

How to Destabilize the Financial System: A Beginner's Guide

by Shauna Ferris

ABSTRACT

In 2009, in the aftermath of the Global Financial Crisis, 140 American banks failed—and hundreds of other banks were classified as “problem institutions” by the FDIC. This has led to numerous books and articles examining the causes of systemic risk in our financial system. In this paper we step back in history, to see what we should have learned from a previous banking crisis, which occurred during the 1980s. In particular, we examine the downfall of the Penn Square Bank in 1982. The failure of the small Oklahoma bank caused enormous losses and widespread instability in the banking system. It is evident that many of the factors which led to the downfall of Penn Square in the 1980s have reappeared more recently—albeit in a slightly different guise.

KEYWORDS

Banking failures, systemic risk, originate-to-distribute model, brokered deposits, credit risk insurance, regulatory forbearance, subprime lending

1. Introduction¹

What creates instability in our financial system?

In the past, prudential regulation has often focused on monitoring individual financial institutions. But in the aftermath of the global financial meltdown, there is a greater recognition that regulators must adopt a “macro-prudential” approach: taking a step back to look at the financial system as a whole, measuring the aggregation of risks across the entire system, and allowing for linkages and interactions between individual financial institutions.

All around the world, the banking system is in disarray. During 2009, 140 American banks failed—and it seems likely that there will be many more in the near future. The Federal Deposit Insurance Corporation (FDIC) has estimated that at the end of the third quarter of 2009, there were 552 “problem institutions” at risk of failure, with total assets of \$346 billion (FDIC 2009b). And of course this is not just an American problem—banks have failed in many countries all around the world.

Naturally, a great many books and articles have been written recently, explaining the causes of these bank failures and asking, “*What can we learn from this banking crisis, so that we can avoid such problems in the future?*”

In this paper, we will be asking “*What should we have learned from the previous banking crisis?*”

Bank failures tend to come in waves. About 400 banks failed in the post-Depression era, between 1934 and 1942. For the next four decades, bank failures were uncommon—less than five per annum on average. But during the period from 1982 to 1992, more than 1500 American banks failed (Figure 1).

The FDIC has already published a fascinating and comprehensive analysis of the 1980s banking failures (FDIC 1997).

In this paper, we will look at just one small bank, the Penn Square Bank (PSB), which failed in 1982. We have chosen this bank because it provides a remarkable demonstration of systemic risk. Penn Square was an insignificant one-office bank located in a shopping centre in Oklahoma City. Oklahoma City is not generally considered to be one of the major financial centers of the United States. Nevertheless, the collapse of this small bank had a disproportionate impact on hundreds of financial institutions, both large and small, across the United States.

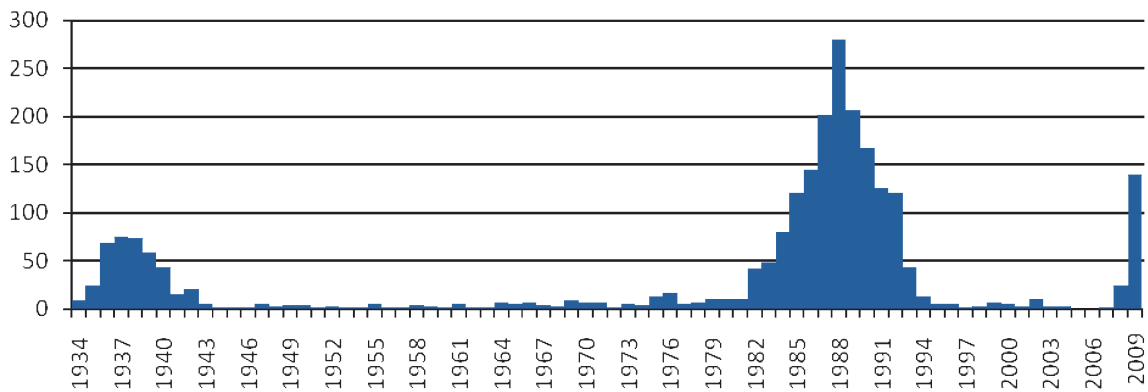
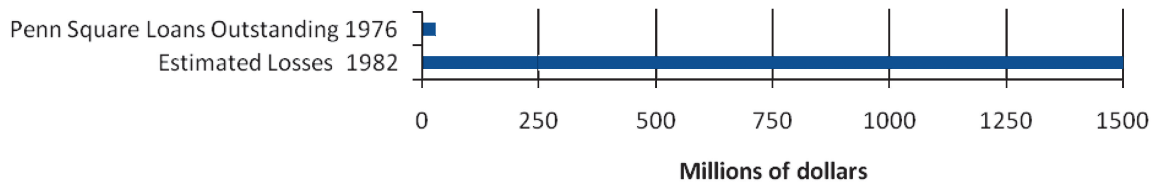
In 1976, Penn Square had 35 employees, a loan portfolio of about \$30 million, and about \$4 million in capital.

By 1982, the bank was insolvent. As shown in Figure 2, estimated losses directly attributable to Penn Square amounted to **at least** \$1.5 billion (Hill 1984).

The collapse of Penn Square created solvency problems in many other financial institutions. Several of them—the ones with the closest links to Penn Square—did not survive. The casualties included Continental Illinois, which was the seventh largest bank in the country (assets \$40 billion); and Seattle First National, which was the largest bank in the northwest (assets \$10 billion). In New York, Chase Manhattan escaped lightly—the losses arising from its association with Penn Square were only about \$120 million.

The direct losses were severe—but the indirect effects were serious as well. Penn Square was the Lehman Brothers of the 1980s—i.e., the first major financial institution which the government allowed to fail, after other troubled financial institutions had been bailed out. Confidence in the banking system was shaken. According to one expert, “No event since the Great Depression has done more to undermine public confidence in the U.S. Banking System than the failure of Penn

¹An earlier version of this paper was originally presented at the Institute of Actuaries of Australia 2009 Biennial Convention in Sydney (April 2009).

Figure 1. Number of U.S. bank failures, 1934–2009. Source: FDIC**Figure 2. Estimated loan losses arising from Penn Square lending**

Square Bank and the chain reaction of events that stemmed from it” (Zweig 1985).

Regulators struggled to work out the best way of dealing with the looming crisis: which banks should be allowed to fail? Which banks should be bailed out, in order to shore up confidence in the financial system? Over the next few years, regulators decided that some banks were simply “too big to fail.” In order to improve systemic stability, it would be necessary to nationalize troubled banks by injecting capital and buying up their toxic-debt assets (Sprague 1986). This new policy led to the bailout of Continental Illinois in 1984.

In this paper we try to answer the question, *How could the failure of one small shopping center bank cause so much damage?*

This case study sets out a simple 10-step method for destabilizing the financial system:

1. Asset price bubbles
2. Subprime lending
3. Setting a bad example

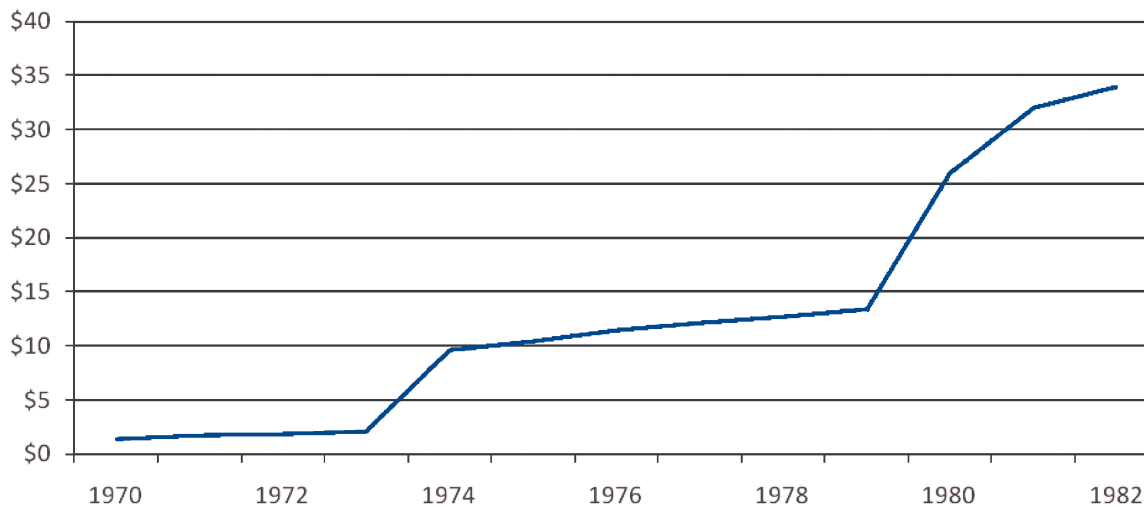
4. The originate-to-distribute business model
5. Brokered money
6. Advisors and intermediaries
7. Credit risk insurance
8. The quality of financial statements
9. Regulatory oversight
10. Undermining confidence

Unfortunately, it is clear that there are many similarities between the 1980s crisis and the current crisis—which suggests that we have not learned very much from past mistakes.

2. Asset-price bubbles

The most usual cause of [a commercial crisis] is the recoil of prices after they have been raised by a spirit of speculation, intense in degree.... At periods of this kind, a great extension of credit takes place. Not only do all whom the contagion reaches employ their credit much more freely than usually but they really have more credit,

Figure 3. Crude oil, price per barrel (Saudi Light, in U.S. dollars), 1970–1982. Source: U.S. Energy Information Administration (2009)



because they seem to be making unusual gains, and because a generally reckless and adventurous feeling prevails, which disposes people to give as well as take credit more largely than at other times, and give it to persons not entitled to it.

—John Stuart Mill (1848)

A number of studies have demonstrated that banking failures are usually associated with asset prices bubbles, particularly in real estate and equity markets (FDIC 1997; Bordo and Jeanne 2002; Borio and Lowe 2002). The current financial crisis—triggered by the boom and bust in the U.S. housing market—is just the most recent example.

A speculative bubble creates the pre-conditions for financial instability. In essence, there is a widespread belief that it is possible to make enormous profits, with very little risk, by investing in certain assets. This delusion creates an incentive to over-invest in over-priced assets.

During the 1980s, many banks failed as a result of investing in energy related assets: oil and natural gas.

2.1. The energy boom

Figure 3 shows the price of oil during the 1970s and early 1980s.

Prior to the 1970s, the price of oil had been fairly stable for decades. But as demand increased, the price increased gradually from \$1.70 per barrel in 1970 to \$2.90 in mid-1973.

In October 1973, Egypt and Syria attacked Israel (the Yom Kippur War). The United States provided support to Israel. Oil became a political weapon in this conflict. The ministers of the Middle Eastern oil-producing countries met. They announced that they would be cutting back on oil production by 5% each month until their aims were met. Friendly countries would still be supplied—but oil exports to the United States would be drastically reduced (Yergin 1991).

The result of the embargo was a sharp increase in oil prices, up to about \$12 per barrel. Over the next few years, the OPEC group controlled the supply of oil, and prices remained in the range of about \$11 to \$13 dollars per barrel.

Naturally, anyone who could find new sources of oil could make a lot of money. This led to a boom in oil exploration all around the world—including Oklahoma.

The price hikes, the expectation of future increases, much-expanded cash flows, and the eagerness of investors—all combined to ignite a frenetic and inflationary

global hunt for oil. When asked to characterize the worldwide craze, Exxon's deputy exploration manager summed it up simply: "It's just wild." What had been a depressed exploration business up through 1972 was now running at capacity, and the cost of everything, be it a semi-submersible drilling rig or a dynamically positioned drilling ship or just an old-fashioned land crew in Oklahoma, was bid up to double what it had been in 1973. (Yergin 1991)

The second oil shock occurred in 1978, when the Shah of Iran was ousted. Iran, one of the world's major suppliers of oil, ceased exports. This created a shortage, which was accompanied by panic buying. Within a short time, oil prices had tripled to \$34 per barrel.

The second oil shock created an unprecedented boom in the energy industry in the United States, as described by Yergin (1991):

None of the previous booms, in an industry characterized by booms, could begin to rival the magnitude and the madness of the fever that came at the end of the 1970s with the Second Oil Shock. It was the greatest boom of them all. With the leap in price to thirty-four dollars a barrel, sums of money were involved that dwarfed anything that had ever before been earned or spent in the business. Oil companies plowed their earnings back into new developments. Some borrowed from banks, raised more money from eager investors, and leveraged themselves to the hilt so they could play in the wild game. It was the golden age of the independent oil men. They slapped backs, they wheeled and dealed, hired more drilling rigs and explored at greater depths, and they spent and spent.

In the United States, the industry surged to a dizzy and unprecedented level of activity. The frenetic pace meant that, in-

evitably, the costs went out of control. The price of everything connected to oil shot up.... These were the years that the doctors and dentists of America put their money into drilling funds.

2.2. Forecasts

A boom starts when there is a sharp rise in the price of some asset. The bubble is then inflated by the expectation that prices will continue to rise just as sharply in the future.

In the late 1970s, most experts were forecasting large increases in oil prices.

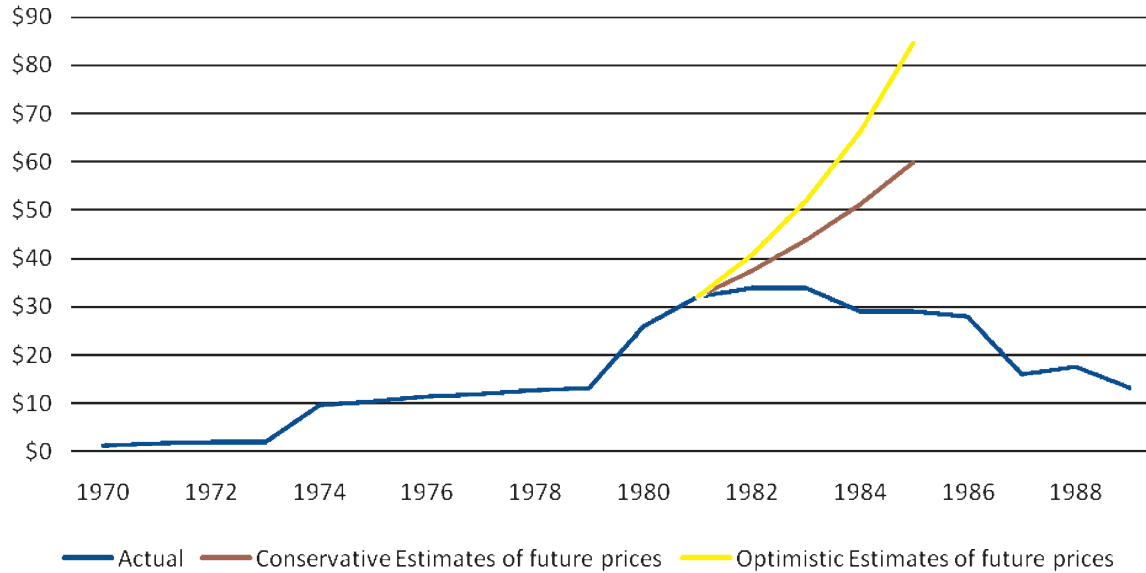
One peculiar result of the price shock of 1973 was the rise of a new line of work—oil price forecasting.... This particular kind of forecasting, like all economic forecasting, was as much art as science. Judgments and assumptions governed the predictions. Moreover, such forecasting was much affected by the community in which it was done; thus it was a psychological and sociological phenomenon, reflecting the influences of peers and the way individuals and groups groped for certainty and mutual comfort in an uncertain world. The end result was often a strong tendency toward consensus, even if the consensus completely changed its tune every couple of years....

Though variations were to be found among the forecasts, there was considerable unanimity on the central themes, whether the source was the major oil companies, the CIA, Western governments, international agencies, distinguished experts, or OPEC itself. (Yergin 1991)

Even conservative forecasters agreed that the price of oil would go up to at least \$60 per barrel—some even predicted \$100 per barrel.

Government policies helped to inflate the boom. It was in the public interest to encourage more investment in American energy resources

Figure 4. Crude oil price per barrel (Saudi Light), in U.S. dollars, showing forecasts and actual price, 1970–1989. Source: U.S. Energy Information Administration (2009)



in order to reduce dependence on foreign oil reserves. Oil and gas prices were deregulated and tax incentives were available to encourage investment in exploration.

Therefore it is not surprising to find that many banks made lending decisions on the assumption that oil prices would continue to rise. When making a loan to an oil-producing company, a bank would normally assess the value of the oil reserves in the ground. Engineers and geologists would estimate the expected future production per year. The present value of the output would be calculated after allowing for expected future price increases. In the early 1980s, for example, many banks would allow for an increase of 8% per annum. This was considered to be quite conservative, since so many experts were predicting much larger increases.

Unfortunately, however, the expert forecasts were wrong. As shown in Figure 4, the price of oil peaked in 1981, and then slid downwards for several years.

2.3. The bubble bursts

As predicted by economic theory, prices changes affect supply and demand; and then

changes in supply and demand affect prices. That is, energy markets adapted to the new situation.

- **Supply increased.** The first oil shock had encouraged the development of new oil fields in non-OPEC countries, e.g., in Mexico, Alaska, and the North Sea.
- **Demand fell.** The price increases created a strong incentive to reduce consumption, by more efficient use of energy. For example, the U.S. government passed a law in 1975 which required car manufacturers to double the average fuel efficiency of new cars.
- **Substitution reduced demand.** There was a switch to different energy sources, such as coal and nuclear power. In 1978, oil accounted for 53% of all energy used in the industrialized countries; by 1985, this was down to 43%.

When prices fell from \$34 to \$20 during the 1980s, many oil producers were no longer profitable. And naturally, banks which had lent too much money to these oil producers were going to have problems.

During the 1980s, hundreds of banks failed in the southwestern United States. The decline in

oil prices was the main cause. In its *History of the Eighties*, the FDIC has pointed out that:

The region's economy was highly dependent on oil, a sector heavily supported by the banks; and when a boom occurs in such an important segment of a region's economy, the potential clearly exists for serious difficulties when the boom period ends. The danger was especially acute in the Southwest because many lenders were initiating loans that were based on the assumption of ever-increasing oil prices. Some banks were therefore vulnerable even if oil prices did not decline but simply stopped increasing. The boom helped create an excessively optimistic mind-set among some southwestern bankers, which led them to make numerous lending errors. (FDIC 1997)

3. Subprime lending

In the past we have had irresponsible borrowers, and in the past we have had irresponsible lenders, but what we had here, and are having to witness the consequences of, is the meeting of the irresponsible borrower and the irresponsible lender.

—Oklahoma citizen commenting on the collapse of Penn Square (Singer 1985)

The existence of a speculative bubble does not lead, inevitably, to instability in the financial system. Not every bubble causes massive economic dislocation. An analysis of the historical data suggests that there has been a marked variation in the economic impact of different asset-price bubbles. Researchers suggest that “the episodes which have been most costly in social and economic terms have typically been those which have been accompanied by high leverage and a large build-up in credit” (Richards 2003; see also Borio and Lowe (2002) for similar comments).

During a boom, investors are usually very eager to borrow money to invest in bubble assets. If banks are very willing to lend, then this simply ensures that more money is pumped into the bubble, leading to even more price increases, creating an upward spiral.

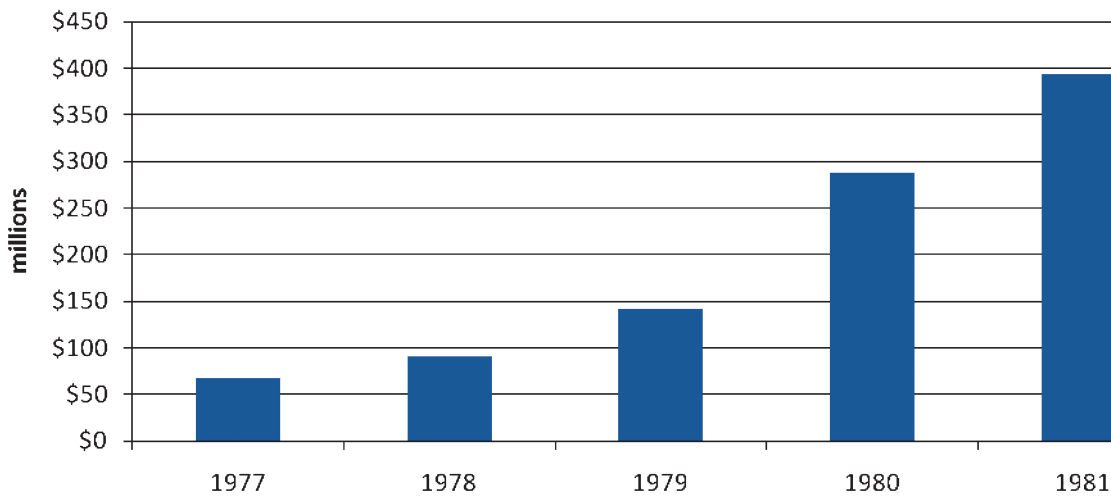
This expansion of credit is, naturally, most dangerous when the lenders make highly leveraged loans which are secured by over-priced assets. In the general euphoria of a boom, there is a tendency for lenders to relax their credit standards—a phenomenon which has been readily apparent in the U.S. housing market over the last few years.

When people refer to the “subprime debt crisis,” they are usually referring to the subprime qualities of the **borrowers**—as if the problem was primarily caused by irresponsible low-income borrowers.

In fact, the epithet “subprime” should refer to the subprime qualities of the **lenders**. In general, banks fail because they do a poor job in managing credit risks (BCBS 2004; Dziobek and Pazarbasioglu 1997).

Banks which have sound risk management systems usually survive, even when the economy is in a tailspin. The Senior Supervisors Group has noted that financial institutions which have survived the current crisis are those which had a strong risk management culture—and in particular, firms where the senior management found an appropriate balance between the desire for growth and the appetite for risk (Senior Supervisors 2008).

On the other hand, banks which fail usually have very poor management and lending policies. In 1988 the Office of the Comptroller of the Currency (OCC) conducted a study comparing failed banks to healthy banks [OCC (1988); see also GAO (1989); GAO (1991b), and the appendix to BCBS (2004)]. Their study found that that poorly managed banks had the following dis-

Figure 5. Penn Square Bank, growth in assets. Source: House Committee (1983)

tinguishing characteristics:

- A CEO who lacked experience or integrity
- An uninformed or inattentive board of directors
- Overly aggressive growth strategies
- Poor lending policies or failure to follow loan policies, or both
- Overlending (i.e., lending more than the borrower can repay)
- Collateral-based lending
- Low-doc loans, i.e., poor verification of the borrowers' income, financial position, and the value of collateral
- High concentrations of risk
- Insider abuse and fraud

Penn Square was a perfect example of “how not to run a bank.” It had every single one of these deficiencies.

3.1. Growth objectives

Prior to 1975, Penn Square was a fairly ordinary suburban bank. It made home loans and car loans, and provided banking facilities for local small businesses.

In 1975, an Oklahoma businessman named B. P. “Beep” Jennings and two partners set up a bank holding company (First Penn Corporation), which borrowed \$2.5 million and bought Penn

Square Bank. Because the holding company was highly leveraged, it needed to make high returns on its investment.

Soon afterwards, Jennings announced that within ten years assets would grow from \$35 million to \$100 million. In fact, he soon exceeded this target—within six years assets reached \$500 million—a really phenomenal rate of growth. Figure 5 shows the bank’s assets from 1977 to 1981.

How did Penn Square achieve such phenomenal growth?

3.2. Concentrations of risk

In the 1970s, in Oklahoma, the easiest way for a bank to expand rapidly was to move into energy lending. Penn Square set up its oil and gas lending department in 1976, and within a few years energy loans accounted for about 80% of its loan portfolio. Of course this made the bank very vulnerable to any downturn in the price of oil.

When examiners criticized Penn Square for excessive concentrations of energy loans, the bank’s president explained that “Penn Square has committed itself to ending America’s dependence on foreign energy” (U.S. Department of Treasury 1983). Lending for oil and gas was almost a patriotic duty.

According to the Basle Committee on Banking Supervision, concentrations of risk are probably the single most important cause of major credit problems for banks: “Concentrations appear most frequently to arise because banks identify ‘hot’ and rapidly growing industries and use overly optimistic assumptions about an industry’s future prospects, especially asset appreciation and the potential to earn above-average fees and/or spreads. Banks seem most susceptible to overlooking the dangers in such situations when they are focused on asset growth or market share” (BCBS 2000).

3.3. Lending policies

Banks which want to grow rapidly can do so quite easily, simply by relaxing their lending standards.

Oil is a major industry in Oklahoma and Texas, and many banks lend money for oil and gas exploration. This is a pretty risky business—it is quite possible to spend a fortune drilling without ever finding oil or gas in commercial quantities. Traditionally, therefore, banks would be quite circumspect when lending money to oil and gas companies. They followed a strict set of guidelines in lending.

Penn Square simply broke all the rules.

- PSB lent money to people who had a poor credit history and/or negligible assets.
- PSB lent money to people who didn’t have any source of income available to cover repayments; the bank assumed the collateral would cover any defaults.
- PSB lent money on easy terms, i.e., with low initial payments, so that interest was capitalized and debt increased (i.e., negative amortization).
- PSB lent money for high-risk ventures, such as deep drilling using newly developed and untested technology.
- PSB made loans with higher loan-to-value ratios than other banks.
- PSB lent money based on unverified and/or inflated asset collateral valuations.
- PSB lent money based on optimistic assumptions about future growth in oil prices.
- PSB pioneered the concept of low-doc lending—they simply didn’t bother to check the valuations or financial statements provided by borrowers.

The loan approval process was often extremely informal. One of the lending officers described the process.

Beep was a can’t-say-no guy. His attitude toward everyone was “Come in, we’ll talk to you.” The way it worked was, he’d give a verbal commitment to someone and if I didn’t want to make the loan I’d turn it down. He didn’t want to be the one to do that. Beep would call me and say “We want to lend So-and-So four hundred thousand.” I’d ask him: “By when?” He’d say “Today.” He’d say, “Just lend it and get the information later. Well hell, I might need to spend a little more time than that. If you work that way and find out six months later you’ve got a problem, but you’re still trying to get the documents and collateral together—if you haven’t got everything filed and recorded and secured, but meanwhile the guys you banked already have the money, they aren’t necessarily going to be interested in cooperating with you.

Beep would take on people that a lot of other bankers wouldn’t touch. (Singer 1985)

Beep Jennings hired other people who had the same carefree attitude to lending, and did not trouble to impose any controls on lending policies.

Bill Patterson later became the man primarily responsible for Penn Square’s oil and gas department. He was a colorful character—stories about Penn Square usually refer to his penchant

for starting food fights in restaurants, wearing funny hats, and drinking beer out of cowboy boots (Singer 1985, Rowan 1987).

These might be harmless peccadilloes. But it was more worrying when he wrote loan approvals for millions of dollars on cocktail napkins in the local country club after a long lunch (Singer 1985).

3.4. Documentation and internal controls

Banks which grow rapidly often have difficulty in controlling operational risk, and Penn Square was no exception. PSB grew rapidly for several years, without a corresponding increase in staff. The staff simply could not keep up with the paperwork.

A bank can't manage its credit risk unless it has sound financial recordkeeping systems. But Penn Square's records were a shambles.

Whenever the OCC sent bank examiners to check the books, they reported hundreds and hundreds of "document exceptions" (House Committee 1983). The OCC examiners repeatedly warned the bank about risks caused by inexperienced personnel and understaffing, combined with poor internal controls.

After the collapse of Penn Square, the FDIC people sent in a team to mop up the mess. There were more than 3000 loans with document exceptions. The FDIC team found that some important paperwork had been overlooked—for example, the bank had sometimes neglected to register its mortgage over collateral. So when the FDIC went to collect on the debt, they would find that the assets in question had already been seized by another creditor, leaving nothing for Penn Square.

3.5. Insider abuse

Numerous studies have found that insider abuse and fraud is often a major factor in bank failures (OCC 1988; FDIC 1997; BCBS 2000).

As noted earlier, Penn Square had a rather lenient lending policy. But it seems that the lending policies were especially lenient for certain special borrowers, i.e., those who were directors of the bank, or friends or business associates of the directors. Penn Square Bank lent hundreds of millions of dollars to insiders (Gerth 1982). Many of these insider loans were in breach of federal restrictions on loans to directors and employees.

These loans were poorly documented, often with inadequate collateral. After the closure of the bank, the OCC reported that 20% of the bank's problem loans involved insiders (Rowe 1982). Many of these loans were write-offs. Several of the bank's directors were later sued by the FDIC for millions of dollars, and the SEC later sued two of the directors for fraud in relation to certain oil and gas deals (*Wall Street Journal* 1984; SEC 1984; SEC 1985).

3.6. Management of bad debts

Ideally, a bank should take prompt action to minimize losses, whenever a borrower defaults on his loan.

Penn Square was always optimistic about the future—even when borrowers defaulted. The management of the bank felt that any setbacks were only temporary. If the price of oil fell from \$34 per barrel to \$20 per barrel, then it might just as easily go up again—in fact this was, in their opinion, a very likely outcome.²

So when oil prices fell, Jennings and Patterson decided that their best strategy was to help out any borrowers who were facing temporary difficulties, by extending more credit to tide them over until things improved.

Beep Jennings had introduced this policy soon after he took over the bank, in 1976. The OCC examiners repeatedly warned him that it was in-

²According to the FDIC (1997), many other banks adopted the same attitude, i.e., assuming that the fall in oil prices was only temporary and would rebound.

appropriate to make new loans to a customer who had already defaulted in prior loans.³ The bank apparently ignored this advice. Some loans were “rolled over” 15 times.

In fact, as oil prices collapsed, Penn Square’s lending actually accelerated sharply.

The OCC stated that

In our view, a principal cause of the failure of the Penn Square Bank was the euphoric lending to a previously booming industry *after* it crashed.... [By the end of 1981] clearly the bubble had burst, leaving a huge trail of idle rigs, excess equipment, and significant unemployment. Rather than reducing its exposure to these strapped customers, and contrary to the Board’s commitment to the OCC, the bank increased significantly both its exposure and that of participants by granting and selling questionable loans. During the rapid decline in the energy industry, when prudent lenders were no longer willing to provide needed funds, the bank engaged in various transactions that were wholly inconsistent with prudent banking practices and in wholesale disregard of agreed-upon lending policies and procedures. A large percentage of these loans eventually resulted in the losses that caused Penn Square’s failure...the bank abandoned prudent lending practices in an ill-advised effort to bail out its long-standing customers. (U.S. Department of Treasury 1983)

3.7. Comparisons to the current banking crisis

Subprime lending seems to be an insoluble problem in the United States. Regulatory authorities are only too well aware that the lending poli-

³For example, in 1980 the OCC asked the board of directors to sign a formal agreement, promising that the bank would not extend any credit to any borrower whose loan had been criticized by OCC examiners (House Committee 1983).

cies described above are likely to lead to disaster. After all, they have undoubtedly seen it all before.

Here is a description of subprime lending in the real estate market.

Many banks moved aggressively into real estate lending.... A pervasive relaxation of underwriting standards took place, unchecked either by the real estate appraisal system or by supervisory restraints. Overly optimistic appraisals, together with the relaxation of debt coverage, of maximum loan-to-value ratios, and of other underwriting constraints, meant that borrowers frequently had no equity at stake, and lenders bore all of the risk. Overbuilding occurred in many markets, and when the bubble burst, real estate values collapsed. At many financial institutions loan quality deteriorated significantly, and the deterioration caused serious problems. (FDIC 1997)

This description refers to the 1980s market in commercial real estate—but it could just as easily be a description of the residential real estate market in 2007.

An examination of the banks which failed over the last few years reveals the same patterns of rapid growth, concentrations of risk, over-lending, unreliable valuation of collateral, inadequate documentation, and poor information systems.⁴ For example, here is the Inspector General’s summary of IndyMac’s business strategy.

The primary causes of IndyMac’s failure were largely associated with its business strategy of originating and securitizing Alt-A loans on a large scale. This strategy resulted in rapid growth and a high concentration of risky assets. From its inception

⁴The Office of the Inspector General, Department of the Treasury, publishes a review of all banks which fail and cost the FDIC more than \$25 million. See U.S. Department of Treasury (2009a) for a summary of the factors leading to the collapse of IndyMac, with losses exceeding \$10 billion.

as a savings association in 2000, IndyMac grew to the seventh largest savings and loan and ninth largest originator of mortgage loans in the United States.... Indymac's aggressive growth strategy, use of Alt-A and other non-traditional loan products, insufficient underwriting, credit concentrations in residential real estate in California and Florida markets, heavy reliance on costly funds borrowed from the Federal Home Loan bank and from brokered deposits, led to its demise when the mortgage market decline in 2007. IndyMac often made loans without verification of the borrower's income or assets, and to borrowers with poor credit histories. Appraisals obtained by IndyMac on underlying collateral were often questionable as well.... Ultimately, loans were made to many borrowers who simply could not afford to make their payments.... These loans proved to be even riskier because for the most part they were originated with less than full documentation. (U.S. Department of Treasury 2009a)

Material loss reviews for many other failed banks reveal very similar characteristics.

It's déjà vu all over again.

4. Setting a bad example

The reason customers left downtown banks and went to Penn Square was that word got around that all you had to do was go see Bill Patterson. He was like the bad girl in the sophomore class whom all the senior boys called up for a date.

—Mark Singer (*Funny Money*, 1985)

No doubt there will always be a few irresponsible bankers. Theoretically, there is a limit to the amount of damage which can be caused by one small poorly managed bank.

However, Penn's Square's influence extended far beyond its own customers and depositors.

Poor lending practices in one bank influenced lending practices in many other banks.

As we have seen, from 1976 to 1982 Penn Square was growing rapidly. Where did this growth come from?

To a large extent, this growth occurred at the expense of other banks—Penn Square stole their customers, by offering larger loans at lower interest rates with more flexible repayment terms.

And as long as the energy boom continued, Penn Square seemed to be doing so well—it was growing rapidly and seemed to be highly profitable (Bennett 1982a). PSB's return on assets, shown in Figure 6, was almost twice as high as the average for other banks on money-brokers' lists.⁵

It was difficult to argue with such success. Naturally, this put some pressure on other banks to change their own lending practices, to become more aggressive in lending, following Penn Square's example (Zweig 1985).

Those banks which decided to relax their own lending standards in order to compete with PSB, ultimately shared PSB's fate when the bubble burst.⁶

5. The originate-to-distribute model

Done properly and legitimately, loan sales are fine, but in the back of my mind, I worry that someone will be foolish and irresponsible with loan sales, and that some parties could get hurt as a result.

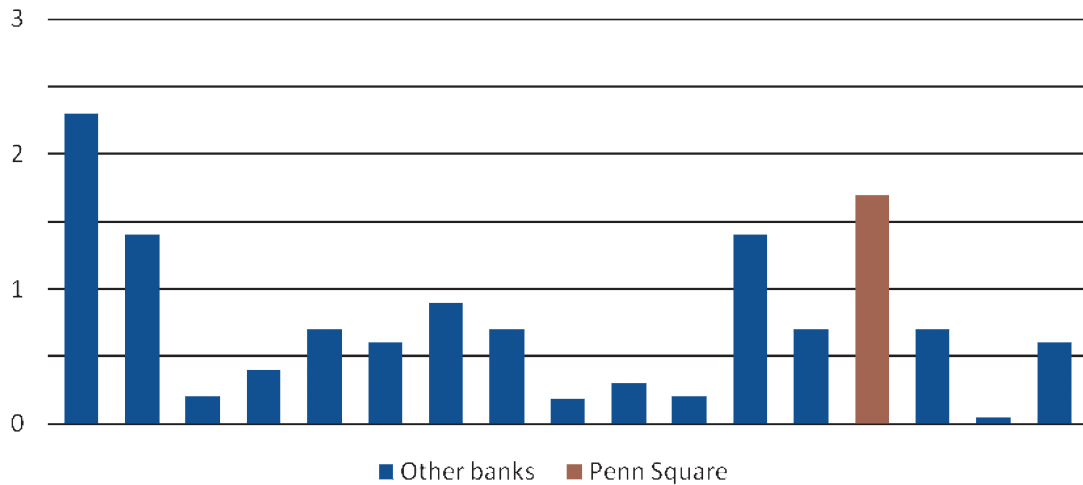
—an official from the Federal Reserve, January 1986 (Berg 1986)

5.1. The OTD business model

Penn Square was growing at a phenomenal rate. But a bank can't keep increasing lending

⁵Extract from Capital Adequacy Report by Professional Asset Management (House Committee 1983, p. 336. The leftmost bank on the graph, Abilene National Bank, also had unusually high returns on assets. It came to an unfortunate end one month after the Penn Square Bank.

⁶See for example the fate of the First National Bank (Hayes 1986; *New York Times* 1986a).

Figure 6. Return on average assets (September 1981). Source: Professional Asset Management

unless it can find a source of funding for those loans.

During the recent subprime lending boom, the “originate-to-distribute” (OTD) model was used to finance expansion. Banks originated loans and then sold them to other investors. The Financial Stability Forum has identified a number of problems caused by the OTD model (FSF 2008). *Inter alia*:

- The loan originators have an incentive to lower their underwriting standards.
- The loan originators need to sell the loans, so they may not provide complete and accurate information to the buyers. Hence the buyers underestimate the risk.
- The originating banks rely on the ability to promptly sell loans which are in the pipeline, which creates liquidity risks when the market breaks down.
- Securitization may not always provide a clean transfer of risk if the originating bank retains a contingent liability to take back loans (which may be a formal or informal obligation). This makes it more difficult for regulators to determine the appropriate minimum capital requirements.

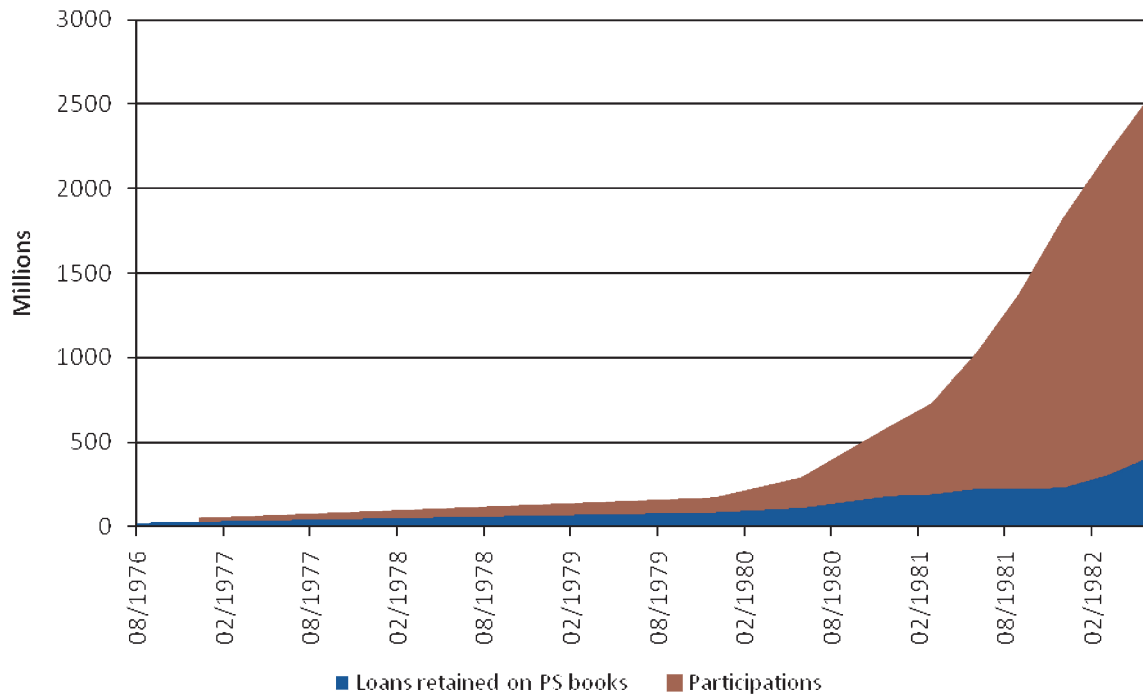
Anyone who has studied the collapse of Penn Square Bank would not be surprised by this cri-

tique of the OTD business model, because the same problems occurred 25 years ago, when Penn Square was following exactly the same approach. In fact, Penn Square Bank was a pioneer in developing the originate-to-distribute strategy.

By 1982, Penn Square had about \$500 million in loans on its own books—but it originated loans worth more than \$2.5 billion. By following an OTD model, the bank succeeded in passing about \$2 billion in loans to other banks all around the country.

The OTD model started out as a sensible solution for a problem which affected many small banks in Oklahoma. Banks were not allowed to lend more than 10% of capital to any one borrower. But many of the oil and gas companies wanted to borrow far more than this.

There was a well-established solution to this problem. When a small bank wanted to make a large loan (i.e., above the regulatory limits), it would share the loan with another bank. This was known as a *participation*. The originating bank would perform the credit evaluation, collect all necessary documentation, obtain mortgages over the collateral, and service the loan by collecting payments and passing them on to the participating bank. The larger bank would provide funding for its share of the loan, and pay a commission to the originating bank.

Figure 7. Penn Square lending. Source: U.S. Department of Treasury 1983

Beep Jennings soon realized that selling participations would be a lucrative source of income—he described this as the *merchant banking* approach. Penn Square might keep just 1% of a large loan, selling participations for the remaining 99% of the loan. If the commission for the participation was 1%, then Penn Square could make as many loans as it wanted to, without any need to fund the loans from its own deposit base.

Figure 7 shows the growth in PSB participations (U.S. Department of Treasury 1983).⁷ Penn Square retained as small a percentage of each loan as possible. By the date of Penn Square’s collapse, less than 20% of the loans originated by Penn Square were retained by the bank.

Eighty-eight banks participated in Penn Square loans. The biggest players were Continental Illinois, Seattle First National, Chase Manhattan,

⁷In fact, it appears that sometimes Penn Square passed on *more* than 100% of a loan, a practice known as “over-participations” (House Committee 1983).

Table 1. Penn Square Bank participations

Participating Bank	Amount on July 5, 1982 (millions)
Continental Illinois	\$1,130
Seattle First National	\$378
Chase Manhattan	\$275
Michigan National	\$199
Northern Trust	\$118
83 other banks	\$13

Source: U.S. Department of Treasury 1983

Michigan National, and Northern Trust. Table 1 shows the total amount of participations on the day Penn Square was closed, in July 1982.

The participated loans had an extraordinarily high default rate. Most of the participating banks suffered large losses, with disastrous consequences.

At Continental Illinois, \$842 million of Penn Square loans were either charged off or classified as non-performing by the end of 1983. That was roughly 80% of the Penn Square loans (McCollom 1987).

Seafirst wrote off \$343 million, i.e., more than 90% of its Penn Square loans (Hill 1984).

Chase Manhattan wrote off Penn Square loans amounting to about \$118 million by the end of 1983, i.e., about 60% (Hill 1984).

At Michigan National, about 50% of the Penn Square loans were losses or anticipated losses by the end of 1983, i.e., about \$100 million.

Ultimately, losses to the all participating banks were estimated at about \$1.5 billion.

5.2. Why were participating banks willing to accept Penn Square loans?

Why were large money-center banks so willing to participate in low-quality Penn Square loans?

Some believe that the problem was caused by bribery, fraud, and misrepresentation.

5.2.1. Bribery

There is indeed evidence to suggest that Penn Square provided financial inducements to employees at some of the participating banks. John Lytle was the Continental Illinois executive who was chiefly responsible for approving participations for hundreds of millions of dollars of Penn Square loans. Penn Square provided large unsecured loans to Lytle, at favorable interest rates. The loans fell into arrears, but it seemed that Penn Square was flexible in demanding repayment.

According to the evidence provided to the court after the collapse of Penn Square, these payments were kickbacks, offered by Bill Patterson in order to persuade Lytle to approve poor-quality Penn Square participations. Lytle constantly overruled loan officers who opposed risky deals with Penn Square (White 1988). Lytle also introduced Bill Patterson to lenders at other banks, and encouraged the other banks to participate in Penn Square loans.

In 1988, both Patterson and Lytle pleaded guilty to bank fraud. Patterson was sentenced to two years in prison, Lytle to three and a half years.

5.2.2. Fraud and misrepresentation

The participating banks relied on Penn Square to assess the credit risk and complete the paperwork for each loan. The Penn Square employees would then provide information about each loan to the upstream banks. The participant banks would review the information before deciding whether to participate.

But how accurate was this information? Apparently, not very accurate at all.

- It appears that Penn Square employees sometimes forged promissory notes from bank customers to provide collateral for loans.
- PSB sometimes arranged for participation loans which exceeded the amount the customer wanted to borrow, a practice known as “over-participations.” The excess amount could be used to meet PSBs need for liquidity (House Committee 1985).
- PSB sometimes allowed the borrowers to pledge the same collateral for two different loans, which were then participated to different banks. (U.S. Department of Treasury 1983)
- In order to maintain the confidence of the participating banks, it was important to keep participating loans from defaulting. So sometimes, when a borrower failed to make interest payments, Penn Square would make the payment out of its own funds. This was called “upstreaming the interest.” To hide the depletion of PSB’s capital from the regulators, bank staff created misleading accounting entries labeled “Other Assets.”

Whenever participating banks expressed concern about the quality of the loans, Penn Square assured them that they could not lose—because PSB promised to take back any loans which became too risky.⁸

⁸These promises were, of course, unofficial. If the buy-back agreement had been included in the official participation agreements, Penn Square would have been in trouble with the regulator (U.S. Department of Treasury 1983, p. 16).

PSB was obviously very persuasive—at times it even persuaded some participating banks to take over loans which were already in default, and had indeed been written off as losses in Penn Square’s books.

After the collapse of Penn Square, Chase Manhattan and Michigan National sued the FDIC (as receiver for Penn Square), alleging fraud, negligence, and breach of contract in selling the participations. The FDIC acknowledged that fraud was indeed probable in some cases, and settled the claims by paying \$19.5 million (Sprague 1986).

5.2.3. Poor risk management

Fraud, bribery, and misrepresentation are reprehensible—but they are hardly “black swan” events in the banking system. Any well-run bank should have adequate risk management strategies to prevent losses due to dishonest conduct by employees and customers. Yet several of the participant banks failed dismally in this regard.

The level of losses suffered by the participant banks varied. Some banks were quite careful about accepting loans, and would carefully inspect and check the documentation provided by Penn Square. Other banks (such as Seafirst) were not so careful, and they ended up with a very high proportion of poor-quality loans.

Some of the participant banks had moved very aggressively into energy lending, because they expected it to be highly profitable. In fact, several of the participant banks eagerly courted Penn Square and were quite happy to overlook deficiencies in documentation. These banks subsequently experienced large losses on their whole portfolio of energy loans (not just Penn Square participations).

After Continental Illinois’ management realized that the Penn Square participations would lead to huge losses, they conducted an internal investigation of their own lending standards. The

report was damning:

Loans were disbursed without the approval of officers having the requisite lending authority; the creditworthiness of borrowers was not sufficiently checked; that loans secured by reserves were disbursed without confirmation by CINB’s engineers of the value of the reserves; that loans which could not be justified by proven reserves were approved through the use of additional types of collateral which were insufficient and not in accordance with corporate policies; that in a number of instances security interests were not perfected, that groups of Penn Square participations were purchased without proper credit investigation; that there were several problems of lack of loan and collateral documentation and past due payments in connection with Penn Square loans; that the past due notices and exception reports generated as a result of these deficiencies were largely ignored and that the management had knowledge of or at least warning about many of these matters and that no effective action was taken until the situation had severely deteriorated. (House Committee 1985)

During the Congressional inquiry into the failure of Continental Illinois, it became clear that Continental Illinois had ignored many warning signs. There were memos on file from the bank examiners, from the bank’s auditors, from Continental’s own staff—all expressing serious concerns about the quality of loans coming in from Penn Square. The management did not take any effective action to rectify the problems.

The bank was clearly willing to cut corners in order to attain its objectives of rapid growth and improved profitability. And it worked: in the years from 1976 to 1981, Continental Illinois *was* highly profitable, near the top in rankings of major banks. The financial press praised the superior management of the bank; the share analysts lauded the bank’s excellent performance;

and the share price steadily increased (FDIC 1997; House Committee 1985).

Clearly this was a very successful strategy for Continental Illinois—at least in the short term.

5.3. Improving the management of agency risks

In 1984, after the Penn Square fiasco, the Office of the Comptroller of the Currency ordered national banks to improve their risk management practices for taking participations. The banks were instructed to perform their own independent evaluation of credit quality (including financial health and collateral), instead of simply relying on the judgment of the bank that originated the loan (Rowe 1984c).

Theoretically, this should have made it more difficult for banks to adopt the OTD business model. However, by this time the investment banks had already devised ways to securitize loans and sell them to nonbank investors. The mortgage-backed securities market expanded rapidly during the early 1980s.

Banks that use the OTD business model are still likely to suffer from pipeline problems, i.e., when the market turns down, the banks are unable to sell their loans and may even be required to take back poorly performing loans.

6. Brokered money

Top officials of the OCC in Washington ordered the examiners at Penn Square to identify the uninsured depositors at Penn Square—credit unions, savings and loan institutions, and others with more than \$100,000 on deposit at Penn Square.

As the names of the victims spewed out of a telecopier in the Comptroller's sixth-floor communications room, the regulators, standing over the machine, shook their heads incredulously....

—Phillip L. Zweig, *Belly Up: The Collapse of the Penn Square Bank* (1985)

6.1. Brokered money and systemic risk

Systemic risk increases whenever there are strong interrelationships between financial institutions, so that the collapse of any one of them has a domino effect.

When Penn Square collapsed, regulators were surprised (and horrified) to discover that more than 500 other depository institutions had deposits at Penn Square, with aggregate deposits totalling hundreds of millions of dollars. Since uninsured depositors ultimately received less than 70 cents in the dollar, many of these financial institutions suffered significant losses (relative to their own capital levels). As a result, these other savings institutions were themselves in danger of collapse.

How did this happen?

A bank which is rapidly expanding lending is very likely to face liquidity problems. Over the years, the OCC bank examiners repeatedly expressed concerns about Penn Square's reliance on short-term sources of funds.

The situation was manageable as long as Penn Square could pass on its loans to participant banks. But towards the end of 1981, as oil prices slid downwards, some of the participant banks became worried about the quality of the Penn Square loans, and hence they became less cooperative. They started sending loans back, and became wary of taking any new participations.

Naturally, this exacerbated the liquidity problems at Penn Square. Other banks would have curtailed their lending—but Penn Square could not afford to do so. PSB's customers were suffering from the effects of the downturn in oil and gas prices. If Penn Square stopped lending them money, these customers would go broke, and then the bank would go broke too. The bank had to lend them even more money to help them through troubled times. After all, Beep Jennings believed that this was just a temporary downturn and prices would go up again soon.

Table 2. Financial institutions with deposits at Penn Square Bank in July 1982

	Credit Unions	Savings and Loans	Commercial Banks	Total
Number	435	48	49	532
Insured Deposits	\$43,340,000	\$4,800,000	\$4,780,000	\$52,920,000
Uninsured Deposits	\$107,720,116	\$22,422,541	\$21,417,186	\$151,559,843
Total Deposits				\$204,479,843

During late 1981 and early 1982 (i.e., in the last few months before they went broke), Penn Square sharply accelerated its lending program.

But where could the bank get the money to support these lending programs?

They decided to buy it.

During the first half of 1982, Penn Square Bank issued certificates of deposits (CDs) worth hundreds of millions of dollars. The CDs were sold via money brokers.

- In January 1982, brokered funds amounted to about \$20 million.
- By early May 1982, brokered funds amounted to \$150 million.
- By the beginning of July 1982, brokered funds had almost doubled to more than \$282 million.

Millions of dollars of these brokered funds were poured into Penn Square Bank just days before it collapsed. In the end, brokered funds accounted for about 60% of the bank's total deposits.

Most of the brokered funds came from other financial institutions, such as credit unions, banks, and savings and loans. By the time Penn Square collapsed, there were 532 financial institutions which had deposits at Penn Square, with deposits totalling more than \$200 million (House Committee 1983). Roughly \$150 million of this amount was not insured under the FDIC rules (see Table 2).

As shown in Figure 8, money flowed into Penn Square from all around the country—which means, of course, that Penn Square's losses ultimately spread across the country.⁹

⁹Adding insult to injury, the credit union in the House of Representatives lost about \$180,000 by investing in Penn Square CDs (House Committee 1983).

Most credit unions survived their Penn Square losses. But a dozen or so lost so much money that they were themselves in danger of failing (House Committee 1983).

It appears that the regulators were unaware of the systemic risks—until it was too late.

Interestingly, it looks as if many of the credit unions which invested large sums in Penn Square were already in a parlous financial condition, even before they invested. Perhaps the credit unions which were already in difficulties were the most likely to be tempted by Penn Square's high interest rates, and most likely to overlook the risks.

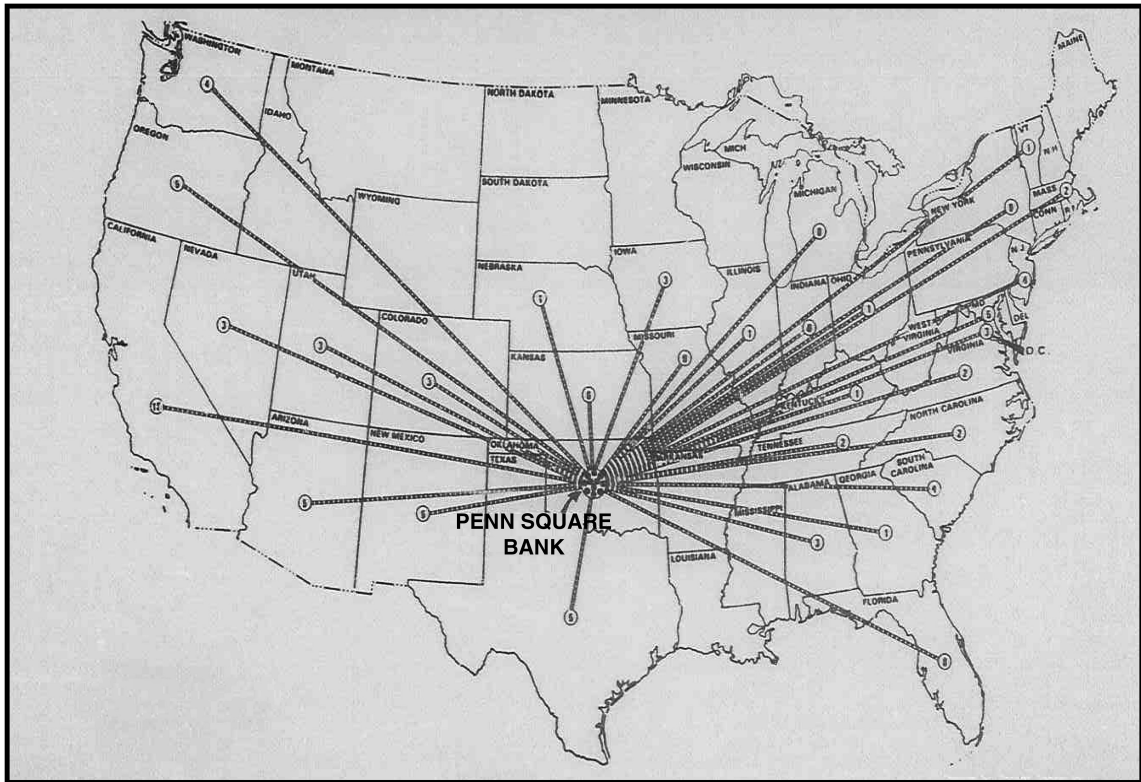
6.2. Money broking: Was this a widespread problem?

In the last few months before it collapsed, Penn Square was desperate to raise more money—and the money broking system made this possible. Hundreds of millions of dollars poured into the bank.

This was by no means an isolated incident. Other financial institutions which were facing solvency problems were often tempted to follow Penn Square's strategy—obtaining brokered funds and then investing the money in high-risk, high-return assets. Usually this was not a successful strategy. Money broking simply “allowed sick little banks to finance dubious activities and then become big problems” (*Wall Street Journal* 1983b).

Over the next few years, the FDIC noted a correlation between brokered funds and bank failures. A high proportion of failed banks had grown by using brokered funds; and brokered funds often accounted for a very high propor-

Figure 8. Federally insured credit unions with uninsured deposits in Penn Square Bank. Source: House Committee (1983), p. 270



tion of total deposits (Rowe 1984a, 1984b). For example:

- The Sparta Sanders State Bank in Kentucky had doubled its deposits in the two years before it failed. Seventy-five percent of the deposits were brokered money.
- The Empire Savings and Loan in Mesquite, Texas went broke in 1984. It had \$260 million in brokered deposits, which accounted for 85% of total deposits.

6.3. Brokered money: Comparison to the current crisis

Eventually, the FDIC took steps to solve this problem. These days, only well-capitalized banks can raise money through brokers without restriction. Banks which fall below this standard, and are only “adequately capitalized,” must obtain permission from the regulator before taking brokered deposits, and they must not offer rates

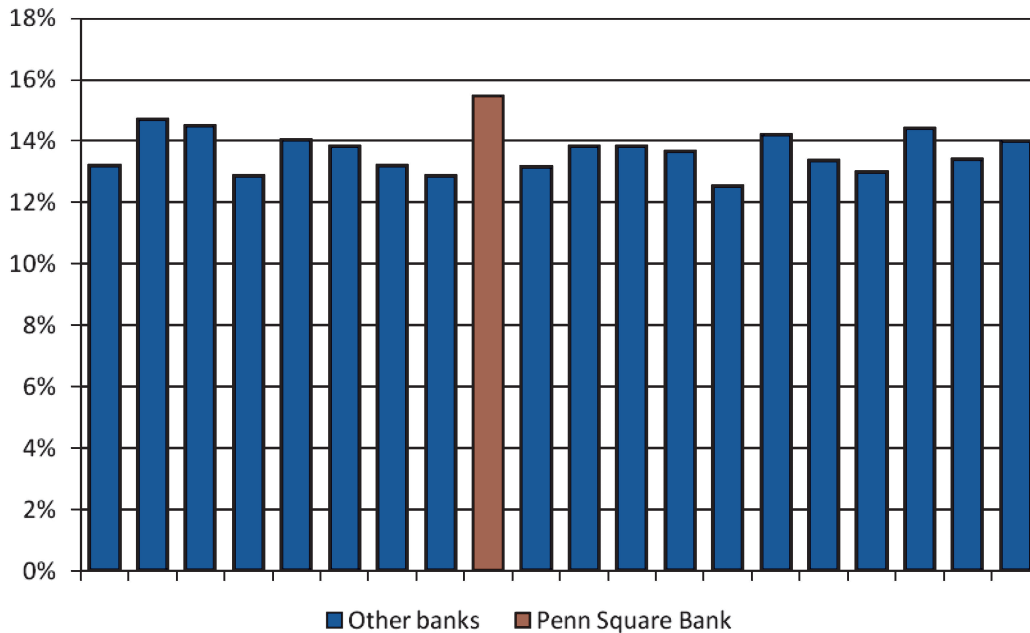
which are much above market rates. Banks which are poorly capitalized cannot accept brokered money at all (at least theoretically).¹⁰

Despite these restrictions, brokered deposits are still a cause for concern to the FDIC (Bair 2008). The FDIC has reported that many of the banks that failed in 2008 had sharply increased their brokered deposits some time before failing—i.e., brokered deposits increased by more than 100% over their final year. And in some cases, brokered deposits were a very high percentage of total deposits. For example

- *IndyMac*: Between August 2007 and March 2008, IndyMac’s brokered deposits increased from about \$1.5 billion to \$6.9 billion. In the

¹⁰Naturally, banks which are inadequately capitalized will have an incentive to conceal this fact so that they can raise brokered funds. See U.S. Department of Treasury (2009b) for a description of the backdating of capital contributions by IndyMac and other financial institutions.

Figure 9. Rates on \$100,000 certificates of deposit, March 1982. Source: Professional Asset Management



end, brokered deposits were about 37% of total deposits (U.S. Department of Treasury 2009a). IndyMac was closed in July 2008.

- *Columbian Bank and Trust*: Brokered deposits increased sharply over the period from 2003 to 2008, up to 46% of total deposits. The bank failed in August 2008 (FDIC 2009a).
- *ANB Financial*: Brokered funds increased from 17% of deposits in 2003 to 86% in 2008. The bank failed in May 2008 (Adler 2008).

Ultimately, brokered funds increase the risk of failure. Brokered funds are “hot money”—short-term deposits which are rate sensitive. As soon as there are any rumors of problems at the bank, brokered money starts to flow out the door just as quickly as it flowed in. This happened at Penn Square in 1982—and it happened again at IndyMac in 2008.

7. Advisors and intermediaries

7.1. The influence of money brokers

Penn Square was raising millions of dollars in brokered funds when it was on the verge of

insolvency. This raises the question: How could such a high-risk, badly managed bank attract so much money? Why were the credit unions willing to invest so much money in Penn Square?

The answer is simple. Penn Square simply offered the highest interest rates to depositors and the highest commission to money brokers.

In the 1980s, money brokers assisted the credit unions to find the best deal, by providing information and advice about the interest rates offered by different banks. And Penn Square’s were by far the highest. Figure 9 shows the interest rates listed by one money broker in March 1982 (House Committee 1983). At this time Penn Square was on the verge of insolvency, and it was offering rates of 15.44% on its certificates of deposit—which was 2.23% higher than the national average for all banks.

Of course, credit unions should not simply invest in the CDs with the highest rates. They were required to consider the risks involved in such investments. The National Credit Union Administration regularly issued letters to their members,

warning them to be very careful about this. They repeatedly warned their members that institutions which offer excessively lucrative rates of returns generally represent a greater risk (House Committee 1983).

Unfortunately, when assessing these risks, the credit unions often relied on the advice of the money brokers. This seemed perfectly reasonable, because the money brokers often claimed that they had done thorough investigations into the solvency of the banks on their lists.

For example, a money broker called Professional Asset Management (PAM) claimed that they would not add any bank to its recommended list unless it met PAM's "rigid quality standards." PAM claimed to do a thorough review of each bank's performance over a five-year period. They claimed that they reviewed financial statements, auditor's reports, and regulatory returns. They claimed that they sent their own financial questionnaire to each bank on the list. They claimed that they made visits to the banks to assess the quality of management. They claimed to do extensive analysis of this data. They claimed to monitor financial performance on a quarterly basis.

A typical PAM newsletter said:

Our policy has and will continue to be safety first. Toward this end we monitor on a quarterly basis financial reports from many institutions. We analyse these reports and send you pertinent statistical data to complete your own analysis. Institutions that do not meet our requirements are not included in the report.

"We will make every effort to help you make the right decisions. But more importantly, perhaps, we make it top priority to keep you from making the *wrong* decisions. (House Committee 1983)

In mid 1981, Penn Square Bank was added to PAM's Capital Adequacy Report.

Penn Square Bank, a national bank, has experienced outstanding growth in the

past year with strong indications that this growth will continue. Located in Oklahoma City, Penn Square has become the leading bank in the Southwest servicing the oil and gas industry... We are pleased to add [this] fine institution to our list of well capitalized banks and savings associations. (House Committee 1983)

Of course, the advice offered by money brokers was not entirely impartial, since they were paid commission for each dollar they raised.

After the collapse of Penn Square, there were questions about the specific details of these commission arrangements for some of these brokers. The FDIC commented, "Fees paid to one of these brokers were reportedly calculated in an unconventional manner apparently resulting in costs to Penn Square Bank significantly in excess of industry norms" (House Committee 1983).

PAM channeled about \$140 million into PSB shortly before it collapsed. Naturally, after the bank collapsed, many of PAM's clients were unhappy, and some of them sued PAM. In response, PAM stated that they had relied upon the bank's duly audited financial statements. Then PAM sued the auditors.

The quality of the audit is discussed in more detail in Part 9.

7.2. The First United Fund

Penn Square raised a lot of money through two money brokers: Professional Asset Management and First United Fund. Executives from both organizations provided testimony to the Congressional inquiry into the failure of Penn Square (House Committee 1983). Anyone reading this testimony would come away with the impression that the brokers were honest men who had done their best for their clients—certainly they had no inkling of the solvency problems at Penn Square.

However, in the light of subsequent events, there is room for doubt about this.

First United Fund later became notorious as “the Typhoid Mary of the savings and loan business.”¹¹ Financial institutions associated with the First United Fund had a really startling propensity to become insolvent. During the early 1980s, First United Fund brokered money for 27 banks that failed soon afterwards.

This was not just bad luck. Mario Renda, the president of First United Fund, had a simple business plan:

- First, Renda needed a source of funds. He persuaded some officials from the Teamsters Union and the Sheet Metal Workers Union to invest the union pension funds via the First United Fund. The amount invested was about \$100 million. The union officials were paid kickbacks for their cooperation (Frost 1987).
- Renda then contacted banks and offered them the money, in the form of brokered deposits. However, the banks only got the money if they agreed to lend some of it to certain borrowers nominated by Renda himself. These borrowers simply handed the money over to Renda. Then the “straw borrowers” simply defaulted on their loans. This was called “linked financing.”

In June 1987, Renda was indicted on 144 criminal charges, including racketeering and bank fraud. After making plea bargains, Renda was eventually convicted on fraud charges relating to the failure of three banks, on racketeering charges in relation to the union funds, and on charges of tax evasion.

There is no indication that Penn Square was involved in any of the linked financing deals. However, the First United Fund was later sued for negligence and fraud by credit unions who invested in Penn Square, and these court cases

revealed some disquieting facts about First United Fund’s business practices (Paschal 1986d, 1986e).

Clearly, the stability of the financial system can be undermined by the unethical and dishonest activities of those who control the flow of funds through the financial system. The savings of ordinary investors can be diverted into the hands of those who are willing to pay the largest kickbacks. Unfortunately it seems that kickbacks might have influenced the investment decisions of some very large public sector pension funds in recent years (Gralla 2009; Cuomo 2009).

8. Credit risk insurance

In recent years, we have seen that financial instability can be caused by unregulated markets for credit default insurance. For example, insurance giant AIG wrote billions of dollars of credit default swaps. Unfortunately, as it turns out, AIG did not set aside enough capital to cover the potential losses on these contracts. As a result, AIG’s counterparties (including many banks) were vulnerable to enormous losses when the subprime debt market collapsed. The government has been forced to spend billions of dollars bailing out AIG, in order to stabilize the financial system.

Of course, this is nothing new. During the 1980s, Penn Square Bank wrote credit default insurance worth hundreds of millions of dollars, without setting aside any additional capital to cover the associated risk.

When oil prices fell in 1981–1982, many of Penn Square’s customers were in financial difficulty. Penn Square wanted to help them out, but it was becoming increasingly difficult to obtain funds from the participant banks. So Penn Square issued standby letters of credit on behalf of many of its customers. This enabled those customers borrow money from others, and hence allowed them to stay in business a little longer, awaiting the expected recovery in oil prices.

¹¹See Pizzo, Fricker, and Muolo (1991) for a fascinating account of the activities of the president of First United Fund and his associates. The story involves organized crime, hired hitmen, mysterious “suicides,” Swiss bank accounts, gun-running, and the CIA.

The regulatory controls on such activities were inadequate. Bank examiners were aware that Penn Square was making more and more unfunded loan commitments, and issuing more and more letters of credit—and they expressed their concerns about this. But it appears that Penn Square management reacted as they normally responded to such warnings, i.e., they simply ignored them.

These days, under the Basle Capital Accord, banks are required to hold capital to cover credit risks arising from letters of credit. But in the 1980s, there were no such formal requirements.

The letters of credit were indeed briefly mentioned in the bank's annual report—but the information provided was so sketchy that investors would not have realized the extent of the potential liability. The capital ratios calculated by financial analysts and published in money brokers' reports did not make any allowance for these off-balance-sheet liabilities—hence the solvency figures provided by the money brokers to their customers were quite misleading.

The regulators were probably unaware of the extent of the problem. Indeed, given the sorry state of Penn Square's record-keeping systems, it seems unlikely that the bank's own management was aware of the growth in credit risk. When the bank collapsed in July 1982, the OCC examiners found it quite difficult to obtain an accurate assessment of this potential liability. Initially, the OCC found loan commitments and letters of credit totalling somewhere between \$500 million and \$900 million—the figure kept changing as they delved through the files (Sprague 1986).

In fact, the situation was even worse than their worst estimates. The FDIC ultimately determined that Penn Square had almost \$1 billion outstanding on letters of credit (FDIC 1997). These sums became contingent liabilities in the winding-up of the bank. Disputes about such liabilities occupied the FDIC lawyers for several years after the collapse.

9. The quality of financial statements

Is it conceivable that the top bank auditor in the world is guilty of having conducted the worst bank audit in history?

—Sanford Rose, “A Question of Independence” (1985)

Participant banks, money brokers, and credit unions all relied on the audited accounts when making investment decisions.

So did the auditors do a good job at Penn Square?

From 1977 to 1980, Arthur Young and Company was the external auditor for Penn Square Bank. It is clear that the auditors were quite concerned about Penn Square throughout this period. They repeatedly expressed their concerns to the Board, pointing out many management deficiencies, such as the lack of a lending policy, failure to obtain valuations of collateral, and inadequate documentation (Zweig 1985; Wolfe 1990). After the 1980 audit, the auditors sent a letter to Beep Jennings which said, “We were unable to satisfy ourselves as to the adequacy of the reserves for possible loan losses as at December 31 due to the lack of supporting documentation of collateral on loans” (Zweig 1985).

Obviously, a bank with qualified accounts would probably have more difficulty in selling CDs.

In 1981, Penn Square decided to switch auditors. They hired Peat, Marwick, Mitchell and Co. At that time, Peat Marwick had 11 partners in its Oklahoma office. As it turned out, all 11 partners had loans from Penn Square (Rose 1985).

- In August 1981, Penn Square Bank agreed to provide \$1.65 million to Boardwalk Investments to buy a property worth \$2.2 million. All 11 partners from Peat Marwick had a financial interest in Boardwalk Investments.

- Penn Square also lent an additional \$1 million in working capital to Doral Partners. Some Peat Marwick partners were investors in Doral Partners. Apparently, this loan was used to make mortgage payments on the Boardwalk loan.

The OCC subsequently examined both of these loans and classified them as “substandard,” because there was no evidence to show that the borrowers had enough income to service the loans.

Shortly after the Boardwalk-Doral loans were arranged in August 1981, Peat Marwick was hired to do the Penn Square audit.

Peat Marwick issued an unqualified audit report for the year ending December 31, 1981. The audit report was issued in March 1982, just a few months before the bank failed with losses of hundreds of millions of dollars.

The former auditors had questioned the adequacy of loan loss reserves. The new auditors noted that there had been problems with poor documentation of loan loss reserves in the past, but stated that the bank had recently taken steps to improve documentation and evaluation of credit risks. In regard to the adequacy of loss reserves, the audit report simply stated, “It should be understood that estimates of future loan losses involve an exercise of judgment. It is the judgment of management that the allowance is adequate at both 31 December 1981 and 1980” (House Committee 1983).

The judgment of the management turned out to be rather optimistic. When the bank collapsed, loan losses were about 10 times higher than the estimates given in the most recent accounts.

Although the published audit report was not qualified, Peat Marwick was clearly aware of serious problems at the bank. They sent the board a confidential audit letter which pointed out a number of problems: some loans had been extended 15 times without any payment; secretaries were preparing and signing loan documents without authority; and the bank was two months behind

in performing daily loan reconciliations (Hitzenrath 1995; Paschal 1986c).

The Justice Department later sued Peat Marwick and its partners, alleging fraud and conflict of interest. They alleged that Peat Marwick had a tacit agreement with Penn Square: i.e., the auditors agreed in advance to issue an unqualified report (Pasztor 1985). Peat Marwick denied this allegation.

After the collapse of Penn Square, Peat Marwick was sued by

- the FDIC (as receivers for the bank) for \$130 million;
- various credit unions, banks, and savings and loans which had purchased CDs from Penn Square;
- the money brokers who had recommended Penn Square’s CDs to their clients;
- some of the participant banks; and
- First Penn, the holding company for the bank.

Overall, the auditors were facing potential claims of about \$400 million, in actual and punitive damages (Paschal 1986a, 1986b).

The suits against the auditor were settled out of court and the details of the settlement were not disclosed.

The Oklahoma State Board for Public Accountancy found that the audit firm’s independence had been impaired, and issued a 10-day suspension. The managing partner of Peat Marwick protested that this decision was unfair (Titus 1991).

Adding to the level of disquiet about auditing standards for banks, Continental Illinois and Seafirst both sued their own auditors for failing to warn them about problems with Penn Square participations. The Continental Illinois auditors were acquitted (*New York Times* 1987). The Seafirst auditors reached a settlement (*New York Times* 1986b).

The Penn Square Bank audit was probably a rather extreme example of poor auditing—but they certainly were not the only bank which had

published misleading accounts during the 1980s. A GAO study of failed banks found that there was often a large discrepancy between the value of assets shown in the accounts before failure, and the value of assets as assessed by the FDIC after the failure. Usually, the loan loss reserves were grossly understated. The GAO concluded that “*audited financial statements are of limited use...for assessing the true financial condition of banks*” (GAO 1990).

10. Regulatory oversight

...[T]he agency was a tiresome irrelevance which had to be humored on occasion, but not necessarily obeyed.

—*International Currency Review's* description of the attitude of PSB's management to the OCC (1982)

10.1. How Penn Square managed the regulator

Whenever there is a major financial disaster, regulators are called to account: *How could they have allowed this to happen?*

The Office of the Comptroller of the Currency provided testimony at the Congressional inquiry into Penn Square's collapse. Their evidence shows that the OCC was well aware of problems at PSB. The OCC examined the bank 10 times between 1977 and 1982. Every single examiner's report contained serious criticisms of the bank. The bank examiners complained about excessive growth, inadequate capital, poor liquidity management, poor documentation, inadequate internal controls, insider lending, inadequate loan loss reserves, violations of the law, and poor corporate governance.

How did the bank's management react to this? It appears that they adopted a three-stage response:

1. Ignore the regulator
2. Placate the regulator
3. Deceive the regulator

Initially, it seems that the bank management simply ignored the OCC's complaints. From 1977 to 1980, there is no evidence to suggest that the directors made any serious efforts to deal with any of the issues raised by the OCC examiners. The bank's condition deteriorated. The CAMEL rating fell from 1 to 2 in 1977, and from 2 to 3 in 1980.

In 1980, the OCC summoned the PSB Board of Directors to a meeting in Dallas. The OCC demanded improvements. Every one of the directors signed a formal agreement promising to reform. The formal agreement required the bank to:

- Stop violating banking laws (including lending limits)
- Increase capital
- Stop making loans without adequate collateral
- Provide adequate documentation for loans participated to other banks
- Improve the provisions for loan losses
- Make monthly progress reports (House Committee 1983)

The next examination was held in December 1980. The examiner found that the bank's condition had continued to deteriorate. The bank was not complying with the terms of the formal agreement. Even worse—the bank examiner reported that the bank's president had deceived the OCC about his efforts to comply (U.S. Department of Treasury 1983a). The examiner recommended a cease-and-desist order.

Faced with this threat, Penn Square suddenly became much more cooperative. They apologized for past failures and promised to turn over a new leaf. They provided “voluminous documentation” which purportedly demonstrated their compliance with the formal agreement.

In order to appease the OCC, Penn Square hired Eldon Beller, who was a respected banker who had had many years of experience working at a more reputable bank. Beller became president and CEO of Penn Square. He made many

improvements to the management of the bank, including hiring new staff, setting out policy documents for lending and auditing, and creating various committees such as a credit policy committee and a loan review committee.

However, Beller's influence was quite limited. About 80% of Penn Square's loans were in the energy department—and Beller had no control over these loans. According to Singer, "His duties at Penn Square called for him to occupy and administer a prescribed amount of space, to appear to be a figure of authority, no matter what the practical truth. According to his job description, as president he would "manage all of the bank's activities except the energy division" (Singer 1985).

It appears that the OCC was not aware of the limitations of Beller's role.

During 1981, the condition of the bank continued to deteriorate, and loan losses were increasing.

By this time, Penn Square employees were actively attempting to cover up the true financial position of the bank. When the bank regulator criticized a loan, Penn Square would arrange to have the loan transferred to a participant bank, and hence take it off Penn Square's books—at least temporarily (*Wall Street Journal* 1983a). At the end of 1981, Penn Square dumped about \$200 million of poor-quality loans on Seafirst, in order to improve its end-of-year balance sheet, trim its loan-to-deposits ratio, and boost its capital ratios. Penn Square promised Seafirst that they would buy back the loans after the end of the year (i.e., after the bank examiners left) (Zweig 1985).

It appears that these measures were successful in deceiving the examiner during the 1981 exam. The bank examiner reported that the bank was still failing to comply with the Formal Agreement, but they did seem to be making some effort to improve.

This gave Penn Square a bit more time, which they utilized to get even deeper into trouble. Throughout 1981 and 1982, the bank expanded its lending program exponentially, breaching nearly every clause of the formal agreement.

The OCC sent in another team of bank examiners in March 1982. This was a more thorough examination. The examiner soon became alarmed about the condition of the bank—although he had trouble finding out exactly what was going on, since the bank's own records were such a mess and the staff were not particularly cooperative. Bill Patterson, in particular, evinced quite a hostile attitude to the examiners.

While the examination was still in progress, there was a spate of negative publicity about the bank. *American Banker* published unfavorable stories about Penn Square in April and May 1982. The more astute depositors immediately began to pull out their money. On July 1, 1982, *American Banker* published another yet negative article about Penn Square. A run started on July 3.

Once the run started, the regulators had no choice: the bank was closed on July 5 (Sprague 1986).

10.2. Was regulatory forbearance a widespread problem?

In the case of Penn Square, the regulators were clearly well aware of serious risk management deficiencies, but they were spectacularly unsuccessful in forestalling disaster.

According to a GAO report, this was by no means as isolated incident. Bank examiners usually knew which banks were headed for trouble. They usually tried to work cooperatively with the management, to encourage them to make the necessary improvements, instead of compelling them to act. The regulators would often persist with this cooperative approach, even when the bank's management stubbornly refused to mend its ways (GAO 1991a).

10.3. Comparison to the current crisis

After the 1980s banking crisis, legislation was passed to require prompt corrective action. Unfortunately, this has not completely solved the problem of regulatory forbearance (GAO 1996). For example, consider the Inspector General's comments on the regulation of IndyMac by the Office of Thrift Supervision (OTS):

The OTS viewed growth and profitability as evidence that IndyMac management was capable.... We found that OTS identified numerous problems and risks, including the quantity and poor quality of non-traditional mortgage products. However, OTS did not take aggressive action to stop those practices from continuing to proliferate. OTS examiners reported Matters Requiring Board Attention (MRBA) to the thrift, but did not ensure that the thrift took the necessary corrective actions.... OTS relied on the cooperation of IndyMac management to obtain needed improvements. However, IndyMac had a long history of not sufficiently addressing OTS examiner findings. OTS did not issue any enforcement action, either informal or formal, until June 2008. In short, earlier enforcement action was warranted. (U.S. Department of Treasury 2009a)

This was not an isolated incident. The Government Accountability Office's 2009 report on regulatory oversight of financial institutions noted that:

In the examination materials GAO reviewed for a limited number of institutions, GAO found that regulators had identified numerous weaknesses in the institutions' risk management systems before the financial crisis began. For example, regulators identified inadequate oversight of institutions' risks by senior management.

However, the regulators said that they did not take forceful actions to address these weaknesses, such as changing their assessments, until the crisis occurred because the institutions had strong financial positions and senior management had presented the regulators with plans for change...Regulators also acknowledged that they had relied heavily on management representations of risks. (GAO 2009)

11. A loss of confidence

Congressman at the Hearings into the Failure of Penn Square: What have you learned?

Penn Square Depositor: Well, I think there are a couple of things here. No. 1, I have always thought that the large bankers knew what they were doing. And it appears that maybe they don't. I am of the opinion now that with the economy in a recession, that a large bank—any bank—could go under.... Second, I have learned that you can't trust the audit reports anymore.
—from the *Hearings on the Penn Square Bank Failure* (House Committee 1983)

11.1. The pay-off

The Federal Deposit Insurance Corporation (FDIC) is responsible for dealing with insolvent banks. It usually tries to minimize losses for all customers, by arranging a merger with a stronger bank. And indeed, prior to the collapse of Penn Square, it had been quite successful in this regard. This created an unwarranted complacency in bank customers.

But the collapse of Penn Square changed all that. For the first time in many years, the FDIC was unable to arrange a merger. It simply wasn't feasible, because Penn Square was a black hole, a bottomless pit. The bank's own records were a mess, so that it was difficult to make any estimate of the potential losses.

Furthermore, after examining the Penn Square files, the FDIC realized that the bank had been

almost certainly been misleading the participant banks. They believed—and quite correctly—that the participant banks would sue the banks for fraud. So PSB’s contingent liabilities were unquantifiable.

As the regulators pondered the fate of Penn Square, they realized that a takeover was not possible. Other banks would not be willing to take on unknown risks—and indeed it would not be safe to allow them to do so.

This left the FDIC no choice: they would have to pay off the bank. The insured depositors would be paid off. But the uninsured deposits would not be protected (Sprague 1986).

For the first time in many years, a lot of bank customers were going to lose a lot of money.

This decision was extremely controversial and it led to heated arguments among the banking authorities. The OCC and the Federal Reserve Bank and the participating banks all fought against the FDIC decision. The Federal Reserve thought that the payoff would have a ripple effect, causing problems for the participant banks. The OCC believed that this decision would “create such uncertainty in the markets about the stability of the major participating banks that it would precipitate an international banking crisis” (Sprague 1986).

And these fears were justified—the collapse of Penn Square did indeed have flow-on effects. It sent shock waves through the financial system. In the weeks after the collapse, the *New York Times* published stories with headlines such as “Bankers Fear an Erosion of Confidence” (Bennett 1982b), “Trouble Inside the Big Vaults” (Bennett 1982c), and “How Safe is Your Money?” (Rankin 1982).

One of the FDIC directors said that, “Penn Square Bank permanently altered the public’s perception of banker infallibility and the shape of banking and bank regulation in the United States” (Sprague 1986).

11.2. Runs on the banks: Texas and Oklahoma

As soon as Penn Square collapsed, many people became concerned about the solvency of other banks which had a high concentration of loans to the oil and gas industry. Depositors withdrew \$50 million from the Abilene National Bank within a fortnight after the collapse of Penn Square—the bank failed soon afterwards (*New York Times* 1982).

In many cases, this concern was justified (the Abilene National Bank was a disaster waiting to happen). But sometimes it was not. The general public had no reliable way of distinguishing solvent banks from insolvent banks—so any bank was vulnerable to a run. Shay (1998) describes one of the after-effects of the Penn Square collapse:

With so many banks being taken over by the FDIC, a certain routine became public knowledge. On Thursday men in dark suits would enter the bank. On Friday, the bank would re-open under a new name.

One Wednesday, in a small town in the Southwest, some men in dark suits checked into a local motel. Within minutes the whole town had the news. Everyone assumed that the local bank would be taken over the next day. Within an hour there was a line in front of the bank. Despite the FDIC insurance, many depositors wanted their cash...

As it turns out, the men in dark suits were simply traveling salesmen. (Shay 1998)

Suddenly, liquidity management became a much higher priority for bank managers.

11.3. Zombie banks: The participant banks

As soon as Penn Square collapsed, the banks which had participated in Penn Square loans also suffered. Shareholders dumped their stocks. An

event study by Peavy and Hempel found that their share prices suffered nearly continual declines in the months after the Penn Square collapse (Peavy and Hempel 1988).

Seafirst was the first to fail. It had participated in loans worth \$378 million, and most of these loans would eventually be written off. This would wipe out almost half of the bank's capital. And losses on other poor-quality energy loans wiped out even more. By April 1983, the bank was in such dire straits that the FDIC believed that a run on the bank was imminent—i.e., likely to occur just as soon as the CEO released the estimate of loan losses for the year. Seafirst was taken over by Bank of America just hours before it was expected to fail (Sprague 1986).

It took a bit longer for Continental Illinois to go under. Continental had \$1.1 billion in Penn Square loans. Within the next year, \$550 million would be written off and another \$324 million would be classified as nonperforming (McColom 1987; *Globe and Mail* 1984). That would not be enough to break the bank, but it did cause a damaging loss of confidence.

These losses were completely unexpected, because Continental Illinois had been one of the most highly respected banks in the country. Suddenly people realized that the emperor had no clothes. It was obviously a failure of risk management. Analysts started asking questions. Could there be other large losses which had not been disclosed?

After the Penn Square collapse,

Continental's stock dropped from \$25 in June to \$16 in August 1982. Its credit ratings were downgraded. Fed funds and CD markets began to dry up. The growth-at-any-cost strategy was abandoned; the bank's top priority became funding at any cost to support the weak loans already afloat. Continental's net income in 1982 plummeted by two-thirds from the previous year. (Sprague 1986)

Although risk management improved after Penn Square collapsed, the damage had already been done. Over the next year or so, Continental Illinois continued to announce more loan losses and falling profits. Since it was so expensive to borrow money on the domestic market, the bank became increasingly dependent on wholesale foreign funds—which increased the bank's liquidity risk.

11.4. Too big to fail

In May 1984, rumors started flying about problems at Continental Illinois. Some depositors started to pull out their money.

The bank issued a statement claiming that the bankruptcy rumors were “totally preposterous.”

The run on the bank accelerated.

Two days later the OCC issued a reassuring statement of support for the bank.

The run accelerated.

Customers withdrew \$6 billion in 10 days and the bank was teetering on the brink. The FDIC came to the rescue, offering an emergency loan of \$2 billion. Later, the FDIC bought \$4.5 billion of bad loans, and also bought \$1 billion of preferred shares to provide additional capital for the bank (FDIC 1997; Sprague 1986).

Why did the regulators decide to bail out Continental Illinois instead of simply paying off insured deposits?

The bank regulators thought that the failure of Continental Illinois would destabilize the entire banking system. More than 2000 other banks had deposits at Continental Illinois. If it failed, the FDIC estimated that somewhere between 50 and 200 other banks might also be brought down. Furthermore, there were two other very large banks which were also in a rather precarious state. If Continental Illinois collapsed, the FDIC believed that the ensuing panic would probably cause the failure of these other banks as well, which would then have even more flow-on effects.

The regulators explained that some banks were simply “too big to fail.” Irvine Sprague, a direc-

tor of the FDIC, later wrote, “What were the real reasons for doing these...bailouts? Simply put, we were afraid not to” (Sprague 1986).

12. Conclusions

After the 1980s banking crisis, there were extensive congressional investigations, dozens of government reports, and a plethora of academic studies. The causes of failure were examined, and remedies were suggested. Indeed, after the 1980s banking crisis, there were numerous laudable improvements to banking regulation and prudential management.

Many of these reforms were effective—at least for a while—but they did not prevent the next severe banking crisis from occurring, more than 30 years later.

As we have seen, many of the banking practices which caused problems in the 1980s reappeared decades later—albeit in slightly different garb—and contributed to the current banking crisis. Booms inflated asset prices; subprime lenders lent too much against the value of inflated collateral; the sale of loans undermined lending standards and then spread the risks throughout the banking system; investors naively relied on the risk assessments of intermediaries who had conflicts of interest; reliance on short-term funding increased liquidity risks; financial institutions were allowed to sell credit default insurance without maintaining the capital needed to cover the risks; audited financial statements were misleading; and regulators were too slow to take effective action.

As time goes by, the lessons of past failures are forgotten—and then we must learn them again.

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