



PARIS

Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

OLIS : 16-Feb-1998
Dist. : 17-Feb-1998

English text only

DIRECTORATE FOR FINANCIAL, FISCAL AND ENTERPRISE AFFAIRS
COMMITTEE ON COMPETITION LAW AND POLICY

DAFFE/CLP/WP2/WD(98)20
For Official Use

Working Party No. 2 on Competition and Regulation

ENHANCING THE ROLE OF COMPETITION IN THE REGULATION OF BANKS

-- United States --

This note is submitted by the United States Delegation to the Working Party No. 2 FOR DISCUSSION at its next meeting on 19 February 1998.

62011

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

English text only

ENHANCING THE ROLE OF COMPETITION IN THE REGULATION OF BANKS

-- United States --

1. Throughout the 1990's, the United States banking industry has experienced dramatic legal and structural changes which continue to redefine the business of banking, the financial services markets more generally and the role of banks in the economy. Among the many changes experienced in the U.S., the banking system has witnessed a breakdown of geographic boundaries and product barriers. Continuing globalization of financial markets coupled with rapidly expanding technological advances, such as electronic banking, have created a new competitive and evolving regulatory environment for banks. In response to these changes, Congressional initiatives continue to seek reform in the financial structure of banks.

2. Greater competition in traditional banking products from nonbank financial service providers coupled with the ability of many borrowers to directly access the capital markets has increased pressure from banking interest groups to reform the banking system to allow banks to offer a greater array of financial products and services. This paper provides an overview of bank regulation in the U.S. and follows with a discussion of the more significant rulings by federal regulators which have affected competition in the banking industry. As discussed below, rulings from the bank regulators have opened the door for banking competition in an expanding range of financial products. This environment led most recently to the introduction of several financial modernization bills in Congress also discussed below.

I. Overview: United States Banking System

3. Much of the banking regulatory system in the United States functions under a dual banking structure. Both state and federal regulatory authorities are empowered by statute to charter banks, credit unions and thrifts. The type of charter a bank or thrift maintains -- state or federal -- and whether the bank is a member of the Federal Reserve System, determines in varying degrees the regulation and regulators to which the bank will be subject. As a result, many banks operate under two interrelated regulatory systems. The ability of banks to choose between federal and state regulators as their charter provider and primary regulator, and the ability to convert from a state or federal charter, incents agencies to continually reexamine their regulatory practices and procedures to enhance their ability to attract and retain bank charters. The result has been a steady stream of innovations that likely would not have proceeded as rapidly or as effectively if the U.S. regulatory structure were governed by one monolithic regulator. In addition to fostering innovation, the dual banking system protects against overly rigid federal regulation and supervision by allowing banks to choose from among more than one federal regulator.

II. Industry Regulators

4. Four primary regulating bodies oversee the activities of state and national banks and thrifts: the Federal Reserve Board (the "Fed"), the Office of the Comptroller of Currency (the "OCC"), the Federal Deposit Insurance Corporation ("the FDIC") and the Office of Thrift Supervision (the "OTS"). State banking departments or commissioners also regulate and supervise state chartered banks. Credit unions are separately regulated by the National Credit Union Administration (the "NCUA").

Office of the Comptroller of the Currency

5. Established by Congress in 1863 as a bureau of the Department of Treasury, the OCC is the oldest federal regulator and serves as the federal regulatory body responsible for chartering and supervising all nationally-chartered banks. 12 U.S.C. § 26 (3)(a) (1994). By year-end 1996, the OCC maintained supervisory authority over 2,726 nationally-chartered banks in the U.S. The OCC also supervises and regulates all federally licensed branches and agencies of foreign banks doing business in the U.S. The Comptroller maintains supervisory authority over the day-to-day activities of national banks including loan and investment policies, trust activities and the issuance of securities.

Federal Reserve System

6. Created in 1913, the Federal Reserve Board is an independent federal agency. The Federal Reserve Act created a system of federal reserve banks, each acting as central bank for its geographic region and overseen by the Board of Governors of the Federal Reserve System. 12 U.S.C. §§ et seq. (1994). The Fed is primarily responsible for implementing monetary policy and credit policy. 12 U.S.C. §225a. The Fed also prescribes reserve levels, lends money to its reserve members and influences bank reserves and interest rates through the supply of bank liquidity and setting the discount rate for loans to banks in the Federal Reserve System. Member banks include all national banks in the continental U.S. and those state-chartered banks that have applied and received membership. The Federal Reserve System consists of the Federal Reserve Board ("Fed") and staff, twelve Federal Reserve Banks,¹ the Federal Open Market Committee (FOMC), the Federal Advisory Council (FAC) and the commercial banks that are members of the Federal Reserve. Only the Fed, the twelve Reserve Banks and the FOMC have policy making responsibility. 12 U.S.C. §§ 248, 1844 (1994).

7. The Fed maintains primary supervisory authority over Bank Holding Companies (BHCs) under the Bank Holding Company Act. 12 U.S.C. §§ 248, 1844. Fed approval is needed (i) to become a bank holding company, (ii) to become a subsidiary of a bank holding company, (iii) to acquire more than 5 percent of the stock in a bank; (iv) to acquire the assets of a bank, or (v) to merge with another bank holding company. By year-end 1996, the number of BHCs in the U.S. totaled 5,998. These organizations controlled 7,213 insured commercial banks and held roughly 93 percent of the assets of all insured commercial banks in the U.S.

8. The Fed also maintains broad authority to supervise and regulate the U.S. activities of foreign banks that engage in banking activities in the U.S. through branches. The Foreign Bank Supervision Enhancement Act of 1991 requires Fed approval for the establishment of branches, agencies, commercial lending company subsidiaries and representative offices by foreign banks in the U.S. As of year-end 1996, 281 foreign banks from 60 countries operated 432 state-licensed branches and agencies (of which 25 are insured by the FDIC) as well as 66 branches and agencies (of which 6 have FDIC insurance) licensed by the OCC. In 1996, the Federal Reserve approved applications by 19 foreign banks from 12 foreign countries.

Federal Deposit Insurance Corporation

9. Established in 1933, the Federal Deposit Insurance Corporation ("FDIC") provides primary supervision for state-chartered and national banks that are not members of the Federal Reserve System. 12 U.S.C. § 1813(q)(3) (1994). The FDIC holds a unique position among the federal banking regulatory agencies as the administrator of federal deposit insurance funds for both banks and thrifts. Banks belonging to the Fed automatically receive insurance coverage for their depositors. FDIC coverage for all other institutions is voluntary. As a regulator the FDIC is the primary federal supervisor of 6,414 insured

state non-member banks and state savings banks and the back-up federal supervisor for all other insured depository institutions.

10. Under the Federal Deposit Insurance Act (FDIA), state chartered member banks as well as national banks are required to obtain deposit insurance from the FDIC, but federal deposit insurance is optional under the FDIA for state chartered non-member banks. The primary statutory mandate has been to provide deposit insurance to all banks qualifying for insurance coverage. The FDIC currently insures bank accounts of the same depositor up to a \$100,000 limit.

Office of Thrift Supervision

11. The Office of Thrift Supervision ("OTS") was established as a bureau of the Department of Treasury in August 1989 by the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA). OTS is headed by a Director who is appointed by the President for a five-year term. The Director also serves on the board of the FDIC. Over 90 percent of all thrifts have assets of under \$500 million and nearly all of these are locally owned and managed. Federal thrifts may branch interstate, free from state law restrictions. Thrifts play an important role as mortgage and community lenders. Single-family mortgage loans remain the primary type of loan held by thrifts, representing 50 percent of industry assets as of December 31, 1996.

National Credit Union Administration

12. Credit unions are nonprofit, cooperative financial institutions owned and run by members. Established in 1970, the National Credit Union Administration (NCUA) assumed the functions of chartering, supervising and examining federal credit unions and state-chartered credit unions that are federally insured. Credit union deposits are insured for up to \$100,000 by the National Credit Union Share Insurance Fund. Federally chartered credit unions must take deposit insurance through the NCUA; state chartered credit unions may choose federal or state deposit insurance coverage or none at all. All credit union members regardless of charter have access to emergency credit.

State Regulatory Authorities

13. State-chartered banks are primarily regulated by each state's department of banking. In order to compete with national banks for deposit funds, virtually all state-chartered banks also are insured by the FDIC. Some state-chartered banks are members of the Federal Reserve System and, therefore, also are regulated by the Fed.

II. Sector-Specific Regulation in the United States

14. All commercial banks in the U.S. are subject to supervision and regular examinations. Reserve requirements are strictly enforced as are capital adequacy requirements. Bank regulators have influenced the branching activities, merger activity and product offerings of most banks. Limitations continue to apply to lending limits, and some restrictions remain on investments and deposits.

Reserve Requirements

15. Requirements that depository institutions maintain a fraction of their deposits in reserve in specified assets is regulated under the Monetary Control Act of 1980. This act requires all institutions, regardless of membership in the Federal Reserve System, including commercial banks, savings banks, savings and loans, credit unions and U.S. branches of foreign banks to maintain a specified level of

reserves. Reserve requirements are set by the Fed under the Depository Institutions Deregulation and Monetary Control Act (DIDMCA). Required reserves are expressed as a fraction of deposits called the reserve ratio which is set by the Board of Governors. The DIDMCA phased in a new "standardized" reserve requirement of 12 percent for "transaction" deposits (including NOW accounts), and 3 percent for non-personal time deposits, subject to substantial emergency increase authority. In 1990, the Fed reduced reserve requirements from 3 percent to zero on nonpersonal time deposits and from 12 percent to 10 percent on transaction deposits.

Capital Adequacy

16. Another major regulatory development occurred in 1985 when regulators agreed on a formal adoption of uniform capital adequacy requirements. Since 1985 the capital rules have continued to be refined to reflect a more precise measurement of risk and allocation of appropriate levels of capital. In 1989 the federal banking agencies adopted substantially all of the provisions of the BASLE Capital Accord, including the 8 percent minimum capital adequacy standards.² Capital adequacy is viewed in terms of continuing financial soundness, and is expressed as a ratio or percentage of total assets (or liabilities). In September 1996, U.S. federal regulators issued final rules to incorporate market risk into bank capital standards. Banks deemed to have inadequate controls for these risks may be required to hold capital above the minimum requirements. The Fed, OCC, FDIC and OTS jointly issued a final rule implementing market risk capital standards effective January 1, 1998.³ The joint rule applies to "any bank or bank holding company whose trading activity equals 10 percent or more of its total assets, or whose trading activity equals \$1 billion or more." The agencies estimate that the rule will affect approximately 15 of the largest U.S. institutions. The joint rule requires the measurement and application of capital charges to market risk, and is independent from and in addition to the risk-based capital components required in the original BASLE Accord. Specifically, an institution must adjust its risk-based capital ratio to take into account the general market risk of all positions located in its trading account and of foreign exchange and commodity positions.

III. Interbank Arrangements Outside Formal Statutory Regime

17. Private interbank agreements serve as a disciplining alternative to federal regulations. Viewed by some as an alternative to bank regulation, these arrangements have in many ways succeeded in imposing private, non-governmental discipline between banks.

Automated Teller Machine ("ATM") And Point of Sale Transactions

18. ATM networks involve cooperative arrangements among banks that are typically private in nature and free from regulatory restraints. An ATM network functions as a privately arranged switch for bank transactions. The network connects one bank's ATM to another bank's debit cardholder account records, so that depositors can access cash, or make deposits, balance inquiries, or transfers at ATMs not owned by the bank that holds their deposits. Accordingly, ATM networks exponentially increase depositors' access to their accounts.

19. ATM networks can be national or regional. Regional networks principally connect member banks' ATMs in more or less discrete geographical areas. The boundaries of the regional networks often overlap. Many networks freely allow all of their member banks to belong to multiple networks. The two national networks, Plus and Cirrus, allow debit cardholders to access their accounts across the country and even in other countries. Member banks connect to the national networks directly, or via their regional networks. National network transactions tend to be more expensive than regional ones. Moreover, the

national networks typically function as "networks of last resort," so that transactions only pass over them in the absence of an available regional network route.

20. The regulation of electronic fund transfers largely has been confined to private contract and informal intra-network discipline, although the federal government has attempted to protect consumer interests pursuant to the Electronic Funds Transfer Act ("EFTA") of 1978 enacted as a subsection of the Consumer Protection Act. Specifically, the EFTA extended to consumers engaged in EFTs certain privileges including limited consumer liability, documentation standards, partial stop-payment privileges, and special error-resolution privileges.

Credit Card Transactions

21. Banks have formed two joint ventures, Visa and MasterCard, to operate settlement and clearing functions and to otherwise facilitate the operation of nationwide bank credit card networks. They are organized as membership corporations and are generally open to FDIC-insured financial institutions. Most banks belong to both systems.

22. Initially limited to U.S. banks, both systems now operate world wide. The systems are supported by fees paid by the member banks that issue cards and sign merchants to accept cards. The rules of both systems permit banks to determine the annual fees, interest rates, and loan limits on cards that they issue.

23. Visa and MasterCard rules and regulations govern interaction among the banks within the system, and cover the procedures for authorization, collection and settlement of payments from credit card transactions. Changes to the rules are periodically considered by Visa and MasterCard.

24. Consumer protection concerns have launched the most explicit governmental regulation to date of the credit card industry. Federal laws protect consumers from banking excesses and have directly affected the credit card industry. The laws include, for example, the Truth-in-Lending Act of 1970, the Fair Billing Credit Act of 1974, the Truth-in-Lending Simplification Act of 1980, and the Fair Credit and Charge Card Disclosure Act of 1988. Credit cards are also subject to state usury limits.

IV. Recent Regulatory Developments

Liberalization of Branching and Entry

25. Prior to 1994, national banks and most state banks could not branch across state lines. Under the McFadden Act, national banks and state member banks could establish branches only within their home state and only to the extent that state banks could branch under state law. 12 U.S.C. §36(c) and 321. The McFadden Act, however, did not apply to state banks that were not members of the Federal Reserve System. Those banks could establish interstate branches to the extent permitted by state law. The "Douglas Amendment" enacted as Section 3(d) of the Bank Holding Company Act, prohibited a BHC from acquiring a bank across state lines unless the acquisition was specifically authorized by the banking statutes of the acquired bank's home state. 12 U.S.C. § 1842(d). Despite these restrictions, a majority of states allowed interstate bank holding company acquisitions on a reciprocal basis, and some without reciprocity requirements. As a result, more than 150 interstate BHCs were established by 1994 and gained control of over 90 percent of the banking assets in the United States.

26. With the enactment of the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, (the "Riegle-Neal Act") national banks and all state banks so authorized by their state legislatures are able

to branch nationwide except in states that opted out of interstate branching. As a result, states can no longer impose regional or reciprocal limitations on interstate BHC acquisitions. 12 U.S.C. §§ et. seq. 184. All states became open to interstate branching unless they enacted statutes "opting out" of interstate branching by June 1, 1997. The Riegle-Neal Act also established aggregate deposit concentration limits of 10 percent on a nationwide basis and 30 percent on a statewide basis for both interstate acquisitions of banks by bank holding companies and interstate bank mergers. This law has opened the door for further consolidation for U.S. banking and depository institutions.

27. Riegle-Neal, by increasing competitive rivalry, will generally improve the quality and availability of all types of financial services. Interstate banking and branching will lead to more competitive markets in which depository institutions will have to operate efficiently or exit the market. Market concentration will be less of a problem because greater geographic mobility and the potential for entry will constrain anticompetitive behavior.

V. Expansion of Securities and Insurance Related Activities of Banks

28. Historically, federal law limited the powers of national banks to those functions "closely related to deposit taking and lending." These limitations were designed to prevent the risks associated with nonbank activities from undermining the safety and security of the deposit and payment systems. Sections 16, 20, 21 and 32 of the Banking Act of 1933, more commonly known as the Glass-Steagall Act, prevented banks from underwriting, selling or distributing securities, and at the same time prohibited securities firms and brokerage organizations from receiving deposits like commercial banks.⁴ 12 U.S.C.A. §§ 24, 78, 377, 378(a), 335 and 221.

29. The Bank Holding Company Act prohibits a BHC from acquiring direct or indirect control over any voting shares of any company that is not a bank. There are several exceptions to this rule and the BHC structure has been the vehicle by which banks could expand their reach into other financial markets. Under section 4(c)(8) of the Act, the Fed may approve a BHC's acquisition or control of a nonbanking company. Under this structure, a BHC can control the stock of one or more commercial banks as well as the stock of other non-banking entities that engage in businesses "closely related to banking." BHCs use section 4(c)(8) to engage in securities-related activities through their nonbank, "Section 20" subsidiaries.⁵ This corporate structure offers banks indirect access to broader financial markets while shielding the banks' exposure to the liabilities of non-bank Section 20 affiliates thereby protecting depositors and the insurance fund from the increased risks these activities entail. If a BHC affiliate fails, the consequences fall to the BHC and not to its banking affiliates. As a result, BHC affiliates engage in a variety of financially related activities such as securities trading, mortgage banking, a limited range of insurance underwriting, personal property and real estate leasing and some management consulting. In a series of regulatory decisions by the Federal Reserve Board and the OCC, some of the largest money center banks in the United States now are allowed to underwrite commercial paper, securitized mortgage backed instruments, and even many corporate bonds and stocks, along with lending to support private placements of securities.

30. In October 1996, the Fed issued final regulations that rescinded its Regulation R, which implemented Section 32 of Glass-Steagall act, and removed various restrictions on the activities between a firm engaged in securities underwriting and dealing covered under Section 20 of the Glass Steagall Act and an affiliated state member bank. Prior to its rescission, Regulation R prohibited officer, director and employee interlocks between member banks and firms "primarily engaged" in underwriting and dealing in securities. In 1996, the Federal Reserve raised the limit on bank securities activities to 25 percent of

revenue in their securities affiliates from 10 percent previously allowed. Only 23 U.S. banks and 15 foreign Bank Holding Companies were using Section 20 affiliates as of mid-1996.

31. In November 1996, the OCC similarly revised its regulations concerning procedures and criteria with respect to the operating subsidiaries of national banks. The OCC adopted a revised Part 5 regulation enabling national banks to use their own subsidiaries to underwrite and deal in securities. The new "Operating Subsidiary Rule" provides that a national bank may establish or acquire an operating subsidiary to conduct, or may conduct in an existing operating subsidiary, activities that are part of or incidental to the business of banking as determined by the Comptroller of the Currency, pursuant to 12 U.S.C. § 24, and other activities permissible for national banks or their subsidiaries under other statutory authority.⁶ Prior to this ruling, the only national bank affiliate permitted to engage in such activity was a non-bank affiliate of a BHC. An eligible national bank may obtain expedited approval from the OCC with respect to the establishment or acquisition of an operating subsidiary that will engage in such activities as securities brokerage, investment advice, leasing of personal property, underwriting and dealing in securities permissible for national banks. Most of this new underwriting had to be carried on in affiliates where the new activities were not a large part of their business.⁷

32. One of the benefits expected from these revisions is enhanced operating efficiencies. The revisions allow national banks to choose the form of organization that they find most profitable. Many banks expect to reduce their operating costs significantly by switching from the holding company structure to an operating subsidiary structure. The costs of organizing and maintaining several different corporate structures have been prohibitively high for many small banks that want to enter such bank related business as underwriting municipal bonds and other services. Specific activities are allowed in some form for nonbank subsidiaries of a BHC but are not permitted within the bank itself. Allowing operating subsidiaries to perform such activities may decrease transaction costs for large banks and increase the profitability of product offerings of small banks.

33. Weighed against an environment of increased efficiency and profitability are the risks associated with allowing banks to enter into higher risk businesses. A main tenet of bank regulation is limitation of risk that could result in bank failure, which could trigger systemic financial collapse among many other banks through deposit and payments systems. To reinforce confidence in bank safety and security, the government insures deposits. As a result, creditors have little incentive to monitor bank activity regularly, banks may take unduly risky actions that endanger the deposit insurance fund. By allowing operating subsidiaries of a bank to engage in broader activities, regulators place the insurance fund at greater risk than they would by not allowing these activities within the BHC structure.

34. Non-bank competitors have expressed concern that allowing the expansion of bank activities through operating subsidiaries creates an unfair competitive advantage for banks. This is because banks' liabilities are insured and banks are thereby able to attract funds at a lower cost and charge less for their services. Others counter that any purported FDIC subsidy is likely to be offset by the increased costs of FDIC regulation.

Appendix: Mergers and Other Competition Policy Issues in Banking

George Rozanski
Dan Rubinfeld⁸
February 10, 1997

35. During the last fifteen years the number of banks in the U.S. declined steadily and significantly from 14,478 in 1983 to 9,663 in 1996. Surprisingly, over this fourteen year period, entry of 2,691 newly chartered banks more than made up for the 1,453 banks that failed and exited.⁹ The net decline, therefore, is the result of a wave of merger activity among U.S. banks which has had no parallel since the Great Depression. The number of bank mergers is only part of the story; equally significant is the fact that a number of individual mergers during the 1990s ranked among the largest U.S. bank mergers ever, in terms of the real value of the assets involved, and in terms of the share of total U.S. bank assets accounted for by the merging banks (Rhoades 96a, 97; Nolle 95).

36. Among the reasons for the consolidation of banking activity in the U.S. are the relaxation of restrictions on the geographic area that a bank can operate in, and elimination of other regulations that may have served to shelter relatively inefficient banks from competition (Rhoades 96b, 97; Berger, Kashyap, and Scalise 95). An additional factor is the adoption of new information processing technologies, which has increased the efficient scale of operation in some bank activities. Some of these same forces are at work in European and other countries, and a review of bank merger enforcement policy in the U.S. may therefore be useful in assessing the role of competition policy in banking markets worldwide.¹⁰

37. Authority in the U.S. to approve or disprove mergers rests with bank regulatory agencies. These include the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, and the Federal Reserve Board. The question of which agency has authority over a given proposed merger is determined on the basis of the type of institution that would result from the merger. The Federal Reserve Board or the OCC are the two agencies most often involved. Bank regulatory agencies are charged by U.S. banking laws with considering the possible competitive effects of proposed mergers, and cannot allow mergers that threaten competition unless "the anticompetitive effects are clearly outweighed in the public interest by the probable effect of the transaction in meeting the convenience and needs of the community to be served." (12 U.S.C. 1828(c)(5)(B)). The Antitrust Division of the Department of Justice reviews proposed mergers and reports its analysis of likely competitive effects to the regulatory agency. The Department can file a suit under U.S. antitrust laws to block a bank merger, even if that merger has been approved by a bank regulatory agency.

Framework for Analyzing Bank Mergers

38. In reviewing proposed bank mergers that could affect consumers in the U.S., the Department of Justice applies the methodology of the Horizontal Merger Guidelines (U.S. Department of Justice and Federal Trade Commission, 1992) to analyze the likely effect of the merger on competition to supply each product sold by each merging firm in each geographic area in which the product is sold. The goal of the analysis is to assess whether the merger could create or facilitate the exercise of market power, where market power is defined as the ability of firms to increase price or reduce quality from competitive levels. A merger could have anticompetitive effects by making it profitable for a leading firm to exercise market power unilaterally, or by increasing the likelihood that firms in a market could successfully agree upon and maintain a collusive outcome.

39. To evaluate the effect of a merger, it is essential to analyze the merger's impact on the range of services provided by banks. Bank services include deposit, loan, and investment services sold to retail consumers; deposit, loan, and various other services sold to businesses, and also correspondent services -- specialized services supplied by a relatively limited number of banks to other banks, often for resale to the ultimate purchaser. Trade finance, custody, check clearing services, and foreign exchange services are examples of correspondent services. Banks in the U.S. face some restrictions in their ability to offer underwriting services, insurance, and some investment products. There are fewer limitations on the ability of banks to offer these products in most other OECD countries.

40. In general, the analysis of the likely effects of a merger on competition should take into account a number of economic factors. One factor is the possibility that prospective purchasers of a product would choose to substitute to alternative products in response to a small but significant increase in the relative price of the product. If such substitution would not occur in an amount sufficient to make the price increase unprofitable then, in the language of the Merger Guidelines, the product constitutes a relevant product market. A second factor is the possibility that prospective purchasers could turn to alternative sources of supply, including firms that currently produce and sell the product in other geographic areas. If such substitution away from firms located in a given area would not be significant, then the area constitutes the geographic market. The possibility of significant new competition from entry by firms that don't currently produce or sell the product is a third factor.

41. The structure of competition in the relevant product and geographic markets, including the number and relative effectiveness of current market competitors, helps to determine whether a merger would likely be anticompetitive. Other characteristics of competition in the market also affect the likelihood of anticompetitive effects. For example, if there is significant product differentiation, and if products sold by the merging firms are perceived by purchasers to be relatively good substitutes, then there is a greater possibility of unilateral competitive effects. If firms have good information about the competitive actions of their rivals, and if competitive strategies can be revised quickly, then coordinated competitive effects are more likely. Finally, a proposed merger may hold the promise of real efficiencies that could not reasonably be achieved through other means, and these efficiencies could serve to lessen concerns about the net effects of the merger on competition.

42. The analytical framework described above could result in different policy recommendations for bank mergers in different countries, because of significant differences in the structure of competition, the preferences of purchasers of bank products (and the set of alternatives they face), and the institutional context. In the U.S., concerns about competitive effects of proposed bank mergers most often center on markets for certain products provided to small and medium sized businesses. Effects on competition in markets for consumer, or retail bank products have less frequently been an issue. A more detailed discussion of common features of the analysis of these markets in the U.S. helps to illustrate the methodology.

Small Business Loans

43. The most frequent focus of antitrust concerns relating to bank mergers in the U.S. are lines of credit extended to small businesses for business startup and working capital purposes. "Small" businesses, which have annual revenues in the range of one to ten million dollars, typically obtain a variety of credit products, including mortgages on commercial property, and loans to purchase or lease vehicles, equipment, and other capital goods. In many cases, businesses that have a need for a line of credit for startup or working capital are likely to have a limited ability to substitute to such alternatives. In other cases in which the need for financing derives from a capital expenditure for which alternative forms of

credit are available, owners of small businesses may prefer the convenience of drawing on their line of credit to the alternative of applying for and making payments on a loan on a case-by-case basis.¹¹

44. It is not uncommon for small businesses in the U.S. in need of financing to rely to a significant extent on personal credit, such as general purpose consumer credit cards or a second mortgage on a personal residence. Many small businesses that currently obtain a business line of credit from a bank may view these alternatives as inferior, however, because they are relatively high cost, and they put personal assets at risk. The question for antitrust analysis is whether, as a result of a merger, banks are likely to find it profitable to raise prices. The answer to this question depends on the willingness of businesses that would obtain a line of credit from a bank at prevailing prices to substitute to alternatives such as personal credit in response to an anticompetitive price increase. The fact that some businesses use these alternatives at prevailing prices demonstrates the feasibility of substitution, but does not establish that such substitution would occur in an amount sufficient to make an anticompetitive price increase unprofitable; the analysis must attempt to quantify the likely magnitude of such substitution.

45. The next step in the analysis of the likely effects of a proposed merger on competition to supply small business lines of credit is the determination of which banks and which bank locations are able to compete effectively to supply the product. Small businesses in the U.S. generally obtain lines of credit and some other key bank products from nearby suppliers (Kwast, Starr- McCluer, and Wolken 97). In part, this is due to the advantages of dealing with a single supplier, coupled with a strong preference that some services used on an almost daily basis, such as transaction services¹² and demand deposit accounts, be quickly accessible.

46. A second factor that accounts for the relative success of local banks in providing lines of credit is that their knowledge of local business conditions tends to make them better informed about the risks associated with a young firm or new business startup, and their proximity to local businesses tends to lower costs of monitoring performance and updating information about credit risk. Local banks are therefore likely to be able to identify small businesses that are better credit risks and compete successfully for their business by offering relatively favorable terms. It is true that some banks and other providers of credit to small businesses are sometimes located a great distance away.¹³ In the case of vehicle or equipment loans that are secured by the capital good being financed, the riskiness of the loan is reduced and the informational advantage of local banks is eroded. In the case of lines of credit, distant suppliers lacking a branch network or significant presence in a local market are likely to regard all but the most well-established small businesses as relatively high risks. Distant suppliers may compete successfully to make loans that the better informed, local lenders also identify as high risk, but they may not be competitive in the case of borrowers that local lenders identify as relatively good risks. It is competition to supply services to these relatively low risk borrowers that is at issue from a merger of banks in a given geographic area.¹⁴

47. The Merger Guidelines proposes the Herfindahl-Hirschman Index as an index of market structure. This index takes into account both the number of competitors in the market and their relative market shares. In general, an informative measure of market share predicts how effective a firm is in competing to make sales. A common measure of market share used to analyze the effect of bank mergers in markets for lines of credit to small businesses in the U.S. is a bank's share of deposits in the geographic market. A significant advantage of this measure is that disaggregated data on deposits are readily available, and commercial bank deposits are often a fair proxy for loan activity. Alternatively, deposits can be considered to measure a bank's capacity to make loans. To the extent that the riskiness of small business loans can be assessed and portfolios of such loans can be securitized, the activity of loan origination can be separated from funding the loan, and deposits are a less meaningful measure. Given the ability to transfer loanable funds within a banking organization, the question of how to treat a bank's

out-of-market deposits is also important. Studies in the U.S. have tended to support the view that out-of-market capacity does not make a bank a significantly more vigorous competitor (Wolken and Rose 91, Pilloff 97).

48. Entry in local banking markets in the U.S. appears to be driven largely by factors such as the growth of economic activity in the area and the current density of banks and branches, rather than by the measured profitability of incumbent banks (Amel and Liang 97). It seems unlikely that an entry decision by a bank would turn on increased profit opportunities in a relatively small activity such as small business lines of credit. In addition, new entrants may require several years to establish themselves as effective competitors to make small business loans, because of the importance of private information and long-standing business relationships in this activity. The possibility of exogenous entry is an important factor to consider, but it may not be possible to count on quick and effective entry to counter the effects of an otherwise anticompetitive merger.

49. Claimed efficiencies from a bank merger usually include substantial savings due to branch closings (which could, however, bring with it the risk of harm to competition). Additional efficiencies might include consolidation of some "back-room" activities. The important question for merger analysis is the extent to which these savings could also be achieved through out-of-market mergers, or by relying for some functions on third-party processors, who could potentially achieve economies by pooling the activity of a number of banks.¹⁵ If so, they would not be counted as merger-specific efficiencies in the merger analysis.

50. The hypothesis that the pricing of small business loans is determined by competition among banks in local geographic markets in the U.S. has been tested empirically. Although the available data are imperfect and significant methodological questions can be raised about the different approaches of various studies, measured profitability and pricing appear to be correlated with measures of market structure comparable to those described above (Hannan 91, 97).¹⁶

Middle Market Loans

51. The analysis of competition in markets for lines of credit to medium-sized businesses in the U.S. is distinct from the analysis of small business lines of credit and sometimes leads to a different conclusion. Medium-sized businesses with annual sales in the range of ten million to 100 or 250 million dollars often have yet to compile a history of performance that would allow them to access national capital markets on favorable terms, so they remain dependent on bank financing. Some small community banks that compete effectively to extend credit to small businesses lack the ability to serve the credit needs of middle-market customers, because of concerns about exposure to a single creditor. Even though banks drawn from a broader geographic area compete effectively to make loans to middle market businesses, the fact that small banks are not participants in the market can sometimes imply that the structure of the market is relatively concentrated.¹⁷

Consumer Bank Products

52. In the case of some important consumer bank products in the U.S. such as home mortgages, car loans, and credit card loans and transactions services, distant banks and specialized non-banks have demonstrated their effectiveness as competitors. The analysis of consumer home mortgages and car loans bears some similarity to the analysis of asset-backed loans made to businesses: the fact that the collateral is relatively easy to evaluate explains the success of non-local suppliers. Credit cards are marketed on a national basis by direct mail and telephone. Credit card issuers rely on credit histories assembled by

third-parties and on credit-scoring software that predicts credit risk. Credit-scoring algorithms have so far proven to be more useful in this application than in the case of small business lines of credit.

53. Surveys of consumers reveal a preference to obtain checking account services from a conveniently located supplier (Kwast, Starr-McCluer, and Wolken, 97). Because many consumers who commute a significant distance to work consider a bank location near their workplace to be a good substitute for a bank location near home, the geographic market for consumer checking accounts is relatively large. Also, in contrast to the analysis of small business bank products, other federally insured depository institutions such as thrifts (savings and loan institutions) and credit unions are active suppliers of consumer bank products. As a result, antitrust concerns relating to consumer bank products in the U.S. are relatively less common, although the Federal Reserve has sought divestitures before approving some bank mergers based in part on concerns about consumer bank products.¹⁸

54. The advent and spread of ATMs, electronic funds transfer, and the development of home banking via computer or telephone raises the possibility that local banks with branch networks will lose their competitive advantage, and that geographic markets for consumer bank products will become much larger. During the same period that has seen a significant reduction in the number of banks and a huge increase in the number of ATMs, the number of bank branches in the U.S. has actually increased, however (Rhoades 96b). In addition, survey evidence indicates that consumers are not yet ready to embrace home banking alternatives.¹⁹

Cluster Market Approach

55. The methodology described above considers separately the effects of a bank merger on competition to supply each bank product. An alternative approach is recommended in a series of U.S. Supreme Court opinions from the 1960s and early 1970s, which stated that the relevant product for analyzing bank mergers consists of the cluster of products and services that constitutes "commercial banking."²⁰ This cluster includes consumer loans and consumer banking services as well as business loans and products. In the U.S., the cluster market approach guides the decisions of the Federal Reserve and the OCC.

56. Some have argued that the cluster approach is not appropriate because banks are not constrained to raise the prices of all services they offer uniformly. Banks would not be deterred from raising the price of one product, such as a small business line of credit, by the possibility that prospective loan customers would substitute to other products in the cluster, such as a checking account. Nor would an increase in the price of the loan be defeated by competition banks face to supply other products in the cluster.

57. On the other hand, others believe that the cluster market approach gives the right answer, especially if there were strong economies of scope in production, so that all firms supplied all products in the cluster in the same proportion, and if there were strong complementarities in demand, so that all consumers consumed all products in the cluster in the same proportion. For example, in analyzing a merger of firms that produce shoes, it probably would not matter much to the conclusion if the analysis was done in terms of right shoes, or left shoes, or pairs of shoes.

58. In the case of the "commercial banking cluster", some firms in fact compete very effectively in supplying some, but not all, products in the cluster. In addition, although consumers and businesses do tend to purchase multiple services from their primary financial institution (Kwast, Starr-McCluer, and Wolken 97), they do unbundle purchases today, and would likely unbundle to a greater extent if their

current bank increased prices of some products in the cluster. The cluster market approach appears to understate competition in the market by ignoring the role of specialized providers of some services.

59. The cluster market approach may overstate competition in the market by wrongly inferring from the existence of abundant competition to supply one product in the cluster that competition in other product markets is sufficient. For example, the Federal Reserve defines geographic markets in the U.S. for the cluster based in part on commuting patterns. This is sensible in the case of consumer banking products, for which consumers consider services from banks located near their home or near their work to be good substitutes. But the resulting geographic markets are sometimes far larger than is appropriate to analyze competition for many small business bank products, for which proximity of the bank to the place of business is key. In cases in which the structure of competition is not homogeneous throughout the broad geographic market, the cluster market approach may miss adverse effects of the merger on local competition.^{21,22}

Tying and Bundling of Bank Products

60. Banks in the U.S. have been restricted from tying products or offering discounts on some products conditional on the purchase of other products when the tying product that is discounted is a "traditional" bank product. These include loans, discounts, deposits, and trust services. Banks are presumed to have an advantage in offering these traditional products, and the concern is that banks could exploit this advantage to disadvantage competitors in the sale of other products, such as brokerage accounts or investment services.

61. Restraints imposed by a firm on the sale of complementary products are often procompetitive, and the conditions under which it would be appropriate for a competition agency to prohibit tying or bundling of bank products are somewhat restrictive. One useful economic model recognizes the possibility that the tie may foreclose sales opportunities to competitors in the market for the tied product, and harm competition by denying competitors the opportunity to achieve economies of scale (Whinston 90). In order for this model to be applied to banking, it is necessary to conclude that *an individual* bank has market power in the sale of some traditional bank product, and that the cost structure for the tied product is characterized by significant economies of scale over a wide range of output.²³

Line of Business Restrictions

62. Banks in the U.S. are restricted in their ability to compete to sell securities, insurance, and real estate; some other countries apply similar restrictions. One rationale for restricting the activities of banks is that it facilitates the task of regulators in auditing banks. A second rationale is that restricting banks from diversifying into areas outside of their expertise eliminates the possibility that a bank would be tempted to take greater risks in its banking activities to offset losses in its non-banking activities. In principle, there is a trade-off between the public policy objective of ensuring the safety and soundness of banks, and the desire to promote competition in other activities. This calculus is more difficult if, absent the participation of banks, competition in these other activities is limited, or if banks could exploit significant economies of scope and be relatively efficient competitors in these other activities.

Notes

- 1 Reserve banks are quasi-governmental corporate entities comprised of stockholder member banks.
- 2 The OCC requires at least \$1 million of initial capital for a national charter. The Fed requires the same for membership. The FDIC also now requires \$1 million of capital for a new insured bank or savings institution.
- 3 Risk-Based Capital Standards: Market Risk, 61 Fed. Reg. 47,358 (1996) (to be codified at 12 C.F.R. 3, 208, 225 and 325).
- 4 Section 16 applies only to national banks and state Federal Reserve member banks and established three limitations on commercial bank securities activities: (1) the purchase and sale of certain equity securities is limited to transactions for bank customers; (2) the purchase and sale of debt securities is limited to "investment securities," the definition of which has been specifically limited through regulations issued by the Comptroller of the Currency and (3) commercial banks may only underwrite and deal in U.S. Treasury and governmental agency debt obligations, and general debt obligations of state and local governments.
- Section 20 applies to national banks, state Federal Reserve member banks, and their corporate affiliates -- a national bank subsidiary, a holding company parent of the bank, and a non-bank subsidiary of the holding company -- and bars such entities from "affiliating" with organizations "engaged Principally" in the investment banking business.
- Section 21 prohibits any persons engaged in the business of issuing, underwriting, selling, or distributing securities from engaging at the same time in deposit-taking "to any extent whatever." This section recognizes the same three exceptions to the broad prohibition against commercial bank involvement in securities activities noted in the discussion of section 16, and in fact extends these restrictions to state banks that are not members of the Federal reserve System.
- Section 32 prohibits interlocking management between national banks and other Federal Reserve System member banks, and firms "primarily engaged" in the securities business. This section is intended to eliminate the potential for conflicts of interest that could adversely affect both depositors and the public investors.
- 5 Section 20 prohibits a bank from establishing or acquiring a non-bank subsidiary if they are engaged principally in any of the activities listed in this section.
- 6 The Comptroller has outlined several safeguards for operating subsidiaries to ensure that their activities will not have adverse effects on national banks. In order to prevent conflicts of interest, the regulation applies sections 23A and 23B of the Federal Reserve Act to banks' relations with their subsidiaries. These Sections impose lending limits and require arm's-length dealings between banks and their nonbank affiliates. In addition, to eliminate confusion between a bank and its subsidiary, the Comptroller requires a separate facility and name and clear disclaimers identifying which activities are and which are not insured by the FDIC. Both the subsidiary and the bank establishing the subsidiary are required to be adequately capitalized. In

addition, the bank's investment in the subsidiary is limited to ten percent of the bank's capital and this investment does not count toward the bank's capital requirements.

- 7 National banks are still prohibited from engaging in general underwriting of securities other than their own.
- 8 Mr. Rubinfeld is Deputy Assistant Attorney General (Economic Analysis) and Mr. Rozanski is Chief of the Economic Regulatory Section at the Department of Justice's Antitrust Division. The authors would like to thank Robert Adams, Joseph Burns, J. Robert Kramer, Constance Robinson, Stephen Rhoades, and Sally Van Siclen for helpful comments, and Naomi Feldman and Ann Plamondon for their assistance.
- 9 NIC Data base, Board of Governors of the Federal Reserve System
- 10 Description and some discussion of changes in regulations and other forces relevant to the competitive analysis of banking markets in Europe can be found in Gual and Neven (92), and Dermine (93).
- 11 The practices and preferences of U.S. small businesses in obtaining credit are reported in Cole and Wolken (95), and Cole, Wolken, and Woodburn (96). Based on a 1988 survey of small businesses, the median size line of credit loan was eighty thousand dollars; the mean was 260 thousand dollars (Denis, Dunkelberg, and Van Hulle 88).
- 12 Transaction services include the provision of currency and coin, acquisition of credit card receipts, night deposits, and electronic funds transfers.
- 13 Wells Fargo & Co., a California bank, initiated a strategy in 1995 of marketing lines of credit to small businesses nationwide using direct mail. Some other banks have imitated this strategy (Oppenheim 96, 97). More recently, Wells Fargo has solicited applications through its web page.
- 14 In the case of a market such as that for small business lines of credit in which suppliers are significantly differentiated based on their locations, competitive interactions among firms located along a geographic continuum may imply that the geographic market is much larger than is indicated by the strong preferences of customers for local sources of supply. Each firm is constrained only by the few competitors in its immediate neighborhood, but the effects of competition at one end of the spectrum may be transmitted from local area to local area and may be felt at a great distance. In theory, however, even if there is no break in the geographic "chain of substitutes," the exercise of market power over a limited portion of the spectrum may be profitable because the profits that can be earned by increasing price to inframarginal customers who lack good alternatives more than makes up for the loss of business at the margin (Werden and Rozanski 94). In the case of bank loans, the possibility of price discrimination simplifies the analysis, and may make it possible to define geographic markets that are quite narrow. Price discrimination in the case of small business loans is likely to be a successful strategy: significant arbitrage among borrowers is implausible, and banks can use information obtained in the loan application process to develop good information about the willingness of customers to substitute toward other suppliers. Banks can meet competition at the margin by lowering prices selectively to some customers.

- 15 Studies based on U.S. data have generally found that economies of scale in traditional banking activities are exhausted at relatively modest scale. Berger, Hunter, and Timme (93) review this literature. Geroski and Szymanski (93) similarly conclude that there is little evidence of significant economies of scale in banking in the U.K., France, and other European countries.
- 16 In cases in which the Department of Justice believes that a proposed bank merger is likely to significantly lessen competition in markets for small business loans in a particular geographic area, the Department's concerns are usually sufficiently addressed by divestiture of a package of bank offices, branches, assets, and deposits in the area. A typical divestiture package includes specifically identified branches, including all assets and deposits of those branches, small business loans associated with those branches, and deposits of those loan customers. The Department usually prefers that a significant part of the total divestiture package go to a single purchaser. The intent is to create a new competitor, or to enhance the effectiveness of an existing competitor, by transferring a network of well-situated, profitable branches that will provide a network for gathering deposits and making loans, as well as a solid base of commercial loan relationships.
- 17 Tannenwald's (94) study of markets for middle-market loans in the Northeastern U.S. is supportive of this analysis, although the heavy reliance of the study on the pattern of existing relationships between banks and firms does not capture the important prospective nature of merger analysis.
- 18 Studies of the correlation between deposit interest rates and the structure of competition in local markets in the U.S. are consistent with the view that markets for some consumer products, such as checking and savings accounts, are local. See for example Berger and Hannan (89) and Hannan and Prager (96).
- 19 Rhoades, 96b. A recent survey indicates that an increasing number of consumers access their bank using home computers, but this option may simply displace use of the telephone to make account enquiries, and not represent a good substitute for the branch office to meet other banking needs (Kutler 97).
- 20 U.S. v. Philadelphia National Bank, 374 U.S. 321 (1963); U.S. v. Phillipsburg National Bank & Trust Co., 399 U.S. 350 (1970)
- 21 Banks may find it relatively easy to extend their operations into nearby geographic areas. This possibility can imply that the structure of competition in a broad geographic area is more homogeneous than a static analysis would suggest.
- 22 The Australian Competition and Consumer Commission rejected the cluster market approach when analyzing the 1997 Westpac/Bank of Melbourne merger. The ACCC concluded that the geographic market for home loans was national, but that geographic markets for demand deposits and small business banking products did not extend beyond state boundaries. The existence of national competitors in the home loan market was correctly understood to be irrelevant to the competitive analysis of other product markets.

With the recent relaxation of limits on trade in banking products in Europe and the inevitable geographic expansion of some banks through merger or direct investment, it may be the case that geographic markets for some banking products will cross national borders, and that

branches or subsidiaries of some foreign banks will be effective competitors in local geographic markets for some banking products. The fact of such competition is not sufficient to conclude that bank mergers will not have substantial anticompetitive effects in local markets for other banking products, however.

- 23 The analysis is further complicated by the observation that, if economies of scale in the tied product are very important, it may be efficient to have fewer competitors.

Bibliography

- Amel, D.F. and Liang, N., 1997, Determinants of Entry and Profits in Local Banking Markets, *Review of Industrial Organization* 12, 59-78.
- Berger A.N. and Hannan T.H., 1989, The Price-Concentration Relationship in Banking, *The Review of Economics and Statistics* 71, 291-299.
- Berger, A.N., Hunter, W.C., and Timme, S.G., 1993, The Efficiency of Financial Institutions: A Review and Preview of Research Past, Present, and Future, *Journal of Banking and Finance* 17, 221-249.
- Berger, A.N., Kashyap, A.K., and Scalise, J.M., 1995, The Transformation of the U.S. Banking Industry: What a Long, Strange Trip It's Been, *Brookings Papers on Economic Activity* 2:1995, 55-217.
- Cole, R.A. and Wolken, J.D., 1995, Financial Services Used by Small Businesses: Evidence from the 1993 National Survey of Small Business Finances, 81 *Federal Reserve Bulletin*, July 1995.
- Cole, R.A., Wolken, J.D., and Woodburn, R.L., 1996, Bank and Nonbank Competition for Small Business Credit: Evidence from the 1987 and 1993 National Surveys of Small Business Finances, 82 *Federal Reserve Bulletin*, November 1996.
- Dermine, J., ed., 1993, *European Banking in the 1990s*, Blackwell Publishers, Oxford.
- Dennis, W., Dunkelberg W. C., and Van Hulle, J. S., 1988, *Small Business and Banks: The United States*, The NFIB Foundation.
- Elliehausen, G.E., and Wolken, J.D., 1992, Small Business Clustering of Financial Services and the Definition of Banking Markets for Antitrust Analysis, *The Antitrust Bulletin*, Fall 1992, 707-735.
- Geroski, P.A. and Szymanski, S.A., 1993, Comment, in Dermine, J., ed., *European Banking in the 1990s*, Blackwell Publishers, Oxford, 189 -192.
- Gual, J., and Neven, D., 1992, *Deregulation of the European Banking Industry (1980-1991)*, Discussion Paper No. 703, Center for Economic Policy Research, August, 1992.
- Hannan T.H., 1991, Bank Commercial Loan Markets and the Role of Market Structure: Evidence from Surveys of Commercial Lending, *Journal of Banking and Finance* 15, 133-149.
- Hannan T.H., 1997, Market Share Inequality, the Number of Competitors, and the HHI: An Examination of Bank Pricing, *Review of Industrial Organization* 12, 23-35.
- Hannan, T.H., and Prager, R.A., 1996, Do Substantial Horizontal Mergers Generate Significant Price Effects? Evidence from the Banking Industry, Board of Governor of the Federal Reserve System, November, 1996.
- Kutler, J., 1997, Banking by PC Jumps; Growth May Be Limited, *Am. Banker* 162, December 29, 1997,1.

- Kwast, M.L., Starr-McCluer, M., and Wolken, J.D., 1997, Market Definition and the Analysis of Antitrust in Banking, *The Antitrust Bulletin*, Winter 1997.
- Nolle, D.E., 1995, Banking Industry Consolidation: Past Changes and Implications, *Economic & Policy Analysis Working Paper 95-1*, Office of the Comptroller of the Currency, April 1995.
- Oppenheim, S., 1996, Wells' Small-Business Lending via Mail Pays Off, *Am. Banker* 161, December 23, 1996, 1.
- Oppenheim, S., 1997, Show Me the Money, Not the Bank, Businesses Say, *Am. Banker* 162, May 19, 1997, 1.
- Pilloff, S.J., 1997, Do Big Banks Influence Competition in Local Markets?, Board of Governor of the Federal Reserve System, May, 1997.
- Rhoades S.A., 1996a, Bank Mergers and Industrywide Structure, 1980 - 94, *Staff Studies 169*, Board of Governors of the Federal Reserve System, January, 1996.
- Rhoades, S.A., 1996b, Competition and Bank Mergers: Directions for Analysis from Available Evidence, *The Antitrust Bulletin*, Summer 1996, 339-363.
- Rhoades, S.A., 1997, Research on IO Topics in Banking: An Introduction and Overview, *Review of Industrial Organization* 12, 1-8.
- Tannenwald, R., 1994, The Geographic Boundaries of New-England's Middle Lending Markets, *New England Economic Review*, July/August 1994.
- U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines § 0.1(1992)*, reprinted in 4 *Trade, Reg. Rep. (CCH)* ¶13,104.
- Werden, G.J. and Rozanski, G.A., 1994, Response--The Application of Section 7 to Differentiated Products Industries: The Market Delineation Dilemma, *Antitrust*, 8,3, 40-43.
- Whinston, M. D., 1990, Tying, Foreclosure, and Exclusion, *American Economic Review*, 80, 4, 837-859.
- Wolken, J.D. and Rose, J.T., 1991, Dominant Banks, Market Power, and Out-of-Market Productive Capacity, *Journal of Economics and Business*, 43, 215-229.