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Abstract

The change in control at Mellon Bank in 1987 sheds a unique light on several aspects of corporate control, because Mellon was one of only a few banks with a large shareholder. We find that the large shareholder did not monitor the firm extensively before it experienced performance difficulties, but was able to enforce a management change when problems arose. Contrary to some theoretical models, the shareholder did not have to acquire a majority stake to effect the change. Mellon's rapid recovery relative to peer banks' reveals the inability of regulatory intervention to substitute fully for market-based forms of corporate control.

Large Shareholders and Market Discipline in a Regulated Industry: A Clinical Study of Mellon Bank

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Abstract

The change in control at Mellon bank in 1987 sheds a unique light on several aspects of corporate control, as Mellon was one of few banks with a large shareholder. The bank underwent a management change earlier than most peer banks; contrary to some theoretical models, this happened without the large shareholder acquiring a majority stake to effect the change. Mellon's rapid recovery relative to peer banks reveals the inability of regulatory intervention to fully substitute for market based forms of corporate control.

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1. Introduction

Students of corporate control had the chance to observe an unusual and instructive case in the spring of 1987. In April, after the bank's first loss in its 118 year existence, the CEO, in the words of the 1988 Proxy statement, "retired as a director and as Chairman and Chief Executive Officer of the Corporation." Press reports suggested that this was at the request of its dominant shareholder, the Mellon family. In June, Frank V. Cahouet, a turnaround specialist, then president of Fannie Mae became CEO.¹ In July Mellon also installed a new president and a new chief financial officer.

The Mellon succession provides an opportunity to study how large shareholders matter for corporate control. Among the 30 largest banks in the U.S., Mellon had one of the highest concentrations of ownership. In 1980, the 18% held by the Mellon family interests (CDE, 1980) exceeds the concentration of the top 5 holders of 21 of the top 30 banks. Large shareholders' control efforts should be particularly apparent in banking, where regulation inhibits other forms of corporate control. Restrictions on branching, market concentration, and ownership make takeovers, particularly hostile ones, difficult. For large banks, the implicit Too Big To Let Fail (TBTLF) doctrine makes their closure unlikely.²

The Mellon case sheds light on what large shareholders do and how they do it. Can large shareholders and bank examiners substitute for an active takeover market? How do large shareholders influence the firm: do they use outright takeovers, monitoring, or stock speculation?

¹ From January to December of 1993, Frank Cahouet was a director of the Pittsburg branch of the Federal Reserve Bank of Cleveland.

² The closing of bank constitutes official recognition of its economic insolvency. TBTLF, first officially acknowledged in 1984 by then Comptroller of the Currency C. T. Conover in response to Congressional questioning, represents a policy of not officially recognizing the economic failure of a large depository institution. (See U. S. Congress, House Committee on Banking, Finance and Urban Affairs) For a discussion of regulatory closure rules see Thomson (1992).

In this paper we examine those questions from the viewpoint of a clinical study of Mellon Bank. After first outlining the regulatory and market structure of the industry, we present a short chronology of the events around the CEO turnover point and compare the structure and performance of Mellon with a peer group of large banks. The setting of a regulated industry sets up a natural experiment about different methods of corporate control. Making a clinical study even more valuable, the regulatory setting provides an unusually rich set of data, down to weekly reports on variables such as loan loss reserves.

We conclude that because of its large shareholder, Mellon Bank experienced an early management change and an early turnaround relative to its peer group. This provides three important lessons for corporate finance. It provides evidence consistent with the Gorton and Rosen (1995) theory (following Jensen [1989]) that corporate control problems, leading to managerial entrenchment, lay behind the poor performance of large banks in the 1980s. Secondly, the large shareholder exerted influence not by monitoring, nor by speculating, but by forcing a management change along the lines suggested by Shleifer and Vishny (1986), even though owning considerably less than 50% of the firm. Most importantly, the early recovery of Mellon shows that regulation is a poor substitute for market based forms of corporate control. This is troubling in light of Prowse's (1995, 1996) work which finds regulatory intervention is the prime source of corporate control in banking. In this case, the market based form—shareholder concentration—leads to an earlier and faster recovery.

2. Regulatory and Market Structure

The banking market has several distinct features from the standpoint of corporate control. A variety of regulations make hostile takeovers difficult. As partial compensation, banks have a novel form of corporate control: regulatory intervention.

The National Banking Acts and the Bank Holding Company Act, with its 1970 amendment prohibit any corporation other than a commercial bank or a bank holding company from acquiring a commercial bank. Some states have even stronger restrictions.³ This not only prevents commercial firms from owning a bank, but severely restricts financial firms as well. Any company owning a bank may only engage in activities “closely related” to banking (as defined by the Federal Reserve Board). These laws also geographically restricted bank mergers, as the 1956 Douglas amendment (of Cobb–Douglas fame) prohibited a holding company from acquiring banks outside its home state unless state regulations allow interstate banking.⁴ In 1987, they generally didn’t.

Any legally permissible mergers require prior approval from some combination of state regulators, the Office of the Comptroller (OCC), FDIC, and the Federal Reserve Board. All mergers were then further subject to a review by the Justice Department for anti-trust implications. Approval of a merger or acquisition could take up to six months, compromising the ability of a bank to make a successful uninvited bid for a competitor.

These regulations restricted the demand for takeovers by reducing the class of possible acquiring firms. The rules placed a regulatory tax on takeovers as well. The combination made hostile takeovers particularly rare. Prowse (1995) finds only four cases of hostile takeovers (1.7 percent) in his sample of 234 bank holding companies over 1987–92. This contrasts with 8.8 percent in Mork, Shleifer, and Vishny’s (1989) sample of manufacturing firms. Hence, regulatory and market structure for banks limits takeovers as a control mechanism.

De facto 100 percent guarantees of bank deposits provided by federal deposit insurance and bank closure policies (especially TBTLF) effectively removed creditors as a discipline

³ Brickley and James (1987) provide more detail on state merger laws.

⁴ See Kane (1996) for a discussion of interstate branching restrictions.

on management (see Kane 1985) and hence, as a source of corporate control. Deposit insurance reduces the incentives for creditors to withdraw their funds or to fully price changes in the bank's risk into deposit rates (see Thomson 1987). Moreover, unlike creditors of non-bank corporations, depositors and other non-deposit creditors of banks, do not have bankruptcy protection in that they cannot pursue legal action to close a depository institution.

Legislation, though making banks relatively immune to market sources of discipline such as hostile takeovers or creditors introduced a new, non-market form: regulation. Bank regulators at the state and federal level may undertake a variety of interventions if a bank's behavior deviates from certain norms. At a relatively informal level, bank officials must provide assurances that the problems will be addressed. These assurances may take the form of verbal promises, board resolutions, or letters and memoranda of understanding. At a more formal level, regulators can use written agreements, issue cease and desist orders, and in more extreme cases undertake suspension, prohibition, removal, and even assess civil penalties. Ultimately, they may seize any depository institution deemed to be operating in an unsafe and unsound manner. In a recent extreme example, the Federal Reserve ordered Daiwa Bank to cease all operations in the United States. (See Spong 1990, for more details on regulatory interventions.)

One intriguing aspect of the problem is the possible complementarity between regulation and market forms of corporate control. For example, in October of 1985, the Federal Reserve announced (Board of Governors, 1985) a revised policy of bank supervision that required examiners to present their findings directly to the board of directors, potentially increasing the information flow.

3. Large Shareholders and Corporate Control

Economists have long pondered control of the large corporation. Adam Smith thought the separation of ownership and control made managers “negligent and profuse” (Smith, 1976, Book V, Chapter I, part III, article 1.) Alfred Marshall thought small shareholders “powerless” and looked to large shareholders to “exercise an effective and wise control over the general management of the business.” (Marshall, 1920, Book IV, chapter XII, section 9, p. 253). Early in this century Thorstien Veblen, Adolf Berle and Gardiner Means continued the analysis.

More recently, Demsetz and Lehn (1985) noted that the concentration of corporate ownership is in fact endogenous. They documented that firms in which managerial behavior was important and also difficult to monitor tended to have concentrated shareholders. Large shareholdings arise as part of the value maximizing process for the firm.

Shleifer and Vishny (1986) looked more directly at the role of the large shareholder. In their model, a large shareholder could replace inefficient management by making a cash tender offer for the firm. Since the large shareholder already owns a substantial fraction of the firm, he or she can pay a premium to obtain control, install new management, and reap the benefit of a higher share price. The large shareholder increases efficiency because he has the potential to obtain control, defined by Shleifer and Vishny as 50 percent. Bolton and von Thadden (1995) have a similar model in which a large shareholder can reorganize the firm.

Brickley and James (1987) use the concentration of ownership in the banking industry to test the substitution hypothesis: that concentrated ownership substitutes for other forms of corporate control, such as takeovers or outside directors. While their results are in general ambiguous, they do find a significant, negative relationship between ownership concentration and the number of outside directors, in states that prohibited holding company

acquisition of banks. Agrawal and Knoeber (1996), in a sample of large U.S. firms find substitutability among a broad array of control mechanisms: large shareholders, outside directors, debt policy, and the takeover market.

Admati, Pfleiderer, and Zechner (1994) explored the trade-off between the monitoring benefits of large shareholdings and loss of portfolio diversification that results. Since small shareholders can free-ride on the large shareholder, generally the market produces too little monitoring and too little diversification (risk-sharing). Depending on the structure of the financial markets, however, the existence of a large shareholder may lead to excessive monitoring or the optimal amount of diversification.

Admati, Pfleiderer, and Zechner (1994) also provide a convincing rationale for the continued existence of large shareholders despite the gains to diversification. If a large shareholder buys more shares, she has an incentive to monitor more, but the market expects this and she only gains on the shares she already owns. If she sells, she loses on the shares she owns because of the lower monitoring. This means that while it may be difficult for an individual to become a large shareholder, she thereafter has strong incentives to remain so. This seems particularly relevant in the case of founding families, such as the Mellons.

Kahn and Winton (1995) consider another advantage of large shareholding: the owners can profit by speculating from the knowledge they get as insiders. In their model, large shareholders must decide between gathering information for trading and monitoring the firm to improve its performance. They argue for a version of the substitution hypothesis. An active, liquid, equity market may substitute for the monitoring of concentrated shareholdings by allowing takeovers. It also encourages information production by outsiders, who have a greater chance of profiting from the information.

These papers provide many insights into the role of large shareholders, but there remains a certain mist that we hope our study begins to dispel. In what ways does a “large” shareholder “monitor” a firm? How does a large shareholder “reorganize” the firm? Mellon provides a specific example. The Mellon family did it by changing management, even though they controlled less than 50 percent of the stock; their holdings were closer to 15 percent.

4. A Brief Chronology

At the end of 1986, Mellon Bank Corporation, the parent holding company of Mellon Bank, was the 12th largest Bank Holding Company in America, with total assets of 34.5 billion dollars and an income of 183 million dollars. The company reported a return on assets (ROA) of 0.5 percent and a return on equity of (ROE) of 9.9 percent. In its annual report, Mellon noted that these numbers fell short of their long term goals of 0.8 percent ROA and 16 percent ROE.

The Mellon family remained the dominant shareholder, in 1980 owning 18 percent of the stock, (CDE 1980) though this number had dropped to 15.5 percent in 1986.⁵ The Mellon family holdings were divided among four groups. Paul Mellon and Associates held the largest block, 2.5 million shares. The Andrew W. Mellon Foundation held half a million shares, Seward Prosser Mellon held two hundred thousand shares, and Nathan Pearson, an advisor to Paul Mellon, held one hundred and forty thousand (CDE, 1980).

The Mellon Family influence was represented on the board by directors with direct ties to the Mellon family. Of the 28 directors listed in the 1986 Annual Report, three list affiliations to Mellon family holdings: Seward Prosser Mellon, listed as President of

⁵ The CDE lists the corporation as owning 23.73 percent of its own stock. Much of this was trusts owned by the Mellon family.

Richard K. Mellon and Sons, Andrew W. Mathieson, listed as Executive Vice President of the same, and Nathan W. Pearson, listed as Financial Advisor to Paul Mellon Family Interests.

Even in 1986 there was concern about the performance of Mellon bank. Early on, in March, the New York Times reported on “The Mellon Bank’s Fall From Grace” (Bennet, 1986). Concern centered on poor lending decisions, a difficult acquisition of Girard Bank in Philadelphia, and possible management problems. The 1986 annual report remarked (p.4) that “the Corporation’s 1986 financial results did not meet expectations...”

Expanding rapidly after 1981, Mellon took on large numbers of oil, real estate, and foreign loans. Ex post of course, these sectors offered sub-optimal performance. The purchase of Girard Bank in 1983, caused further problems. Girard’s return on assets fell and the bank suffered a loss in 1985 (Call Reports). It seems this attempt to expand after the relaxation of Pennsylvania intra-state branching laws in 1982 fell short of success.

Some evidence points to these problems as indicative of management problems, not just poor decisions. In addition to rumblings in the financial press (McGowan,1987), at least one quantitative measure indicated problems, in that 1986 operating costs exceeded net income.

The extent of board involvement in the face of these problems is unclear. After Mellon posted a loss in the first quarter of 1987, the board claimed it had not been kept informed by the management, to the extent of being “shocked and surprised” (Mitchell, 1987) at the size of the loss. The board, however, met four times in 1985 and only five in 1986, whereas in previous years they had met almost every month (Mellon proxy statements 1982–88). The executive committee, which oversees the corporation between board meetings, did not meet at all in 1986.

The frequency of board involvement is particularly notable in discussing the role of large shareholders, given the theoretical emphasis on monitoring benefits. Although we postpone detailed comparison with other banks until the next section, the performance of Mellon bank in the middle 1980s does not make a strong *prima facie* case for the monitoring activities of concentrated ownership. It remains possible, of course, that large shareholders exerted an unobserved influence.

The effects of concentrated ownership seemed more apparent in the management change following the first quarter loss of 1987. Certainly the board acted swiftly; future CEO Cahouet later said “The board decided they wanted make a change in management. The didn’t talk about it: they *did* it.” (Andrews, 1988, p. 70) The board then appointed two directors with close Mellon ties to key positions. Nathan Pearson, since 1948 a financial advisor to Paul Mellon, became Chairman and Andrew W. Mathieson became head of the search committee (1988 Proxy Statement). Analyst Douglas Stone, of Prudential-Bache Securities put it as (Ansberry, 1987), “I think for anyone who had doubts as to who controls the bank, it’s pretty obvious now that the Mellon family runs the show.”

From this point on the board also seemed to indicate a greater appetite for oversight. Cahouet said that he wanted “an involved board” (Andrews, 1988), and he got the job. In fact, the *Pittsburgh Business Times & Journal* (Stouffer, 1987) worried that the board was getting too involved, and “might place too tight a rein on Cahouet.”

5. Comparison with other Banks

Clearly, Mellon Bank faced problems in the mid 1980s. At the same time, those problems were not clearly worse than those facing other large banks. Mellon’s 844 million dollar loss in 1987 ranked sixth that year, with two banks losing over a billion dollars (Zimmerman, 1988). This poses a question confronting the large shareholder hypothesis.

Perhaps a very poor year made a management change inevitable, whatever the ownership structure. In this section we look at a variety of bank performance measures, hoping to sort out how different Mellon looks both in decline and recovery. Ideally, Mellon would look quite similar to comparable banks before the management change, showing a superior performance afterwards.

Charts 1-4 report annual measures of bank performance for Mellon bank and two peer groups, money center banks and large regional banks, taken from the consolidated Financial Statement for Bank Holding companies, Y-9C.⁶

Charts 1 and 2 report the return on assets and return on equity for Mellon and the two peer groups. Panel A shows Mellon and the quarterly high, low and mean return for money center banks. Panel B repeats for large regional banks. From 1983 to 1986, Mellon blends in quite nicely with the other banks. All groups show sharp earnings declines (actual losses for Mellon and the Money Center peer group) in 1987. This poor earnings performance in 1987, which was concentrated in the second quarter, was largely a consequence of large loan loss provisions made against LDC debt portfolios (see Musumeci and Sinkey, 1990). Mellon's results for 1987 were even more dramatic because it also reserved heavily against its domestic loan portfolio. Mellon shows a further loss in the 1988 resulting from its second quarter write-down associated with the Grant Street good-bank bad-bank transaction, seen by many as a major step on the road to Mellon's recovery. In part because it moved aggressively to write-down its bad assets in 1987 and again in 1988, Mellon outperforms the money center peer group by 1989 and both and regional peer groups by 1991. The confluence of the ROA and ROE charts is gratifying, in that the ROA measures how

⁶ The division into money center and regional banks is based on the Annual Salomon Brothers review of bank performance. We have standardized the groups, because the exact banks in each group change over time. So does the name of the report.

profitably the firm is employing its total assets; because banks are highly leveraged, though, it gives a poor idea of how profitable the owners find the firm.

Charts 3 and 4 look at the cost side of the picture. Chart 3 plots nonperforming assets (as a percent of total assets), loans on which the borrower is at least 90 days behind on interest payments. This chart must be treated with some care, as Mellon traditionally classified loans as nonperforming after only 60 days. (It is not clear, however, that fewer of these loans had to be written off entirely.) For Mellon, the large spike in nonperforming assets in 1987 provides confirmation that the sharp earnings decline in 1987 was due to aggressive moves by Mellon to put its credit problems behind it. While its nonperforming assets remain above the regional bank peer group for the remainder of the period, Mellon's asset quality recovers rapidly with respect to the money center peer group. Once again Mellon recovers rapidly relative to the money centers, less dramatically with regard to the regionals.

Chart 4 looks at noninterest expense as a percentage of assets. This chart tells an interesting story, if only in contrast to the strong emphasis on efficiency and cost cutting that one hears so often in the financial press. Mellon's noninterest expenses as a fraction of assets dipped after 1987, but remained at and increasingly above, the level of both other groups of banks.

It is possible to make an even finer breakdown by looking at weekly data. Mellon and other large banks are part of the "Weekly Reporting Bank" sample. We compare Mellon to subsets of the thirty largest weekly reporting banks in charts 5 and 6.

Chart 5 measures asset liquidity, looking at the proportion of cash, government securities, and net Fed Funds in a bank's portfolio. By itself, liquidity is neither good nor bad, but shifts can indicate changes in strategy, and extreme values can signal problems

of different sorts. For example, liquidity problems are a significant factor in bank failures and closure decisions (see Thomson, 1992). The chart plots the liquidity ratio weekly for Mellon, the 10 largest weekly reporting banks, and the next ten largest in panel A, and in panel B plots the 29 largest weekly reporting banks (excluding Mellon) and those banks that survive the entire sample. Mellon stands out as being relatively illiquid, with occasional spikes due to large transactions on their securities portfolio. By 1988 they have shifted and become more liquid than the average.

Chart 6 plots loan loss reserve on a weekly basis. This penultimate chart encapsulates much of the story we have narrated so far. Until 1987, Mellon blends in with the other large banks. Even the dramatic increase in loan loss reserves seen in 1987 follow the pattern of the industry—not strange, as many banks lost money on Texas real estate and loans to Mexico, Brazil, and Argentina. After the corporate control change, Mellon begins to differ. It takes a further big reserve in late 1987, and then shows a big decrease reflecting loan charge-offs associated with the formation of the Grant Street Bank in 1988. By 1990 the loan loss reserve is low relative to its peer groups.

A more comprehensive summary measure is provided by the stock returns. Chart 7 plots the cumulative returns of the Mellon stock and stock for both the money center and regional peer groups. The excess return is calculated from a market model, regressing the returns on the CRSP equally weighted index. Mellon does better than average through late 1986. Returns then fall below both peer groups, but by October of 1987 the cumulative returns have rebounded, only to start falling again. The recovery started in September of 1988, and by the spring of 1989 Mellon returns are on track with its peers. Mellon's tracking of these groups should not be surprising because the peer groups are dominated by banks indentified as TBTLF (see O'Hara and Shaw, 1990). The cumulative returns

clearly indicate the rapid recovery of Mellon.

Were Mellon's returns low enough to force a top management change without the existence of a large shareholder? The evidence suggests not, adding Mellon as a confirming instance of the work of Denis, Denis and Sarin (1997) who find that large shareholders make top management turnover more sensitive to poor performance. Warner, Watts, and Wruck (1988) find that poor performance often takes two years to result in a top management change: Mellon's CEO was replaced less than a month after Mellon announced its first quarterly loss. Even for poorly performing firms, CEO resignation was by no means certain. Warner, Watts, and Wruck find that for the worst decile of firms, with returns of -0.52, the turnover rate was 0.139. Weisbach (1988), found a turnover rate of 0.061 for the worst decile, with a return relative to the market of -0.331. Mellon's return against the market for 1987 was -0.67. While it is never possible to prove a counterfactual, the evidence suggests that the large shareholder was important in this turnover.

6. Conclusions

We suggest that the turnaround of Mellon was due to internal sources of corporate control and not to external forces. Mellon's experience was not typical for banks; Prowse (1995, 1996) found that the main source of corporate control for bank holding companies is regulatory intervention. Moreover, Prowse finds that bank boards of directors are a less effective corporate control device than those for non-financial firms studied by Morck, Shleifer, and Vishny (1989). Therefore, what was different about Mellon that explains its turnaround?

Mellon Bank had a large shareholder: the Mellon family. The pattern of events seems to match best with theories implying discrete intervention by the dominant shareholder. Once losses occurred, the large shareholder assumed greater importance, apparently forcing

a management change, assuming interim command, and heading the search committee. After the change, the board also seemed to take a more involved stance.

The story of Mellon is consistent with a coherent view of large shareholders and ownership concentration. The impact of the large shareholder was less about monitoring and more about an ability to force a management change without officially controlling the firm. The action resulted in an early turnaround for Mellon Bank. Though the difficult question is apportioning the credit for the management change between the dominant shareholders and an ordinary board facing more than ordinary losses, the evidence suggests Mellon's large shareholder mattered.

References

- Admati, Anat R., Paul Pfleiderer, and Joseph Zechner, Large Shareholder Activism, Risk Sharing, and Financial Market Equilibrium, *Journal of Political Economy* vol. 102, (1994) pp.1097—1130.
- Agrawal, Anup, and Charles R. Knoeber, Firm Performance and Mechanisms to control Agency problems between Managers and Shareholders, *Journal of Financial and Quantitative Analysis* vol. 31, (1996) pp.377—397.
- Andrews, Suzanna , The new order at the Mellon Bank, *Institutional Investor* April, (1988), pp. 68–71.
- Ansberry, Clare , Mellon Bank Corp's Barnes Steps Down in Wake of 1st-Period Loss, Dividend Cut, *Wall Street Journal* April 14, (1987).
- Bennet, Robert A., The Mellon Ban's Fall From Grace, *New York Times* March 9, (1986).
- Bolton, Patrick, and Ernst-Ludwig von Thadden, A Dynamic Theory of Corporate Ownership Structure, *Working Paper* July, (1995).
- Board of Governors of the Federal Reserve System *Federal Reserve Bulletin*, vol. 71, December 1985.
- Brickley, James A., and Christopher M. James, The Takeover Market, Corporate Board Composition, and Ownership Structure: The Case of Banking, *Journal of Law and Economics* vol. 30, (1987) pp.161—180.
- CDE Stock Ownership Directory: No.3, Banking and Finance* Corporate Data Exchange, Inc., New York (1980).
- Demsetz, Harold, and Kenneth Lehn, The Structure of Corporate Ownership: Causes and Consequences, *Journal of Political Economy* vol. 93, (1985) pp.1155–1177.
- Denis, David J., Diane K. Denis, and Atulya Sarin, Ownership Structure and Top Executive Turnover, *Journal of Financial Economics* vol. 45, (1997), pp. 193–221.
- Gorton, Gary, and Richard Rosen, Corporate Control, Portfolio Choice, and the Decline of Banking, *Journal of Finance* vol. 50, (1987) pp. 1377–1420.
- Jensen, Michael C., Eclipse of the Public Corporation, *Harvard Business Review* 67(5), (1989) pp. 61–74.
- Kahn, Charles, and Andrew Winton, Ownership Structure, Liquidity Demand, and Shareholder Monitoring, (1995).
- Kane, Edward J. *The Gathering Crisis in Federal Deposit Insurance*, Cambridge, MA: MIT Press, (1985).
- Kane, Edward J. DeJure Interstate Banking: Why Only Now? *The Journal of Money, Credit, and Banking* vol. 28, May (1996) pp. 141–161.

- Marshall, Alfred, *Principle of Economics*, eighth edition, Porcupine Press, Philadelphia, (1920).
- McGowan, William , The Downfall of a Bank CEO, *Bankers Monthly* August, (1987) pp.36–41.
- Mellon Bank Corporation, *Annual Reports 1986,1987*.
- Mellon Bank Corporation, *Proxy Statements 1986,1987, 1988*.
- Mitchell, Constance , Mellon’s Chairman Pearson Says Extent of Bad Loans Shocked Outside Directors, *Wall Street Journal* April 21, (1987).
- Morck, Randall, Andrei Shleifer, and Robert W. Vishny. Alternative Mechanisms for Corporate Control, *American Economic Review* 79 (September 1989), pp. 842–852.
- Musumeci, James J., and Joseph F. Sinkey. The International Debt Crisis and Bank-Loan-Loss-Reserve Decisions: The Signaling Content of Partially Anticipated Events, *Journal of Money, Credit, and Banking* 22 (August 1990), pp. 371–387.
- O’Hara, Maureen, and Wayne Shaw. Deposit Insurance and Wealth Effects: The Value of Being “Too Big to Fail” *Journal of Finance* 45 (December 1990), pp. 1587–1600.
- Prowse, Stephen. Corporate Control in Commercial Banks, Federal Reserve Bank of Dallas, Working Paper, 1996 forthcoming.
- Prowse, Stephen. Alternative Methods of Corporate Control in Commercial Banks, Federal Reserve Bank of Dallas, *Economic Review* (3rd quarter 1995), pp. 24–36.
- Salomon Brothers Inc., *A Review of Bank Performance*, 1988, 1991, 1995 editions.
- Shleifer, Andrei, and Robert Vishny, Large Shareholders and Corporate Control, *Journal of Political Economy* vol. 94, (1986) pp.461—488.
- Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations* Edwin Cannan, ed., University of Chicago Press, Chicago (1976).
- Spong, Kenneth, *Banking Regulation: Its Purposes, Implementation, and Effects* Third Edition, Federal Reserve Bank of Kansas City, Kansas City, (1990).
- Stouffer, Rick, Mellon Hoping Worst is Over as It Looks to Future, *Pittsburgh Business Times & Journal*, June 22, (1987).
- Thomson, James B. The Use of Market Information in Pricing Deposit Insurance, *Journal of Money, Credit, and Banking*, 19 November (1987), pp. 528–537.
- Thomson, James B. Modeling the Bank Regulator’s Closure Option: A Two-Step Logit Regression Approach, *Journal of Financial Services Research* 6 (1992), pp. 5–23.
- U.S. Congress, House Committee on Banking, Finance and Urban Affairs, *Inquiry into Continental Illinois Corp. and Continental National Bank, Hearings before the*

Subcommittee on Financial Institutions, Supervision, Regulation and Insurance of the House Committee on Banking, Finance and Urban Affairs, 98th Congress, 2d session, 1984, p. 299.

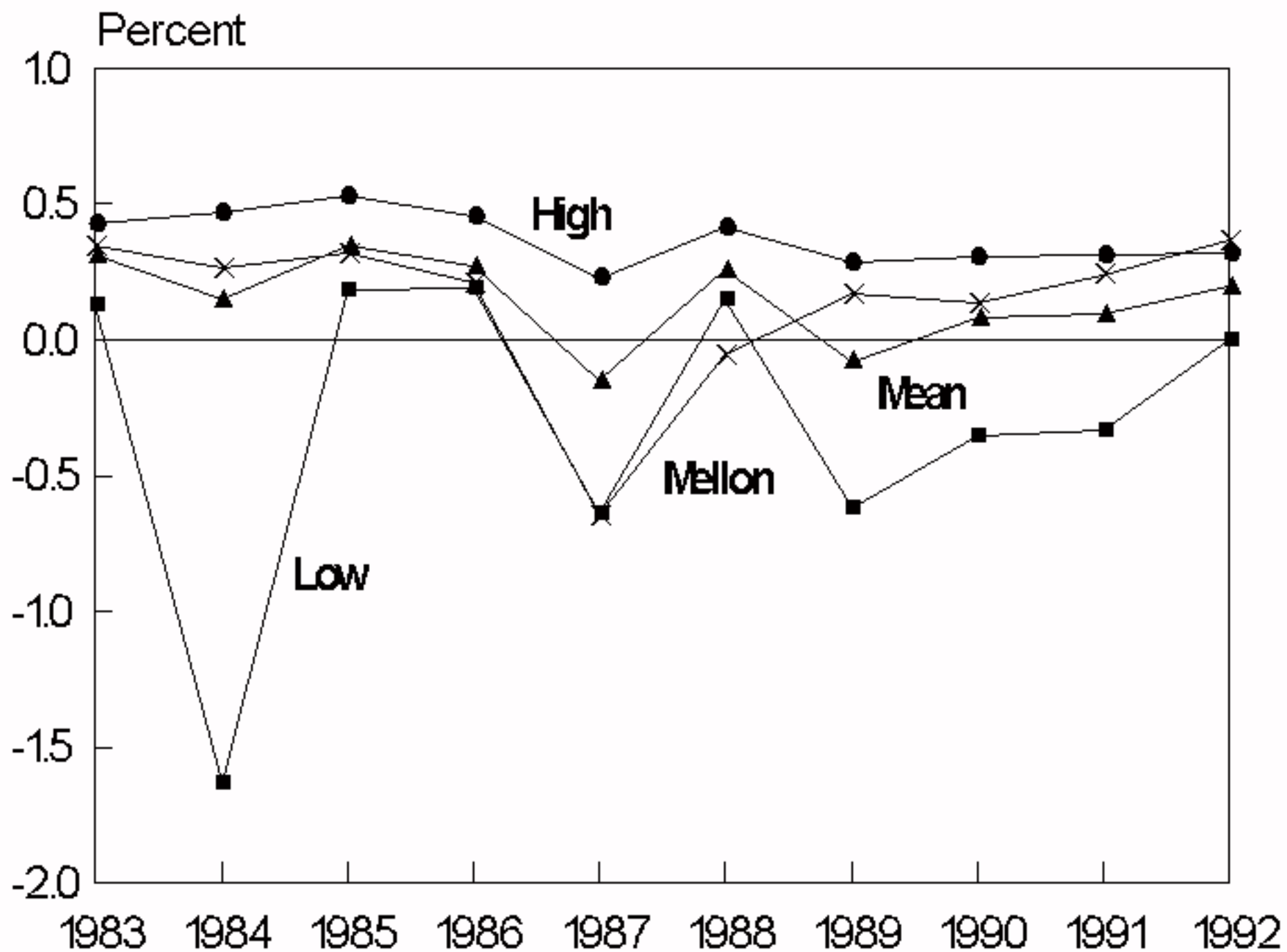
Warner, Jerold B., Ross L. Watts, and Karen Wruck, Stock Prices and Top Management Changes, *Journal of Financial Economics* vol. 20, (1988), pp.461–492.

Weisback, Michael, Outside directors and CEO Turnover *Journal of Financial Economics* vol. 20, (1988), pp. 431–460.

Zimmerman, William, *Top Numbers 1988: American Banker Statistical Special.*

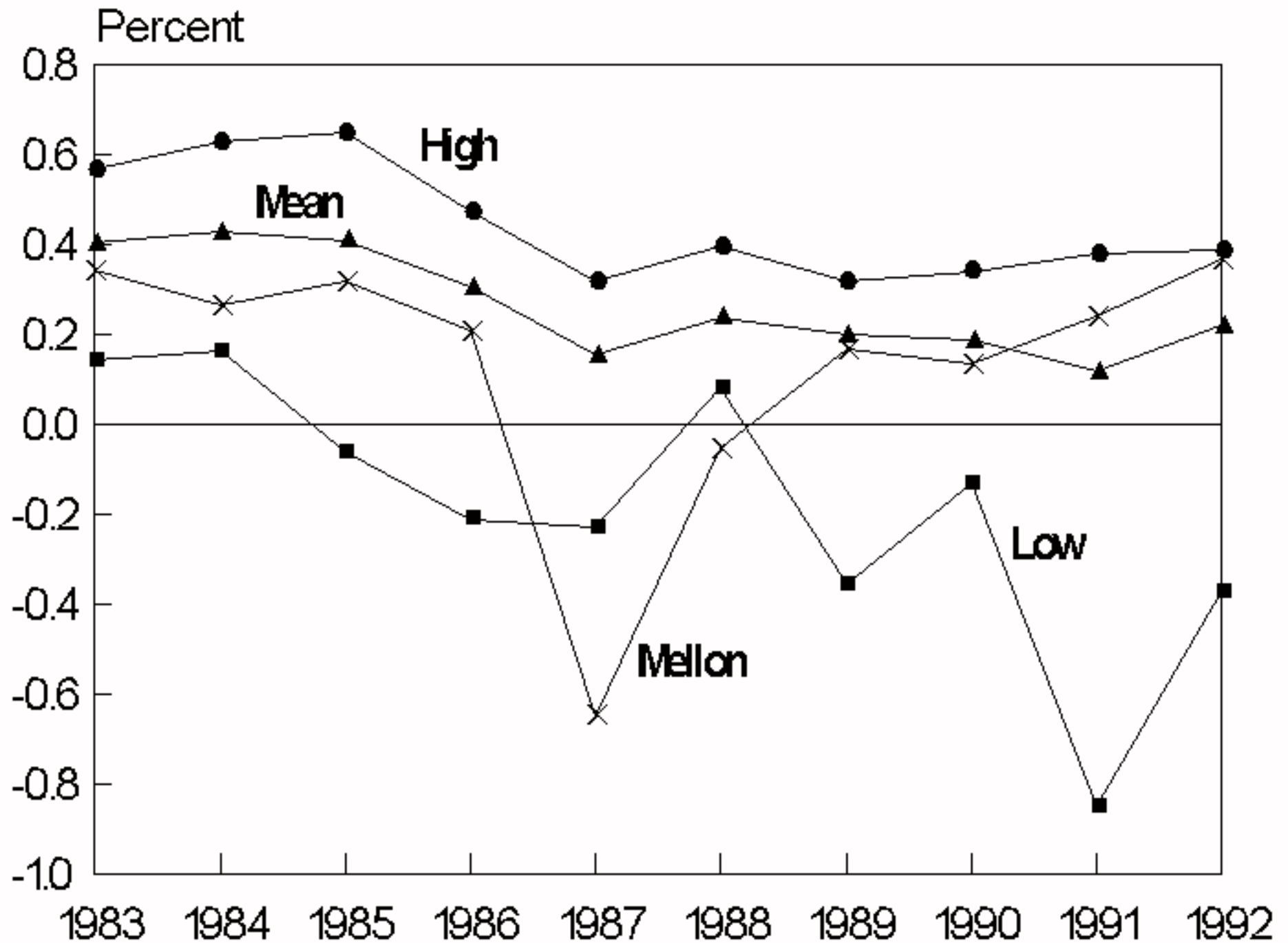
PANEL A

RETURN ON ASSETS: MONEY CENTER



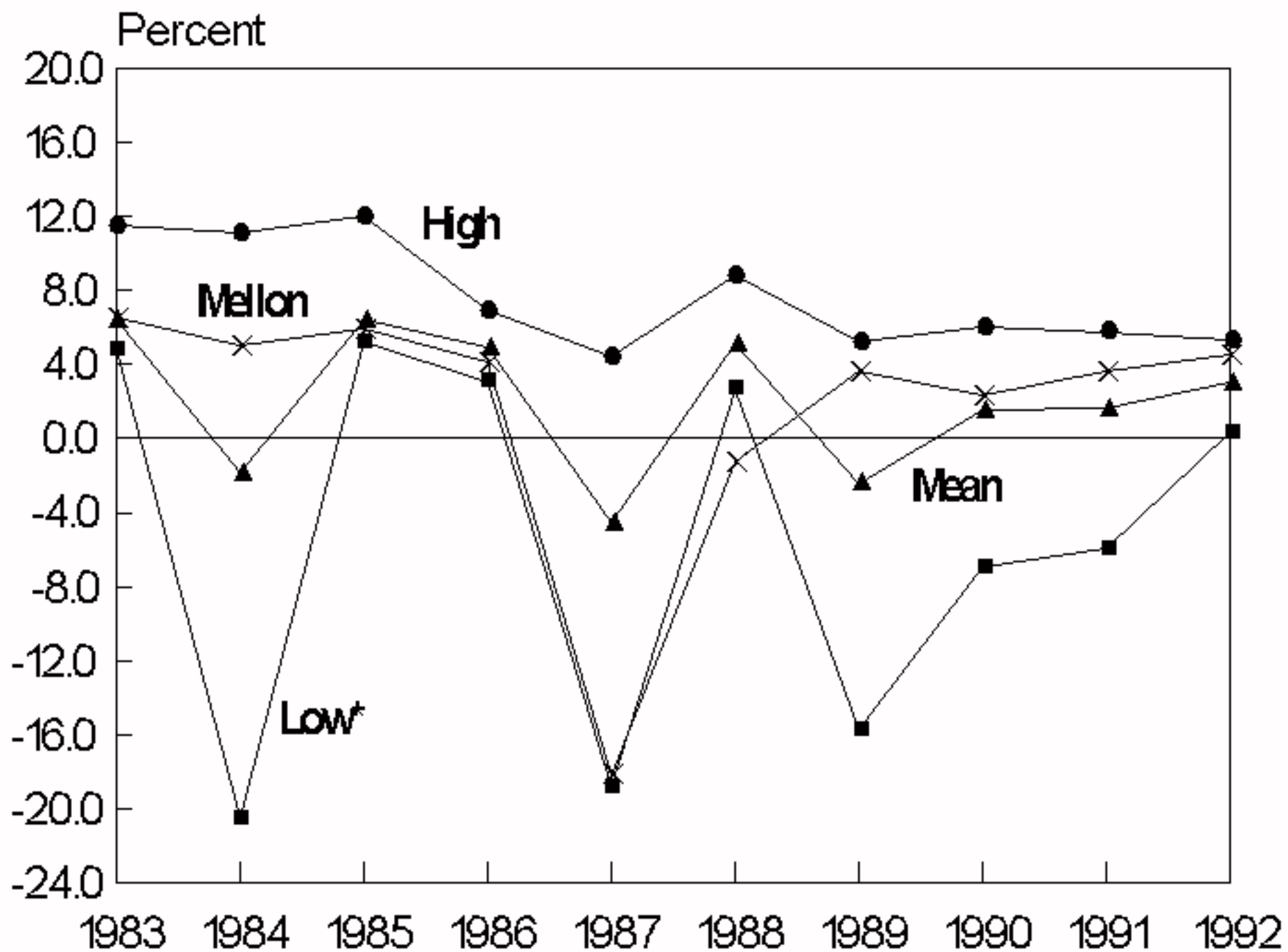
PANEL B

RETURN ON ASSETS: REGIONAL



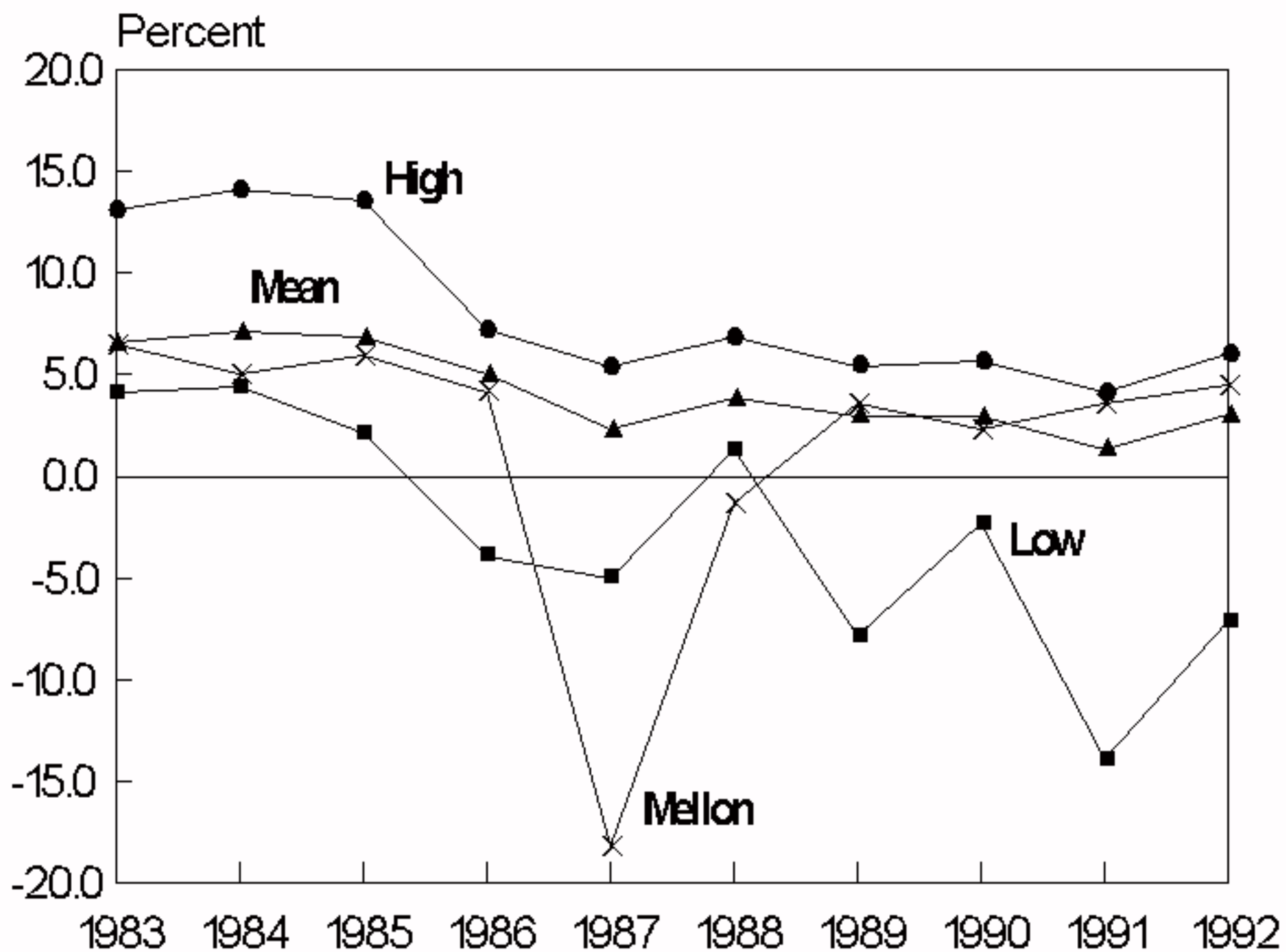
PANEL A

RETURN ON EQUITY: MONEY CENTER

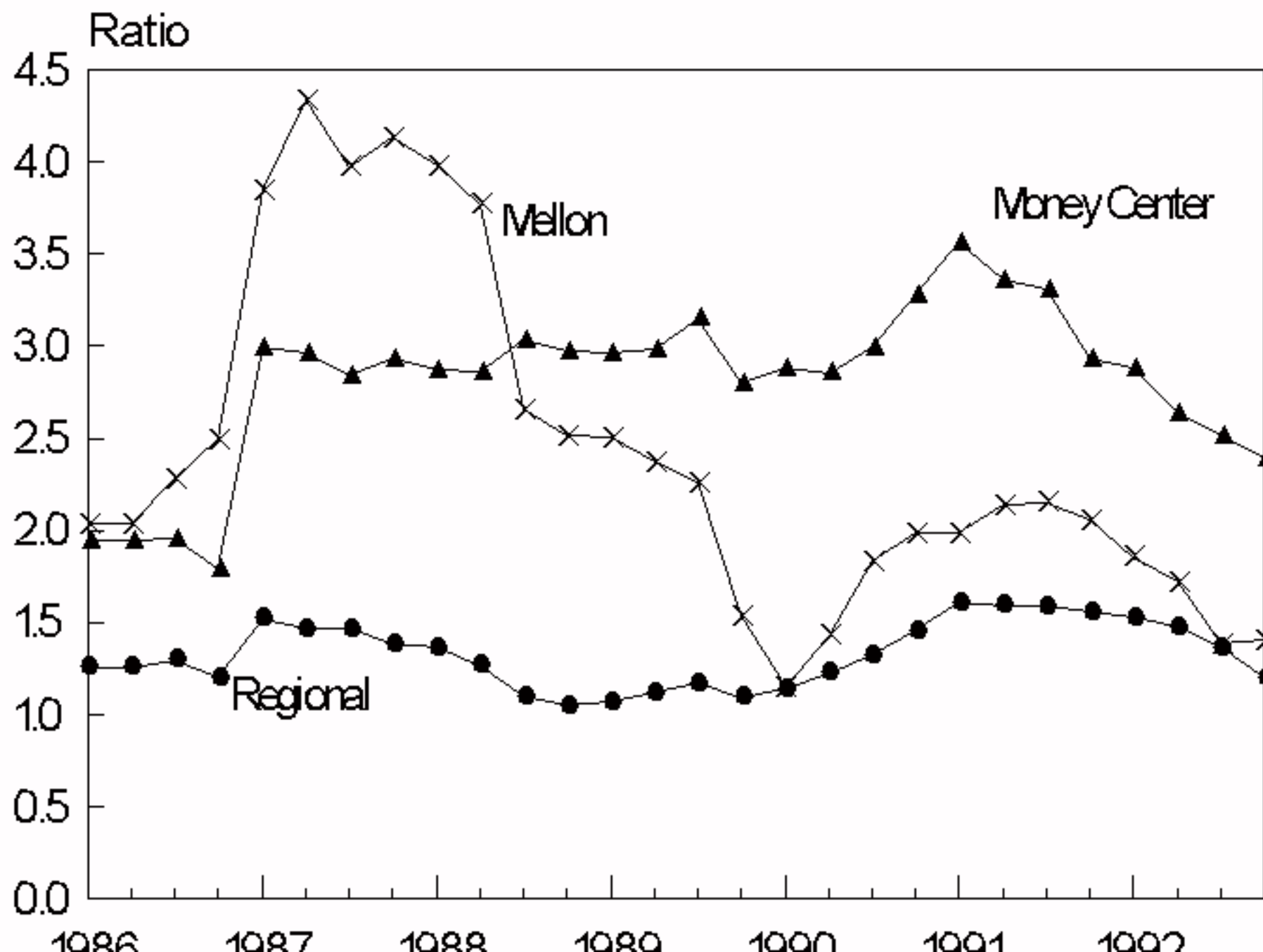


PANEL B

RETURN ON EQUITY: REGIONAL

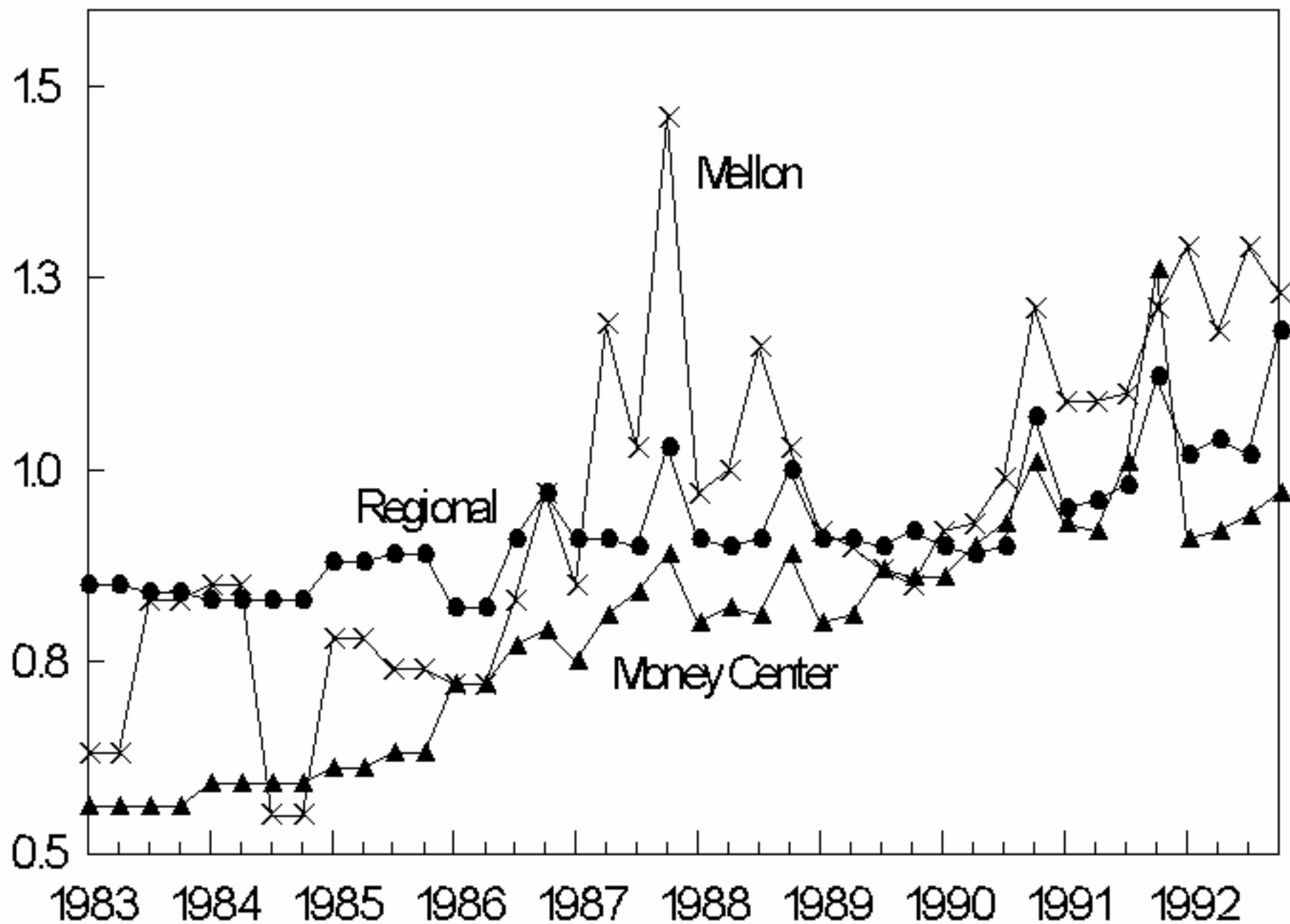


NON-PERFORMING ASSETS



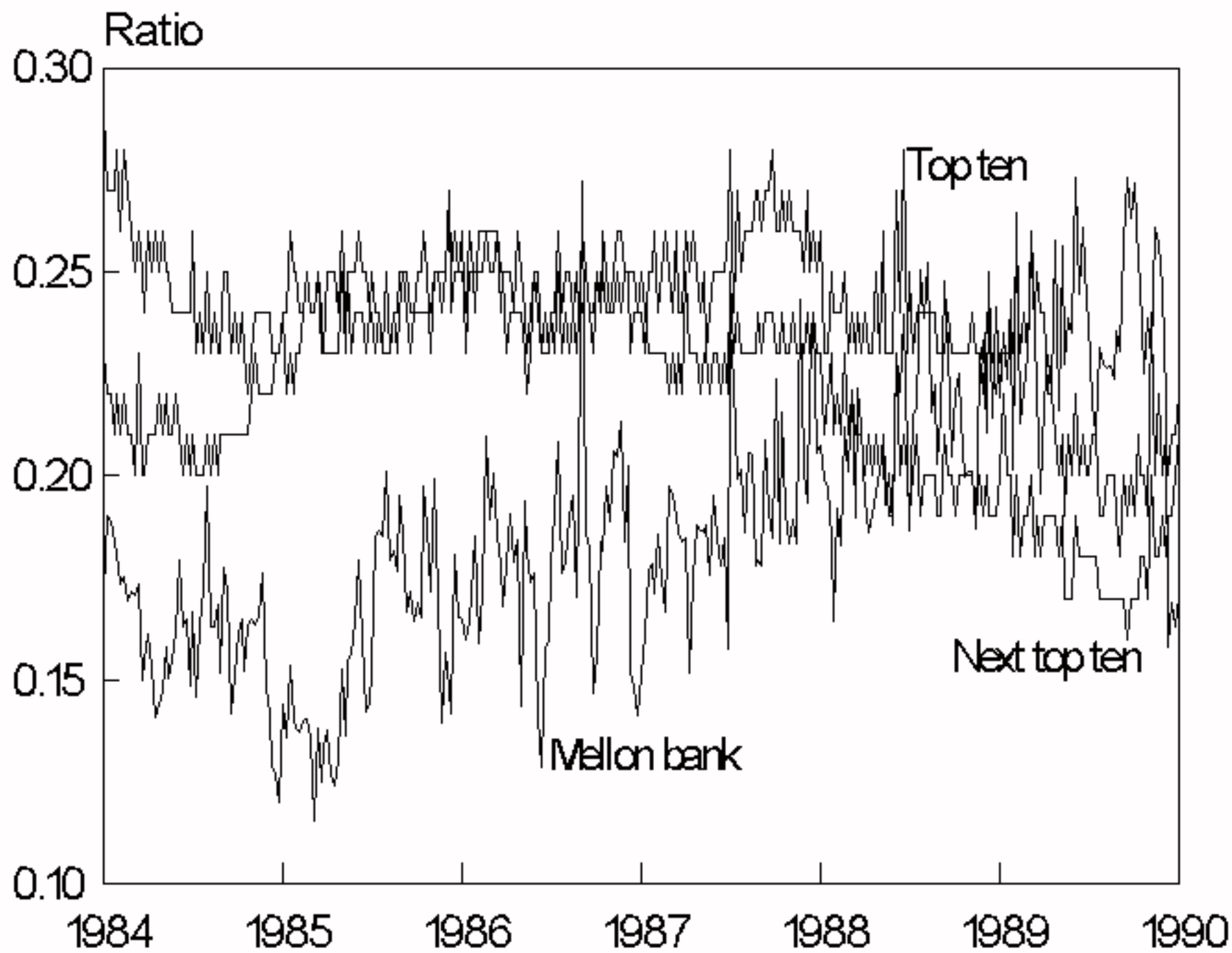
TOTAL NONINTEREST EXPENSE/TOTAL ASSETS

Ratio



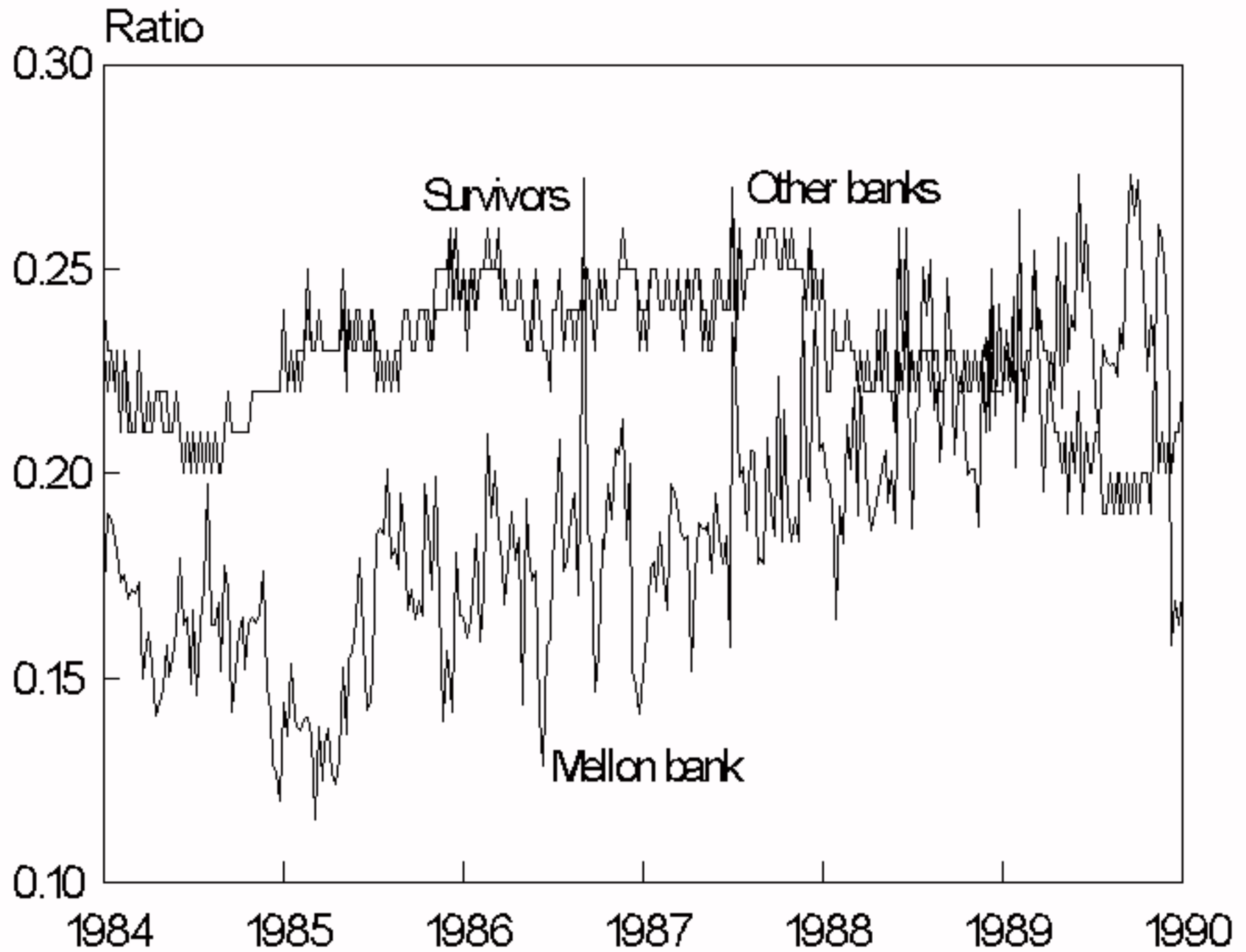
PANEL A

ASSET LIQUIDITY



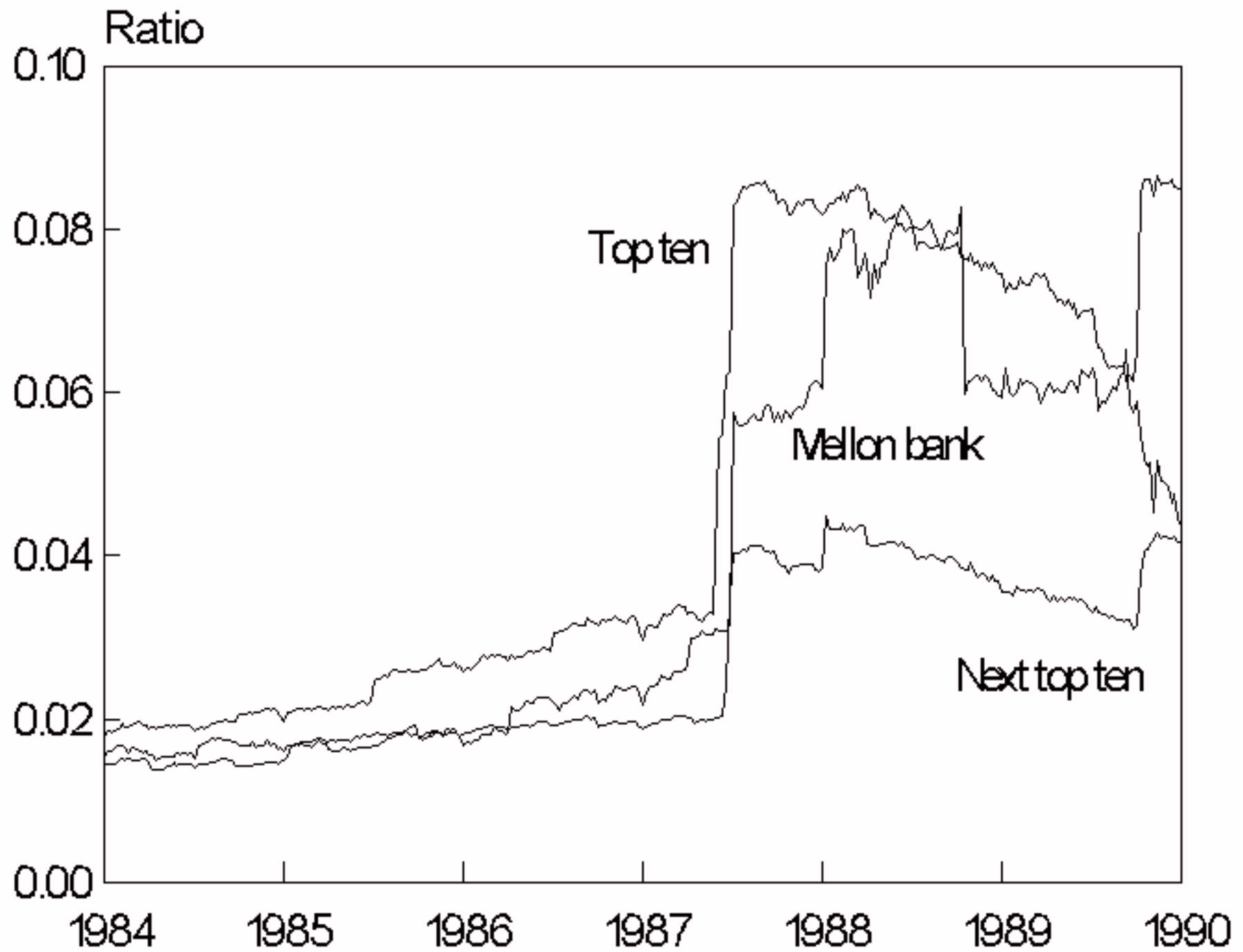
PANEL B

ASSET LIQUIDITY



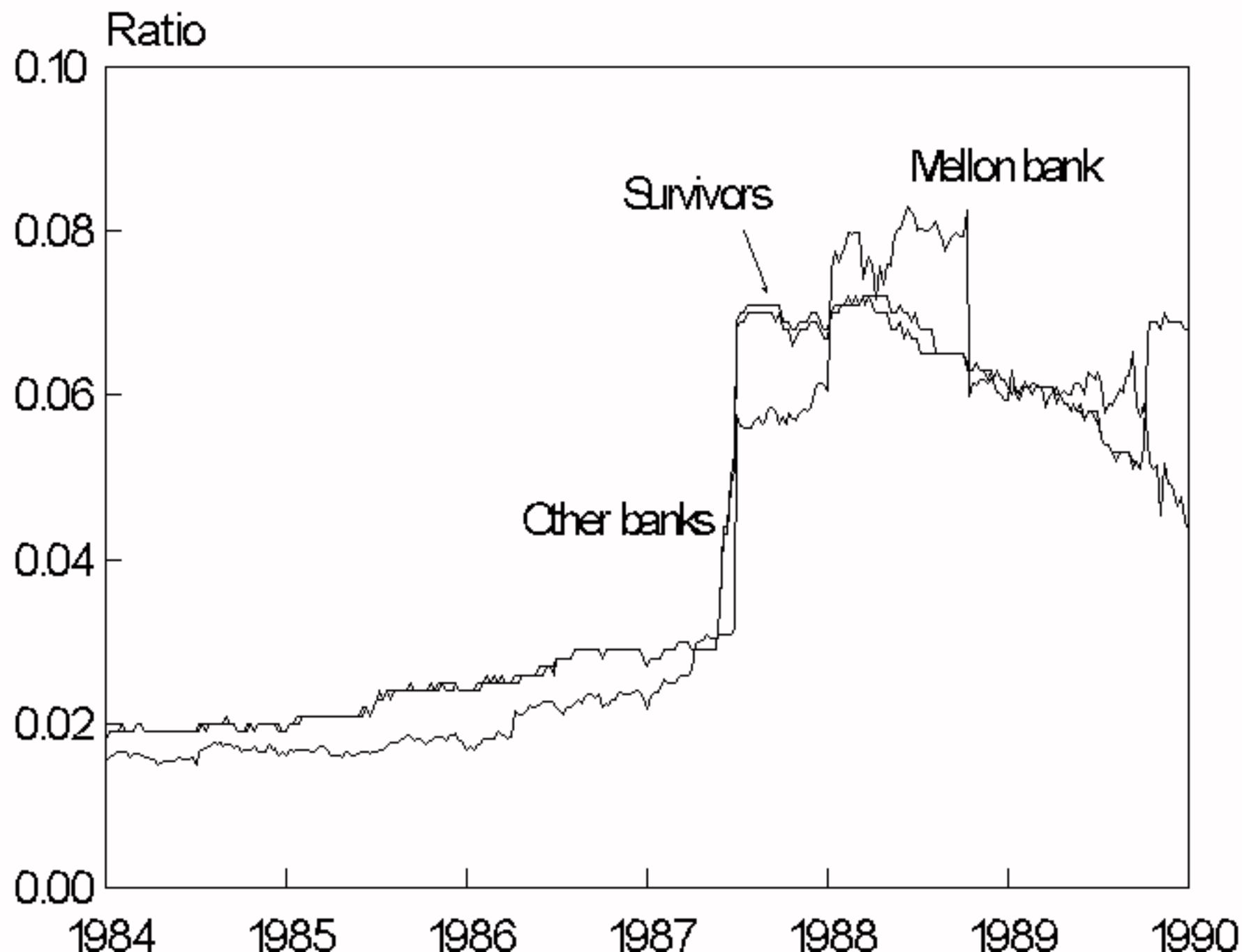
PANEL A

LOAN LOSS RESERVE



PANEL B

LOAN LOSS RESERVE



CUMULATIVE EXCESS RETURNS

Percent

