Risk Is a Many Splendored Thing: Lessons Learned

Remarks before the Austin Mortgage Bankers Association

Richard W. Fisher
President and CEO
Federal Reserve Bank of Dallas

Austin, Texas
April 4, 2007

Risk Is a Many Splendored Thing: Lessons Learned

Richard W. Fisher

Perceptions of risk lie in the eye of the beholder. Some see risk as a powerful force vital to capitalism; others consider it a four-letter word. The latter view may be gaining currency these days, with reports of risk coming home to roost in housing finance. Temporary problems in one industry, however, should not detract from the essential value of, need for and virtues of risk taking. We must be constantly mindful that prudent risk taking is the lifeblood of capitalism, and it is indeed a many splendored thing. If we had not taken risks, we would never have created from scratch the $13 trillion U.S. economy, the greatest economic machine in the history of the planet.

Ever since our ancestors decided that life was anything but predestined by supreme forces beyond their control, we have taken risks to advance our interests as we navigate our way toward the future. A young person who goes to college, for example, risks the certain income from today's job, believing in the probability of a better paying one after graduation. Once we are in the workforce, life insurance hedges the risk that we might die before we have socked away enough money to provide for our families. As we accumulate excess savings, we place them at risk by investing in stocks and bonds to secure our retirement. We take risks by borrowing to finance our homes and our businesses, with the expectation that a brighter future will enable us to repay our debts and then some.

The impulse for risk gives rise to agents to service it, like the good people assembled in this room. Banks, insurance companies, investment banks, money managers, hedge funds and other financial intermediaries provide the means to package and distribute risk. In the old days, their job was fairly straightforward. The agents packaged straight-up risk instruments like letters of credit, banker's acceptances, commercial paper, simple loans and stocks, and fixed-rate mortgages. Today, assisted by technology and computational power that can assess probabilities faster than you can say "Keep Austin Weird," financial intermediaries offer products to satisfy almost any risk taker's needs.

In contemplating the present situation of our economy, one can easily become confused and distracted by the enormous array of risk instruments now available and by trying to figure out where the buck really stops. In sorting through it all, I find it helpful to bear in mind certain patterns that reemerge throughout history—patterns that are imprinted in human nature, independent of advances in financial sophistication. I would like to remind you of them today.

The views I am about to express, as always, are my own and not those of any other participant in the Federal Open Market Committee or the Federal Reserve. They are conditioned by personal experience.

A substantial part of my personal experience involved spending some 20-odd years as a professional investor and hedge-fund manager pursuing the time-honored goal of buying a dollar's worth of underlying value with nickels and dimes invested in publicly traded securities, including those of distressed banks, thrifts and other financial institutions in the aftermath of the 1980s. As mentioned in Bernie's introduction, my partners and I succeeded in those endeavors

more often than not, but that is not the point. The point is that I have experienced the process of risk taking as a market operator—the upside and the downside—at the microlevel, not just as a macroeconomic analyst.

And yet, I am now the beneficiary of the collective knowledge of the Dallas Fed's bank supervisors and analysts—those battle-hardened souls who navigated their way through Texas' savings and loan, banking and real estate crises of the 1980s.

Against that backdrop, the following is one man's perspective on the current scene.

First, a little not-terribly-ancient history. In the 1980s, the euphoria of oil prices approaching $80 a barrel in today's dollars led to a frenzy of lending activity in the Eleventh Federal Reserve District. At least I think that's what any reasonable observer would call the *annual* growth rate of business loans of over 40 percent at Texas banks and *annual* growth in commercial real estate lending of almost 50 percent that we saw in the early part of that decade. Booking assets at such a rapid clip has a "come hither," seductive power. In pursuit of a seemingly sure thing, more than 550 new banks were chartered in Texas from 1980 through 1985. This made for a volatile brew, combining dramatic rates of growth in activity with a dramatic expansion of the number of players with limited experience in navigating a reversal of fate, or what econometricians call a reversion to the mean. The assumption of permanently high—or permanently rising—prices in an asset class—in this case, oil—invariably leads to regrettable decisions.

You recall what ensued. By early 1981, reversion to the mean had begun. Real oil prices began to fall, contributing to an economic slowdown in the region's most energy-sensitive areas, such as Houston. The regional economy held its own for a while, propelled by a red-hot commercial real estate sector. The state economy suffered a severe decline when oil collapsed to the current equivalent of $17 per barrel by mid-1986. Bank and thrift failures reached a frightful magnitude. More than 800 financial institutions went out of business in Texas during the 1980s and into the early 1990s. Nine of the 10 largest banking organizations based in Texas didn't make it.

The energy bust reverberated through Texas, and it was keenly felt in both commercial and residential real estate markets. Office vacancies soared. In Dallas and Houston, they hovered around 30 percent, and they approached 40 percent here in Austin. Troubles in the residential sector got so bad that the city of Garland, a Dallas suburb, authorized a condo development project interrupted by the collapsed market to be set on fire; burning it to the ground seemed the best choice for the 240 unfinished condos that had become eyesores and safety hazards in the twinkle of a financial cycle's eye.

That is pretty bracing stuff, but quickly forgotten when one looks around this state two decades later and sees a booming economy and rapid employment growth. Texas is attracting corporate headquarters and new citizens like bees to honey, is now the largest exporting state, is pumping on all economic cylinders, and is even having nice things written about its museums and restaurants in *The New York Times*. And the Houston and Austin and Dallas commercial real estate markets are hotter than a two-dollar pistol. Yet we mustn't forget the dangers of miscalculating risk and the pain of corrections.

To be sure, we have made significant strides since the 1980s. Information technology has greatly improved the ability to measure and calibrate risk. The banking industry has taken advantage of

the technology with its value-at-risk measurement and the formal statistical models that are the essence of the proposed Basel II bank capital requirements. It is now possible to mitigate risk through securitization and the use of derivative products to a degree that was unimaginable in the 1980s.

All these advances have increased liquidity, diversified portfolios and allocated risk to those more willing to bear it. At a very rapid rate, I might add. The majority of banks' involvement in derivatives has been through interest rate swaps, which grew 26 percent last year. But the fastest growth has been in credit derivatives, which by some measures increased 55 percent last year and tenfold in the past three years or so.

By any accounting, growth in structured credit products has been enormous. As a result, many new players have now entered these markets—issuers and distributors as well as buyers. Slightly more than 40 percent of the collateralized debt obligations, or CDOs, backed by corporate loans and rated by Moody's last year were set up by first-time issuers that have not yet managed through a downturn in the credit cycle.

The memory cells begin to tingle. We are reminded that investors and financial institutions need to consider fully the potential for broad swings in financial markets to cause losses across a range of asset classes, even when losses may seem uncorrelated in a more benign environment. As we learned from our own experience here in Texas, adverse performance may be more correlated across assets than many expect, and the ramifications for pricing errors can be enormous.

I often hear anecdotes of seemingly risk-laden financial deals fetching only bare-bones margins. Capital appears to be chasing one hot product after another, even as returns are compressed. In this regard, we should be mindful of the possibility that intense competition is causing investors to reach for yield and assume too much risk, just as Texas banks did in the 1980s with their aggressive shift from the faltering energy sector to the glitter of real estate.

To complicate the situation even further, there are reasons to suspect the recent surge in financial innovation, improperly understood, can intensify rather than mitigate the scope for error.

I have just returned from a spring break vacation in the Caribbean with my daughter. While we were there, a local ichthyologist explained that fish have no memories and tend to swim in schools.

When we were out of the water, my tutors in the Dallas Fed's Research Department had me read a brief about the great economist Frank Knight—now best known as Milton Friedman's teacher. And for pure reading pleasure, I took along a compendium of Charles Dickens' works.

There are lessons about risk to be gleaned from all three: the fish expert, Frank Knight and Dickens. Let's start with Knight.

Knight viewed probabilities in three ways. The first and simplest is something like a roll of a fair die, where the odds of a six can be computed as one-sixth. Second are repeatable events, such as the proportion of widgets that might break on a production line. Here, experience can be a good teacher. If we observe three of 1,000 widgets breaking on Tuesday, a similar proportion might be expected to break on Wednesday. Third, there are unique events where probabilities can only be

formed through judgments. For example, what is the probability that a certain new product might eventually rival the iPod or the Blackberry in popularity?

In Knight's view, it is easiest to position for risk in the first two circumstances. The most difficult and most important business decisions involve the third type of probability, where judgment plays a decisive role.

There is an ever-present risk that financial markets may be treating recent innovations as if they were in the second category, where probabilities can be based on experience, when in fact many new financial products still belong to the third category—the most difficult one, for which sound judgment is paramount. Many of today's new financial innovations arguably have not been around long enough for their loss probabilities to be accurately estimated, despite the comfort provided by stochastic models and theoretical formulas.

Danger lies in placing too much faith in historical value-at-risk estimates, especially when they are based on limited experience with new products. Wrong probabilities—whether they result from limited experience, model errors or just bad judgment—can lead to costly mistakes. The real world has a nasty habit of reminding us of this every so often—Texas in the late 1980s, Long-Term Capital Management in the 1990s and the subprime mortgage market today.

For these reasons, value-at-risk estimates must be supplemented with stress testing and, most important, prudent judgment. It takes extraordinary discipline for financial institutions and investors to exercise sound judgment when the fish are schooling, swimming in pools of liquidity, unencumbered by memory.

The possibility that recent innovations may have reshaped both the positive and negative parameters of risk is evident in supervisors' calls for financial institutions to control counterparty risk, such as in the case of credit default swaps. In these transactions, the purchasers of protection can offload the risk of their original positions but depend on a third party as guarantor. Credit risk has simply been replaced by counterparty risk, about which we might not know as much as we should.

Here is where Dickens comes in. In his book *Martin Chuzzlewit*, one of his characters utters this classic description of financial markets:

> *"I can tell you," said Tigg…, "how many of 'em will buy annuities, effect insurances, bring us their money in a hundred shapes and ways, force it upon us, trust us as if we were the Mint; yet know no more about us than you do of that crossing-sweeper at the corner."*

And then there is my favorite quote from *Little Dorrit*, sounding the alarm bells when, as Dickens put it, "a person who cannot pay gets another person who cannot pay to guarantee that he can pay."

More than 150 years ago, Dickens foreshadowed one of today's more vexing problems with structured products: knowing just where the risk is or who is ultimately holding it—who ultimately pays should things go wrong. A growing awareness of the potential domino effects of

counterparty risk has been emerging, where knowledge of one's counterparty depends on the counterparty's counterparty.

If you're looking for a financial market segment where these issues have come home to roost, you need look no further than the subprime mortgage industry.

Only recently have we seen widespread use of a number of innovative mortgage products, such as interest-only loans and option ARMs. And these innovations are now common even in the subprime sector, which itself has grown tremendously. The most innovative mortgage products have tended to be used more in markets with the greatest home-price appreciation, suggesting some homebuyers stretched themselves financially to purchase increasingly expensive homes. In many cases, homebuyers may have had no other choice if they wished to purchase a home.

By easing the qualifying process, these instruments have made home mortgage credit available to broader segments of society—bringing "money in a hundred shapes and ways," to quote Dickens' Tigg. Indeed, many families own homes today thanks to subprimes and mortgage product innovations. That's the good news: Financial innovation has made it possible for more Americans than ever to have a tangible piece of the American Dream, including those whom some lenders know no more about than they do of the "crossing-sweeper at the corner." The bad news is that these very innovations have left homebuyers exposed to a decline in the housing market or rising interest rates, or both. We must not forget that these new products have yet to be tested in a credit-cycle downturn.

A student of Dickens or of financial market history might have expected problems to arise in subprime lending. Relaxed standards and documentation requirements are typically part of aggressive lending strategies that accompany asset price booms, and subprime lenders are no exception. Some subprime agents on the West Coast and in Florida and elsewhere in the nation seem to have been as aggressive and as undiversified as the Texas banks and S&Ls were in the 1980s. Just as we had oil prices fueling our lending boom in the 1980s, today's mortgage explosion has been fed by a combination of low interest rates and some spectacular growth in home prices.

Thus far, the damage from the subprime market has been largely contained, as many of my Federal Reserve counterparts have been saying. Why do we say so? To begin with, quality problems have risen primarily for adjustable-rate subprime loans, which are only about 8.5 percent of home mortgage debt outstanding. Also, much of this debt was packaged into private-label mortgage-backed securities with the downside risk spread out over a diverse group of investors. Nevertheless, because 40 percent of homebuyers last year were nonprime (subprime and Alt-A) borrowers, housing markets may feel some short-term pain, making it less clear whether housing construction has bottomed and how long the housing downturn may last. Fortunately, the financial system and the economy are strong enough to weather this storm.

While the subprime damage is largely contained, I do not mean that the market will or should refrain from punishing those who neglected time-proven rules of prudence. Nor am I suggesting that the neglect of prudent practices has not bled into other types of credit—such as the Alt-A market. Indeed, it would be atypical for lax lending standards in one area of credit not to lead to laxity in others. Nor am I placing excessive faith in models that have yet to be tested by real developments.

The subprime situation may well be a blessing in disguise. It reminds us that history does have the capacity to repeat itself. The old financial axioms—levelheaded notions such as "know your customer" (or your counterparty) and "there is a difference between price and value"—remain valid. I expect market discipline to reassert itself, swiftly punishing those who pressed the limits of imprudence or suffered selective amnesia, hopefully doing so in a way that staves off the impulse for lawmakers and regulators to interfere disproportionately.

I acknowledge that is a tall order. But I am encouraged by what I see developing. As a former market operator, I take comfort in knowing that over time markets always clear. To be sure, the economy will grow somewhat more slowly because of the correction in the housing market. At the same time, other pistons in our economic engine, particularly consumption, continue pumping. And a buildup in housing inventory means that responsible buyers will be able to purchase homes at more affordable prices. We may have had a glimpse into this process in the National Association of Realtors report of pending home sales released yesterday.

In addressing the subprime issue, regulatory agencies are working hard to avoid causing an overreaction with credit standards that would needlessly cause too much of a slowdown in housing or the overall economy. And we do not want to stifle financial innovation simply because some problems have arisen in one sector.

Policymakers can learn a great deal from what they did wrong in the debacle of the 1980s. Back then, regulators and lawmakers had imposed product restrictions—especially on thrifts—that made diversification difficult. These limits were later relaxed—but only after the thrifts had been weakened. Back then, interstate branching restrictions limited banks' ability to diversify geographically. Tax laws encouraged commercial real estate investment in 1981, but new policies discouraged it in 1986. A policy of regulatory forbearance and its associated moral hazard problems contributed to the lending excess. So-called "zombie thrifts" were allowed to operate when they should have been closed down, encouraging otherwise-bankrupt institutions to "bet the bank" in highly speculative ventures. If it paid off, fine; if not, the taxpayer would foot the bill. In the end, it cost over $65 billion to clean up the Texas S&L industry alone.

I expect some of you will argue that the Federal Reserve also compounded the problem. It is true that breaking the back of looming hyperinflation in the 1980s required the FOMC to push short-term interest rates as high as 19 percent—way above the rates thrift institutions were earning on their older, fixed-rate mortgages. The resulting losses depleted much of the S&L industry's capital. Back then, Texas and the other energy belt states felt the pain of the eventual correction, much as the coasts are currently feeling the aftershocks of an excessive speculation in housing that was fueled by a combination of low short-term interest rates and advances in financial technology.

By always bearing in mind the potential for policymakers to compound rather than solve problems, the Fed and other regulators are doing their level best to tread very carefully in dealing with the subprime situation. Mindful of this, I think the recent subprime mortgage statement put out for comment by the Fed and four other regulators gets the notion of sensible risk taking just about right.

First, it asks lenders to ensure that borrowers understand the risks in their mortgages. Second, it specifies that an institution's analysis of a borrower's repayment capacity should verify an ability to repay the debt by its maturity date at the fully indexed rate, assuming a fully amortizing repayment schedule.

These common sense principles should enable homebuyers who reasonably expect higher future incomes to temporarily benefit from lower initial mortgage payments. They also recognize that lenders need to see whether borrowers can be reasonably expected to handle the transition from an initial teaser rate or interest-only option.

You are mortgage bankers. You know what the situation is and what it calls for. I would simply ask that you stick to the basics in your lending practices and that you inform us regulators as to what reasonable measures might be contemplated to make sure that any problems in the subprime sector remain "contained" and do not lead to systemic contamination.

Subprime mortgages are a segment of the financial marketplace in which risk might have been abused. But this in no way denigrates the invaluable role that taking risk plays in our economy. It all comes down to a question of proportion. It is worth keeping in mind the old toxicology dictum that "the dose makes the poison," a shortened version of a saying attributed to a 16th century Swiss chemist named Paracelsus. "All things," Paracelsus wrote, "are poison and nothing is without poison, only the dose permits something not to be poisonous."

I regard risk and risk taking as a good thing. Mae West once quipped that "too much of a good thing is never enough." Paracelsus may not be as funny, but I prefer his message. The dose determines whether risk is healthy or ruinous.

Financial markets price risk 24/7. Whether they get it right, of course, is another matter. For mortgage bankers, knowing your customers and potential exposures is requisite to getting it right. A roll of the dice is something else, as is working under the presumption that returns can be made while someone else incurs all your risk. Remember that passage from *Little Dorrit*. Astute observers recognize that third-party assurances may provide only illusory protection from risk.

In talking about risk today, I have been a bit of a worrywart. That goes with the job. After all, we are the guys who have the reputation of taking away the punchbowl before the party gets out of hand. I think this is the proper role for the Fed to play, though it is hardly a strategy for winning popularity contests. That said, we believe in the elixir of risk, properly dosed. To thrive, capitalism needs risk taking. Risk is a many splendored thing that drives investment, innovation and growth. A wise man once said, "A ship in harbor is safe, but that is not what ships are built for." Risk takers—mortgage bankers like you and countless others—build and launch the ships that sail our economy forward.

The elimination of risk can never be the goal of any type of policymaker in a capitalist system. Risk becomes a problem only when it is excessive or when it is abused—a proposition that is especially true in today's environment, where financial markets are increasingly globally integrated and information moves with the click of a mouse.

The main concern for policymakers is the potential for excessive risk taking to result in systemic problems. So far, that has not happened, and we are working double time, overtime to make sure it does not. Policymakers need to remain vigilant in seeking the right balance between prudent and indiscriminate risk taking. As do you.

Amen to that. Amen to fish. Amen to Charles Dickens, Mae West, Frank Knight and Paracelsus. And to Bernie Bernfeld for inviting me to speak here today. Thank you.