentration is extremely high in Canada, France, and the United Kingdom, all of which permit unrestricted nationwide branching by commercial banks. In Japan, which imposes some geographic restrictions on branching, and the United States, which generally limits branching to the individual state, concentration is considerably lower. In Germany, which permits nationwide branching by commercial banks, but restricts branching by its full-service savings banks, concentration lies between these extremes. In the analyses of individual countries that follow, an attempt is made to relate these differences in concentration levels and trends to differences in regulatory policies.

United Kingdom

There are three groups of institutions active in the British banking market. The first group, which may be referred to as the private banking system, is composed of both publicly traded and privately held institutions that engage in at least the basic commercial banking activities. This group is further subdivided according to the range and magnitude of the firms' banking activities into licensed deposit takers (LDTs), "recognized banks," and the 13 clearing banks.

The second major group of competitors in the financial arena consists of the mutual institutions. The building societies, mutual organizations that issue savings deposits and make residential mortgage loans, account for a majority of assets in this group, but can only make residential mortgage loans. The trustee savings banks (TSBs) are the other major form of mutual institution. Originally restricted to taking savings deposits and reinvesting them in government and other gilt edge securities, the TSBs have been evolving since the mid 1960s into bank-like institutions. In 1976 the TSBs

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Table 1
Five-firm concentration ratios for the United States and five countries with nationwide branching

	Upper bound	Lower bound
Canada commercial[1]	85.0	70.7
Canada consumer[2]	60.0	38.0
France[3]	87.0	73.0
Germany[4]	56.8	26.0
Japan[5]	32.0	22.0
United Kingdom[6]	73.0	50.0
United States commercial[7]	19.0	14.0
United States consumer[8]	9.7	7.0

[1] Upper-bound estimates based on commercial loans and transactions accounts. Includes only chartered banks. Data from various tables in *Bank of Canada Review* (January, 1984), and *The Banker* (June, 1983).

Lower-bound estimates based on corporate non-transactions accounts. Includes chartered banks and trust companies. Data from *Bank of Canada Review* (January, 1984), *The Banker* (June, 1983), and H. H. Binhammer and Jane Williams, *Deposit-Taking Institutions: Innovation and the Process of Change* (Ottawa: Economic Council of Canada, 1976).

[2] Upper-bound estimate based on personal savings at chartered banks, credit unions and *caisse populaires*. The lower bound also includes trust companies and is based on checkable personal savings.

Data from *Bank of Canada Review* (January, 1984) *The Banker* (June, 1983), H. H. Binhammer and Jane Williams, *op. cit.*, and reports from the Canadian Cooperative Credit Society.

[3] Includes the *banques inscrites*, the *banques populaires*, the *caisses de crédit mutual*, and the *caisses de crédit Agricole*. The upper-bound estimate is based on foreign and domestic deposits. The lower-bound estimate is domestic sight deposits only. Data from the Banque de France, *Bulletin Trimestriel* (December, 1983), *Moody's Bank Stock Manual*, and various annual reports for 1983.

[4] Upper-bound estimates based on demand deposits at commercial banks only. Lower-bound estimates include demand deposits at commercial banks, 12 central Giro institutions, 592 savings banks, and 2253 credit cooperatives. Data from *Monthly Report of the Deutsche Bundesbank* (January, 1984) and *The Banker* (June, 1983).

[5] Upper-bound estimates based on commercial banks only. Lower-bound estimates based on demand type deposits at commercial banks, 71 *sogo* banks, 456 *shinkin* banks, and 6574 credit cooperatives. Data from the Bank of Japan, *Economic Statistics Monthly* (November, 1983) and Federation of Bankers Associations of Japan (1982).

[6] Upper-bound estimates based on sterling lending to U.K. borrowers by recognized banks. Lower-bound estimates are based on sterling and foreign currency lending to U.K. borrowers. Data from *Bank of England Quarterly Bulletin* (March, 1983).

[7] The upper bound is based on total foreign and domestic deposits while the lower bound is based on commercial and industrial loans to U.S. addressees. Data are from the December 31, 1983 *Report of Condition*.

[8] The upper bound is based on interest-bearing transactions accounts at commercial banks. The lower bound is based on such deposits at both commercial banks and thrifts. Data are from the December 31, 1983 *Report of Condition* and Federal Reserve Statistical Release H.6, *Money Stock, Liquid Assets and Debt Measures*.

were given permission to offer a full line of banking services.

The third and final group of competitors in the banking marketplace consists of two government-owned institutions, the National Savings Bank and the National Giro, which operate through the British post office. The National Savings Bank provides a savings vehicle while the Giro provides an alternative to the payments mechanism of the clearinghouse banks. Neither of these institutions engages in loan originations.

Competitive environment. The British financial system displays all the hallmarks of a tight oligopoly. As indicated in Table 1, an upper-bound estimate of the five-firm concentration ratio is 73 percent. As long as non-mortgage sterling assets or liabilities are viewed as the relevant market, this estimate is not greatly affected by the inclusion or exclusion of the licensed deposit takers. The lower-bound estimate only comes into play when all non-mortgage lending (sterling and foreign currency) to persons and firms domiciled in the United Kingdom is considered.

The conclusion that the British banking system is highly oligopolistic is further supported by five additional observations concerning the behavior of market participants. First, British financial institutions have a long history of collusive activity. The clearing banks established a cartel in the 1930s which until 1971 restricted hours of operation, prohibited payment of interest on transaction accounts, and fixed the interest payments on demand deposits.[10] Building societies have also established cartel arrangements that tend to keep the interest rates on both deposits and mortgages below their market clearing levels. Second, the failure of many British households to have checking accounts at British banks (the major providers of such services) is prima facie evidence that the price of checking account services is extremely high. Somewhere between 30 and 50 percent of British households do not have a checking account as compared with only 21 percent in the United States.[11] Although the clearing banks' control of the payments mechanism is not absolute, as we will discuss below, their dominant position gives them a certain amount of control over prices charged by alternative suppliers. Third, where other suppliers are able to compete with the clearing banks on a more or less equal footing, the clearing banks' market shares have fallen

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sharply. The rapid growth of nonbank financial institutions in the 1960s, attributable in large part to their aggressive pricing, was made possible by their exclusion from the cartel.[12] However, oligopolistic pricing continued even after the cartel was formally disbanded by the Bank of England in 1971. Between 1970 and 1980 the London clearing banks' share of all deposits of nonbank residents and firms in the financial system (defined to include building societies, TSBs, and LDTs) fell from 67 percent to 43 percent, while deposits at other banks, LDTs, and building societies rose from 25 percent of the total to 50 percent. Fourth, foreign banks have made steady inroads in the corporate banking market. Finally, there have been some attempts by foreign banking organizations to penetrate the domestic retail banking market.

The numbers presented in Table 2 suggest that British banking has undergone a modest deconcentration since the 1950s. Between 1955 and 1980 the five-firm concentration ratio fell from 84 to 68. The major factor promoting this deconcentration was the entry of foreign banks into the corporate market. These figures also suggest that the merger wave of the late 1960s temporarily reversed the deconcentration trend, increasing the concentration ratio by 4 points over the period 1965-1970.

Table 2
Five-firm concentration ratios, 1930-1980

	Canada	France	Germany	Japan	U.K.	U.S.
1930	84	41	44	22	70	9
1935	85	44	51	27	65	11
1950	80	66		31	84	13
1955	80	70	27	29	84	14
1960	83	65	24	26	83	15
1965	86	66	25	23	81	14
1970	85	57	24	21	85	16
1975	81	60	24	20	70	18
1976	83	65	25	20	67	18
1977	82	66	25	20	66	18
1978	80	67	25	20	66	18
1979	79	76	26	20	68	19
1980	80	81	24	22	68	18

SOURCE: Herbert Baer and Elizabeth Pongracic, "The Development of Banking Structure Histories in Five Countries," unpublished paper, Federal Reserve Bank of Chicago, 1984.

Merger policy. The highly concentrated banking structure of the United Kingdom is a product of many past mergers. Beginning in the latter part of the 17th Century, the amalgamation movement was accelerated by an 1826 act that permitted the establishment of joint-stock banks and acts in 1858 and 1879 that limited shareholder liability.[13] At least 526 mergers had occurred by 1918, some 373 of which had been consummated in the preceding 60 years. Despite the indirect encouragement given to the merger movement by legislation favoring limited liability joint-stock banking, the government neither actively promoted or prohibited mergers prior to 1918.

Although concern was expressed by the Treasury Committee on Bank Amalgamations in 1918 regarding the potential adverse effects of the amalgamation process—including reduced competition, monopoly, and a further shrinkage of capital-to-deposit ratios—little was done to halt the process. There were 26 more mergers between 1919 and 1924, and the number of banks continued to decline through the early post-World War II years.

In a detailed analysis of the amalgamation movement in English banking published in 1926, Joseph Sykes strongly criticized the government's failure to take action to prevent the movement from leading to monopoly.[14] About the same time the government adopted a policy of discouraging mergers between large banks. In retrospect it appears that most of the damage had already been done. The domination of British banking by a few large firms has its roots in mergers that occurred during World War I. Moreover, as R.S. Sayers later noted, "Since 1918 governments have, in the interests of preserving adequate competition, had a settled policy of preventing any further merging of the great banks . . . ."[15] Thus, concentration in British banking increased only modestly over the half century following World War I.

However, in the mid 1960s, the government's attitude toward bank mergers became more hospitable. In 1968, National Provincial and Westminister Banks merged. This was followed by the merger of National Commercial Bank of Scotland with the Royal Bank of Scotland. This merger wave ended

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with the acquisition of Martins Bank by Barclays. Since 1968, acquisition programs have been directed at merchant banks, discount houses, and finance companies rather than banks.

Barriers to entry. There are five barriers of varying importance confronting firms wishing to compete with the British clearing banks. They are: restrictions on product lines, the preferential tax treatment afforded depositors of building societies, limited access to clearinghouse facilities, control of the use of the words "bank" and "banking", and the density of the existing branch networks. Restrictions on the activities of building societies pose the most important barrier to entry in British banking. Although building societies are the logical competitors of the British clearing banks, their inability to engage in non-mortgage lending not only closes them out of commercial and consumer lending but also makes it more difficult to offer transactions services since British checking accounts usually offer overdrafts, which are a form of lending.[16]

Control of clearinghouse arrangements also presents a significant barrier to entry. Non-members wishing to clear checks can do so only by arranging for clearing facilities with members. Fragmentary evidence suggests that when privileges are finally granted they are often accompanied by restrictions concerning the payment of interest on transaction accounts, the total amount of clearing that will be handled, and the price of the clearings. Taken together, these barriers to entry contribute to the high level of concentration in British banking and reinforce its anticompetitive effects.

West Germany

The West German financial market is served by four types of depository institutions. The commercial banking sector is the largest, accounting for a half of all assets at depository institutions. This sector is dominated by the Big 3—Deutsche Bank, Dresdner Bank, and Commerzbank—which control about 20 percent of all assets at depository institutions. However, there are 237 other commercial banks, 9 of which held over $2.5 billion in assets in 1983. Two of the nine, with assets of $45 billion and $38 billion, are roughly the same size as Commerzbank though their branch networks are concentrated in southern Germany. Commercial banks have nationwide branching privileges.

Sparkassen, state or municipally owned savings banks, with a quarter of all assets, are the second most important group of depository institutions. The savings banks provide all the same services as the commercial banks and have developed an extensive commercial lending business that includes many large firms. Unlike commercial banks, savings banks may branch only within the state, county, or city in which they are organized and cannot branch outside the country. Of the 595 savings banks, 13 had assets in excess of $2.5 billion in 1983. An additional 148 savings banks each held between $400 million and $2 billion in assets. Mutually owned credit cooperatives are also important participants in the West German financial market, accounting for 20 percent of all banking system liabilities and 11 percent of all lending to nonbanks.

The importance of the last group of financial market participants is the most difficult to assess. This group is composed of the thirteen central institutions for savings banks (one for each state), or Girozentralen, and the nine central institutions for credit cooperatives. These institutions were set up to reinvest excess funds of their members and to act as clearing houses for Giro systems. These institutions are allowed to branch within their home state or states and may set up foreign branches. All of these institutions are quite large—five of the ten largest West German depository institutions fall in this category. Because the Girozentralen engage in significant amounts of lending and raise a large proportion of their funds from nonbank sources through the taking of deposits, they are treated as part of the banking system. However, the central institutions for credit cooperatives do not engage heavily in these activities and are therefore excluded.

Competitive environment. Considerable consolidation took place in German banking earlier in this century as the number of private banking firms fell from over 2,000 in 1928 to 209 in 1964 and the number of offices belonging to the Big 3 rose steadily.[17] However, the German banking system remains much less concentrated than the British system. If only commercial banks are included, the five largest account for about 57 percent of all deposits (see

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Table 1). Including the savings banks, credit cooperatives, and the Girozentralen reduces this figure to 26 percent. The five-firm concentration ratio has been virtually constant throughout the postwar period, varying between a minimum of 24 and a maximum of 27.

Barriers to entry. There are relatively few barriers to entry into banking activities in Germany. No one group of institutions has a stranglehold on the payments mechanism, and there are also no major product line restrictions. This has permitted the savings banks and credit cooperatives to serve as alternatives to the commercial banks and helps to explain the lower concentration of the West German banking system relative to that of the United Kingdom.

Japan

The Japanese banking system bears a striking resemblance to the German system. As in the German system, commercial banks, mutual loan banks (sogo banks), and cooperative credit organizations (shinkin banks and credit cooperatives) are all important providers of banking services. Commercial banks are further subdivided into two groups, the 13 city banks and the 63 regional banks. As of 1981, the city banks ranged in asset size from $40 billion to $87 billion.

The Japanese commercial banks have a much larger share of the market for banking services than do German banks. City banks account for 41 percent of total loans, 40 percent of total transactions balances, and 33 percent of total time deposits. In Germany, in contrast, commercial banks account for only 21 percent of all loans, 35 percent of all transactions balances, and 19 percent of all time deposits.

Two other categories of banks, the seven trust banks and three long-term credit banks, were omitted from the analysis. The trust companies were excluded because a majority of their business is with trust accounts, while the long-term credit banks were excluded because they engage primarily in long-term lending and raise most of their funds through the issuance of debentures.

Merger and entry policy. The Japanese banking system evolved much later than the banking systems of Europe and North America. As late as 1868, most lending was done by a few large merchant families. In that year the first "exchange houses" (Kawase) were formed; these both accepted deposits and made loans. In 1872, after the failure of several exchange houses, the government abolished them in favor of a system of national banks modeled after that of the United States.[18] However, continued inflation and a number of bank failures led to disillusionment with the system, and legislation enacted in 1896 provided for the dissolution of the national banks or their conversion into joint-stock banks. Of 153 national banks, 132 continued in operation as joint-stock banks. The total number of banks (commercial, special, and savings banks) increased from 703 in 1893 to a peak of 2,359 in 1901.

Thereafter, the banking system of Japan underwent a major consolidation similar to that experienced in most European countries several decades earlier. In 1901 capital requirements for both new and existing banks were raised, restricting the establishment of small banks and encouraging amalgamations. The outbreak of World War I gave a further boost to amalgamations, and 150 commercial banks were absorbed by merger in six years. After the failure of 39 banks during the crisis of 1927, the treasury actively encouraged mergers through administrative means. Coupled with an increasingly restrictive entry policy, this encouragement of mergers reduced the number of commercial, special, and savings banks from 2,285 in 1918 to 1,163 in 1928, of which 1,031 were commercial banks. Thereafter, the number of commercial banks fell to 872 in 1930, 351 in 1940, and 245 in 1941. During World War II, the amalgamation movement was accelerated sharply by government actions dictated, in large part, by the war effort. Through the absorption of smaller banks the number of commercial banks was reduced sharply to 61 by the end of the war.

A U.S.-style anti-monopoly law enacted in 1947 slowed the amalgamation movement in Japanese banking and allowed the number of commercial banks to increase to 78 by 1951.[19] The law was revised after Japan regained its national independence in 1953, and since then, the number of ordinary banks has dropped slightly, from 78 to 77. During this same period, concentration has tended to decrease.

Japanese institutions currently face severe restrictions on de novo branching. For the fis-

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cal year 1983-84 each commercial, sogo, or shinkin bank is permitted to set up one new branch. At this writing commercial banks and sogo banks may possess a branch anywhere in Japan. Shinkin banks are restricted by their articles of incorporation to a specific geographic area. As a result, new nationwide branching systems must be built primarily through mergers and branch acquisition.

Sogo banks and shinkin banks also face restrictions on whom they may lend to. As of 1982 business loans by sogo banks were restricted to customers with less than 300 employees and less than Y400 million in capital. Shinkin banks are restricted to firms with less than 300 employees and Y200 million.[20]

Competitive environment. The relative lateness of the bank consolidation movement in Japan, together with the restrictions on further amalgamation during the occupation, undoubtedly had much to do with the present structure of the Japanese banking system. As Table 1 indicates, that system is by any measure relatively unconcentrated. The upper-bound estimate of the five-firm concentration ratio is 32, while the lower-bound estimate is 22. Throughout the postwar period Japanese banking markets have tended to become less concentrated, as reflected in the decline of the five-firm concentration ratio from 31 in 1950 to 22 in 1980.

This decline in concentration reflects primarily the decreasing importance of the city banks as a group rather than any significant changes in the relative sizes of the five largest banks. In fact, throughout the period of the study the five largest banks have remained more or less equal in size.

Unfortunately, the Japanese practice of regulating loan and deposit rates so distorts the market that it is difficult to make any definite statements concerning the degree of competition. Should these regulations be removed, it is likely that concentration would increase since smaller inefficient banks would be less protected from competition by more efficient but less conveniently located rivals. While there have been major shifts in the distribution of deposits among different types of institutions—often an indication that certain market players are exercising market power—they seem to have resulted from interest rate ceilings and the existence of a tax-free postal savings system.

Canada

In Canada, banking services are provided by three major groups of firms: chartered banks, trust companies, and cooperative credit organizations. At present there are 71 chartered banks, 13 of which are Canadian owned. Commercial banking is dominated by five large Canadian-owned banks whose deposit sizes in 1981 ranged from $34 billion to $69 billion. Canadian commercial banks provide a full line of banking services and are permitted to branch nationwide.

Trust companies specialize in using time deposits to fund holdings of mortgages and other long-term securities. They are not permitted to engage in commercial lending and, although they are permitted to offer transactions accounts, they account for only a small part (about 3 percent) of total liabilities.

The cooperative credit organizations—the credit unions and the caisses populaires—are the third force in Canadian banking. These institutions play an important role in the retail end of the banking market, providing significant competition to banks in the provision of transactions accounts and consumer credit. Branching regulations depend on the licensing authority. Trust companies may branch nationwide while credit unions, which are provincially chartered institutions, are restricted by their charters to a certain geographic area, always within their home province.

Competitive environment. The Canadian banking system represents a blend of the British system on the one hand and the German and Japanese systems on the other. Retail banking bears some resemblance to the German and Japanese systems, in that the eleven Canadian-owned chartered banks compete with trust companies, credit unions, and caisses populaires for transactions accounts, time and savings deposits, and consumer lending. As Table 1 suggests, this segment of the market is modestly concentrated. It is estimated that the five largest institutions control between 30 and 60 percent of the market. Wholesale banking in Canada more closely resembles the British system. In this segment of the market, the

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major players are the 11 domestically owned banks and the foreign-owned banks. However, trust companies provide important competition in the corporate time deposit market. In the wholesale market it is estimated that the five largest banks control 85 percent of all commercial lending and transactions accounts and 70 percent of all time deposits. These concentration ratios suggest that the retail banking market is modestly competitive while the wholesale market is a tight oligopoly.

The time series data in Table 2 provide a good picture of the level of concentration in Canadian banking. Throughout the entire period the five-firm concentration ratio has remained relatively steady, bumping around between a low of 79 and a high of 86. Increases in concentration were generally associated with mergers.

There is considerable evidence that the Canadian Bankers Association has tended to function as a cartel, fixing maximum rates on deposits and minimum rates on loans and establishing common fee schedules. These restrictions virtually eliminated price competition among the chartered banks.

In 1964, the Report of the Royal Commission on Banking and Finance recommended sweeping changes in the government's treatment of banking, including "[A]n alternative approach [that] recognizes the spread of competition and seeks to encourage it."[21] The Canadian Bank Act of 1967 introduced a number of provisions designed to increase competition, including the removal of the statutory ceiling on loan rates, authorization for commercial banks to hold conventional mortgages, and the prohibition of collusive setting of interest rates on loans and deposits. However, even after the prohibition of the cartel in 1967 there was little change in pricing behavior, presumably because the oligopolistic structure of the industry was unchanged. Throughout the period, Canadian chartered banks have managed to avoid paying interest on corporate demand deposits despite the absence of any legal prohibition.

Merger policy. As in the case of the United Kingdom, the highly concentrated banking system of Canada is in part the product of mergers. Prior to the turn of the century, Canada had a very strict merger policy; banks wishing to merge had to obtain permission from Parliament. In 1900 this process was simplified, and by 1930 there had been 28 bank mergers. In the postwar period further consolidation led to the creation of the Toronto-Dominion Bank in 1955, the Canadian Imperial Bank of Commerce in 1961, and the National Bank of Canada in 1979. The government's encouragement of mergers, in conjunction with nationwide branching and the more restrictive chartering policy, helped to produce the extremely high concentration of Canadian wholesale banking that exists today.[22]

Barriers to entry. While the banking structure in Canada strongly resembles that of the United Kingdom, there are some significant differences in the nature of the barriers to entry. Prior to 1980, banks in Canada seem to have had a stranglehold on the check clearing process. This was maintained through the control by the Canadian Bankers' Association of the 51 clearing houses in major cities.[23] However, unlike in the United Kingdom, de novo entrants face significant barriers to entry. Prior to 1980, domestic charters could be obtained only by an Act of Parliament, and the growth of foreign banks is still limited by law. It was also generally acknowledged that the effective capital requirement set by the authorities, which exceeded the statutory one, reduced the attractiveness of new entry.[24] Finally, in contrast to the United Kingdom, product line restrictions have not played an important role in preserving the retail market share of the chartered banks.

Since 1980, de novo domestic entry has been made easier. Charters can now be obtained without an Act of Parliament, trust companies can obtain a bank charter, other financial institutions are permitted to establish new banks, and provincial governments may hold up to a quarter of a bank's shares. The relaxation of entry restraints has already led to a substantial increase in the rate of entry. Between enactment and the end of 1982, five new domestic chartered banks have appeared, raising the total from 11 to 14. While this increase has not yet had a significant impact on performance, it is likely that over the ensuing decades the effects of the new policy will be significant.

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France

In many respects, the French banking system is atypical of those found in most Western countries. Because of a greater degree of governmental intervention in the credit allocation process, the French banking structure reflects the impact of regulation much more, and the influences of market forces much less, than is the case in the other countries under consideration. This intervention has included the nationalization of banks accounting for about 90 percent of total commercial bank assets as well as a conscious governmental policy of regulating the number and size distribution of banks.

Since 1945, French banks have been divided into three broad categories for purposes of regulation: deposit or commercial banks, investment banks (banques d'affaires), and the banks of medium- and long-term credit. In addition, a number of the cooperative institutions—the popular banks (banques populaires) and agricultural banks (*caisses de credit agricole*)—engage in many banking activities, including the offering of transactions accounts. Collectively, these five types of institutions are known as banks. All of them compete in the short-term deposit and credit markets. Some competition is provided in the retail market by the savings banks (caisses d'epargne). Until recently, these institutions were limited to taking savings deposits, which were then invested for them by the Caisse Nationale d'Epargne in government securities. However, beginning in the late 1960s, the powers of the caisses d'epargne were broadened. In 1968, they began offering checking accounts. In 1971, they were permitted to begin offering mortgages and personal loans. The deposit banks are dominated by the three survivors of the large credit establishments (etablissements de credit), which were nationalized in 1946. Together, these three institutions maintain more than 5500 branches throughout France and account for over 60 percent of the total assets of the more than 270 deposit banks. In 1981 the Socialist government nationalized most of the remaining banks. Only foreign-owned banks and 53 small regional banks remain under private control.[25]

Also important as a source of credit, albeit much more specialized, are the agricultural banks, or caisses de credit agricole. Numbering about a hundred, they operate over 3,000 branches and have total assets equal to almost 40 percent of those of the deposit banks. Since 1926, they have been organized into a single system under the Caisse Nationale de Credit Agricole, which now ranks among the world's largest financial institutions. Until recently, they specialized in agricultural credit and obtained only about a third of their funds through the issue of deposits. But they have greatly expanded their commercial lending and international activities and are a major supplier of demand deposit services to customers in rural areas. Hence, the Credit Agricole must clearly be included with traditional banks in any meaningful definition of the product market.

Competitive environment. As Table 1 indicates, French banking is highly concentrated, with a five-firm concentration ratio ranging from 73 to 80. This was not always the case. The first major consolidation occurred during the war years, when concentration rose about 20 percentage points. The second major period of concentration begin in 1966 with the merger of Comptoir National d'Escompte de Paris and Banque National pour le Commerce et l' Industrie. The merger did little to increase concentration as measured by the five-firm concentration ratio (which actually fell between 1965 and 1970) but had a significant impact on concentration measured with a Herfindahl Index. A more important factor in explaining the increases in concentration after 1970 appears to have been the rapid internal growth of the big 3 banks.

Merger policy. Under the powers granted it by the Banking Act of 1945, the Conseil National du Credit (CNC) controlled mergers between banks. Early on, it made clear its position that a higher level of banking concentration was desirable. Between 1946 and 1964, it approved 101 bank mergers. In 1966, the CNC took the initiative in merging Banque Nationale pour le Commerce et l'Industrie with Comptoir National d'Escompte de Paris, reducing the number of large nationalized banks from four to three. This decision was based on the beliefs that greater efficiency could be achieved by the elimination of some duplication in branches and better utilization of equipment and that larger business firms

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needed larger banks to meet their credit needs. More recently, the government has begun to consolidate many of the newly nationalized banks.[26]

Barriers to entry. After its creation in 1946, one of the CNC's first actions was to declare a moratorium on the establishment of new branches while it studied the possible efficiencies to be achieved through closing some existing ones. In 1947, it announced plans to eliminate 10 percent of the branches already in existence. Except where local economic need could be clearly demonstrated it continued to be very restrictive in approving new branches until 1967.

A similarly restrictive policy was followed in chartering new banks. In combination with the liberal merger policy, this resulted in a decline in the number of banks from 444 in 1946 to 298 in 1970. However, a reversal of policy in the late 1960s permitted an increase in the number of banks to 389 in 1982. French credit control techniques also played a role in shaping the structure of the banking market. The French encadrement du credit attempted to control the size of the domestic banking system by limiting the rate of growth of each bank's portfolio. Such a strategy would clearly place limits on the rate at which entry could reduce anticompetitive behavior. The French eliminated the encadrement in 1984.

Local market structures

The comparison of national market structures has demonstrated that nationwide branching is consistent with a wide range of concentration at the national level, depending on the nature of other regulations. An unconcentrated national market is consistent with, but need not imply, unconcentrated local banking markets. Table 3 presents some evidence concerning the relationship between nationwide concentration and local market concentration.

The focus on the local market increases the difficulty of the analysis. Because individual bank deposit data are not generally available for local markets, it was necessary to use branch office concentration ratios. Data on the number and distribution of branch offices were obtained from bankers directories, yellow pages, foreign bank regulators, and foreign trade associations.

The results suggest that among countries with nationwide branching, higher nationwide concentration ratios are generally associated with higher local market concentration ratios. There are two exceptions.

The Canadian consumer market displays a relatively low nationwide concentration and relatively high local market concentration. This disparity probably occurs because credit unions are the most important payments system alternative to chartered banks. In Canada, credit union members must be united by a common bond. The existence of these bonds would cut down on the need for branches.

A similar disparity between national and local market structure in West Germany results from the policy of giving each savings bank an exclusive territory. Consequently, there is no interpenetration of markets through branching, and each savings bank ends up being the firm with the largest number of branches in its market. Often it has two or three times as many branches as the next largest bank.

In order to separate the effects of exclusive chartering of savings banks from the effects of nationwide banking, hypothetical local market structure measures were calculated assuming that the branches of savings banks were equally divided among three institutions. The adjusted figures are much closer to those one would expect to observe given the level of nationwide concentration in Germany. Making this adjustment illustrates the role played by restrictive chartering policy in determining local market structure.

Although the phenomenon is most pronounced in West Germany, local markets are also significantly more concentrated than the national market in the other countries. This reflects the fact that, even without statutory restrictions, most depository institutions tend to specialize to some degree geographically, and very few of them are represented uniformly in local markets throughout the country.

Conclusions

The experience of other major industrial countries suggests that nationwide branching by commercial banks need not result in a highly concentrated national market for banking services. The actual outcome depends on

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Table 3
Five-firm branch concentration ratios for cities in the United States and five countries with nationwide branching

	Population	Branches per thousand of population	Five-firm branch concentration[1] ratio	National five-firm demand deposit concentration ratio
Canada commercial[2]				
Hamilton	312,003	.24	.88	.85
Winnipeg	560,874	.34	.91	
Vancouver	410,188	.58	.97	
United Kingdom[3]				
Bristol	411,500	.42	.95	.73
Manchester	489,300	.46	.81	
Canada consumer[4]				
Hamilton	312,003	.35	.62	.38
Winnipeg	560,874	.43	.77	
Vancouver	410,188	.75	.71	
West Germany[5]				
Dusseldorf	607,560	.47	.64	.26
Kassel	199,450	.27	.64	
Saarbrucken	198,885	.40	.68	
Wurzburg	115,746	.73	.66	
France[6]				
Bordeaux	223,131	.45	.61	.73
Lyon	456,716	.28	.64	
Marseilles	908,600	.15	.53	
Tours	140,686	.35	.68	
Hypothetical[7] West Germany				
Dusseldorf	607,560	.47	.50	
Kassel	199,450	.27	.56	.26
Saar	198,885	.40	.53	
Wurzburg	115,746	.73	.61	
Japan[8]				
Kanazawa	407,318	(.43)[9]	(.54)[9]	.22
Nagoya	2,086,118	.23	.40	
United States[10]				
Atlanta	392,900	.48	.75	.13
Indianapolis	694,600	.28	.86	
Pittsburgh	416,200	.43	.52	
San Diego	844,000	.25	.53	
Seattle	481,000	.45	.60	

1 Proportion of branches owned by the five institutions with the largest branching system.
2 Includes chartered banks only.
3 Includes banks and trustee savings banks.
4 Includes chartered banks, trust companies, and credit unions.
5 Includes banks, *Sparkassen, Raifaissen,* and *Volksbanken*.
6 Includes banks and *caisse dépargne*
7 As above except that *Sparkasse* branches assumed to be divided among three institutions.
8 Includes commercial banks, *sogo* banks, *shinkin* banks, trust companies, and long-term credit banks.
9 Number of *sogo* bank branches estimated.
10 Includes commercial banks, savings banks, and savings and loans. Because FSLIC insured savings banks and savings and loans are less active in the provision of banking services, each savings bank or S&L branch was given 80% of the weight of a bank branch.

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a number of other regulatory and economic factors.

Where government regulation makes entry difficult, nationwide concentration is high. Where entry is relatively free, nationwide concentration is relatively low. Moreover, there is a strong tendency for local market concentration in countries with nationwide branching to vary directly with concentration at the national level. In contrast, in countries which grant exclusive geographic franchises to certain types of depository institutions, local market concentration may be relatively high even when national concentration is low. West Germany is one example.

Disparities between national and local concentration can also occur when certain types of depository institutions are geographically restricted. West Germany and Japan both provide examples of this, but a more extreme one is the United States, where restrictions on both interstate and intrastate branching for years balkanized the country into a large number of semi-autonomous banking regions. In general, geographic restrictions on branching tend to increase measured concentration within the restricted area and decrease it in larger areas, i.e., the nation.

The three cases where banking is relatively unconcentrated—Germany, Japan, and the retail segment of the Canadian market—have five things in common. First, some of the nonbank (and, in Japan's case, bank) competitors are not permitted to branch nationwide. Second, nonbank intermediaries are not prohibited from engaging in bank-like activities. Third, it is possible for de novo entry to occur, at least through the formation of nonbanks. Fourth, the payments system is not under the exclusive control of a few institutions. Fifth, since many of the nonbanks are organized on a mutual or a cooperative basis, a large number of firms are ensured even when bank merger policy is fairly liberal.

In these three countries, many nonbanks face branching restrictions. It is likely that the number of firms operating is greater than it would have been if market forces were given free rein. While removing these restrictions would not necessarily increase concentration, permitting cross-industry mergers would. One of the problems in the United Kingdom is that the clearinghouse banks have been permitted to eliminate potential competitors through the acquisition of merchant banks and hire purchase companies (deposit takers specializing in consumer finance).

Conversely, banking at the national level seems to be most concentrated when geographic expansion is unrestricted, merger policy is liberal, product line restrictions are important, and the payments system is controlled by a few firms. The first two conditions exist in the United Kingdom, France, and the wholesale segment of the Canadian market, while the third exists only in the United Kingdom. More importantly, the British experience suggests that the elimination of legal impediments to entry by banks may not suffice to deconcentrate an already concentrated market. Deconcentration will be impeded if the payments system is monopolized and product line restrictions prevent existing nonbank intermediaries from providing many banking services. Absent this crucial link, however, completely free entry can rapidly erode the position of dominant firms. This occurred in the Canadian retail market between 1955 and 1965 with the rapid growth of the caisses populaires and the credit unions. It appears to be occurring in the Canadian wholesale market in the 1980s within the limits established by the statutory ceiling on assets of foreign banks.

Merger policy clearly played an important role in increasing the concentration of resources in the Canadian wholesale market as well as in the United Kingdom. In both cases, several competitors were merged out of existence after the industry had already become concentrated. Similarly, in France, where previously the concentration level had been lower than in Canada and the United Kingdom but higher than in Germany or Japan, concentration rose sharply after 1946 as a consequence of a policy that both restricted entry and actively encouraged mergers. A reversal of that policy in the late 1960s led to a temporary reversal of the trend towards increased concentration.

Implications for U.S. Policy

Regulatory differences in the five countries surveyed can be summarized according to the legal restrictions faced by thrift institutions and commercial banks. Thrifts may be subject to product line restrictions, branching restrictions, or no restrictions at all. Commercial

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banks may be subject to chartering or growth restrictions, branching restrictions, or no restrictions at all. The consequences for banking concentration of three plausible deregulatory scenarios are discussed below.

Eliminating bank branching restrictions

A policy of permitting interstate branching for commercial banks while retaining geographic and product restrictions for thrifts would likely expose the U.S. wholesale banking sector to the sorts of economic forces that have shaped banking in the United Kingdom. However, unlike in the United Kingdom, new U.S. entrants would have little problem obtaining access to the payments system. This suggests that the wholesale banking sector in the United States would become more concentrated than that in Germany and less concentrated than that in the United Kingdom.

Although the British experience is useful in predicting the impact on wholesale markets of a removal of commercial bank branching restrictions, the German and Japanese examples are clearly more useful in analyzing the impact of such a reform on retail banking. American thrifts have recently obtained substantial consumer lending powers as well as the right to offer transactions type accounts. Their branching restrictions also resemble those of German and Japanese thrifts. Given these powers, elimination of commercial bank branching restrictions would probably result in a higher but still relatively low level of national concentration in retail banking.

Until recently one would have predicted that the effects at the local level would be mixed. Little effect would be expected in unconcentrated markets, while in some concentrated markets, either actual or threatened entry through branching would limit the ability of intermediaries to exercise market power. In other concentrated markets, spatial entry-deterrence strategies designed to exploit the importance of convenience costs—e.g., the saturation of the local market with branches—would have made this sort of discipline relatively ineffective. However, this analysis ignores recent advances in electronic banking. By destroying the importance of spatial entry-deterrence strategies, shared ATM networks may greatly facilitate entry at the local market level.

Liberalizing bank branching and thrift asset powers

A second possible scenario involves the simultaneous relaxation of bank branching restrictions and thrift asset powers. Under this scenario both corporate and retail markets would tend to duplicate the German experience. However, it is once again important to keep in mind that in the larger U.S. market, concentration would probably be considerably lower than that prevailing in Germany.

Complete geographic and product deregulation

Finally, one might contemplate what would happen if all deposit-taking institutions were freed from branching and product line restrictions. Because no country has experienced such complete deregulation, this study provides no direct information concerning market behavior in this case. However, generalizing from the tendencies discerned above, it appears likely that national concentration levels would lie somewhere between those resulting from the two preceding scenarios. Although the consolidation of thrift institutions previously kept separate by branching restrictions would tend to increase concentration, the elimination of product restraints would increase the number of institutions included in the effective "banking" market. The net effect should be a reduction in concentration at the national level. This effect should be even more unambiguous and pronounced at the local market level.

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[1] See Richard Syron, "Interstate Banking in New England," *New England Economic Review*, March/April 1984, pp. 5-17.

[2] A number of economists, including Richard Posner, Anne Krueger, and James Buchanan, have argued that the latter effect is more important.

[3] Lester V. Chandler, "Monopolistic Elements in Commercial Banking," *Journal of Political Economy*, 46 (February 1938): 7-10.

[4] See, in particular, George J. Benston, Gerald A. Hanweck, and David B. Humphrey, "Scale Economies in Banking: A Restructuring and Reassessment," *Journal of Money, Credit, and Banking*, 14 (November 1982, Part I): 435-56, and the studies

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cited therein. One recent study asserts that "the broad elements of U.S. banking structure" can be explained by economies of scale and customer demands for convenience without reference to regulation. Richard W. Nelson, "Economies of Scale vs. Regulation as Determinants of U.S. Banking Structure," in *Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago, 1983), pp. 462-79. However, these factors explain at most the number and size distribution of banking offices, not of banking firms.

[5] R. Alton Gilbert, "Bank Market Structure and Competition: A Survey," *Journal of Money, Credit, and Banking,* 16 (November 1984): 617-44.

[6] R. Alton Gilbert, "Effects of Interstate Banking: Does the Evidence Support the Arguments?" unpublished manuscript, April 20, 1984, pp. 7-8.

[7] See, for example, Donald T. Savage, "Developments in Banking Structure, 1970-81," *Federal Reserve Bulletin,* 68 (February 1982): 77-85 and Stephen A. Rhoades, "Banking Structure and Performance at the State Level during the 1970s," Staff Study III, Board of Governors of the Federal Reserve System, 1981.

[8] Bernard Shull, "Multiple-Office Banking and the Structure of Banking Markets: The New York and Virginia Experience," in *Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago, 1972), pp. 30-40 and U.S. Department of the Treasury, *Geographic Restrictions on Commercial Banking in the United States,* January 1981, pp. 45-54.

[9] The giro is an alternative to the check that is popular in Europe. A bill together with payment, is presented to the giro operator who then credits the account of the billing company.

[10] See Brian Griffiths, *Competition in Banking* (Norwich, U.K.: The Institute for Economic Affairs, 1970) and National Board for Prices and Incomes, Bank Charges, Report No.34 (London: Her Majesty's Stationery Office, 1967).

[11] Robert B. Avery, Gregory E. Elliehausen, Glenn B. Canner, and Thomas A. Gustafson, "Survey of Consumer Finances, 1983," *Federal Reserve Bulletin,* 70 (September 1984): 685.

[12] Monopolies Commission, *Report on Proposed Mergers,* July,1968.

[13] Joseph Sykes, *The Amalgamation Movement in English Banking, 1825-1924* (London: P.S. King & Son, Ltd., 1926).

[14] Ibid., pp. 160-61.

[15] R. S. Sayers, *Modern Banking,* 7th ed. (London: Oxford University Press, 1967).

[16] A recent government green paper has proposed broader lending and deposit powers for the building societies. Chancellor of the Exchequer, *Building Societies: A New Framework* (London: Her Majesty's Stationery Office, 1984).

[17] H. Rittershausen, "Banking in Western Germany," in *Comparative Banking,* 3rd ed., edited by H. W. Auburn (Dunstable: Waterloo & Sons, Ltd., 1966).

[18] Herbert M. Bratter, *Japanese Banking,* Trade Promotion Series, No. 116, U.S. Department of Commerce (Washington: USGPO, 1931).

[19] Hubert F. Schiffer, *The Modern Japanese Banking System* (New York: University Publishers Incorporated, 1962), p. 50.

[20] Stephen Bronte, *Japanese Finance: Markets and Institutions* (London: Euromoney Publications, 1982), pp. 56-57.

[21] Randall Pozdena and Alane Sullivan, "Nationwide Branching: The Canadian Case," Weekly Letter, Federal Reserve Bank of San Francisco, September 10, 1982.

[22] James W. Dean and Richard Schwindt, "Structure and Competition in the Canadian Financial Industry," Discussion Paper 74-4-3, Department of Economics and Commerce, Simon Fraser University, 1974.

[23] Royal Commission on Banking and Finance, *Report* (Ottawa: Queen's Printer, 1964), p. 114.

[24] "State Takeover," The Banker, August 1981, pp. 7-8.

[25] Linda Bernier, "What's Banking Like Under Mitterrand?" *Euromoney,* July 1983, pp. 66-67.

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Economic Events of 1984—A Chronology

Jan 1 Social Security tax base rises from $35,700 to $37,800. Tax on employers rises to 7%. (Base rises to $39,600 and tax rate to 7.05% on Jan 1, 1985.)

Jan 1 Ceiling rate on savings deposits at commercial banks rises from 5.25% to 5.5%, same as at thrifts.

Jan 1 Bell System dissolves. Seven regional telephone companies become independent.

Jan 4 President Reagan proposes $924 billion FY1985 budget with $186 billion deficit.

Jan 5 American General purchases Gulf United insurance operations for $1.2 billion.

Jan 6 Dow Jones industrial stock average closes at 1287, high for year. (See Jul 23.)

Jan 9 Chicago Sun-Times purchased by News America.

Jan 12 Commerce Dept projects business capital spending to rise 10% in 1984.

Jan 16 Public Service Co. of Indiana halts Marble Hill nuclear plant, after investment of $2.6 billon (Cancelled Nov 14.)

Jan 20 Citicorp acquires 1st Federal S&L, Chicago.

Feb 2 Depository institutions begin maintaining required reserves on a more contemporaneous, rather than lagged, basis.

Feb 4 Reagan orders U.S. Marines to leave Beirut.

Feb 7 General Motors reports record $3.7 billion profit for 1983.

Feb 7 Fed Chairman Volcker testifies on monetary growth targets for 1984: M1, 4-8%; M2, 6-9%; M3, 6-9%. (See Jul 25.)

Feb 12 Konstantine Chernenko succeeds Yuri Andropov, who died Feb 9, as Soviet Premier.

Feb 13 General Motors reports record new car order backlog.

Feb 17 Texaco buys Getty Oil for record $10 billion (See Jun 15.)

Feb 22 Supreme Court rules bankrupt companies may break labor contracts.

Mar 19 Prime rate rises from 11% to 11.5%, first rise since Aug 1983.

Mar 20 LTV and Republic Steel get Justice approval for merger.

Mar 23 U.S. Gypsum Corp. agrees to buy Masonite Corp.

Mar 23 Federal Reserve Board permits U.S. Trust Corp. to operate "nonbank bank" outside home state of New York.

Mar 31 Continental Illinois Bank sells credit card operation to Chemical Bank.

Apr 5 Prime rate rises to 12%.

Apr 6 First-quarter sales of domestic autos were 37% above previous year's period.

Apr 6 Manpower Inc. reports hiring plans strongest in five years.

Apr 7 Japan agrees to buy more U.S. beef and citrus fruit over four-year term.

Apr 9 Federal Reserve discount rate rises from 8.5% to 9%.

Apr 10 Congress freezes crop support prices at 1984 levels.

Apr 11 Shearson-American Express plans to buy Lehman Bros., Kuhn Loeb.

Apr 11 FTC approves GM-Toyota joint venture.

Apr 19 Real GNP rose at rapid 8.3% annual rate in first quarter (later revised to 10.1%) with boost from inventory investment.

Apr 19 Chrysler Corp. reports first quarter profits at $700 million, exceeding any previous whole year.

Apr 19 Work stops on Seabrook nuclear plant in New Hampshire.

Apr 30 Manufacturers Hanover purchases CIT Financial from RCA for $1.5 billion.

May 1 First Chicago Corp. purchases American National Corp.

May 8 Prime rate rises to 12.5%.

May 17 FDIC, Federal Reserve Board, and Comptroller of Currency announce comprehensive financial assistance program for Continental Illinois Bank. FDIC guarantees all of Continental's deposits. (See Jul 26.)

May 25 Federal debt ceiling rises from $1,490 billion to $1,520 billion. (See Jul 6, Oct 13.)

May 25 Iranian aircraft attacks Liberian tanker in Persian Gulf. (One of several such incidents.)

May 29 VA mortgage rate rises to 14%, high for year.

May 30 Yield on 20-year Treasury bonds (constant maturity index) rises to 13.92%, high for year. (See Nov 23.)

Jun 15 Chevron (Standard Oil of Calif.) purchases Gulf Oil for $13 billion, biggest merger ever.

Jun 20 Federal court overturns FDIC and FSLIC regulations restricting insurance coverage on brokered deposits.

Jun 25 Prime rate rises to 13%, high for year. (See Dec 20.)

Jun 28 Supreme Court rules Bank of America's purchase of discount broker does not violate Glass-Steagall Act.

Jul 2 Martha Seger receives recess appointment to Federal Reserve Board, succeeding Nancy Teeters.

Jul 6 Debt ceiling rises from $1,520 billion to $1,573 billion. (See May 25, Oct 13.)

Jul 11 AT&T freezes salary structure for 114,000.

Jul 16 Consumers Power cancels construction of Midland nuclear plant, after investment of $4 billion.

Jul 16 Consumer installment credit up record $10.2 billion in May.

Jul 18 Deficit Reduction Act raises taxes and cuts spending.

Jul 23 Dow Jones industrial stock average closes at 1087, low for year. (See Jan 6.)

Jul 25 Chairman Volcker announces retention of 1984 monetary growth ranges, tentative adoption of lower M1 and M2 ranges for 1985. (See Feb 7.)

Jul 26 FDIC, Federal Reserve Boad, and Comptroller of Currency announce permanent assistance for Continental Bank including FDIC agreement to buy up to $4.5 billion of problem loans. (See May 17.)

Aug 2 Release of reserve corn by government ends as prices decline sharply.

Aug 3 Trading on New York Stock Exchange hits record 237 million shares.

Aug 7 Beatrice purchases Esmark for $2.7 billion.

Aug 7 Farm equipment makers set extended plant closings.

Aug 9 Administration revises forecast to show faster 6.5% real GNP growth in 1984, up from 5%.

Aug 15 Financial Corp. of America restates earnings to show loss. Subsidiary American S&L, nation's largest, faces liquidity problem.

Aug 27 Three-month Treasury bills yield 11.12% (coupon equivalent) in market, high for year. (Equalled Sep 4.) (See Dec 26.)

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Aug 29 Steel imports hit record 2.7 million tons in July, 33% of U.S. market.

Aug 29 Dun and Bradstreet buys A.C. Nielsen for $1.3 billion.

Sep 4 Purchasing managers report modest rise in activity in Aug, suggesting leveling of expansion.

Sep 4 Bank of Montreal purchases Harris Bankcorp.

Sep 4 In Canada, Conservatives win large majority in Parliament.

Sep 5 Nestle buys Carnation for $3 billion, biggest non-oil merger.

Sep 6 Reagan rejects International Trade Commission recommendation for restrictions on copper imports.

Sep 7 Singapore's Simex and Chicago's Mercantile Exchange begin trading interchangeable Eurodollar futures contracts.

Sept 18 Reagan announces debt restructuring plan for problem farm loans.

Sep 19 Reagan rejects ITC recommendation for tariffs and quotas on steel in favor of "voluntary" arrangements.

Sep 21 UAW and GM agree on contract after one-week strike at key plants. (See Nov 5.)

Sep 21 Explosion hits U.S. Embassy in Beirut.

Sep 27 Prime rate declines to 12.75%.

Sept 28 Mobil purchases Superior Oil for $5.7 billion.

Oct 1 Cost-of-living raise for federal employees held to 3.5%.

Oct 1 United Mine Workers ratify 40-month contract without a strike, followed by sharp drop in coal output.

Oct 9 Secretary of Commerce Baldrige expects $130 billion foreign trade deficit in 1984, almost double $69 billion record of 1983.

Oct 13 Debt ceiling rises to $1,824 billion from $1,573 billion. (See May 25, Jul 6.)

Oct 15 Congress adjourns without releasing $7.7 billion in highway funds.

Oct 15 Comptroller of Currency ends moratorium on processing of "nonbank bank" applications.

Oct 16 Caterpiller Tractor announces layoffs and plant closings.

Oct 17 Prime rate declines to 12.5%.

Oct 17 Britain cuts North Sea crude oil price. Nigeria cuts oil price next day.

Oct 19 GM purchases Electronic Data Systems for $2.6 billion.

Oct 19 Real GNP rose at 2.7% annual rate in third quarter (later revised to 1.6%), down sharply from rapid rate of first half of 1984.

Oct 19 VA mortgage rate falls to 13%.

Oct 25 Federal deficit for FY84 was $175 billion, down from $195 billion in FY83.

Oct 29 Prime rate declines to 12%.

Oct 30 Agricultural options trading begins, ending 50-year ban.

Oct. 31 Indira Gandhi assassinated. Son Rajiv Gandhi succeeds her as Indian Prime Minister.

Nov 1 OPEC agrees on oil output cuts to halt price slide.

Nov 5 GM and UAW, Canada, settle after two-week strike. (See Sep 21.)

Nov 6 Reagan reelected with 60% of vote. Republicans retain control of Senate 53-47; Democrats retain House, 252-183.

Nov. 9 Prime rate declines to 11.75%.

Nov. 9 USDA estimates corn and soybean crops up sharply from drought and PIK-reduced levels of 1983.

Nov. 9 U.S. Steel Corp. will close nation's largest taconite plant.

Nov. 10 Allied Corp. will close South Bend Bendix plant.

Nov. 13 Administration forecasts FY85 deficit at $205 billion, up $33 billion from previous estimates.

Nov. 16 American Stores purchases Jewel Cos. for $1.2 billion

Nov. 20 Champion International buys St. Regis for $1.8 billion, creating nation's largest paper producer.

Nov. 21 Federal Reserve cuts discount rate from 9% to 8.5%.

Nov. 21 IBM purchases Rolm for $1.3 billion.

Nov. 22 A.O. Smith will write off or sell agricultural lines, including Harvestore.

Nov 23 Yield on 20-year Treasury bonds falls to 11.41%, low for year. (See May 30.)

Nov 26 Tenneco agrees to buy most of International Harvester's farm equipment division.

Nov 27 Treasury reveals plan to cut tax rates and drastically reduce tax deductions and credits.

Nov 28 Steel pipe and tube imports from EC embargoed through Dec 31.

Nov 30 Norway suspends official oil price system.

Dec 3 Union Carbide Chemical Plant leak in Bhopal, India, kills over 2,000.

Dec 3 Argentina and creditor banks agree on debt restructuring.

Dec 3 Mazda will begin auto assemblies in Michigan in 1987.

Dec 5 Japan agrees to limit steel exports to U.S.

Dec 8 Texas Instruments and Honeywell announce layoffs because of drop in demand for semiconductors.

Dec 11 Steel industry reports employment at lowest level since series began in 1933.

Dec 16 Chicago Teachers Union and Board of Education settle after two-week strike.

Dec 19 Mortgage delinquencies rose in the third quarter to highest level in a series begun in 1953.

Dec 20 Prime rate declines to 10.75%, low for year. (See Jun 25.)

Dec 20 Government survey projects 7% rise in real business capital spending in 1985.

Dec 22 Illinois Commissioner of Banks closes bank in Sandwich, 79th U.S. bank failure in 1984, most since FDIC created in 1933.

Dec 24 Arbitration gives postal workers three-year pact with annual raises, cuts entry-level pay.

Dec 24 Federal Reserve discount rate falls from 8.5 to 8%, lowest since Oct 1978.

Dec 26 Three-month Treasury bills yield 7.89% (coupon equivalent) in market, low for the year. (See Aug 27.)

Dec 27 U.S. dollar reaches all-time high against several major foreign currencies.

Dec 31 Civil Aeronautics Board ends after 46 years.

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ANNOUNCEMENT

The 21st Annual Conference on Bank Structure and Competition May 2 & 3, 1985

The Conference on Bank Structure and Competition provides a forum for the exchange of views and research results between bankers, business practitioners, academics, and regulators. The key issues to be addressed at this conference include:

- **Deregulation: The foreign experience and the lessons for U.S. banking,** *including reports from Japan, Australia and New Zealand, Canada, and the United Kingdom*

- **Problems facing rural and agricultural banks,** *with Gary Benjamin, Chief Agricultural Economist, FRB Chicago; George Irwin, Deputy Governor, Farm Credit Administration; James R. Morrison, Senior Vice President, FRB Chicago; Michael B. Boehlje, Professor of Economics, College of Agriculture, Iowa State University; and C. Robert Brenton, President, Brenton Banks, Inc.*

- **Dual standards in safety and soundness regulation,** *with Barry F. Sullivan, Chairman of the Board, First Chicago Corporation; Thomas H. Huston, Iowa Commissioner of Banking; and Joseph C. Scully, President and CEO, St. Paul Federal Bank for Savings*

- **Private insurance: A viable alternative to federal deposit insurance?** *a discussion with representatives from private insurers*

- **American Bankers Association report on safety and soundness**

- **Determinants of bank failures**

- **Issues in financial disclosure**

The conference will be held at the Westin Hotel in Chicago, May 2 & 3, 1985. The registration fee is $225. For more information about the conference, please write or call: Betty Hortsman, Public Information Center, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, Illinois 60690-834, Tel.no.: (312) 322-5114.

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The product market in commercial banking: Cluster's last stand?

Harvey Rosenblum, John Di Clemente, and Kit O'Brien

Since the 1963 antitrust decision of *United States v. Philadelphia National Bank & Trust Co.*[1] the Supreme Court has held that the "cluster" of commercial banking products is the relevant product market or line of commerce in bank merger litigation. The banking cluster as determined by the Court includes various kinds of credit products as well as services, such as checking accounts and trust administration, that are denoted by the term "commercial banking." The significant implication of this approach by the Court is that banks are assumed to compete only with other banks. As a consequence, financial services providers other than banks are excluded from the competitive analysis.

In the twenty years following the *Philadelphia* decision, legislated deregulation and competitive creativity have drastically altered conditions in the marketplace so that legal and economic barriers to entry into commercial banking product and geographic markets have been eliminated or substantially reduced. The net result is that many nonbank providers of financial services offer reasonable substitutes for nearly all of the traditional commercial bank products that constitute the *Philadelphia* cluster.

The validity of the cluster rule should, therefore, be re-examined in the context of the theoretical approach taken by the Court in nonbanking cases under the Sherman Antitrust Act and the Clayton Act,[2] and in light of the post-1963 evolution of the financial services industry. This analysis leads to the conclusions that the Court established and perpetuated the cluster rule for reasons that seem questionable in the financial environment of the mid-1980s, and that the *Philadelphia* cluster should be unbundled. A product-based antitrust analysis of bank mergers would be in the mainstream of antitrust analysis generally and would allow for a more informed discussion of competition from nonbank competitors.

The nonbanking cases

In antitrust cases, two markets must be defined: the product market (line of commerce) and the geographic market (section of the country). Defining the geographic market without first establishing the relevant product is meaningless. In the major Sherman Act and Clayton Act decisions, the Supreme Court's discussions of the relevant market have recognized the economic content of antitrust to some extent. Two Supreme Court decisions in nonfinancial cases stand out as providing guidance in establishing relevant markets in antitrust matters: *United States v. E.I. DuPont de Nemours & Co.*[3] and *Brown Shoe Co. v. United States.*[4]

In *DuPont,* the Court stated that product markets were to be determined by the cross-elasticity of demand between the product claimed to be monopolized and other products.[5] Depending upon the value of cross-elasticity, products may be categorized into perfect substitutes, close substitutes, and non-substitutes. *Thus, the Court recognized that all products have substitutes, and therefore the major task of antitrust is the identification and evaluation of substitute products.*

The pivotal issue in *DuPont* was whether cellophane constituted a market in isolation or whether cellophane had to share a market with other wrapping materials. If cellophane was deemed to constitute the relevant product market, then DuPont would most likely have been found guilty of monopolizing this market under the Sherman Act since it produced 75

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percent of the cellophane sold in the United States during the period relevant to the litigation. Specifically, the Court was concerned with whether wrappings such as wax paper and aluminum foil, among others, could serve as effective restraints on the exercise of market power by DuPont through its production and sale of cellophane.

After assessing the cross-elasticity of demand between cellophane and the other wrapping materials, the Court found that, despite its advantages, cellophane had to meet competition in every one of its uses from other wrapping materials. All told, cellophane accounted for less than 20 percent of all flexible wrapping material sales and less than 22 percent of flexible wrapping material measured by wrapping surface. The Court, finding in DuPont's favor, believed that the exercise of market power could not be accomplished with such a market share.

The *Brown Shoe* case involved the merger of Brown Shoe Company, Inc. and G. R. Kinney Company, Inc., both major manufacturers and retailers of shoes. A major issue concerning product market definition centered on how the market for shoes was to be viewed. The Court determined the relevant lines of commerce to be men's shoes, women's shoes, and children's shoes. It did not opt for further distinctions based on price/quality considerations, although it conceded that such distinctions are not unimportant. Nor did the Court countenance finer age/sex distinctions, believing that such distinctions were unwarranted under the circumstances of the case. In deciding against the merger, the Court concluded that

> the relevant market must be drawn with sufficient breadth to include the competing products of each of the merging companies and to recognize competition where, in fact, competition exists.

The Court in *Brown Shoe* believed that a submarket approach allowed it to recognize the proper product market and competition most clearly.

In *Brown Shoe,* the Court decided that "[t]he outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it." This proclamation is derived from the *DuPont* decision some six years earlier. However, the Court went on to indicate that "well-defined submarkets" that could constitute markets for antitrust purposes may exist.

The Court suggested that an examination of "practical indicia" might be helpful in defining these submarkets. The Court listed seven such indicia: 1) industry or public recognition of the submarket as a separate economic entity, 2) peculiar characteristics and uses of the product, 3) unique production facilities, 4) distinct customers, 5) distinct prices, 6) sensitivity to price changes, and 7) existence of specialized vendors.

The lesson to be learned from *DuPont* and *Brown Shoe* is clear: Products are to be considered within the same market so long as substitutability between them is high. Rather than rely on some precise estimate of substitutability, one should survey the economic environment in which the products and their producers compete. To do so, the seven indicia listed above provide a starting point. In this general way, one may gauge the degree to which products are in competition with one another and the effect of substitute products in restraining the exercise of monopoly power.

The banking cases

The landmark *Philadelphia* decision has served as the basis for product market definition in a banking context for over 20 years. (Table 1 lists a number of important bank merger decisions by the courts.) In the *Philadelphia* decision, four "practical indicia" served to separate commercial banks from other providers of financial services. The relevance of these indicia in today's economic environment is open to question. Therefore, it is imperative to examine the basis for the Court's conclusion that the *cluster* of products and services offered by banks is the relevant line of commerce.

First, the Court perceived that the business of commercial banking was unique, having as it did distinctive products. The Court was impressed by the role of banks in the money creation process and their ability to accept demand deposits. At that time, commercial banks were the only institutions able to accept deposits having transactional capabilities.

Second, the Court was cognizant of the major role banks played in supplying short-

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term business credit. The historical role of banks in this regard was particularly significant because small businesses, the type of businesses typically shut out from other sources of credit, had come to rely heavily on commercial banks for their financing needs. And, as the Court perceived, small businesses acted as the linchpin of the U.S. economy.

Third, the regulatory scheme in the banking industry was far more pervasive than any to which nonbanking firms were subjected. In banking, there existed legal restrictions on entry, exit, prices, and expansion that do not exist in most lines of commerce. The rationale for this regulatory scheme dates back to the economic unrest of the early 1930s when it was felt that "excessive competition" prevailed in banking.

Finally, the Court wanted to avoid a too-broad economic investigation into the various submarkets making up the "cluster" of banking products and services. The Court believed that a simplified product market definition would better serve the interests of business planning and also appeal to the courts' interest in "sound and practical judicial administration." Thus, the Court believed the expedience of its simplified market definition was a virtue.

The major lesson in product market definition learned from *Philadelphia* and succeeding Supreme Court banking decisions is that, as far as the Court was concerned, banks only compete with one another and that the presence of banks in any given geographic area may be represented by their deposit shares (see box). Other providers of financial services are excluded from the product market in analyzing bank mergers. As Table 1 indicates, however, courts have at times encountered great difficulty in applying this rule to the facts in particular cases.

The *Philadelphia* judgment was followed by an emphatic reaffirmation of the cluster approach seven years later in *U.S. v. Phillipsburg National Bank* (1970),[6] wherein the Supreme Court determined that "the cluster of products and services termed commercial banking has economic significance well beyond the various products and services involved." However, in *U.S. v. Connecticut National Bank* (1974),[7] its most recent discussion of the product market in bank mergers, the Court held out some hope that nonbanks may one day be included in the line of commerce.

In *Connecticut,* the presidents of a savings bank and five commercial banks, the federal banking authorities, and the Connecticut State Banking Commissioner all agreed that savings banks were direct and formidable competitors of commercial banks. The trial court observed that recent legislative developments evidenced a "national trend toward more equal powers" between banks and thrifts, including the authorization of negotiable order of withdrawal (NOW) accounts for thrifts. Furthermore, the evidence elicited at trial disclosed the "cold, hard realities" that savings banks and commercial banks competed meaningfully in at least five product lines: personal checking, real estate mortgages, personal loans, IPC (Individual, Partnership, and Corporation) deposits, and commercial loans. Accordingly, the court held that the lines of commerce had to include savings banks and thus upheld the proposed bank merger.

On appeal, the Supreme Court struck down the trial court's conclusion about the correct line of commerce. It held that the facts of banking in Connecticut did not disclose sufficient identity between savings banks and commercial banks to compel any finding other than commercial banking being the line of commerce. To reach that result, the Court had to unbundle its own cluster.

By 1973, savings banks in Connecticut essentially offered most elements of the banking cluster, but the Court did not feel they represented meaningful competition because they made relatively few short-term business loans. In addition, the fact that savings banks did not offer credit cards, loans for securities purchases, trust services, investment services, computer and account services, and letters of credit was considered significant even though each and every commercial bank did not necessarily offer the complete range of typical commercial bank products.

Although the Supreme Court excluded thrifts from the line of commerce in *Connecticut,* it left the door open for their future inclusion. Specifically, the Court stated:

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Table 1
Major court decisions regarding the product market in bank mergers

Supreme Court cases:

Year	Citation	Product market findings	Analytical approach
1963	*United States v. The Philadelphia National Bank* (374 U.S. 321)	The cluster of commercial bank products and services was held to be the product market for antitrust purposes, including unsecured personal and business loans, mortgage loans, loans secured by securities or accounts receivable, automobile and consumer goods installment loans, student loans, bank credit cards, revolving credit funds, demand, time and savings deposits, trust operations, lock boxes, safety deposit boxes, account reconciliation services, acceptances and letters of credit, correspondent services and investment advice.	Reasons fall into four broad categories: (1) perceived uniqueness of demand deposits and other aspects of commercial banking; (2) public policy (concentration in banking causes concentration in business); (3) pervasive regulatory scheme that governs commercial banking; (4) expediency (desirability of a predictable rule and undesirability of unduly burdening the courts with need to examine submarkets).
1970	*United States v. Phillipsburg National Bank and Trust Co.* (300 U.S. 350)	The Court reaffirmed the cluster rule and reiterated that commercial banking had a significance "well beyond the various products and services involved."	Cluster rule extended to banks whose portfolios were more characteristic of thrifts'. Majority opinion emphasized convenience of "one-stop banking" as unique to banks; dissenting opinion criticized disregard for actual composition of bank portfolios in this case and for market power of thrifts.
1974	*United States v. The Connecticut National Bank* (418 U.S. 656)	The cluster rule was again reaffirmed, although state law had recently authorized personal checking accounts for savings banks and savings banks made commercial loans.	The Court found a "large measure of similarity" of services but insufficient overlap in service to commercial customers to set aside the cluster rule; however, it did acknowledge that trends in the development of savings banks could eventually compel a different result.

District Court cases:

Year	Citation	Product market findings	Analytical approach
1965	*United States v. Manufacturers Hanover Trust Company* (240 F. Supp. 867)	Wholesale and retail banking were distinguished as separate product markets within the cluster of commercial banking services; competition from nonbank providers was not considered.	A submarket analysis wholly within the cluster, consistent with *Philadelphia.*
1967	*United States v. Crocker Anglo National Bank* (277 F. Supp. 133)	The court rejected application of the *Philadelphia* principle to a case arising under the Bank Merger Act, and considered competition from a Morris Plan company, savings and loan associations, GMAC, finance companies, credit unions, insurance companies and state government.	Product market analysis, inconsistent with *Philadelphia,* had no effect on outcome of case because merger created no adverse effect on competition in banking regardless of analytical approach.
1968	*United States v. Provident National Bank* (280 F. Supp. 1)	Finding "reasonable interchangeability and meaningful competition" between commercial banks and thrifts for savings dollars and mortgage loans, the court considered direct competition from thrifts but not other financial organizations (indirect competitors).	Merger found anticompetitive regardless of choice of analytical method. Court agreed with *Crocker* approach and found *Philadelphia* rule outmoded because of deletion of "line of commerce" phrase in Bank Merger Act.

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Table 1 (cont.)
Major court decisions regarding the product market in bank mergers

District Court cases (cont.):

Year	Citation	Product market findings	Analytical approach
1969	*United States v. The First National Bank of Jackson* (301 F. Supp. 1161)	The court examined submarkets including short-term business credit and agricultural credit, found competition from thrifts to be "actual, fierce, direct and meaningful", and included a credit union, finance companies, insurance companies, securities firms, and federal agencies.	Court agreed with *Crocker* and *Provident* in finding the *Philadelphia* rule inconsistent "with trade realities," but found no anticompetitive effects from merger even if cluster rule were applied.
1970	*United States v. The Idaho National Bank* (315 F. Supp. 261)	The court found vigorous competition from thrifts, Production Credit Associations, the Federal Land Bank, life insurance and mortgage companies, and and other financial concerns for "interest-bearing deposits, agricultural production loans, farm real estate loans, automobile and other consumer loans, and student loans."	A pure submarket approach, rejection of cluster rule as inconsistent with "facts of life," but method of analysis again did not determine outcome of case.
1970	*United States v. First National Bank of Maryland* (310 F. Supp. 157)	The court recognized competition from thrifts and other financial organizations for deposits, ("more time than demand") and real estate, small business and consumer loans.	The court criticized mechanical application of the cluster rule but cautioned against undue dilution of the universe of competitors. Yet the merger was found not to be anticompetitive whether or not substantial nonbank competition was included.
1970	*United States v. Phillipsburg National Bank and Trust Company* (306 F. Supp. 645)	The court found "virulent" competition from thrifts, pension funds, mutual funds, government bonds, insurance companies and finance companies, for savings dollars, conventional mortgage loans, individual and dealer automobile appliance, equipment and commercial inventory financing.	The court's ruling on the merits was reversed and the case remanded by the Supreme Court for reconsideration applying cluster rule.
1973	*United States v. First National Bancorporation* (329 F. Supp. 1003)	The court adopted the cluster approach in light of a lack of evidence of nonbank competition, and rejected viability of correspondent banking as a submarket wholly within the commercial banking cluster.	Affirmed by equally divided Supreme Court *per curiam.*
1973	*United States v. The Connecticut National Bank* (362 F. Supp. 240)	Savings banks were included in the line of commerce based on recent statutory authorization for personal checking accounts and existence of "meaningful competition from savings banks for personal checking, real estate mortgages, personal loans, I.P.C. deposits and commercial loans."	A submarket analysis; reversed on appeal to Supreme Court.

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At some stage in the development of savings banks it will be unrealistic to distinguish them from commercial banks for purposes of the Clayton Act . . . . [T]hat point may well be reached when and if savings banks become significant participants in the marketing of bank services to commercial enterprises.

Whether the factors that served to separate commercial banks from other financial services providers remain valid is of critical importance. The financial landscape of the 1980s is much different from that which the Court surveyed in 1963.

Before turning to a discussion of legislative, regulatory, and marketplace developments post-*Philadelphia,* however, it is interesting to note how commercial banks are treated in analyses of mergers between commercial banks and other types of financial institutions. The treatment of banks in this regard is vastly different from their treatment in merger cases involving only banks.

Antitrust asymmetry

Based on the rationale of *Philadelphia,* commercial banking is the (relevant) product market, but what is the product market in a merger between a commercial bank and a consumer finance company, for example? Clearly, the cluster rule is inappropriate in this instance because, aside from consumer lending, the consumer finance company's array of products does not materially overlap that of a typical commercial bank. What has been sanctioned by the Court and has been followed by the Federal Reserve Board in deciding upon nonbanking acquisitions under the Bank Holding Company Act is an *unbundling* of commercial bank products. Thus, it has been decided that nonbank firms and their products effectively compete with some (but not all) of the products provided by commercial banks.

In *Phillipsburg,* the Court concluded that "submarkets . . . would be clearly relevant . . . in analyzing the effect on competition of a merger between a commercial bank and another type of financial institution." How this statement could be reconciled and made consistent with the Court's refusal to examine submarkets in bank merger analysis is not clear. It is tantamount to saying that banks compete with consumer finance companies, for example, but that consumer finance companies do not compete with commercial banks. Thus, competition between banks and nonbanks exists in a one-way flow.

Under its Regulation Y, the Federal Reserve is forced to examine submarkets in cases arising from the acquisition of nonbank concerns by bank holding companies. In these instances, holding companies seek to acquire firms that offer less than the full line of commercial bank services. The relevant market, then, is determined by reference to the particular services in which both the bank and the nonbank firm compete.

For example, in *Bankers Trust New York Corporation,*[8] a holding company sought to acquire a consumer finance company. The Board of Governors noted that the competition between the finance company and the holding company's bank existed in two product submarkets: personal loans up to $1,400 and all direct consumer installment loans. The Board reasoned that consumer finance companies were an alternative source of funds for personal loans, auto loans, home improvement loans, and many other loans traditionally made by commercial banks.

This asymmetrical view of banking competition, though supported by Supreme Court dictum, is, in and of itself, strange. How can a consumer finance company be at the same time in competition with commercial banks while being excluded from consideration in analyzing the competitive effects of the merger between two banks? The answer may lie in an examination of the criteria that are claimed to set commercial banks apart from other institutions and the relevance of these criteria in the current financial marketplace.

Legislative, regulatory, and marketplace developments

Prior to 1980, much of the legislation and regulation that applied to banks was a legacy of the early 1930s, designed to shelter banks from excessive competition and from errors and poor management judgment. By the late 1960s, many financial institutions found numerous ways to exploit technological and economic developments. They began to offer new

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products and provide new delivery systems that were incongruent with the extant set of banking regulations.

By the 1970s, regulation tended to accommodate competition and expansion to a much greater extent than had been true in the 1950s and 1960s. Even so, regulation tended to lag developments in financial markets.

As a result, during the 1970s, pressures began to build between regulatory and market forces. For example, the interest ceilings on time and savings deposits were held artificially below market rates, and the NOW account was created. This account would have completely broken commercial banks' monopoly on demand deposit accounts were it not for a series of stop-gap legislative and regulatory changes that impeded its spreading throughout the country to households and business firms alike.

Thrift institutions

Significant legislative changes took place in 1980 and again in 1982 that affected the competitiveness of thrift institutions against commercial banks. These were the Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) and the Garn-St Germain Depository Institutions Act of 1982 (Garn-St Germain).

DIDMCA allowed savings and loan associations (S&Ls) to offer individuals the convenience of "one-stop shopping" and, in effect, to become their "department store of finance." Among its provisions, DIDMCA phased out interest rate ceilings on time and savings deposits over a six-year period and allowed S&Ls to offer consumer loans. Also under DIDMCA, NOW accounts, which were first introduced in Massachusetts in the early 1970s and subsequently spread to other New England states, became permissible nationwide.

At the time of the *Philadelphia* decision, commercial banks were the only institutions that could offer checkable deposits, and in 1963, demand deposits were an important source of funding for commercial banks, accounting for 44 percent of total bank liabilities at year-end 1963. Two decades later, however, demand deposits comprised only 21 percent of bank liabilities. And at year-end 1983, S&Ls, credit unions, and mutual savings banks had $33.6 billion of checkable deposits, considerably less than the $349.3 billion on the books of commercial banks, but enough to suggest that the nature of the product that was so important to defining the *Philadelphia* cluster had changed significantly.

DIDMCA did little to aid thrifts in serving the business customer, the class of customer that was so important to the Supreme Court's argument in *Connecticut*. But in order to preserve the viability of thrifts, Congress later enhanced the ability of thrifts to provide services to commercial enterprises. These expanded powers granted under Garn-St Germain allow a federally chartered thrift to invest well over half of its assets in commercial investments, enhance the consumer lending opportunities of thrifts, and allow thrifts (as well as commercial banks) to offer a deposit account directly competitive with money market mutual funds.

A difficult issue is whether the new powers granted thrifts are enough to classify them as falling within the line of commerce for analyzing the competitive effects of bank mergers. According to the Supreme Court's *Connecticut* rationale, to warrant inclusion, thrifts must exercise their new powers to a meaningful degree. The enabling legislation is in place but the follow-through on the part of thrift institutions is an empirical issue. Federal Reserve Board Chairman Paul A. Volcker has testified:

> The observation that thrift institutions have essentially become bank-like institutions is indisputable with respect to the powers that they are allowed to exercise and increasingly accurate with respect to the powers they do exercise.[9]

In light of this conclusion, the Federal Reserve Board has since 1980 taken account of bank competition from thrift institutions in deciding a number of bank holding company acquisitions.[10]

Empirical studies suggest that thrifts have cautiously taken advantage of their new asset powers.[11] Nonetheless, from a competitive point of view, the important distinction when it comes to the exercise of market power is "many potential rivals, not necessarily many existing rivals."[12] The mere ability of numerous thrift institutions to offer products that overlap with those offered by commercial banks may circumscribe the ability of banks to charge prices above the competitive norm even if few thrifts

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actually compete directly in selling these products and services.

While each and every thrift institution has not exercised all of their new powers, enough thrifts have utilized their new abilities to have altered the competitive environment of commercial banks in a significant way. Thrifts have moved with neither lightning nor glacial speed, but they have moved forward.

Mutual savings banks are regulated at the state level and their powers began to change during the 1970s, prior to the legislated changes for federally regulated thrifts contained in DIDMCA. Table 2 illustrates the degree to which mutual savings banks have exploited their newfound powers since the mid-1970s. By 1983, more than half offered commercial credit, and more than four-fifths offered consumer credit in a variety of different forms as well as substitutes for commercial bank demand deposits. Table 2 provides suggestive evidence that the situation has changed sufficiently for mutual savings banks to be included in the commercial banking cluster; indeed, were *Connecticut* decided by the U.S. Supreme Court in 1985 instead of 1974, the outcome would likely be different.

S&Ls lag behind mutual savings banks in offering the range of products that would necessitate their inclusion in the commercial bank cluster. But they are not all that far behind. For example, in 1963 when *Philadelphia* was decided, S&Ls did not engage in consumer installment lending; the same was true a decade later in 1973, but by year-end 1983, S&Ls held $21.6 billion of consumer installment loans. By August 1984, S&Ls held over 6 percent of consumer installment credit, well behind commercial banks, finance companies, and credit unions, which held 45 percent, 24 percent, and 14 percent, respectively. Nonetheless, S&Ls have made a respectable market penetration into consumer lending in just a few years.

S&Ls have begun to penetrate the commercial lending market as well. By year-end 1983, they held roughly $2.3 billion in commercial loans, 0.6 percent of the commercial and industrial loans held by all commercial banks at that time. In states such as Ohio where state-chartered S&Ls had commercial lending powers prior to DIDMCA, S&Ls are viewed as a viable alternative to banks for small business loans.[13] Other thrift institutions also have commercial lending powers; among these are industrial banks in California and Rhode Island and state-chartered credit unions in Rhode Island.

Table 2
Percent of Mutual Savings Banks Offering Selected Services

	1974	1978	1981	1982	1983
Automated Teller Facilities	3%	17%	32%	38%	45%
Business Loans	n.a.	n.a.	40	54	52
Checking Accounts	7	48	56	72	84
Credit Cards	4	39	45	52	59
NOW Accounts interest-bearing	29	66	92	92	90
Personal Loans	64	67	72	95	96
Second Mortgage Loans	n.a.	n.a.	71	80	99*
Total Number of Savings Banks	480	466	448	424	399

*Includes home improvement loans.

SOURCE: *National Fact Book of Savings Banking,* National Association of Mutual Savings Banks, various issues.

Even the limited and fragmentary evidence presented here suggests that it is becoming easier to defend the inclusion of thrifts in bank merger analysis than it is to defend their exclusion.

Market overlaps between banks and nondepository firms

The line of commerce in bank mergers need not and should not be limited to thrifts and commercial banks. Competition must be recognized when, in fact, competition exists. Thus, an economic appraisal of competition afforded by nonbank, nondepository organizations is necessary and it should go beyond the cluster approach of the Supreme Court because that approach seems out of touch with the marketplace realities of the 1980s.

Indeed, the weight of the evidence compiled in recent years indicates that commercial banks are not unique, multi-product firms and that good, if not perfect, substitutes exist for

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virtually every commercial bank product and service. The Federal Reserve Bank of Chicago has recently published several studies that update and extend previous works on the competition offered to commercial banks by nonbanking-based firms.[14] The Chicago Fed's studies revealed that firms other than those whose primary activity involves deposit taking compete with commercial banks in several product lines, including consumer lending, business lending, and the generation of deposits and deposit substitutes. Because these firms do not fund themselves by issuing deposits, they are able to provide nationwide delivery systems for their financial products.

Consumer credit. The nation's 15,000 commercial banks comprise the largest group of consumer installment lenders, with just under 43 percent of the total outstanding loans at year-end 1982. Yet, at that time, the top ten nonbanking consumer installment lenders had $86.7 billion of these loans outstanding, exactly double that held by the ten largest bank holding companies in this lending category and almost three-fifths as much as the $152.5 billion of consumer installment credit held by the *entire* banking industry.

In the narrower field of auto loans, commercial banks have maintained their position as the leading lending group, but special circumstances in the automobile market during the 1978-82 period propelled a big shift in market share toward the captive auto finance companies and away from banks. Similar trends, however, were exhibited in the share changes in total consumer lending. In 1978, commercial banks issued 55 percent of net new installment debt (new loans written less paydowns of existing loans) to households; finance companies accounted for only 22 percent of such debt. In 1981, these relative shares reversed themselves; commercial banks issued only 3 percent of the net new consumer installment debt that year while finance companies accounted for 72 percent. Not all of this increased finance company share, however, was in auto loans. Finance companies held at least $13 billion of second mortgage debt at the end of 1981. In 1982, commercial banks bounced back in new consumer lending and increased their market share (of net new loans) to 33 percent in spite of a poor showing in auto loans.

Thus, it seems clear that households are willing to shift from one institutional supplier to another in response to noticeable differences in price or service. In a deregulated world, old habits may be short-lived. If households perceive the commercial bank cluster as being important, their revealed preferences during the 1978-82 period provide little evidence to support such a notion.

Credit cards. In 1983, charge cards were the fastest growing segment of nonmortgage consumer debt and accounted for almost 19 percent of consumer lending.[15] Charge card usage comprises an important element in consumer credit.

Many firms other than commercial banks issue credit cards. In 1984, when ranked by number of cards issued, not a single bank appears among the top ten issuers. Ironically, despite being in their infancy when *Philadelphia* was decided in 1963, bank cards were among the products included in the *Philadelphia* cluster. In 1984, Sears was the leading credit card issuer with over 66 million cards and is followed by two other retailers, Montgomery Ward and J.C. Penney.[16] Rounding out the top ten are six oil companies and American Express in sixth place. Citicorp (holding company and bank combined) ranks in 11th place, while Bank of America leads the banks in 12th place with a total card base of 9.3 million.

Furthermore, commercial banks are not the only issuers of bank cards. Since 1980, hundreds of thrift institutions have become issuers of Visa and MasterCard. Two credit union groups—Payment Systems for C.U.s, Tampa, Florida, and CUNA Service Group, Madison, Wisconsin—rank 21st and 48th in number of active accounts.[17] Moreover, finance companies have become indirect issuers of bank cards with Associates ranked 20th, Beneficial ranked 25th, and Avco Financial Services ranked 73rd by number of active accounts.[18]

Most charge cards are not directly competitive with one another; for example, a Shell Oil card cannot be used at Sears and vice versa. The greatest direct competition takes place between Visa, MasterCard, and American Express, the last of which, strictly speaking, is not a credit card but a travel and entertainment (T&E) card. Of the total installment and noninstallment credit issued through cards in 1983, the bank cards ranked second with al-

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most 40 percent of this $95.7 billion market; they were surpassed by retailers' cards, which had almost 49 percent of the market; T&E, oil company, and other cards combined had just over 11 percent of the market.[19] While bank cards are the most universally accepted charge cards, it would be difficult to make the case that bank cards are unique and belong within the commercial bank cluster, particularly when one considers that both Visa and MasterCard are not themselves banks but co-operative licensing companies.

Business loans. Banks have the largest share of outstanding commercial and industrial (C&I) loans in the United States. The 15 largest bank holding companies held $155.5 billion of domestic C&I loans at the end of 1982, more than triple the total held by the 32 nonbank companies included in the Chicago Fed study that year. Nevertheless, the importance of nonbank lenders should not be underestimated since 15 industrial firms had $39.6 billion of commercial loans on their books at that time. These 15 industrial-based companies also engaged in more lease financing than did the 15 largest bank holding companies, and more than the nation's 15,000 insured commercial banks.

In commercial mortgage lending, life insurance companies overshadow banks and bank holding companies. In 1982, the top 15 life insurance companies held roughly $88 billion in commercial mortgages, $62.2 billion more than the 15 largest bank holding companies and 67 percent of the commercial mortgages held by the domestic offices of all insured commercial banks. In addition to their direct participation in business lending through private placements and direct commercial loans, insurance companies also engage in indirect business lending through their ownership of corporate bonds and equity securities. According to *American Banker,* Prudential Insurance ranked among the largest commercial lenders in 1983, holding over $38 billion of business loans—$29.8 billion of commercial loans, $1.5 billion of commercial finance company receivables, and some $7.0 billion of lease assets.[20]

In providing commercial credit, nonbank companies compete with banks in other ways as well. For example, Commercial Credit Corporation (a subsidiary of Control Data), Merrill Lynch, and ITT are approved lenders for the Small Business Administration; prior to January 1980, SBA lending was the sole province of commercial banks. Another important nonbank source of credit to small businesses is trade credit. Many large corporations have largely by-passed commercial banks for short-term credit by issuing commercial paper. And, as mentioned previously, S&Ls and mutual savings banks have also begun to engage in commercial lending.

Clearly, the number of alternative suppliers of business credit has increased significantly since 1963 when commercial credit, in particular, small business credit, was a key ingredient of the *Philadelphia* cluster. Recent surveys of small businesses, the customer class that was so important to the line of commerce determination in *Connecticut,* suggest that small businesses view commercial banks as only one of a number of sources of banking services.[21]

Deposits. In 1963, commercial banks were the only depository institution empowered to offer demand deposits. Adding to banks' monopoly power in this product line was the fact that very few good substitutes existed for making third-party payments. The best of these substitutes was money orders, which were widely available from the U.S. Post Office, numerous financial institutions, and some retail stores.

Substitutes for bank deposits have existed for many years. In particular, the number and variety of substitutes for the traditional noninterest-bearing commercial bank demand deposit have proliferated during the last two decades. Repurchase agreements, NOW accounts, money market mutual funds, sweep accounts, and touch-tone telephone bill paying services are just a few of the substitutes that have arisen and have undermined the monopoly power once enjoyed by commercial banks in demand deposits and in controlling access to the nation's payments system.

The money market mutual fund (MMMF) is an innovative product of the early 1970s that serves as a substitute for savings deposits at banks and thrifts but which also has some transactions capabilities. MMMFs grew from only a few billion dollars in assets in 1975 to over $230 billion in assets by December 1982 when they reached their peak. Banks and thrifts, in 1982, were finally given permission

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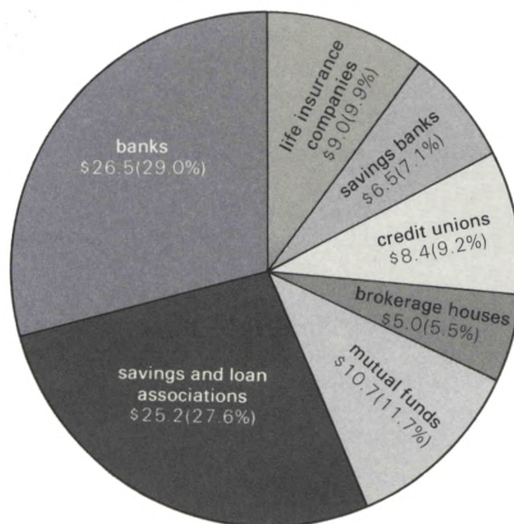
under Garn-St Germain to offer the money market deposit account, which would be directly competitive with MMFs.

In other new deposit categories, commercial banks have not always gotten the bulk of the market. For example, in a recent survey, it was found that Merrill Lynch & Co. sells the most individual retirement, Keogh, and other consumer retirement accounts. There are no banks or thrifts in the top five competitors for this line of business.[22] Competition has been vigorous among all types of financial institutions—banks, thrifts, insurance companies, investment companies and securities firms—for IRA accounts (see chart). This provides a further indication that the cluster notion—banks competing only with other banks—suffers from a credibility problem that gets worse day by day.

IRA deposits by industry: 1983



SOURCE: Investment Company Institute, Washington, D.C.

Recent regulatory decisions

Over the last four years or so, the Federal Reserve Board has begun to give some weight to the presence of thrift institutions in its rulings in bank mergers and acquisitions, thus undermining the letter, but not necessarily the spirit, of *Philadelphia* and *Connecticut*. The Supreme Court recognized that at some time in the future, commercial banks and the cluster of products that they alone could offer would no longer be unique. It now appears that the *Philadelphia* cluster has entered the phase of its life cycle when it should be of interest primarily to nostalgia buffs and trivia fans. Logic and recent evidence suggest that the *Philadelphia* cluster should not form the foundation of the antitrust doctrine to be followed in viewing and analyzing the anticipated consolidation in the banking industry.

If the *Philadelphia* cluster is out of synchronization with marketplace realities, what product line(s) should be used in place of it? Two very different approaches can be used to redefine the product market in bank merger analysis. At one extreme, a new cluster can be developed that includes suppliers of each and every product contained within the *Philadelphia* cluster. At the other extreme, competition can be analyzed *separately* for each and every submarket or product within the cluster, and if significant anticompetitive effects are found for even a single product, the proposed merger might be denied. Each of these polar cases has its merits and drawbacks, yet either would seem preferable in some ways to the continued use of the *Philadelphia* cluster.

The first alternative was utilized by the Comptroller of the Currency in a merger decision involving two banks in State College, Pennsylvania.[23] The proposed merger involved the fourth and fifth ranked commercial banks in Centre County, Pennsylvania and would result in the combined entity attaining the second rank in the market with 23 percent of commercial bank deposits, a significant jump in market share *as conventionally defined*.

Recognizing that the two merger candidates faced competition from banks and nonbanks not domiciled in Centre County, the Comptroller included in the analysis many of these nonlocal competitors. Among the other competitors reviewed by the Comptroller were: 1) several banks (including a subsidiary of Mellon National Corporation, the state's largest banking organization) which compete directly and indirectly in the market;[24] 2) several new and more established S&Ls; 3) several banks having no offices within the defined geographic market but which made loans in the market as evidenced by mortgage and security lien recordings; 4) numerous out-of-area banks

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such as Citibank (New York) and Chase Manhattan Bank, which advertise and market their deposit and other financial services through toll-free numbers; (5) Merrill Lynch, which through its offices in State College offers interest-bearing checking accounts, credit cards, money market accounts, and personal and mortgage loans; and (6) other financial firms, such as Household Finance, which offers installment sales financing and commercial leasing; Kissell Company, which offers consumer and business lending services; Finance One, a consumer finance company and a subsidiary of Manufacturers Hanover Corporation; and Dean Witter, a subsidiary of Sears, which offers deposit and lending services. The Comptroller concluded:

> Although none of these institutions offers all of the services offered by a commercial bank, in the aggregate they provide viable alternatives for virtually all banking services.[25]

After taking account of many of the competitors that are typically excluded in bank merger analysis, the Comptroller approved the application, stating that a purely conventional structural analysis of bank market shares would provide an inaccurate picture of each firm's competitive capacity.

While it seems to make more sense to include known competitors than to exclude them, measurement of their competitive contribution is also important. It is not clear that inclusion of these same out-of-market competitors would have produced the same merger decision if the two subject banks had traditionally defined market shares of 50 percent and 40 percent. Inclusion of nonbank firms, thrifts, and out-of-market banks is logical and expedient, but quantification of their competitive impact requires proprietary data at the local level for each such competitor. The collection of such data is expensive and time-consuming. It is easy to see why the Supreme Court opted for the expediency of using only commercial bank data.

An alternative approach to that used by the Comptroller would involve a detailed analysis of competitive alternatives whenever there appeared to be a shortage of substitutes—either products or suppliers—for the products and services offered by *both* merging firms. If it is known, for example, that numerous alternative suppliers provide consumer loans, time and savings deposits, and a full range of business loans in the relevant geographic area, these products can be ignored in assessing the competitive impact of the merger. If, on the other hand, there are few accessible alternative suppliers of, say, transaction accounts and trust services, then these two product lines might be investigated more thoroughly to ascertain the impact on competition in each product or submarket. This would concentrate the resources needed for quantification and measurement where they are most needed and would not squander resources to quantify what everybody already knows.

This methodology represents a compromise between the almost total lack of quantification involved in the inclusion of every conceivable competitor as was done in the recent State College, Pennsylvania, decision of the Comptroller and the delusory absolute quantitative precision of deposit concentration ratios used in the *Philadelphia* cluster. This line of analysis would seem to combine the theory and logic used by the Supreme Court in analyzing the nonbank cases with a reasonable degree of expediency, since quantification would only be sought for those areas of competitive overlap where an initial case can be built that suggests the elimination of sufficient competition to warrant the allocation of resources for further investigation.

Conclusion

The commercial banking cluster rule is an expedient created by the Supreme Court premised on the alleged uniqueness of commercial banks. This rule accords neither with the traditional principles of product market analysis as enunciated in *Du Pont* and *Brown Shoe,* nor with the reality of competition now faced by commercial banks from nonbank financial institutions. In view of the changes in the industry over the last 20 years, it would be preferable for the courts to unbundle the cluster and examine the anticompetitive effects on a product-by-product basis.

The product-based approach recommended here not only rests in the mainstream of antitrust analysis, but also makes sense be-

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cause of the continuing evolution of the financial services industry. Market shares and concentration measures, the stuff of which antitrust decisions are made, are of dubious significance under the cluster rule. A product-by-product analysis overcomes this problem by permitting the identification of all competitors, bank and nonbank. Furthermore, it allows for an informed discussion of potential competitors relative to various markets. A question of paramount importance in any discussion of the competitive consequences of a merger is whether all potential competitors face significant barriers to entry. Unfortunately, under the *Philadelphia* cluster, the effect of the full range of potential competitors in restraining the exercise of market power of incumbent firms is legally precluded from assessment.

A product-by-product analysis would not make antitrust decisions any easier. But, on the other hand, expediency has its price as well. If we are concerned about possible anticompetitive consequences, that is, if the antitrust laws are to be taken seriously, then antitrust analysis must be applied with scrupulous logic.

The objective of the antitrust laws is the prevention of mergers and acquisitions that restrict competition or restrain trade. Continued use of the *Philadelphia* cluster will prevent many acquisitions that do not violate this public interest objective. To be sure, more mergers and acquisitions would be allowed if the product line were broadened to include a wider array of financial services providers or narrowed to a product-by-product basis.

Because of these problems with the cluster rule, and in order to extend the traditional principles of antitrust to bank mergers, the cluster approach should be discarded in favor of a product-by-product analysis.

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[1] 374 U.S. 321 (1963).

[2] These Acts form the foundation of antitrust law in the United States. Their purpose is to prevent the elimination of substantial competition or the exercise of monopoly power.

[3] 351 U.S. 377 (1956).

[4] 370 U.S. 294 (1962).

[5] Cross-elasticity of demand is a measure of economic substitution. The concept concerns the relationship between the price of one product and the quantity demanded of another product when other prices, income, and tastes are held constant.

[6] 399 U.S. 350 (1970).

[7] 418 U.S. 656 (1974).

[8] *Federal Reserve Bulletin* 59 (September 1973), p. 694.

[9] Paul. A. Volcker, "Statement," in U.S. Congress. House. Committee on Energy and Commerce, *Financial Restructuring: The Road Ahead, Hearings before the Subcommittee on Telecommunications, Consumer Protection, and Finance on H.R. 5342, H.R. 4506, and H.R. 3537.* 98th Cong., 2nd sess., 1984, p. 92.

[10] Recent examples of thrifts being accorded considerable weight in the competitive analysis can be found at "Norstar Bancorp Inc.," *Federal Reserve Bulletin* 71 (January 1985), p. 46; and "Wesbanco, Inc.," *Federal Reserve Bulletin* 71 (January 1985), p. 49.

[11] Constance Dunham, "Mutual Savings Banks: Are They Now or Will They Ever Be Commercial Banks?" *New England Economic Review,* Federal Reserve Bank of Boston, (May/June 1982); Robert E. Goudreau, "S&L Use of New Powers: A Comparative Study of State- and Federal-Chartered Associations," *Economic Review,* Federal Reserve Bank of Atlanta, (October 1984); and Janice M. Moulton, "Antitrust Implications of Thrifts' Expanded Commercial Loan Powers," *Business Review,* Federal Reserve Bank of Philadelphia, (September/October 1984).

[12] George J. Stigler, *The Organization of Industry* (Homewood, Ill.: R.D. Irwin, 1968), p. 19.

[13] The legal ability to offer a service does not necessarily indicate that thrift institutions should be considered meaningful competitors of commercial banks in commercial lending. Among the other factors that need to be considered are thrifts' shortage of experienced commercial lending officers, the differences in the control and accounting systems of banks and thrifts, and the differences in tax treatment between the two types of institutions. As a result of these differences, the entry of S&Ls and mutual savings banks into commercial lending still needs to be considered on a case-by-case basis.

[14] Numerous other examples may exist, but the few cited here were contained in U.S. Congress. House. Committee on Banking, Finance and Urban Affairs, *Comparison of Products and Powers of Selected Financial and Nonfinancial Institutions,* by Raymond Natter, committee print 98-13 (Washington, D.C.: U.S. G.P.O., 1984).

[15] Harvey Rosenblum and Diane Siegel, "Competition in Financial Services: The Impact of Non-

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bank Entry" Staff Study 83-1, Federal Reserve Bank of Chicago (Chicago: The Federal Reserve Bank of Chicago, 1983); Harvey Rosenblum and Christine Pavel, "Financial Services in Transition: The Effects of Nonbank Competitors" Staff Memorandum 84-1, Federal Reserve Bank of Chicago (Chicago: The Federal Reserve Bank of Chicago, 1984); and Harvey Rosenblum, Diane Siegel, and Christine Pavel, "Banks and nonbanks: A run for the money," *Economic Perspectives* Federal Reserve Bank of Chicago, (May/June 1983).

[16] *The Nilson Report,* no. 339, (September 1984), p. 3.

[17] *The Nilson Report,* no. 340, (September 1984), p. 3.

[18] *The Nilson Report,* no. 337, (August 1984), p. 4.

[19] Ibid.

[20] *The Nilson Report,* no. 339 (September 1984).

[21] Laura Gross, "New Financial Services Scorecard Shows Who's On First," *American Banker,* January 4, 1985, p. 1.

[22] See Paul R. Watro, "Financial Services and Small Business," *Economic Commentary,* Federal Reserve Bank of Cleveland, (Jan. 11, 1982), and Victor L. Andrews and Peter C. Eisemann, "Who Finances Small Business Circa 1980?" *Studies of Small Business Finance* (November 1981).

[23] Gross, "New Financial Services Scorecard Shows Who's on First," p. 1.

[24] U.S. Office of the Comptroller of the Currency, "Decision on the Application to Merge Farmers Community Bank, State College, Pennyslvania into Peoples Bank of Central Pennsylvania, State College, Pennsylvania," November 5, 1984.

[25] The Comptroller cited recent court decisions that support the notion that the presence of a small office of a large parent company in a market tends to severely understate the capacity of that office to aggressively compete in the market. It would appear from the Comptroller's discussion that the *full* size of giants such as Mellon National Corporation, Merrill Lynch, and Manufacturers Hanover Corporation were taken into account in performing the competitive analysis.

[26] U.S. Comptroller of the Currency, "Decision on the Application to Merge Farmers Community Bank," p. 3.

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