



Institute of Actuaries of Australia

How to Destabilise the Financial System: A Beginners' Guide

by Shauna Ferris

Actuarial Studies Department, Macquarie University

Presented to the Institute of Actuaries of Australia

2009 Biennial Convention, 19-22 April 2009

Sydney

This paper has been prepared for the Institute of Actuaries of Australia's (Institute) 2009 Biennial Convention

The Institute Council wishes it to be understood that opinions put forward herein are not necessarily those of the Institute and the Council is not responsible for those opinions.

© Shauna Ferris

The Institute will ensure that all reproductions of the paper acknowledge the Author/s as the author/s, and include the above copyright statement:

The Institute of Actuaries of Australia

Level 7 Challis House 4 Martin Place

Sydney NSW Australia 2000

Telephone: +61 2 9233 3466 Facsimile: +61 2 9233 3446

Email: actuaries@actuaries.asn.au Website: www.actuaries.asn.au

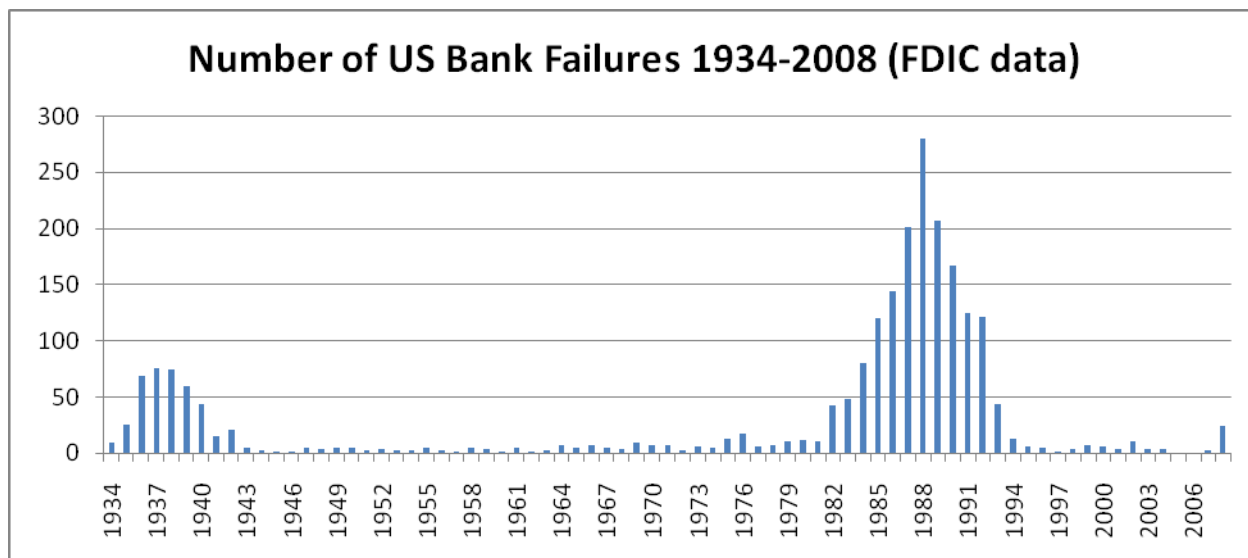
INTRODUCTION

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. In 2008, twenty-four American banks failed. Twenty one more failed during the first three months of 2009 – and it seems likely that there will be many more in the near future. The Federal Deposit Insurance Corporation (FDIC) has acknowledged that 171 American banks, with total assets of \$116 billion, were in the “troubled” category as at November 2008.¹

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



It might be helpful to go back and look at this period, to see if there is anything we can learn from past failures which might be helpful in dealing with the current crisis – and more importantly, helpful in preventing such problems from recurring in the future. The FDIC has already published a fascinating analysis of banking failures during the 1980s, which is

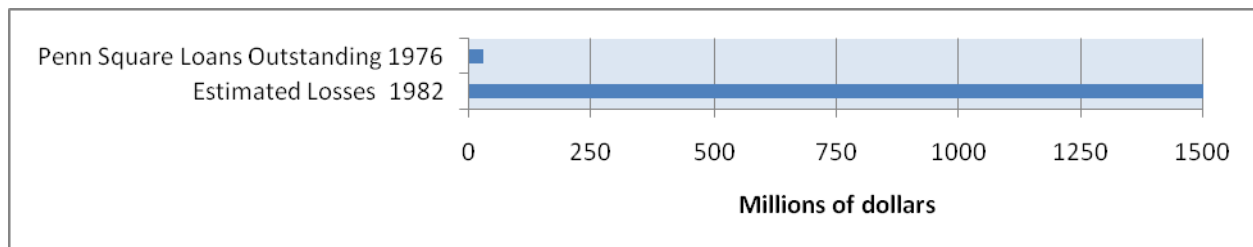
¹ Remarks by FDIC Chairman Sheila Bair at the Quarterly Banking Profile Press Conference; FDIC Headquarters, Washington, DC November 25, 2008 <http://www.fdic.gov/news/news/speeches/archives/2008/chairman/spnov2508.html>

fascinating to read². In this paper, for the purposes of illustration, we will look at just one small bank which failed in 1982 – the Penn Square Bank.

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 centres of the United States. Nevertheless, the collapse of this one small bank had a disproportionate impact on the dozens of banks, 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. Estimated losses directly attributable to Penn Square amounted to **at least** \$1.5 billion (probably more).³



The collapse of Penn Square created solvency problems in dozens of 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; and Seattle First National, which was the largest bank in the northwest. 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.

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 nationalise troubled banks, by injecting capital and buying up their toxic-debt assets⁴.

² FDIC (1997) History of the Eighties, <http://www.fdic.gov/bank/historical/history/vol1.html>

³ Hill (1984) **Losses from Penn Square Bank Failures Total to \$1.22 Billion and Are still Growing**, by G. Christian Hill, Wall Street Journal, 12 April 1984

⁴ Sprague (1983) page 114

In this paper we try to answer the question: what were the systemic problems which destabilised the banking system? And how could the failure of one small shopping centre bank cause so much damage?

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.

PART 1: ASSET-PRICE BUBBLES

A number of studies have demonstrated that banking failures are usually associated with asset prices bubbles, particularly in real estate and equity markets.⁵ The current financial crisis – triggered by the boom and bust in the US housing market – is just the most recent example.

Bordo and Lowe (2002) point out that

*“Large swings in asset prices figure prominently in many accounts of financial instability. Indeed, a boom and bust in asset prices is perhaps the most common thread running through narratives of financial crises. This is true for both industrial and emerging market countries alike. Typical examples in recent decades include Latin America in the late 1970s-early 1980s, the Nordic countries in the late 1980s, and East Asia in the mid to late 1990s.”*⁶

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.

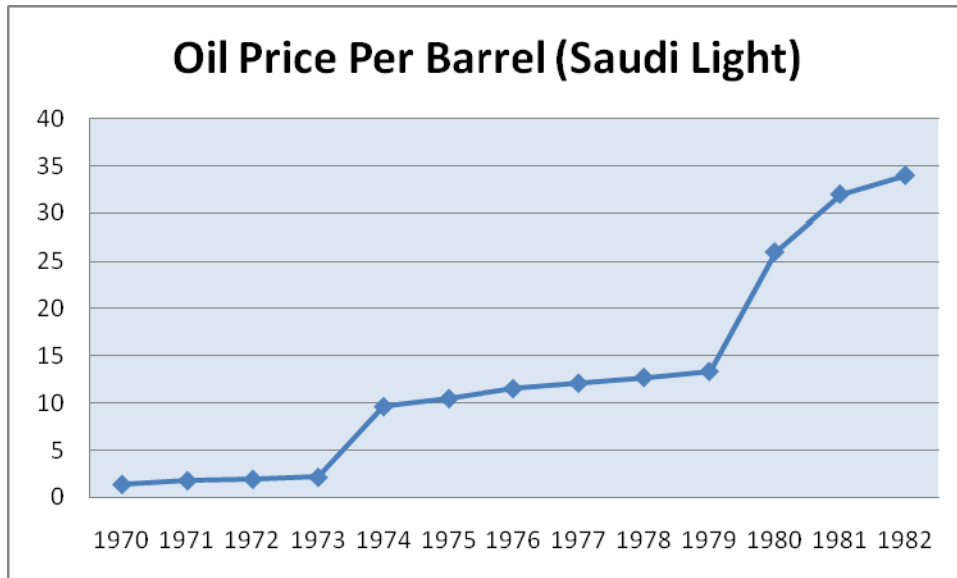
The energy boom followed the typical pattern described by Kindleberger: first there was a “dislocation”, i.e. an event which created an opportunity for some people to make enormous profits.

The graph below shows the price of oil during the 1970s and early 1980s.⁷

⁵ FDIC(1997); Bordo and Jeanne (2002); IMF (2000)

⁶ Bordo and Lowe (2002)

⁷ The graph shows the prices of Crude Oil (Saudi Arabian Light) as given on the Department of Energy website at <http://www.eia.doe.gov/emeu/aer/txt/ptb1107.html>



By the early 1970s, demand for oil was outstripping supply. The US domestic producers could not keep pace with the demand. The United States had become dependent on oil imports from the Middle East. In response to the supply/demand imbalance, the price of oil was slowly increasing. The posted price rose from \$1.70 per barrel in 1970 to \$2.90 in mid-1973.

1973: The First Oil Shock

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 Mid-East 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 USA would be drastically reduced⁸.

The result of the embargo was a sharp increase in oil prices. By December 1973, the price was \$11.65 per barrel. Over the next few years, the OPEC group controlled the supply of oil, and the price of oil remained in the range of about \$11 to \$13 dollars per barrel.

Naturally, the large global oil companies made windfall profits. They got a “free ride” as the Middle East oil producers pushed up prices.⁹ Anyone who could find new oil supplies could make a lot of money. This led to a boom in oil exploration.

“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

⁸ Yergin (1991) page 607

⁹ Yergin (1991) page 659

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.”¹⁰

1978: The Second Oil Shock

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 USA, as described by Yergin¹¹ :

“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 dealt, 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, inevitably, the costs went out of control. The price of everything connected to oil shot up. Acreage – land on which to drill – skyrocketed. So did real estate in the oil cities – Houston, Dallas, and Denver. The cost of a drilling crew multiplied many times over. ... These were the years that the doctors and dentists of America put their money into drilling funds.”

Forecasts

In the late 1970s, most experts believed that the price would continue to increase sharply.

“One peculiar result of the price shock of 1973 was the rise of a new line of work – oil price forecasting. Before 1973, it had not really been necessary. Price changes had been measured in cents, not dollars, and for many years prices were more-or-less flat. After 1973, forecasting blossomed. ...

This particular kind of forecasting, like all economic forecasting, was as much art as science. Judgements 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

¹⁰ Yergin (1991) page 664

¹¹ Yergin, (1991) page 715

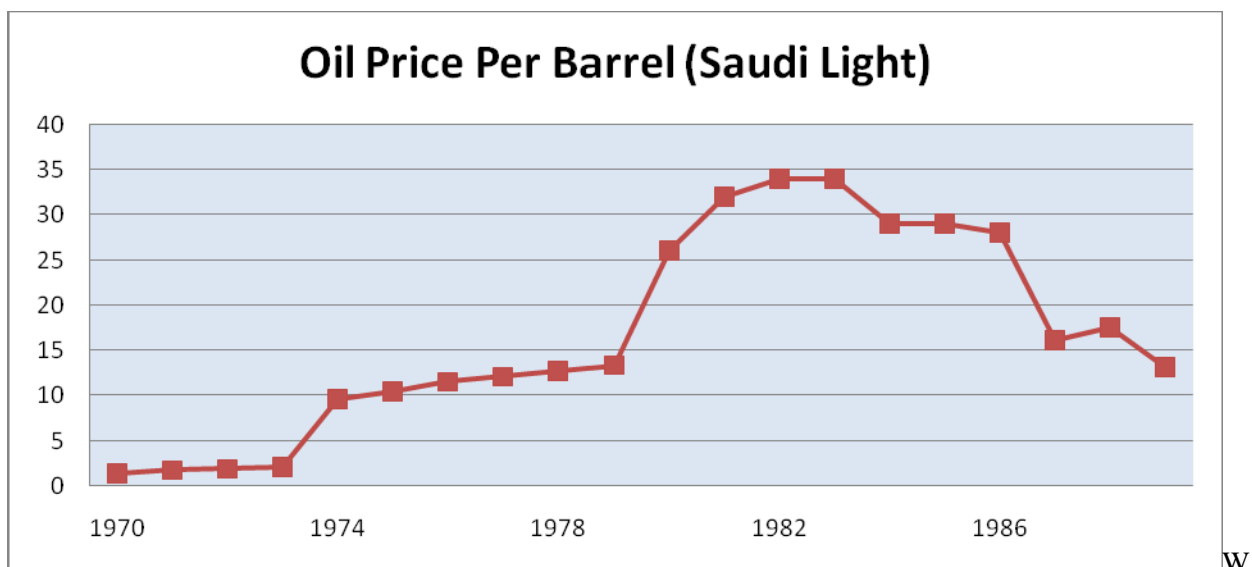
way individuals and groups groped for certainty and mutual comfort in an uncertain world. The end result was often a strong tendency toward consensus, even if the consensus completely changed its tune every couple of years.....

“..most forecasters agreed [that] another oil crisis was highly probable a decade or so hence, in the second half of the 1980s, when demand would again be at the very edge of available supply. The result, in popular parlance, was likely to be an “energy gap”, a shortage. In economic terms any such imbalance would be resolved by another major price increase... 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.”¹²

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

Perhaps it is not surprising to find that many banks assumed 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 many experts were predicting much larger increases.

Unfortunately, however, the expert forecasts were wrong. The price of oil peaked in 1981, and then slid downwards for several years.¹³



¹² Yergin (1991) page 671

¹³ The graph shows the prices of Crude Oil (Saudi Arabian Light) as given on the Department of Energy website at <http://www.eia.doe.gov/emeu/aer/txt/ptb1107.html>

The Bubble Bursts

Why did prices fall? There were a number of reasons:

- 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. 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 industrialised countries; by 1985, this was down to 43%.
- The price increases created a strong incentive to reduce consumption, by more efficient use of energy. For example, the US government passed a law in 1975 which required car manufacturers to double the average fuel efficiency of new cars.

When prices fell from \$34 to \$20, 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. Penn Square Bank, and a few others, failed when after the first downturn in prices, in early 1981. Many more failed in the late 1980s, after another sharp fall in oil prices (exacerbated by a simultaneous downturn in commercial real estate prices). 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.¹⁴

Policies for Dealing with Asset-Price Bubbles

Each time a bubble bursts, there is renewed discussion about the role of the government in producing and/or managing asset-price bubbles. It has been suggested that the government should intervene pre-emptively, e.g. by using monetary policy to control asset price bubbles, or by increasing capital requirements for banks - hence alleviating the impact of the subsequent busts.¹⁵

¹⁴ FDIC (1997) *History of the Eighties*, http://www.fdic.gov/bank/historical/history/291_336.pdf

¹⁵ The pros and cons of government intervention were discussed at a conference held by the Reserve Bank of Australia in 2003 – Reserve Bank of Australia (2003)

There is considerable controversy among economists on this issue.¹⁶ The main problem is: how do you identify an asset-price bubble? It's easy in hindsight, but when you are in the midst of a one, it may be quite difficult to recognise that a bubble is a bubble.

During the 1970s, nearly all the experts agreed that the price of oil would inevitably increase. A belief that prices would continue to rise was not irrational – it was just wrong.

When there is such a strong and near-unanimous belief in the inevitability of future price rises, and banks are making handsome profits, it is difficult for a regulator to argue that banks should set aside reserves to cover the possibility of falls in asset values.

As JK Galbraith has pointed out¹⁷, skeptics are never welcome during a boom. Anyone who questions the conventional wisdom – that asset prices are sure to rise – is disparaged: clearly they don't understand that “*this time it's different*”. Any attempt to rein in the bubble will be strenuously opposed by those who are profiting from the rise in prices.

Furthermore, the government was keen to encourage more investment in energy resources. Oil and gas prices were deregulated and tax incentives were available to encourage investment in exploration. These policies no doubt helped inflate the bubble – but they were considered to be necessary, and in the public interest.

When examiners criticised Penn Square's 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.*”¹⁸ Lending for oil and gas was almost a patriotic duty.

¹⁶ Richards (2003)

¹⁷ Galbraith (1994)

¹⁸ OIG Audit (1983) page 18

PART 2 SUB-PRIME LENDING

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”.*¹⁹

A study by Brood and Lowe (2002) confirmed that:

*“sustained rapid credit growth combined with large increases in asset prices appears to increase the probability of an episode of financial instability.”*²⁰

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. Kindleberger referred to this phase of the bubble as “overtrading”²¹.

This expansion of credit is, naturally, most dangerous when the lenders make highly leveraged loans which are secured by over-priced assets. For example

- the lender makes margin loans on shares, where the borrower can borrow 90% of the share’s value; or
- the lender makes housing loans where the borrower can borrow 110% of the assessed value of the property.

Even during a bubble, it is possible for banks to follow prudent lending policies, and hence survive a downturn in prices. However, in the general euphoria of a boom, there is a tendency for banks to relax their credit standards – a phenomenon which has been readily apparent in the US housing market over the last few years.

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

In fact, the epithet “sub-prime” should refer to the sub-prime qualities of the **lenders**. Over the last few years, banks ignored the basic precepts of prudent banking. They lent money to people

¹⁹ Richards (2003)

²⁰ Bordo and Lowe (2002)

²¹ Kindleberger (1996)

on low incomes who could not afford the repayments; they lent money without any verification of income; they made home loans with high loan-to-value ratios, often based on property valuations which were somewhat optimistic.^{22 23}

The results are not surprising. In general, banks fail because they do a poor job in managing credit risks.²⁴ If subprime lending becomes widespread, many banks are likely to fail.

International studies of banking problems have concluded that management and control weaknesses were significant contributory factors in nearly all cases.²⁵ For example, an IMF study of two dozen international banking crises concluded that

“Management deficiencies were identified as a cause of the banking problems in all sample countries”²⁶.

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.²⁷

The principles for prudent lending are well-established – indeed banking regulators publish detailed guidelines for managing credit risk.²⁸ However it is all too obvious that many many banks continue to ignore these precepts.

Sub-prime lending is nothing new. During the 1980s energy boom, many banks were sub-prime lenders – and as expected, these banks were the most likely to fail.

In 1988, after the failure of a few hundred banks, the OCC conducted a study comparing failed banks to healthy banks²⁹. Appendix 1 shows the results of that comparison.

These are the distinguishing characteristics of poorly managed banks:

- A CEO who lacked experience or integrity
- An uninformed or inattentive Board of Directors
- Overly aggressive growth strategies
- Poor lending policies and/or failure to follow loan policies
- Overlending (i.e. lending more than the borrower can repay)

²² BCBS (2008)

²³ FSF (2008)

²⁴ BCBS (2004)

²⁵ Group de Contact (1999) Cited in BCBS (2004)

²⁶ Dziobek and Pazarba (1998)

²⁷ Senior Supervisors Group (2008), page 7

²⁸ BCBS (2000)

²⁹ OCC(1988)

- Collateral-based lending
- Poor verification of the lenders’s income, financial position, and the value of collateral (resulting in what the OCC calls “documentation exceptions”)
- Concentrations of risk
- Insider abuse and fraud

Based on the OCC criteria, Penn Square was a perfect example of “*how not to run a bank*”. It had every single one of these deficiencies – in spades.

*“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 in the Penn Square collapse)³⁰*

2.1 Ownership and Control

Problems with the corporate culture often start at the top, with the ownership and control of the bank. Penn Square’s problems started when it was acquired by Beep Jennings.

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, B.P (Beep) Jennings bought the Penn Square Bank. And in 1976 the bank set up an oil and gas department.

Beep Jennings had many years of experience in the banking industry, but with mixed success. His colleagues at the Fidelity Bank of Oklahoma agreed that he was an outstanding salesman,

³⁰ Singer (1985) page 25

bringing in many new customers.³¹ But his colleagues felt that he was not always very diligent in assessing the probability that his customers would repay their loans.

The Four Seasons Nursing Centers of America Inc was one of Jennings' customers in the 1960s. Jennings himself was on the board of one of the company's subsidiaries. This company was amazingly successful for a short while. But in 1970 it went bankrupt. The subsequent SEC investigation revealed a number of accounting anomalies. The SEC charged the company, its investment banker, and its accounting firm with cheating investors out of \$200 million. It was "*one of the largest securities frauds in history*".³² During the investigation into Four Seasons, Jennings was listed as an unindicted co-conspirator, but escaped without penalties.

No doubt this tarnished his reputation as an astute businessman. Over time, it seems, the Fidelity Bank lost confidence in Jennings' ability. His authority to make loans was restricted. He was passed over for promotion.

Eventually, Jennings decided to leave Fidelity and buy his own bank. He set up a holding company (First Penn Corporation), borrowed \$2.5 million, and (with two partners) bought Penn Square Bank.

The Federal Reserve officials were not entirely happy about this acquisition. One officer said:

*"The debt to be assumed by applicant in connection with the acquisition of Bank is high in relation to Applicant's equity. Moreover the high level of dividend payment required of the Bank for Applicant to service such debt could inhibit growth in Bank's capital at a rate compatible with its projected asset growth and could place an undue strain on the financial condition of Bank, thereby impeding Bank's ability to provide adequate banking services to the community. For these reasons, I do not regard the proposal as being in the public interest, and I would deny the application"*³³

However, despite these qualms, the Federal Reserve approved the acquisition.

2.2 Growth Objectives

According to the OCC study, banks are most likely to run into problems when they are focussed on asset growth or market share.³⁴

As soon as Jennings took over Penn Square, he announced that within ten years, assets would grow from \$35 million to \$100 million. In fact he soon exceeded this target – within six years

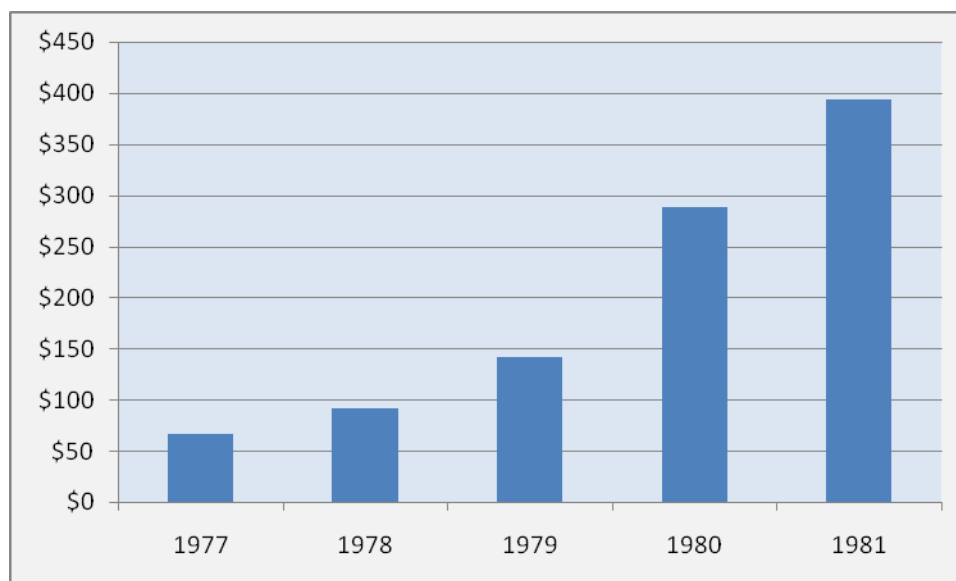
³¹ Zweig page 24

³² Zweig page 25. The Four Seasons story is included as a case study in some accounting textbooks.

³³ Zweig page 28

³⁴ OCC (1988)

assets reached \$500 million – a really phenomenal rate of growth. The following graph shows the bank’s assets as at December each year.³⁵



Rapid growth led to many problems for Penn Square, including capital shortages, liquidity problems, and management deficiencies.

2.2.3 Corporate Governance

- The OCC study of failed banks found that nearly 60% had directorates that either lacked necessary banking knowledge, or were uninformed or passive in their supervision of the bank’s affairs. In contrast, none of the healthy banks they studied had deficiencies in this area.

The examiners at Penn Square noted that some directors had a poor record of attendance at Board meetings. Supervision by the board was characterized as “minimal.” Oversight committees formed by the board were described as “ineffective”. According to the auditors, the outside directors did not read the regulatory examination reports, nor did they review the bank’s financial statements.³⁶

At the Congressional enquiry after the collapse, outside directors of Penn Square testified that they were not informed about many of the bank’s questionable lending policies. And when they criticised management decisions, their complaints were often ignored.³⁷

- In 57% of the failed banks included in the OCC study, decisions were usually made by one dominant individual, i.e. the CEO, chairman, or principal shareholder.³⁸

³⁵ From Penn Square’s Annual Report for 1981, reproduced in Hearings Page 276.

³⁶ Auditor on trial in final Penn Square suit // Bank’s owner asks \$57 million, by Kimberly Marsh, Tulsa World, 31 October 1990

³⁷ Penn Bank Had Secret Loan Pact, by Jeff Gerth, New York Times, 17 August 1982

³⁸ OCC (1988)

At Penn Square, Beep Jennings made most of the decisions. In their regular supervisory reviews of Penn Square, the OCC bank examiners repeatedly commented on the dominance of the Chairman.

The OCC examiners observed that Beep Jennings was the guiding force in oil and gas lending, and was the principal lending officer on a majority of the bank's loans.

A prudent bank should have an effective Credit Review Committee, to provide an independent check on the quality of any loan. At Penn Square, the credit review committee was often presented with a *fait accompli* – they were asked to rubber-stamp loans after the money had already been paid out. Even when they objected to a loan, their views were often ignored – Beep Jennings would simply overrule their objections. Bill Patterson, who was in charge of oil and gas lending, would bully and intimidate loan committee members who questioned his decisions.³⁹

2.4 Over-lending and Collateral-Based Lending

The OCC's study of failed banks found that 85% of them had liberal lending policies. Typically, the failed banks were guilty of overlending and collateral-based lending.

- Over-lending was defined as “a high loan amount relative to the borrower's ability to repay the debt”
- Collateral-based lending was defined as “reliance on collateral values (or assumed collateral values), rather than the borrower's ability to pay.”

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.

Most Texas and Oklahoma banks followed certain guidelines.

- They would only lend to borrowers with a sound track record in the industry.
- They would lend money to borrowers who were financially sound.
- They would make sure that the collateral was valued accurately. For example, they would only lend money against the value of proven oil reserves, certified by a reputable petroleum engineer – but they would only lend a maximum of 50% of the estimated value.

³⁹ Zweig 91985) page 217

- They would make sure that the loan-was no more than 50% of the value of proven oil reserves.
- They would make conservative assumptions about the expected future increases in the value of the collateral (e.g. the increase in oil and gas prices).
- They would not lend money against the value of an undeveloped lease. They would not lend money against the value of equipment such as drilling rigs⁴⁰.

Penn Square broke all the rules for prudent lending. They would lend money to people who had no experience in the industry. They would lend money for high-risk ventures involving deep-drilling techniques which had never been tested. They would lend money to customers who were already insolvent. They would lend money without any collateral, based on the personal guarantee of the borrower.

No doubt the collapse in oil prices hastened the process, but the regulators who liquidated the bank believed that the bank was doomed to fail anyway. At the Congressional enquiry, the Comptroller of the Currency testified that

“In the end they went under because of poor lending practices, not simply because they were lending to the energy business. They were lending on terms that no other bank in its right mind would touch in certain cases. The lead examiner told me that if oil prices were \$100 a barrel they still would have gone broke.”⁴¹

2.4 Low-doc Lending

At Penn Square, the loan approval process was 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 co-operating with you.

Beep would take on people that a lot of other bankers wouldn’t touch.”⁴²

⁴⁰ During an oil boom, a drilling rig is worth millions of dollars. After the collapse of the oil boom, they were essentially scrap metal.

⁴¹ Congressional Hearings into the Failure of Penn Square Bank

⁴² Singer (1985) page 18

Beep Jennings hired people who had the same care-free attitude to lending.

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.⁴³

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.⁴⁴

Eventually, the OCC insisted that Penn Square should develop some formal lending policies. But even after the policies were developed, they were commonly ignored. Loans were made without any of the normal checks which were standard practice in more prudent banks.

2.5 Documentation and Internal Controls

A bank can't manage its credit risk unless it has an excellent record keeping system.

Penn Square's records were a shambles.

The bank was growing rapidly for several years – but without a corresponding increase in staff. The staff simply could not keep up with the paperwork. The OCC examiners repeatedly warned the bank about inexperienced personnel and understaffing.

Whenever the OCC sent bank examiners to check the books, they reported hundreds and hundreds of “document exceptions”. The 1978 examination found that there were document exceptions on 32% of the loans.⁴⁵

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 been seized by another creditor, leaving nothing for Penn Square.

Penn Square did not have many internal controls. Even when internal controls theoretically existed (on paper), the bank examiners found that there were numerous breaches. The examiners also repeatedly criticised the quality of the internal audit process.

⁴³ Singer (1985) page 122

⁴⁴ Singe page 128

⁴⁵ Congressional Inquiry page 133

2.6 Concentration of Risk

A prudent bank will ensure that its loan portfolio is well-diversified.

Penn Square's oil and gas loans accounted for 80% of its portfolio.

2.7 Insider Lending

According to the OCC report, insider abuse was a significant factor in the failure of 35% of failed banks⁴⁶. A number of other studies have confirmed that fraud and financial misconduct were present in a large proportion of bank failures in the 1980s, and contributed significantly to those failures.⁴⁷

Penn Square Bank lent hundreds of millions of dollars to insiders, including Beep Jennings, Bill Patterson, and other directors of the bank.⁴⁸ 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 insiders⁴⁹. Many of these loans were write-offs.

As an example, Carl Swan became a director of Penn Square in 1976. Swan owned several companies in the oil and gas industry. Over the next few years Swan and his companies borrowed more and more money from the bank. By the time the Penn Square collapsed in July 1982, the debt amounted to about \$342 million.⁵⁰

Penn Square made a loan of almost \$50 million to a company part-owned by Swan, just a few days before the bank collapsed.⁵¹

The FDIC later sued Carl Swan. Swan finally agreed to a \$20 million dollar settlement. But since he didn't have the money, this was satisfied by a payment of \$2 million.

⁴⁶ OCC (1988)

⁴⁷ FDIC page 33

⁴⁸ Gerth, Jeff (1982)

⁴⁹ Rowe (1982)

⁵⁰ **Penn Square Settlement**, The New York Times, 17 August 1984

⁵¹ **Penn Square's Insider Deals**, by Jeff Gerth, The New York Times, 14 August 1982

2.8 Management of Bad Debts

“There are no bad deals. Every deal can be corrected with money.”⁵²

Bill Patterson, Senior Executive Vice President of Penn Square Bank

Ideally, a bank should take prompt action to minimise 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.⁵³

So Jennings and Patterson decided that the best plan was to help out any borrowers who were facing temporary difficulties, by extending more credit to tide them over until things improved.

Beep Jennings has introduced this policy soon after he took over the bank, in 1976. The OCC examiners repeatedly warned him that it was inappropriate to make new loans to a customer which has already defaulted in prior loans⁵⁴. The bank apparently ignored this advice. Some loans were rolled over 15 times.

In fact, as oil prices collapsed, Penn Square lent more and more money to already-insolvent borrowers. Lending actually accelerated sharply during the last few months before the collapse of the bank. (See Graph in section 2.4 below)

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

⁵² Rowan (1982)

⁵³ According to the FDIC (1997, page 300), many other banks adopted the same attitude, i.e. assuming that the fall in oil prices was only temporary and would rebound.

⁵⁴ For 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 which loan had been criticised by OCC examiners. Congressional Inquiry page 180

inconsistent with prudent banking practices and in wholesale disregard of agreed-upon lending policies and procedures. A large percentage of these loans eventually resulted on 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.”⁵⁵

By the end of 1981, Penn Square was probably already doomed (although no one was admitting it). If regulators allow a bank to continue operating after its capital has been wiped out, this inevitably creates a moral hazard. The shareholders had nothing to lose by making more loans.

2.9 Policies for Improving Lending Standards

Subprime lending seems to be an insoluble problem in the United States. Regulatory authorities are only too well aware that the lending policies described above are likely to lead to disaster. They have probably 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.⁵⁶

This description refers to the 1980s market in commercial real estate – but it could just as easily be a description of the subprime debt market in 2006. It's déjà vu all over again.

An examination of the banks which failed over the last two years (e.g. IndyMac) reveals the same patterns of rapid growth, concentrations of risk, over-lending, unreliable valuation of collateral, inadequate documentation, and poor information systems.⁵⁷

In Part 11 below, we describe efforts the prudential regulator's efforts to improve management standards at Penn Square. It was not particularly effective.

⁵⁵ OCC letter, Addendum to OIG Audit (1983).

⁵⁶ FDIC (1997) page 26

⁵⁷ The 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 OIG (2009) for a summary of the factors leading to the collapse of IndyMac, with losses exceeding \$10 billion.

PART 3 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.”⁵⁸

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 ill-managed bank.

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

Poor lending practices in one bank can influence 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.

Penn Square was an unusually open-handed and generous lender. Of course, this put some pressure on other banks to change their own lending practices, to become more aggressive in lending, following Penn Square’s example.⁵⁹

For example, in 1986, newspapers reported the failure of the First National Bank and Trust Company of Oklahoma City (a bank with \$1.6 billion in assets):

“First National is paying the price for its uncharacteristically aggressive energy policies of more than five years ago... The bank’s decision to go after more business in the late 1970s was partly a defensive reaction to free-wheeling competition from Penn Square Bank, according to some bank insiders. Penn Square...lured away dozens of big First National customers and some of its lending officers before its well-publicised failure in 1982.”⁶⁰

This cost the FDIC \$526 million.⁶¹

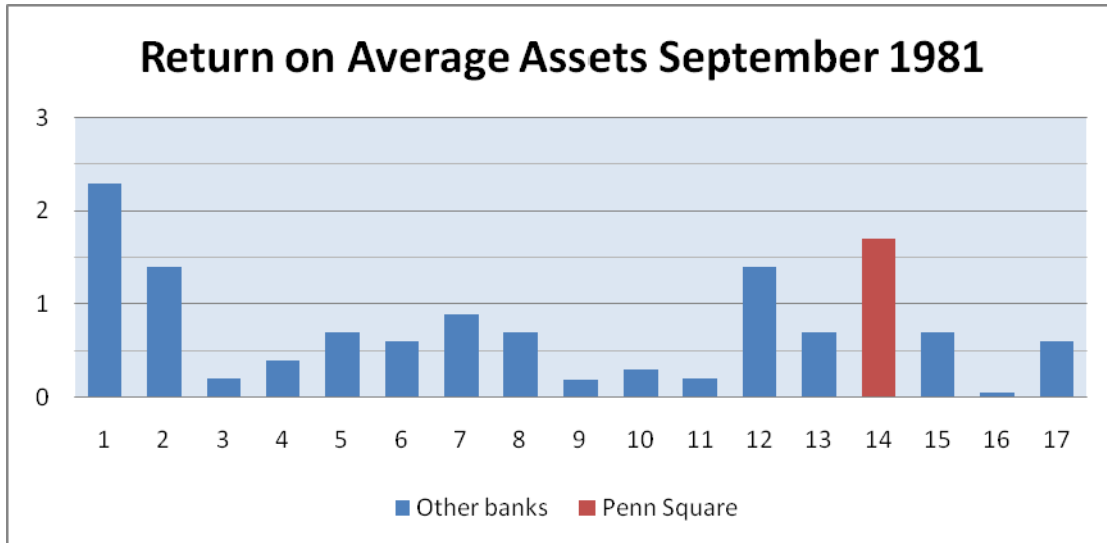
⁵⁸ Singer (1985) page 116

⁵⁹ Zweig page 204

⁶⁰ Hayes (1986); **Oklahoma Bank Declared Insolvent**, New York Times 15 July 1986

⁶¹ FDIC History of the Eighties page 323-326

It was difficult to argue with success. Penn Square seemed to be doing so well – it was growing rapidly and seemed to be highly profitable compared to other banks.⁶² Its return on assets was almost twice as high as the average for other banks.⁶³



Those banks which followed Penn Square’s example during the oil boom naturally tended to share Penn Square’s fate when the bubble burst.⁶⁴

⁶² Bigger Banks are Hurt by Failure in Oklahoma, by Robert A. Bennet, New York Times, 7 July 1982

⁶³ Extract from Capital Adequacy Report by Professional Asset Management, Congressional Hearings page 336, page

⁶⁴ Abilene National Bank is shown in the graph with return on assets of 2.3% (bank 1). It came to an unfortunate end one month after the Penn Square Bank.

PART 4 THE ORIGINATE-TO-DISTRIBUTE MODEL

*“Done properly and legitimately, loan sales are fine”,
said a senior official at the Federal Reserve, who asked not to be named.*

*“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.”*

(January 1986)

Traditionally, banks made money from the interest rate spread – if you borrow at 3% and lend at 6%, you made a profit. But in recent years, many banks have adopted a new strategy – they originate loans and then sell them to other investors. The banks make money from the fees they collect for originating and servicing the loans.

The Financial Stability Forum has identified a number of problems caused by the Originate-to-distribute (OTD) model - problems which have directly contributed to the current banking crisis⁶⁵. Inter alia:

- The originators have an incentive to lower their underwriting standards.
- There are agency risks. The loan originators may not provide complete and accurate information to the buyers, so the buyers might underestimate the risks.
- The OTD model relies on the banks’ ability to promptly sell loans which are in the pipeline – hence creating liquidity risks when the market breaks down.
- Securitisation 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.

⁶⁵ FSF (2008)

Anyone who had studied the collapse of Penn Square Bank would not be surprised by this critique of the OTD business model. Because basically, the same problems occurred twenty five years ago, when Penn Square was following exactly the same approach.

Penn Square Bank was actually a pioneer in developing the Originate-to-Distribute Strategy⁶⁶ - although Beep Jennings called it “merchant banking”.

Penn Square only had about \$500 million in loans on its own books – but it originated loans worth more than \$2.5 billion. By following an originate-to-distribute model, the bank succeeded in passing risks on 88 other banks around the country.

The originate-to-distribute 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.

Beep Jennings soon realised 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.

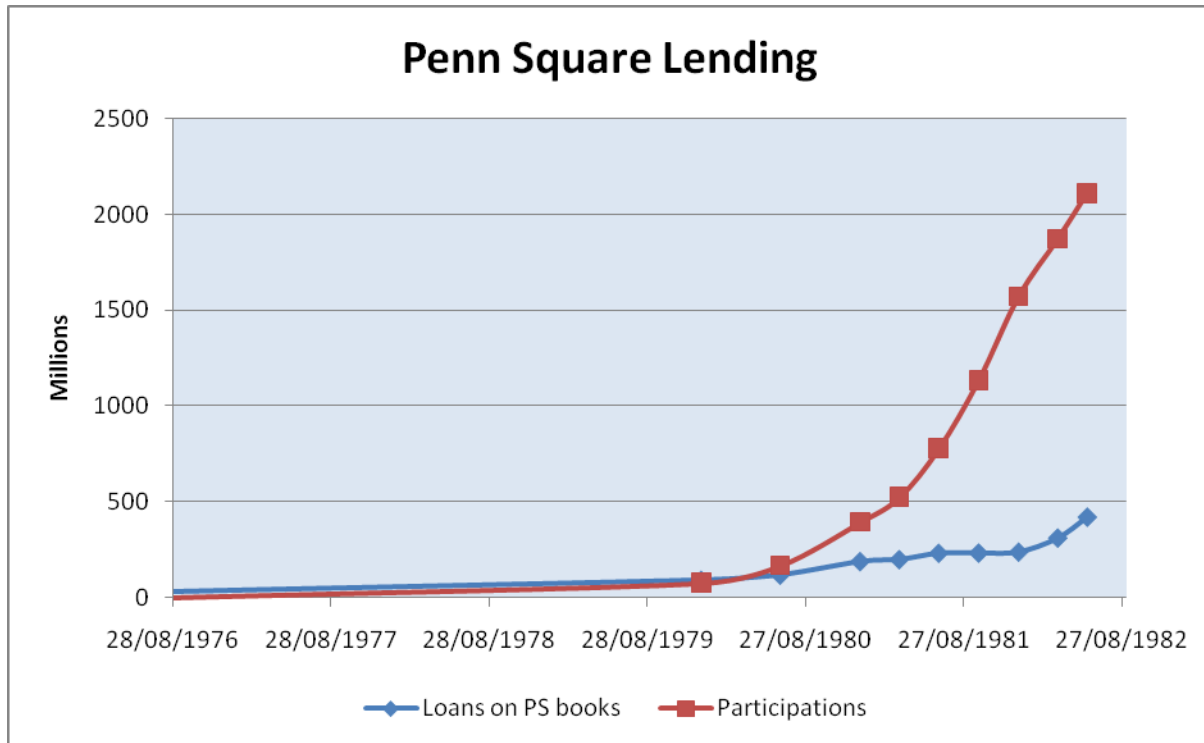
The following graph shows the growth in the amount of loans sold by Penn Square to participating banks.⁶⁷ Penn Square retained as small a percentage of each loan as possible.^{68 69} By the date of Penn Square’s collapse, less than 20% of the loans originated by Penn Square were retained by the bank.

⁶⁶ Penn Square management called this the *merchant banking* approach.

⁶⁷ Office of the Inspector General (1983) page 4

⁶⁸ In fact, it appears that sometimes Penn Square passed on MORE than 100% of a loan, a practice known as “over-participations”. Staff Report (1985) page 36

⁶⁹ OIG Audit (1983) page 16



Most of these loans subsequently defaulted.

Eighty-eight banks participated in Penn Square loans. The biggest players were Continental Illinois, Seattle First National, Chase Manhattan, Michigan National, and Northern Trust. The following table shows the total amount of participations on the day Penn Square was closed, in July 1982.

Penn Square Bank Participations as at July 5, 1982⁷⁰

Participating Bank	Amount as at 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

The participating banks all 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.⁷¹

Seafirst wrote off \$343 million, i.e. more than 90% of its Penn Square loans.⁷²

⁷⁰ Office of Inspector General (1983) page 4

⁷¹ McCollum (1987) page 281

Chase Manhattan wrote off Penn Square loans amounting to about \$118 million by the end of 1983, i.e. about 60%.⁷³

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 participating banks were estimated at about \$1.5 billion.

Why were Participating Banks willing to accept Penn Square loans?

Mr Rosenthal: The whole thing was a shady, messy, unpleasant nasty situation, wasn't it?

*Mr Conover: In the end, that is what it turned out to be, yes, very.*⁷⁴

Why were participating banks willing to accept Penn Square loan participations?

There are several possible explanations:

- Bribery
- Fraud
- Buy backs
- Poor risk management

Bribery

The evidence suggests 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. Bill Patterson from Penn Square apparently formed a close working partnership with Mr Lytle. This friendship led to some financial assistance: Patterson arranged loans totalling \$565,000 to Lytle – loans which were unsecured, and at favourable interest rates. Patterson also arranged the purchase of a \$495,000 vacation home on a Caribbean island, and another \$680,000 vacation home in Colorado. Given that Lytle's base salary was less than \$70,000, it is not surprising that he was having difficulties in paying back these loans. The loans fell into arrears.

⁷² Losses From Penn Square Bank's Failure Total \$1.22 Billion and Are Still Growing, G. Christian Hill, Wall Street Journal, 12 April 1984

⁷³ Losses From Penn Square Bank's Failure Total \$1.22 Billion and Are Still Growing, G. Christian Hill, Wall Street Journal, 12 April 1984

⁷⁴ Congressional inquiry page 96

According to the evidence provided to the court after the collapse of Penn Square, these payments were kickbacks, offered by 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.⁷⁵ 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.

Buy backs

In order to persuade participating banks to take high-risk loans, Penn Square made promises to take back any loans which became too risky.

These promises were, of course, unofficial. If the buy-back agreement was included in the official participation agreement, then Penn Square would have been in trouble with the regulator.⁷⁶

As oil prices fell, some of the participant banks became concerned and insisted that Penn Square should take the loans back. Since Penn Square did not have enough money to fund these loans, they had to find another participant bank which would agree take the loan.

This wasn't easy. It appears that Penn Square employees sometimes resorted to fraud to entice participant banks to take over poor-quality loans.

Fraud

Penn Square employees were responsible for providing information about each loan to the participant banks. The participant banks would review the information before deciding whether to participate.

But how accurate was this information? The 1982 OCC audit of the banks noted that

- The bank examiner was concerned that Penn Square was double financing in the participation portfolio, i.e. pledging the same collateral for two different loans.⁷⁷
- If participation loans defaulted, the participating bank would probably refuse to roll over the loan – and might even ask Penn Square to take back the loan. Therefore 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*”.⁷⁸ Penn Square used its own capital to pay the interest. To hide

⁷⁵ Trial of Former Continental Bank Executive, Two Others Begins, by Ed White, The Washington Post, 12 March 1988

⁷⁶ OIG Audit (1983) page 16

⁷⁷ OIG Audit (1983) page 23

⁷⁸ Zweig page 246-248

the depletion of capital from the regulators, bank staff created misleading accounting entries.

- Most of the participant banks required adequate collateral for the loans. It appears that from time to time, Penn Square employees forged promissory notes from bank customers to provide evidence of collateral.
- Penn Square 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.⁷⁹

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 in receiver's certificates.⁸⁰

Poor risk management

Fraud, bribery, and misrepresentation are reprehensible – but they are hardly “black swan” events. Any well-run bank should have adequate risk management strategies to prevent losses due to dishonest conduct by employees and customers.

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 were not so careful, and they ended up with a very high proportion of poor quality loans.

In making and renewing the participations, Penn Square officials had developed a routine of calling on one bank, and if that bank refused, then the next bank, and the next. After the participants bought in, some began doing a little checking. If they did not like what they found, they let the loan go by when it came up for renewal in six months and the participation wound up at another bank farther down the line. The worst credits tended to accumulate at certain banks, including Seattle First National.⁸¹

Seafirst took the most risky, poor-quality loans – loans on drilling rigs and oil leases – and they also had very little expertise in energy lending. Seafirst ultimately wrote off about 90% of its Penn Square loans.

However, the problems at the participant banks can't be blamed entirely on the misdeeds of Penn Square.

It's true that Continental Illinois and Seafirst suffered enormous losses on their Penn Square participations – but they were also suffering large losses on other energy loans, which had been arranged without Penn Square's assistance. The participant banks had moved very aggressively

⁷⁹ OIG Audit (1983) page 43

⁸⁰ Sprague page 130

⁸¹ Sprague page 139

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 substandard lending practices.

After the Penn Square collapse, Continental Illinois held an internal investigation. 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.”⁸²

During the Congressional inquiry into the failure of Continental Illinois, it became clear that Continental Illinois had ignored many many warning signs. There were memos on file from the OCC 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: rapid growth and improved profitability.

And in the years from 1976 to 1981, the bank **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.⁸³

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

⁸² Special Litigation Report, cited in Staff Report (1985) page 37

⁸³ FDIC (1997) History of the Eighties, Chapter 7, Continental Illinois and Too Big to Fail. See also Staff Report (1985) for a description of the relationship between Penn Square and Continental Illinois

PART 5 INFLATING THE BUBBLE

*“You’ve got thirteen thousand oil and gas companies in Oklahoma.
Maybe fifteen hundred of them are looking for oil and gas.
The rest are looking for investors.”⁸⁴*

Asset-price bubbles often involve frauds and deceptions of various kinds. This occurs because people become desperate to buy any asset which is in the bubble group – for example, during the dot.com boom, people would buy shares in any company which had dot.com in the name, even if the company had no revenue and no profits. By the time the bubble has been going for a while, a lot of fairly inexperienced investors are very eager to invest. This provides a wonderful opportunity for promoters to make money.

In this respect, the energy boom was no different to any other boom.

During the energy boom, entrepreneurs raised about \$20 billion dollars for oil exploration by selling investments in limited partnerships⁸⁵. In a limited partnership, the general partner – let’s call them ABC Oil and Gas - would provide the expertise. The investors would provide the money.

Typically, promoters would run investment seminars aimed at wealthy individuals – those in the highest tax bracket⁸⁶. They would be asked to invest say \$100,000. But they would only be required to pay 25% in cash up-front. The remainder would be funded by the provision of a standby letter of credit from the investor’s own bank.

A friendly bank like Penn Square would then lend the partnership the money for oil and gas exploration, relying upon the letters of credit as collateral. In the event that the partnership did not repay the loan at the end of the term (say two years), Penn Square would be entitled to ask for payment from the investor’s bank. The investor’s bank would then reclaim the money from the investor (who would normally sign a promissory note to the bank).

The investors were often assured that it was very unlikely that their letters of credit would ever be called. The drilling loan would not fall due for some time. In the interim, they were told, the

⁸⁴ Singer (1985) page 12

⁸⁵ Singer (1985) page 100

⁸⁶ Most of the investment was tax deductible. In the late 1970s the marginal tax rates for high-income-earners were quite high, so this made the limited partnerships very attractive investments. Limited partnerships became less popular after President Reagan cut the highest marginal tax rates.

partnership would almost certainly find oil. At that stage, the limited partnership would be able to take out a new loan, using the newly-discovered oil reserves as collateral. This new loan was called a production loan. The production loan would be used to pay off the old loan, so that the letters of credit would never be called.

Of course, this strategy would only be successful as long as the partnership found oil. Therefore, the people marketing these partnerships would often emphasize the excellent track record of ABC, i.e. pointing out that ABC had been in the oil business for many years, they invariably found oil, they had never called a letter of credit before, etc.

The middlemen in these deals often made a great deal of money

- Brokers and investment advisors would take commissions of 8% on each dollar raised.⁸⁷
- The banks would earn interest and fee income on the loans.
- Some of the oil and gas companies siphoned off large sums in “expenses”. For example, the limited partnerships might pay generous prices to hire equipment from a company which was related to ABC Oil and Gas.

Therefore there was some temptation for the promoters to exaggerate the potential returns and to gloss over some of the risks.⁸⁸ For example, there might be a temptation to provide expert geologists’ reports which might be overly optimistic about the probability of finding oil in specified locations.

As noted above, Penn Square adopted a merchant bank strategy – that is, it made most of its money by originating loans for participant banks, and then collecting commissions on each loan.

This meant that Penn Square had an incentive to originate as many loans as possible, regardless of the credit risk, as long as it could pass the risks on to a participant bank. Limited partnerships provided a wonderful opportunity to make loans.

At some stage, Penn Square crossed the line from banker to promoter.

Carl Swan, one of the directors of Penn Square Bank, owned 42% of a drilling company called Longhorn Oil and Gas. Longhorn raised millions and millions of dollars via limited partnerships. Employees of Penn Square became involved in the marketing of these limited partnerships – especially Bill Patterson. Typically, Patterson would attend investor seminars and provide reassurance to the investors – explaining that the venture was almost sure to be a success and that it was highly unlikely the letters of credit would be called.

As it turned out, Longhorn was not at a particularly successful company. They simply did not find enough oil to cover the loan repayments for the limited partnerships. Longhorn was reluctant to call in its letters of credit – this would make it more difficult to raise any more

⁸⁷ Zweig (1985) page 85

⁸⁸ Fraud was not uncommon in the promotion of limited partnerships – for example Prudential Bache Securities was involved in a scandal relating to the sale of \$8 billion of limited partnerships in the 1980s. See **Prudential Securities: scandal Pushes Rock-Like Image to the Edge**, Financial Times, 11 January 1994

money in the future. So apparently, they simply set up new drilling programs, raised more money, and used the new money to pay off the old debts. In other words, the Longhorn partnerships looked a bit like a Ponzi Scheme⁸⁹.

Eventually, Longhorn ran out of money. In 1981, Penn Square began to call in the standby letters of credit. Many of the Longhorn investors immediately filed suit to prevent payment. They alleged that they had been defrauded. They claimed that they had been induced to invest by means of false and misleading representations, and omissions of material facts.⁹⁰

Clearly, Penn Square was going to suffer serious losses if the investors were successful in blocking payment on the letters of credit. It would take years for the case to drag through the courts – and in the meantime, there was uncertainty and negative publicity. The lawsuits were described in an article in the *American Banker* on July 1, 1982. This article helped to precipitate the run on the bank which led to the closure of Penn Square a few days later.

In 1984, the SEC charged Penn Square directors Carl Swan and Bill Patterson and two others with fraud in connection with the sale of \$66 million of limited partnership interests by Longhorn Oil and Gas.

“The SEC alleged that the men defrauded more than 300 investors in 25 states who bought interests in Longhorn's nine limited partnerships between 1978 and 1981. The suit contends that the defendants deceived investors by assuring them the letters of credit wouldn't be called. In the spring of 1982, Penn Square did try to call some of the letters of credit.”

“The suit also alleges that the defendants violated federal securities laws by failing to properly register the partnership interests. The SEC further charges that they “misrepresented and omitted . . . certain material facts” relating to partnership oil and gas reserves, results of drilling on partnership acreage, Longhorn's financial position, and other matters. The suit also alleges that Messrs. Patterson, Allen and Lang misapplied funds by using funds from some partnerships to pay off obligations of others.”⁹¹

Patterson later entered into a consent agreement with the SEC. The order “enjoined Patterson from further violations of the antifraud provisions of the securities law”⁹². Patterson consented to the order without admitting any wrongdoing.

⁸⁹ Zweig (1985) page 194-196

⁹⁰ **In Re: Longhorn Securities Litigation**, United States District Court for the Western District of Oklahoma, 573F Supp 278; 1983 US Dist Lexis 13343

⁹¹ **Ex-Penn Square Aides Among Four Charged With Fraud by SEC**, The Wall Street Journal, 2 August 1984; SEC News Digest 3 August 1984 available at www.sec.gov; SEC News Digest December 10, 1985 available at www.sec.gov.

⁹² SEC News Digest 10 December 1985

PART 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, saying "Oh, shit. Oh, shit." ⁹³

Systemic risk increases whenever there are strong inter-relationships 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 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, some other savings institutions were themselves in danger of collapse.

Why did so many financial institutions invest money in Penn Square?

Penn Square always had liquidity problems. Beep Jennings always wanted to increase lending, but as time went by Penn Square found that it was increasingly difficult to find money to lend out. Towards the end of 1981, some of the participant banks became worried about the quality of the Penn Square loans, and hence they became less co-operative. 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. Their 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.

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?

⁹³ Zweig (1985) page 379

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 doubled to more than \$282 million.⁹⁴

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 million⁹⁵. Roughly \$150 million of this was not insured under the FDIC rules.

	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
				\$ 204,479,843

As shown on the diagram below, money flowed into Penn Square from all around the country – which means, of course, that Penn Square's losses ultimately spread across the country.⁹⁶

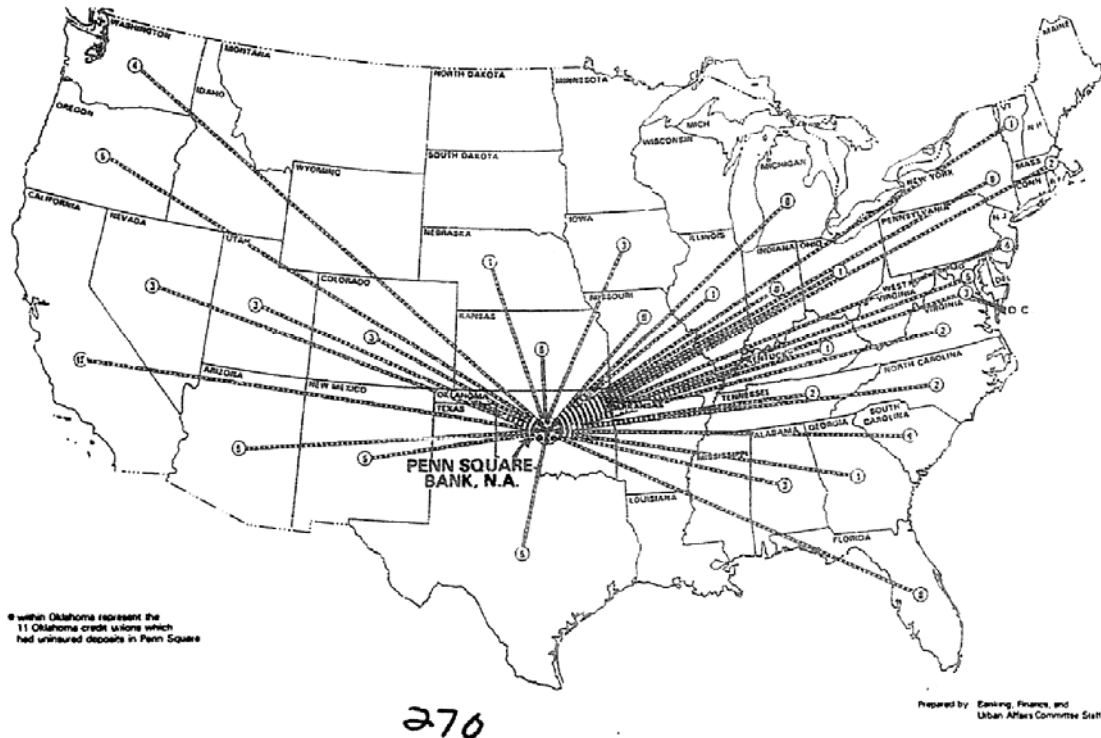
The following map was provided to the Congressional Hearings into the failure of Penn Square.

⁹⁴ Evidence provided by the FDIC at Hearings before the House of Representatives Commerce, Consumer, and Monetary Affairs Subcommittee, July 1982, page 407

⁹⁵ Congressional Hearings page 271

⁹⁶ Adding insult to injury, the credit union in the House of Representatives lost about \$180,000 by investing in Penn Square CD. Page 38 of HRCCMAS transcript

FEDERALLY INSURED CREDIT UNIONS WITH UNINSURED DEPOSITS IN PENN SQUARE BANK, N.A.



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.⁹⁷

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.

Why did the Credit Unions invest so much money in Penn Square Bank?

Why did the Credit Unions invest so much money in Penn Square?

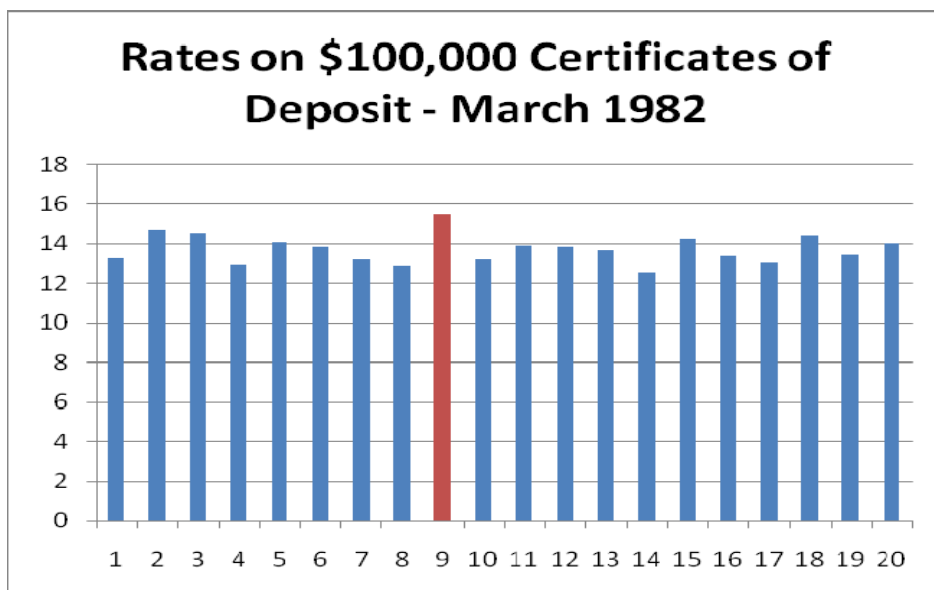
Probably because Penn Square offered the highest interest rates to depositors and the highest commission rates for money brokers.

In March 1982, Penn Square was offering rates of 15.44% on its CDs – which was 2.23% higher than the national average for all banks.

⁹⁷ Evidence provided by the NCUA at Hearings before the House of Representatives Commerce, Consumer, and Monetary Affairs Subcommittee, July 1982, page 379

Interest rates on CDs were published by money brokers. Money brokers assisted the credit unions to find the best deal, by providing information and advice about the rates offered by different banks

For example, a money broker named Professional Asset Management (PAM) produced a Capital Adequacy Report which was distributed to credit unions. It listed the banks which offered the best interest rates for Certificates of Deposit. The banks on the money broker's list tended to be the banks which needed money the most – and hence their CD rates were higher than the average bank. And Penn Square's were by far the highest, even in this money-hungry crowd. The following graph shows the CD rates from PAM's list in the first quarter of 1982.⁹⁸



Penn Square also offered attractive commissions to the money brokers.

The brokers were basically salesmen. They would go around to credit union industry meetings (e.g. conferences and seminars). They would make presentations, chat to people, and buy drinks for credit union officials. They would send out newsletters with investment advice and information about investment opportunities. The advice they offered was not entirely impartial, since they were paid on commission for each dollar they raised.

After the collapse of Penn Square, there were questions about the details of these commission arrangements. It seems that Penn Square was sometimes willing to pay unusually high rates of commission to some of the brokers. The FDIC reported that

⁹⁸ Evidence provided by the NCUA at Hearings before the House of Representatives Commerce, Consumer, and Monetary Affairs Subcommittee, July 1982, page 379

“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”⁹⁹

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. Theoretically, they were supposed to exercise their own judgement in these matters, instead of relying on the advice of money brokers.

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.¹⁰⁰

At the Congressional Hearings into the failure of Penn Square, several credit union officials stated that they had relied on the assurances given by the money brokers. This is not surprising, because some of the money brokers claimed that they had done thorough investigations into the solvency of the banks on their lists.

For example, Professional Asset Management claimed that they would not add any bank to its list unless it met PAM’s “rigid quality standards”. PAM claimed to do a thorough review of each bank’s performance over a 5-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.”¹⁰¹

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 capitalised banks and savings associations.”¹⁰²

⁹⁹ FDIC letter to the House of Representatives Commerce, Consumer, and Monetary Affairs Subcommittee, November 15, 1982 Hearings page 406

¹⁰⁰ Circular letter from NCUA dated March 26, 1981. Evidence provided by the NCUA at Hearings before the House of Representatives Commerce, Consumer, and Monetary Affairs Subcommittee, July 1982, page 24-35

¹⁰¹ Professional Asset Management Newsletter, Hearings page 330

¹⁰² Professional Asset Management Letter to Clients, Hearings page 349

Naturally, after Penn Square 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 7 below.

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 organisations provided testimony to the Congressional enquiry into the failure of Penn Square¹⁰³. 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*”.¹⁰⁴ 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 which failed soon afterwards.

This was not just bad luck.

In June 1987, Mario Renda, the president of First United Fund, was indicted on 144 criminal charges, including racketeering and bank fraud. His business plan was simple.

- 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.¹⁰⁵
- Renda would then contact banks and offer them the money, in the form of brokered deposits. However, the banks would only get 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*”.

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.¹⁰⁶

¹⁰³ Committee on Banking Finance and Urban Affairs (1983)

¹⁰⁴ Pizzo, Fricker and Muolo, Chapter 9

¹⁰⁵ Frost (1987)

¹⁰⁶ See Pizzo, Fricker, and Muolo for a fascinating account of the activities of Renda and his associates. The story involves organised crime, hired hitmen, mysterious “suicides”, Swiss bank accounts, gun-running, and the CIA.

There is no indication that Penn Square was involved in any of the linked financing deals.

However, the First United Fund was sued for negligence and fraud by credit unions who invested in Penn Square, and these court cases revealed some disquieting facts about FUF's business practices¹⁰⁷.

Systemic Issues: Money Broking

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”*.¹⁰⁸

Over the next few years, the FDIC noted a correlation between brokered funds and bank failures. 68% of the banks that failed in 1983 had brokered funds. And in some of the failed banks, brokered funds accounted for a very high proportion of total deposits.¹⁰⁹ For example

- The Sparta Sanders State Bank in Kentucky had doubled its deposits in the two years before it failed. 75% 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.

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

Nevertheless, despite these restrictions, brokered deposits are still a cause for concern to the FDIC¹¹⁰. 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, rising to an average of 20% of deposits. And in some cases, brokered deposits were a very high percentage of total deposits. For example

¹⁰⁷ Paschal (1986a); Paschal (1986b)

¹⁰⁸ **Money Brokers Draw Fire From Bank Regulators**, The Wall Street Journal, 10 August 1983

¹⁰⁹ Rowe (1984a), Rowe (1984b)

¹¹⁰ Bair (2008)

- IndyMac: Between August 2007 and March 2008, IndyMac's brokered deposits increased from about \$1.5 billion to \$6.9 billion. In the end, brokered deposits were about 37% of total deposits.¹¹¹ IndyMac was closed in July 2008.
- At Columbian Bank and Trust, 43% of deposits were brokered funds. The bank failed in August 2008.
- At ANB Financial, brokered funds increased from 17% of deposits in 2003, to 86% in 2008. The bank failed in May 2008.¹¹²

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 rumours 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 Indy Mac in 2008.

¹¹¹ OIG (2009) Material Loss Review of IndyMac

¹¹² Adler (2008)

PART 7 AUDITING

“Is it conceivable that the top bank auditor in the world is guilty of having conducted the worst bank audit in history?”¹¹³

The money brokers and credit unions 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 became quite concerned about Penn Square almost immediately. In December 1977, they qualified the accounts:

“Due to the lack of evidential data relating to certain real estate and commercial loans we were unable to satisfy ourselves as to the adequacy of the reserve for the loan losses.”¹¹⁴

Over the next few years, the Arthur Young auditors 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^{115 116}. After the 1980 audit, they auditors sent another 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.”¹¹⁷

In 1981, Penn Square decided to switch auditors.

They hired Peat, Marwick Mitchell and Co.

In March 1982 – just a few months before the bank failed with losses of hundreds of millions of dollars - Peat Marwick issued an unqualified audit report for the year ending 31 December 1981. They noted that there had been problems with poor documentation in the past, but suggested that the Bank had recently taken steps to improve documentation and evaluation of credit risks.

¹¹³ Rose (1985)

¹¹⁴ Zweig (1985) page 61

¹¹⁵ Zweig (1985) page 71, 174

¹¹⁶ Wolfe (1990)

¹¹⁷ Zweig (1985) page 174

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.^{118 119}

The FDIC later complained that Penn Square loan loss provisions were grossly understated – and the auditors should have been aware of this. The audit report simply states that

“It should be understood that estimates of future loan losses involve an exercise of judgement. It is the judgment of management that the allowance is adequate at both 31 December 1981 and 1980.”¹²⁰

Perhaps it would have been helpful to provide a bit more warning about the level of provisions. The 1981 accounts included a provision of about \$4 million for loan losses. When the bank collapsed a few months later, it became clear that the loan losses would be at least 10 times this amount.

How could the auditors certify that the Penn Square accounts gave a fair statement of the financial condition of the bank? Was it simply negligence, or was it something more sinister?

The Justice Department later sued Peat Marwick and its partners, alleging fraud and conflict of interest.

What caused the conflicts of interest?

Peat Marwick had eleven partners in the Oklahoma office. As it turned out, all eleven had loans from Penn Square.¹²¹

- In about August 1981, Penn Square Bank agreed to provide \$1.65 million to Boardwalk Investments to buy a property worth \$2.2 million. All eleven 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.
- Penn Square also made a couple of additional loans, totalling \$500,000 to A. Marshall Snipes, who was the lead partner on the Penn Square audit. The OCC later classified these loans as “losses”.

¹¹⁸ Hitznerath, David S. (1995).

¹¹⁹ Negative Pledges Called Unbelievably dangerous, by Jan Paschal, The Journal Record, 3 September 1986

¹²⁰ The audit report is reproduced in Hearings page 428ff

¹²¹ Rose (1985)

The Boardwalk-Doral loans were arranged in August 1981. Peat Marwick was hired to do the Penn Square audit in late 1981. The Justice Department later alleged that Peat Marwick had a tacit agreement with Penn Square: i.e., the auditors agreed in advance to issue an unqualified report.¹²² Peat Marwick denied this allegation.

The Justice Department was also concerned about Peat's relationship with Chase Manhattan. Peat audited Chase Manhattan, as well as Penn Square – and Chase Manhattan had participated in about \$200 million of Penn Square loans. The Justice Department suggested that Peat Marwick tipped off Chase Manhattan about looming problems at Penn Square. This gave Chase time to apply pressure on the bank to make additional payments of interest and principal on participating loans¹²³.

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

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

Overall, the auditors were facing potential claims of about \$400 million, in actual and punitive damages.^{124 125 126}

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.¹²⁷

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.¹²⁸ The Seafirst auditors reached a settlement.¹²⁹

¹²² Pasztor (1985)

¹²³ Pasztor (1985)

¹²⁴ **Penn Square Civil Trial to Focus on Two Money Brokers as Plaintiffs Prepare to drop Claims Against Bank Officers**, American Banker, 18 August 1986

¹²⁵ Paschal, Jan (1986) **FDIC Blocked from officers in Trial**, The Journal Record, 19 August 1986

¹²⁶ Klott, Gary (1984). **Auditors Feel the Heat of a New Scrutiny**, New York Times, 13 May 1984

¹²⁷ Titus, Nancy Raiden (1991) **Peat Marwick Handed 10-day Suspension**, The Journal Record, 10 October 1991.

¹²⁸ **Bank Auditor is Acquitted**, The New York Times, 3 July 1987;

¹²⁹ **Accord Set in Seafirst Suit**, The New York Times, 24 July 1986

PART 8 PRUDENTIAL REGULATION OF PENN SQUARE

*“Our study indicated that in the main
the OCC policies and procedures were adequate
and that they were implemented appropriately.*

Hence we believe that OCC did a very credible job in handling PSB.”¹³⁰

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

After the Penn Square collapse, the Office of the Comptroller of the Currency was quizzed by Congressmen. The Office of the Inspector General conducted an independent review of the OCC’s performance. The review determined that the regulator’s policies were adequate and the OCC had done a credible job in handling the Penn Square Bank.

This is somewhat surprising. The collapse of the bank had caused losses amounting to billions of dollars, as well as seriously destabilising the national banking system. Prima facie, this would suggest the policies were not particularly effective.

So what went wrong in the regulatory process?

The OCC examined the bank ten times between 1977 and 1982. The bank examiner’s reports show that the OCC was well aware of problems at 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. Every single report contained serious criticisms of the bank.

Initially, it seems, the bank management simply ignored the OCC’s complaints. The condition of the bank slowly deteriorated.

- When Beep Jennings took over Penn Square in 1975, it was in a sound financial condition, with a CAMEL Rating of 1.¹³¹
- In 1977 the bank was downgraded to a CAMEL rating of 2.
- In 1980, the bank’s CAMEL rating was downgraded to 3.

¹³⁰ OIG Audit (1983) page 48

¹³¹ CAMEL ratings assess Capital, Asset quality, Management, Earnings, and Liquidity

By this time, the OCC was becoming seriously concerned about Penn Square. It became necessary for the OCC to placate the regulator, by promising to reform.

The Board of Directors was summoned to a meeting with the OCC in Dallas. 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.¹³²

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.

The bank examiner reported that the bank's President had deceived the OCC about his efforts to comply.¹³³ He recommended a Cease-and-Desist order.

Faced with this threat, Penn Square suddenly they became much more co-operative. They apologised for past failures and promised to turn over a new leaf. They provided "voluminous documentation" which purportedly demonstrated their compliance with the Formal Agreement.

The OCC was appeased when 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.

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"¹³⁴ (Singer page 115)

About 80% of Penn Square's loans were in the energy department – and Beller had no control over these loans. He was a figurehead.

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

¹³² Hearings page 88

¹³³ OIG audit (1983) page 40

¹³⁴ Singer page 115

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

Penn Square employees were now actively attempting to cover up the true financial position of the bank.

Whenever the bank regulator criticised 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.¹³⁵ 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. Bill Patterson agreed to buy the loans back after the end of the year.¹³⁶

Fraud was used to cover up loan losses. Some of the customers had trustingly signed blank promissory notes. Bill Patterson had explained that this would expedite future loans. This allowed Patterson to make loans to these customers without their knowledge or consent, and then use the proceeds to pay the bad debts of other customers.¹³⁷

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 utilised to get deeper into trouble. Throughout 1981 and 1982, the bank expanded its lending program exponentially, breaching nearly every clause of the Formal Agreement.

The 1982 review

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 co-operative. Bill Patterson, in particular, evinced quite a hostile attitude to the examiners.

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

The regulators had no choice: the bank was closed on July 5.¹³⁸

¹³⁵ **Ex-Seafirst Officer Says Bank and Penn Square Shuttled Loans**, The Wall Street Journal, 16 June 1983

¹³⁶ Zweig (1985) page 260-264

¹³⁷ **Trial Due On Penn Square**, The New York Times, 10 September 1984

¹³⁸ Sprague (1986) page 114-115

Policy Issues

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

It would not be fair to say that the Board of Directors ignored the regulator. They repeatedly promised to improve. Indeed, when pressed, they even made a considerable effort to appear to comply with the OCC's directions. But the changes were largely cosmetic.

One commentator suggested that the management of the bank

“acted as if the agency was a tiresome irrelevance which had to be humoured on occasion, but not necessarily obeyed.”¹³⁹

By way of comparison, it is interesting to note the OIG'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 nontraditional 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.”¹⁴⁰

Based on a recent review of bank regulation by the Government Accounting Office, this sort of delay in taking action is still a problem.

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.¹⁴¹

¹³⁹ **Inter-agency feuding and the Penn Square fiasco**, International Currency Review, Vol 14 Number 3, October 1982, included as an appendix to the Congressional Inquiry page 493

¹⁴⁰ OIG (2009)

¹⁴¹ GAO (2009)

PART 9 WINDING UP THE BANK

The Federal Deposit Insurance Corporation (FDIC) is responsible for dealing with insolvent banks. It usually tries to minimise 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. And it did not take long to discover that the bank had contingent liabilities which were nearly unquantifiable.

After examining the Penn Square files, the FDIC realised 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. This created a potential liability for up to \$2 billion dollars in relation to the loan participations.

Furthermore, Penn Square had issued letters of credit, and made commitments for future lending, amounting to about \$1 billion in total. At this stage, there was considerable uncertainty about the legal status of the letters of credit – i.e. were they covered by deposit insurance? This question dragged through the courts for three or four years, before it was finally resolved in favour of the FDIC. In the meantime, no one could be sure how much this was going to cost the bank.

In July 1982, as the regulators pondered the fate of Penn Square, they realised that the potential liability was certainly going to be enormous, and it could not be calculated. No other bank would want to take the risk. A takeover was not possible.

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

For the first time in many years, a lot of bank customers were going to lose money – 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 create have a ripple effect, causing problems for the participant banks¹⁴². The OCC was 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”.¹⁴³

And these fears were justified - the collapse of Penn Square did indeed have flow on effects. It sent shock waves through the financial system.

One senior FDIC official stated that:

¹⁴² Sprague page 117

¹⁴³ Sprague page 114

“Penn Square Bank permanently altered the public’s perception of banker infallibility and the shape of banking regulation in the United States.”

PART 10 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.¹⁴⁴

The collapse of Penn Square shook public confidence in the banking system – especially when the major participant banks announced the extent of their losses. In the weeks after the collapse, The New York Times published stories with headlines like

Bankers Fear an Erosion of Confidence¹⁴⁵,

Trouble Inside the Big Vaults¹⁴⁶, and

How Safe is Your Money?¹⁴⁷

The Participant Banks

¹⁴⁴ Hearings page 398, quoting Congressman Bill McCollum and a Credit Union official Mr Loiacona.

¹⁴⁵ Bennett (1982b)

¹⁴⁶ Bennett (1982a)

¹⁴⁷ Rankin (1982)

Banks which had participated in Penn Square loans suffered immediately. 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.¹⁴⁸

Seafirst was the first to fall. 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 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 BankAmerica, just hours before it would have failed.¹⁴⁹

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 either written off and another \$324 million would be classified as non-performing¹⁵⁰. 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 realised 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?

Over the next few weeks,

- Continental Illinois' share price fell sharply, from \$25 in June to \$16 in August 1982.¹⁵¹
- Share analysts cut their earnings estimates.
- The rating agencies downgraded the bank's credit rating.
- Continental Illinois was heavily dependent on brokered funds for liquidity. Suddenly the cost of funds increased – soon Continental Illinois had to pay 1% more than other banks on its certificates of deposit.^{152 153}
- Continental Illinois CDs were voluntarily removed from the list of top-rated banks whose CDs were traded interchangeably in money markets.

¹⁴⁸ Peavy and Hempel (1988)

¹⁴⁹ Sprague (1986) chapter VII

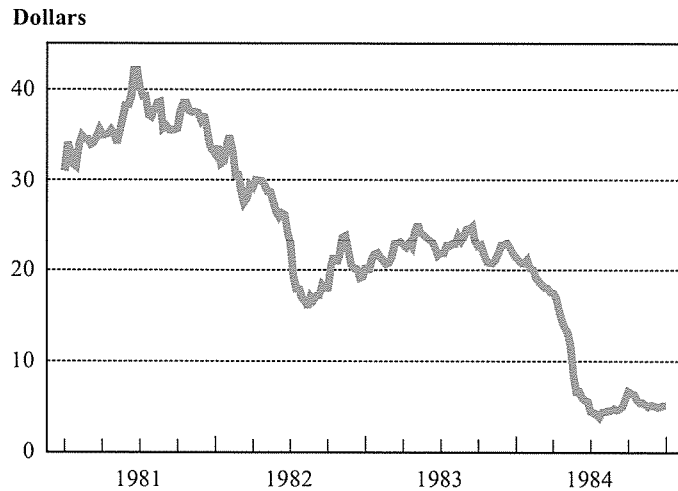
¹⁵⁰ McCollum 1987 page 281; **SEC Widens its probe of Continental Illinois**, The Globe and Mail, 16 August 1984

¹⁵¹ The graph is taken from the FDIC (1997) report on Continental Illinois

¹⁵² McCollum, 1987, page 276

¹⁵³ Kutner (1988)

**Continental Illinois Corporation:
Average Weekly Share Price, 1981–1984**



Source: Dow Jones News/Retrieval.

Although risk management improved after Penn Square collapsed, the damage had already been done. Over the next year or so, Continental continued 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 liquidity risk.

On May 1984, rumours started flying about problems at Continental. Shortly afterwards there was a run on the bank. This time, the FDIC decided on a bailout. The bank was simply too big to fail – the systemic risk was too great. More than 2000 other banks had deposits at Continental. The FDIC estimated that somewhere between 50 and 200 other banks might be brought down if Continental failed.

And even worse, it might create panic. There were two other very large banks which were also in trouble. The FDIC believed that they “probably would not survive” if Continental collapsed.

So the FDIC hastily cobbled together a rescue package. The FDIC bought \$4.5 billion of bad loans, and bought \$1 billion of shares to provide additional capital for the bank. After running off the portfolio of bad loans, the FDIC ultimately suffered a loss of about \$1.1 billion.¹⁵⁴

The other participant banks also suffered, and some did not survive.

Energy Lenders in Texas and Oklahoma

There were runs on banks in Texas and Oklahoma, too. People became concerned about the solvency of any 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.¹⁵⁵

¹⁵⁴ FDIC History of the Eighties page 245

¹⁵⁵ **Bank in Texas Reports Outflow of \$50 million**, New York Times, 16 July 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 travelling salesmen.”¹⁵⁶

Between 1980 and 1994, 122 banks went broke in Oklahoma and 599 went broke in Texas. According to the FDIC, the end of the energy boom was the main reason for many of these failures (as well as a commercial real estate bubble). But the problems were exacerbated by competition, which led many banks to relax lending standards.

For banks, the erosion of oil prices beginning in 1981 led to problems with energy loans that were largely responsible for the initial increase in the number of bank failures in 1983. Compounding the difficulties caused by the weakening energy markets was the excessive emphasis that some banks had placed on making energy loans to maintain market share in an environment in which the competition to keep oil and gas customers (during 1981 and 1982) was intense.

For example, in 1981 officials of Republic Bank of Texas were feeling pressure from members of the board of directors to preserve the bank’s market share in energy lending. It was reported that Chairman James D. Berry summoned the bank’s top energy lenders to his office and told them he wanted to make more energy loans. The lenders, who knew the industry was gripped by a gold-rush psychology, all sat there and blinked at the chairman, like a bunch of owls in a tree. But lenders at other institutions were assuming the price of oil would climb to \$60 a barrel or more and had lowered their lending standards to grab new business. Republic’s customers were going to those other banks.¹⁵⁷

The Republic Bank went broke in 1988.

The failure of so many banks had flow-on effects to the entire economy in the southwestern states.

¹⁵⁶ Shay (1998)

¹⁵⁷ Federal Deposit Insurance Corporation (1997), The History of the 80s, Chapter 9, Banking Problems in the Southwest, <http://www.fdic.gov/bank/historical/history/voll.html> accessed January 20, 2009

CONCLUSIONS

What are the lessons which we might have learned from the banking failures which occurred in the 1980s?

- Most banks fail in the traditional way: as a result of excessive growth, sub-prime lending, low doc loans, poor internal controls, and concentrations of risk.
- The originate to distribute model provides an incentive for loan originators to relax credit standards.
- The originate to distribute model provides an incentive for loan originators to be “economical with the truth” when selling their loans. So financial institutions which buy loans should conduct their own rigorous checks on credit quality.
 - In 1984, 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.¹⁵⁸
- A speculative bubble creates a supply of naive investors are particularly vulnerable to mis-selling, and who are willing to borrow to invest in highly leveraged deals. Loan originators who become involved in mis-selling, in order to increase loan volumes, face legal risks when the bubble bursts.
- Loans originators that rely on the sale of their loans are vulnerable to liquidity problems when the market turns down.
- Financial institutions which are facing liquidity problems are likely to seek brokered funds, by paying above-market interest rates and commission.
 - After Penn Square, the government introduced various restrictions on the money broking industry. Poorly capitalised banks were restricted in their use of brokered deposits.
- The flow of wholesale funds is strongly influenced by the advice of intermediaries such as money brokers, who purport to provide independent, expert advice on the risks underlying different securities. In order to improve market efficiency it is desirable to regulate these intermediaries.
- Banks which rely on wholesale sources of funds – such as brokered funds – are more vulnerable to liquidity risks. Hot money will flow out of the bank as soon as there are any rumours about solvency problems.

¹⁵⁸ **Problem Loan Controls Set for Banks**, by James L. Rowe, Washington Post, 15 August 1984

- The collapse of one bank can have spillover effects, creating uncertainty about the potential for losses at other similar financial institutions. The problem is exacerbated when the
 - Uncertainty is increased when the financial statements of the failed bank have failed to give due warning of the risk of failure. So weaknesses in accounting standards or ethical standards of the accounting profession will increase systemic risk.
 - Financial institutions can easily transfer risks from one jurisdiction to another. To improve systemic stability, regulators from different jurisdictions should share information.
 - After reviewing the regulation of Penn Square, the OIG recommended improvements in the sharing of information between regulators in different regions.¹⁵⁹
 - When regulators focus on the solvency of individual banks, they might overlook systemic risks.
 - The OIG also recommended that the OCC should set up committees to assess the impact of practices which might affect large numbers of banks throughout the system. The OCC promised to collect data on industry concentrations of credit risk in order to identify problem industries and assess their impact on the national banking system as a whole.¹⁶⁰
 - Losses could have been limited if the banking regulators had been more aggressive in taking action against Penn Square.
 - In 1991, the government changed the law to require Prompt Corrective Action. This reduced the regulators' discretion – they are now required to take specific steps when a bank's capital falls below specified levels. Unfortunately capital is a lagging indicator – capital only falls when the losses have already started to accumulate – and capital ratios can be manipulated.
 - In order to prevent large losses, regulators decided to allow stronger banks to take over those which were teetering on the brink. In many cases this required relaxation of takeover laws. A side effect was a reduction in competition in the banking industry.
 - Despite the moral hazard created by bailouts, some financial institutions are too big to fail. To prevent instability in the financial system, the government may be compelled to provide financial assistance – via generous deposit insurance, purchase of toxic assets, and even nationalisation of some insolvent financial institutions. Ultimately the taxpayer picks up the tab.

As time goes by, the lessons of past failures are forgotten – and then we have must learn them

¹⁵⁹ OIG Audit (1983)

¹⁶⁰ OIG Audit (1985) pages 2 and 24

again.

REFERENCES

Adler, Joe (2008) **Reliance on Brokered Funds Cited in Kansas Failure**, American Banker, 26 August 2008

Bair, Sheila (2008), Remarks **Remarks by FDIC Chairman Sheila C. Bair to the Florida Bankers Association, Sarasota, Florida September 4, 2008** available at <http://www.fdic.gov/news/news/speeches/archives/2008/chairman/spsept042008.html>

Basle Committee on Banking Supervision (2000) **Principles for the Management of Credit Risk** available at <http://www.bis.org>

Basle Committee on Banking Supervision (2004), **Bank Failures in Mature Economies**, BCBS Publication Number 13, available at http://www.bis.org/publ/bcbs_wp13.htm

Basle Committee on Banking Supervision (2008), **Joint Forum on Credit Risk Transfer: Developments in 2005-2007**, available at http://www.fsforum.org/publications/r_0804c.pdf

Bennett, Robert A, (1982a) , **Bankers Fear and Erosion of Confidence**, New York Times, 19 July 1982

Bennett, Robert A, (1982b), **Trouble Inside the Big Vaults**, New York Times, 25 July 1982

Bordo, Claudio, and Lowe, Phillip (2002), **Asset Prices, Financial and Monetary Stability: exploring the Nexus**, BIS Working Paper No 114, available at <http://www.bis.org/publ/work114.pdf>

Calavita, Pontell, and Tillman (1999) **Big Money Crime: Fraud and Politics in the Savings and Loan Crisis**.

House of Representatives Committee on Banking, Finance, and Urban Affairs (1983) Hearings on the Penn Square Bank Failure, Part 2, September 29 and 30.

Dziobek, Claudia and Pazarba, C.. (1998) **Lessons from Systemic Bank Restructuring: A Survey of 24 Countries**, International Monetary Fund Working Paper 98/113

Edey, Malcolm (2009), **The Financial Crisis and its Effects**, a speech to the Foundation for Aged Care Business Breakfast on March 19,2009, available at http://www.rba.gov.au/Speeches/2009/sp_ag_190309.html

Federal Deposit Insurance Corporation (1997), **History of the Eighties**, available at <http://www.fdic.gov/bank/historical/history/vol1.html>

Financial Stability Forum (2008), **Report of the Financial stability Forum on Enhancing Market and Institutional Resilience**.

Frost, Edward (1987) Long **Island Financial Firm The Focus Of Grand Jury Fraud Investigation**, The Associated Press, 14 June 1987

Government Accounting Office (GAO) (2009) ,**Review of Regulators' Oversight of Risk Management Systems at a Limited Number of Large, Complex Financial Institutions, March 2009**, GAO-09-499T, available at <http://www.gao.gov/new.items/d09499t.pdf>

- Galbraith, JK (1994), **A Short History of Financial Euphoria**, Penguin Books
- Gerth, Jeff (1982) **Cozy Dealing at Penn square: Records Yield a Pattern of Insider Loans**, New York Times, August 13 1982
- Hayes, Thomas C. (1986) **Ailing Bank Jolts Oklahoma**, New York Times, 29 April 1986
- Hill, G. Christian (1984) **Losses from Penn Square Bank Failures Total to \$1.22 Billion and Are still Growing**, Wall Street Journal, 12 April 1984
- Hitzenrath, David S. (1995). **In Accounting, Credibility is Going Concern**. Washington Post, 27 August 1995
- Johnson, Steve A, and Lindley, James T, (1993) **The Reaction of Financial Markets to Changes in FDIC Policies on Bank Failures**, The Journal of Economics and Finance, Spring 1993, Volume 17, Issue 1, page 43-58
- Kamen, Al (1986). **Court: FDIC Needn't Insurer Letter of Credit**, The Washington Post, 28 May 1985,
- Kindleberger, Charles P, (1996), **Manias, Panics, and Crashes, A History of Financial Crises**, John Wiley, New York, 3rd edition
- Kutner, George W. (1988), **Penn Square Banks, Upstream Correspondents, and CD Contagion Effects**, Journal of Business Research, September 1988, Volume 17 Issue 2
- Mill, John Stuart (1825) *Principles of Political Economy*, Book III, Chapter XII, 'Influence of Credit on Prices' cited in Edey (2009)
- Office of the Inspector General, Department of the Treasury, (1983) **The Penn Square Bank Failure: A Case Study**
- Office of the Inspector General, Department of the Treasury (2009), **Material Loss Review of IndyMac Bank, FSB**, February 26, 2009 available at <http://www.ustreas.gov/inspector-general/audit-reports/index.shtml>
- Office of the Comptroller of the Currency (OCC), (1988). **Bank Failure: An Evaluation of the Factors Contributing to the Failure of National Banks**
- Office of the Comptroller of the Currency (2009). **Testimony of TIMOTHY W. LONG SENIOR DEPUTY COMPTROLLER, BANK SUPERVISION POLICY AND CHIEF NATIONAL BANK EXAMINER Before the SUBCOMMITTEE ON SECURITIES, INSURANCE, AND INVESTMENT OF THE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS UNITED STATES SENATE** March 18, 2009 available at <http://www.occ.gov/ftp/release/2009-23b.pdf>
- Office of the Inspector General, Department of the Treasury (1983), **Audit Report: The Penn Square Bank Failure: A Case Study**.
- Office of the Inspector General, Department of the Treasury (2009), **Audit Report: Safety and Soundness: Material Loss Review of IndyMac Bank FSB**, available at <http://www.treas.gov/inspector-general/audit-reports/2009/oig09032.pdf>

McCollum, James P (1987) **The Continental Affair: the Rise and Fall of the Continental Illinois Bank**, Dodd, Mead & Company, New York

Paschal, Jan (1986a), **PENN SQUARE `A GREAT BANK, A SUPER BANK,' CREDIT UNION TOLD**, *The Journal Record*, 1 November 1986

Paschal, Jan (1986b), **BROKER PRACTICES PART OF SCHEME TO ATTRACT FUNDS INTO PENN BANK / CREDIT UNION ATTORNEY CLAIMS**, *The Journal Record*, 7 November 1986

Pasztor, Andy (1985), **Justice Department Sues Peat Marwick, Charging Fraud on Penn Square Audit**, *The Wall Street Journal*, 5 July 1985

Peavy, John W III, and Hempel, George H (1988), **The Penn Square Bank Failure**, *Journal of Banking and Finance*, 1988 Volume 12, Issue 1

Public Broadcasting Service (PBS) ran a program about Penn Square and Continental Illinois called **Breaking the Bank** on May 28, 1985

Rankin, Deborah (1982) **How Safe is Your Money ?** *New York Times*, August 1, 1982

Reserve Bank of Australia, (2003), **Asset Prices and Monetary Policy**, papers and discussion from a conference held August 18-19, available at <http://www.rba.gov.au/PublicationsAndResearch/Conferences/2003/index.html>

Ringer, Richard (1987), **FSLIC, FDIC Seek to Jointly Prosecute Fraud Case in Kansas FSLIC Asks Court Permission to Join FDIC Suit in Case of Alleged Fraud in Kansas**, *American Banker*, 7 April 1987

Rose, Sanford (1985) **A Question of Independence**. *American Banker*, 7 May 1985

Rowan, Roy (1982), **The Swinger Who Broke Penn Square Bank**, *Fortune*, August 23, 1982

Rowe, James L Jr, (1982) **Bank's Officers Say Collapse was Surprise: Questionable Penn Square Practices Outlined**, *Washington Post*, August 17, 1982, included as an appendix to Congressional Transcript page 487

Rowe, James L Jr (1984) **Brokered Deposits Limits Proposed**, *Washington Post*, 17 January 1984

Rowe, James L (1984b) **Plans to Curb Brokered Funds Meet Resistance**, *Washington Post* 12 February 1984

Seidman, L. William (2000), **Full Faith and Credit**, Beard Books

Senior Supervisors Group. (2008) "**Observations on Risk Management Practices During the Recent Market Turmoil**", available at http://www.newyorkfed.org/newsevents/news/banking/2008/SSG_Risk_Mgt_doc_final.pdf

Shay, Rodger (1998) **Back from the Brink**, *American Community Banker*, March 1998, Volume 7 issue 3 page 36

Simon, John (2003) **Three Australian Asset-Price Bubbles**, conference presentation at the Reserve Bank of Australia Conference in August 2003, available at <http://www.rba.gov.au/PublicationsAndResearch/Conferences/2003/index.html>

Singer, Mark. (1985) **Funny Money**, Houghton Mifflin Company, New York

Sprague, Irvine H., (1986) **Bailout: An Insider's Account of Bank Rescues and Failures**, Basic Books Inc, New York

Staff Report (1985), Staff Report to the SubCommittee on Financial Institutions Supervision, Regulation, and Insurance of the Committee on Banking, Finance, and Urban Affairs, House of Representatives, Continental Illinois National Bank: report of an Inquiry into its Federal Supervision and Assistance, July 1985, US Government Printing Office, Washington

Pizzo, Stephen, Fricker, Mary, and Muolo, Paul (1991), **Inside Job: The Looting of America's Savings and Loan**, Harper Collins

Richards, Anthony (2003). **Introduction to Asset Prices and Monetary Policy**, Conference Papers from the Reserve Bank of Australia Conference August 2003, available at <http://www.rba.gov.au/PublicationsAndResearch/Conferences/2003/index.html>

Wolfe, Lou Anne (1990), **Penn Square Bank Woes Unseen by Peat Marwick**, The Journal Record, 9 October 1990

Yergin, Daniel (1991), *The Prize: The Epic Quests for Oil, Money, and Power*, Free Press, New York.

Zweig, Phillip L., (1985) **Belly Up: the Collapse of the Penn Square Bank**, Fawcett Columbine, New York

APPENDIX 1:

A COMPARISON OF LOAN PORTFOLIO MANAGEMENT PRACTICES

From **Bank Failure: An Evaluation of the Factors Contributing to the Failure of National Banks**
(Office of the Comptroller of the Currency, 1988)

Characteristic	Healthy Banks			Failed Banks		
	No	Moderately	Yes	No	Moderately	Yes
Liberal Lending Practices	84%	13%	0%	2%	10%	85%
Excessive growth relative to management staff, systems, funding	84%	13%	3%	24%	22%	52%
Overlending	79%	11%	0%	5%	12%	73%
Collateral based lending	60%	32%	3%	8%	27%	55%
Concentrations of risk	76%	24%	0%	34%	22%	23%
Financial Statement Exceptions	37%	34%	29%	3%	16%	79%
Collateral Documentation Exceptions	52%	39%	0%	5%	22%	67%

Just as a CPR class teaches you how to perform the basics of cardiac pulmonary resuscitation, this brochure will explain how to read the basic parts of a financial statement. It will not train you to be an accountant (just as a CPR course will not make you a cardiac doctor), but it should give you the confidence to be able to look at a set of financial statements and make sense of them. Let's begin by looking at what financial statements do. "Show me the money!"