| eight |

Fantasy Finance Meets Reality: The Great Crash of 2008

For DERIVATIVES TO BECOME "financial instruments of mass destruction," they needed an explosive trigger. And they got it with the bursting of the housing bubble.

There's a running argument about when the housing boom really started, why it grew, and what precisely caused it to crash. Some say it began after World War II when home ownership expanded rapidly. Others believe it started much later and was caused by easy-money policies on the part of the Fed and the Bush tax cuts. Still others claim it was a purely psychological phenomenon—bubble thinking—amplified by the media beginning in the early 2000s.

The evidence strongly suggests that mortgage-backed CDOs contributed mightily to the easy availability of mortgage money, especially for the riskiest homebuyers. We also know from previous financial bubbles that the financial casino always stokes booms. Even if you don't buy this idea, there's no question that housing prices shot through the roof during this decade. Chart 6 shows the most reputable housing-price index constructed by Karl Case and Robert J. Shiller, which shows housing prices shooting up "like a rocket taking off." I

During this period, housing prices accelerated much faster than the gross domestic product, which is not the typical pattern. From after World War II until 2000, the housing-price index and GDP trend lines ran almost perfectly in parallel. Not so after 2000.

The amount of money tied up in mortgages also skyrocketed, as seen in chart 7, provided by the Federal Reserve.

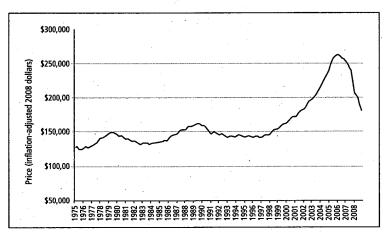


Chart 6. Real Median Home Prices in the United States. Case-Shiller Index, converted to dollar values, at http://mysite.verizon.net/vzeqrguz/housingbubble/.

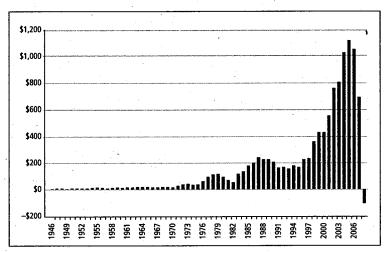


Chart 7. Total Value of New Mortgages Issued in the United States Each Year (in billions). Federal Reserve, "Flow of Funds Accounts of the United States," Federal Reserve Statistical Release Z.1, Historical data files, tables F.218, at www.federalreserve.gov/releases/z1/Current/data.htm.

As the boom took hold, more and more subprime borrowers were lured into the market. Mortgage brokers were hungry for the business because the fees were high. In November 2007, the Federal Reserve Bank of Dallas newsletter described the rise of marginal mortgages:

Some 80 percent of outstanding U.S. mortgages are prime, while 14 percent are subprime and 6 percent fall into the near-prime category. These numbers, however, mask the explosive growth of non-prime mortgages. Subprime and near-prime loans shot up from 9 percent of newly originated securitized mortgages in 2001 to 40 percent in 2006.²

The CDO fantasy-finance industry fueled that "explosive growth" through their magical alchemy of turning junk mortgages into AAA bonds. From the investor point of view, the risk of subprime mortgages virtually disappeared.

For a few years, it looked as if those holding these securities would make out like bandits because subprime defaults were actually *declining* as the boom accelerated. From 2002 to 2005 the share of subprime mortgages past due fell from 15 percent to 10 percent (see chart 8). As a result, equity-tranche holders might be clearing 20, 30, or even 40 percent returns. You can bet this accelerated the demand for more and more subprime mortgages to pool into CDOs.

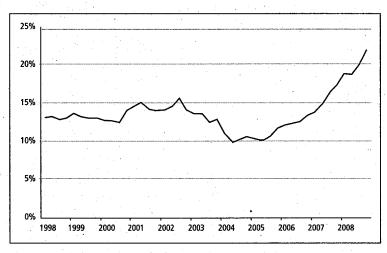


Chart 8. Subprime Loan Default Rates. Mortgage Bankers Association. The delinquencies are for mortgages that are 30, 60, and 90 days past due.

As the housing bubble swelled, speculators rushed in to buy up houses to flip—at the time of the bubble's peak, fully 20 percent of all home purchases were purely speculative³—profiting from the rising prices. Brokers peddled deceptive mortgage products to unsuspecting buyers. CDO salespeople pushed even the riskiest mortgage-backed securities onto pension funds and local governments that had no idea what they were buying. (To be sure some did know what they were doing and fell in love with the enormous projected returns.) The risk seemed to have evaporated, since home prices were going up and up.

"Get in now or you'll miss out on easy money," flashes the neon sign in front of the financial casino. "All winners, no losers."

Surely, our financial guardians saw this coming. Surely they were sounding the alarm. Not Ben Bernanke. However, he did address the subject as head of the Bush administration's Council of Economic Advisors in 2005, a time when housing values had lost any connection to reality. Bernanke acknowledged to members of Congress that home prices had risen by nearly 25 percent since 2003. But these increases, he said, "largely reflect strong economic fundamentals," including strong growth in jobs, incomes, and the number of new households. I'll bet he'd like to take that back.

Then-Fed chairman Greenspan also refused to admit there was a bubble. He could allow that a few markets showed signs of "froth." But no one wanted to get in the way of Wall Street's gigantic derivative profit machine, which was propelling the boom.

There are many ways the Fed might have slowed down the housing boom—by tightening mortgage requirements at Fannie and Freddie, raising interest rates, or regulating derivative markets, for instance. But they didn't, because our financial leaders believed with all their heart and soul in self-regulating financial markets. Since market values were rapidly rising, the market had to be correctly assessing the fundamental values. Besides, they were dead certain that the financial system could handle

a bust. After the dot.com bubble burst, the economy rocked a bit, but survived. Enron and WorldCom went belly-up, but the banking system stood firm. In fact, financial leaders believed that credit default swaps and other derivatives spread the risk of such busts and therefore protected the economy.

But this time the market miracle didn't materialize. At some point in all booms the gap between the bubble value and the real value gets too vast. And then reality breaks through. This time, the inevitable end came after homebuilders, reacting to rising prices, overbuilt. The supply of homes outstripped demand. There just weren't enough buyers left—subprime, speculators, or otherwise. The buying public was tapped out. They had too much debt, and their wages were stagnant (as we saw in chapter 2). And so, home prices declined. Meanwhile, reality slapped subprime borrowers in the face when their adjustable teaser rates shot up. More and more of these borrowers were unable to make their mortgage payments. If house prices had continued to soar, they could have refinanced at lower rates or sold their property to pay off their mortgages and maybe even have cleared a few bucks. But when prices sank, their homes were suddenly worth less than their mortgages: They were "under water." Behind in their payments and having no equity to protect, many borrowers walked away, leaving the keys behind.

You know the housing story from here. Prices plummeted as more and more defaulted homes came on the market. Entire neighborhoods suffered. Prime borrowers watched their home values deteriorate as foreclosed homes dotted their neighborhoods. Even Rust Belt cities that had missed the housing boom entirely saw their modest home values tank. Speculators with multiple homes were stuck. And developers with new projects could not find buyers. The housing casino was closing.

As people began defaulting on their subprime mortgages, risk magically returned to the tranches. The equity tranches, often

held by banks, large financial institutions, and pension funds, were the first to go belly-up. Then, as defaults rose past historical levels, the mezzanine tranches also failed. Soon the supposedly secure AAA tranches started to absorb losses. Even if the defaults didn't go all the way to the senior tranches, the protective cushion below them was gone—and so they no longer merited their high credit ratings. Their prices crashed. In a flash, the emperor had no clothes.

For every "real" subprime tranche that went under, many synthetic tranches built from swaps on those mortgage pools crashed as well. It was as if the major leagues went on strike and destroyed thousands of fantasy baseball leagues.

Credit rating agencies were soon on the hot seat. They had received millions upon millions in fees from financial institutions to rate CDOs. Inevitably they blessed the senior tranches with AAA ratings, and the world's investment community relied on those ratings. Triple-A CDOs littered the globe. To produce those ratings, Moody's, Standard and Poor's, and Fitch's relied on models developed by the very firms that wanted the high ratings.

In theory, models for pricing and rating CDOs and swaps are designed to account for risk based on the probabilities of an uncertain future. Before computers this was nearly impossible to do. How do you figure out the risk of a mortgage pool with a thousand subprime mortgages from a variety of housing markets? What assumptions do you make about the default rates and the recovery rate in foreclosure? Tough stuff.

It got a little easier in 1972, when computers first entered the picture (even if getting access to one meant punching cards and standing in line at your university's one mainframe). Fisher Black, Myron Scholes, and Robert Merton developed a model to price options. (Scholes and Merton later got the Nobel Prize for it.) Their model gave people who were buying and selling futures and options a good idea how to price them. Within two decades mathematicians had figured out how to model CDOs as well. Many of the models were proprietary, owned by the very

firms that were seeking the ratings. It was extremely hard for the ratings agencies to second-guess these high-powered mathematical constructs. (Also, there was money to be made by not second-guessing the models. More on that in chapter 9.)

Again there is a fantasy baseball echo. When the first American League-based fantasy baseball league in the country started in 1981 (the American Dream League⁵), we had no idea what we were doing. We'd conduct auctions for players, assemble our teams, make trades, and do the statistics by hand. Within a few years, one of our fantasy-team owners, Alex Patton, noticed that every year Eddie Murray, the Orioles slugger, went for \$40 in our draft. (In our league each team had \$260 to pay for a team of four-teen hitters and nine pitchers.) Each year our auction "market" felt like it could count on Steady Eddie to hit .300 or better, club 35 or more home runs, and drive in over 100 runs.

Patton astutely observed that if those stats were worth \$40, then he could price every other hitter in our auction based on his estimate of what each player was likely to accomplish during the upcoming year. With those relative prices in hand he became the best bidder and clobbered us all for several years running. So even in the derivative dreamworld of fantasy baseball, models are extremely valuable. In fact, several of us got into the act and published our numbers in books and magazines. Twenty-five years later Patton is still at it, and runs a profitable online service with Peter Kreutzer that prices players. He awaits his Nobel Prize for fantasy baseball.

In fantasy baseball, nothing terrible happens if your model turns out to be flawed. People will stop buying your books or using your Web sites. Plus, you'll drop rank in your fantasy league and be humiliated in front of your peers. There's always next year. Our faulty models have no impact on real baseball. But as we are learning painfully, when fantasy-finance models go wrong they can cripple the real economy.

I don't have the mathematical skills to dissect financial derivative models. But our Princeton statistics professors did impart to

us one extremely valuable concept: "Garbage in, garbage out." No matter how elegant your model, no matter how sophisticated your mathematical tools, if your initial assumptions are wrong, your results will be wrong, perhaps disastrously so.

It seems fairly certain that the CDO models bankers used to rate their tranches were based on several faulty assumptions. The first was that the low default rates for subprime borrowers we saw during the bubble would continue to remain low. It's as if flood insurers failed to account for 100-year floods. If the models had assumed a higher rate of defaults, then the CDO tranches might not have seemed so golden. But of course the pressure was on to ignore more dire assumptions. (To be sure, a few astute traders took the other side of these bets and profited enormously when the market crashed. But most followed the models into the abyss.)

In making their models, traders also made assumptions about what the "recovery rate" would be—that is, how much a house whose owner had defaulted would resell for. During a period of high appreciation the recovery rate would be very high. One would expect to get back almost the full value of the mortgage if the home had to be sold after default. Of course there were carrying costs, but these could be estimated and modeled in. However, rapidly declining housing prices could—and did—decimate the resale price of homes in default—as well as tranches based on more rosy recovery rates.

The quants also made assumptions involving something called "correlation." Their models assumed that the behavior of each mortgage or bond in the underlying portfolio pool was independent of the other—that the impact of one bad event was unconnected—"uncorrelated"—to another. For example, if a subprime borrower went belly-up in Las Vegas, the models assumed that this event would be unconnected to a default in Miami. Further, a slew of defaults in Las Vegas would not affect the overall market for homes, and declining housing values in general would not cause resale prices of defaulted homes to slide.

But when the bubble burst, the entire market turned out to be

correlated. The defaults were connected, as were housing values. The models had been disastrously wrong.

Frank Partnoy and David A. Skeel, Jr., described these pitfalls in their prescient 2006 paper, "The Promise and Perils of Credit Derivatives." As they put it,

The process of rating CDOs becomes a mathematical game that smart bankers know they can win. A person who understands the details of the model can tweak the inputs, assumptions and underlying assets to produce a CDO that appears to add value, even though it really does not. The mathematical precision of the models is illusory. . . . 6

The authors took their analysis one step further. After looking carefully at how CDOs worked, they expressed strong doubts that it was possible to turn a financial sow's ear into a silk purse. How did CDOs actually produce value? Where did the high fees "earned" by the derivative dealers come from? The authors arrived at two polar-opposite possibilities. One was that the CDO creators had found an amazing, previously overlooked, inefficiency in the bond and mortgage markets: Somehow pools of junk bonds and mortgages had been vastly underpriced, and the tranching process had uncovered and released this hidden value. In that case, CDOs created value by solving a "substantial and pervasive market imperfection." But the authors were skeptical about this theory, which, if true, would represent "the most substantial inefficiency ever found in the finance literature."

And then we have the other possibility, which they found far more credible: The CDO industry actually created no real value at all. And more disturbing still, rather than solving a market imperfection, the CDOs "are being used to create one."

Danger ahead.

Partnoy and Skeel's most worrisome line is worth repeating: "A person who understands the details of the model can tweak the inputs, assumptions and underlying assets to produce a CDO that appears to add value, even though it really does not."

As we've seen, much money was to be made by slightly jiggling the assumptions. It appears to have netted the traders billions and billions in fees. The competitive pressures in the derivative market for CDOs practically guaranteed such jiggling. But the scariest part of Partnoy and Skeel's statement was that CDOs were not merely useless, but actually introduced *negative value* into the financial system. If they were right, those triple-A rated CDO tranches were, in fact, junk.

And they were right. A couple of years after they sounded their warning (only to be ignored by the Greenspans and Bernankes of the world), reality hit and the market for buying and selling CDOs dried up. And understandably, no one any longer trusted the models to determine the risk of these securities. The ratings agencies, of course, had egg on their face. They looked like money-hungry fools. They quickly reclassified triple-A CDOs to the junk bond status from which they came.

Suddenly, all manner of pension funds, insurance companies, university endowments, banks, and local governments saw their secure triple-A bonds turn to junk. They had to dump them, or at least try to. But there were no takers. The price for these investments was now a complete mystery since the market for buying them had dried up. Some might be entirely worthless, but there was no way to be sure. If you owned a CDO squared, you could be pretty sure you had piles of junk. If you owned a synthetic CDO based on swaps on high-risk equity tranches, you were screwed. As a result of the crash in value, the private over-the-counter market for these securities shut down. You were stuck with your toxic waste. (This is what they mean by "illiquid markets.")

Some investors were stuck in a living hell, like Karen Margrethe Kuvaas, mayor of Narvik, Norway, high above the Arctic Circle. To boost the town's revenues, she had heeded a

trusted Norwegian brokerage house, which suggested she invest the town's funds in AAA-rated mortgage-backed CDOs. She was told that these securities were safe and would provide a better return for the town than government bonds. The extra revenue would support the town's schools and generous social services. But after the housing boom went bust in the United States, the value of Narvik's investments fell by \$64 million through the end of 2007. Suddenly the town was facing a 40 percent budget cut. They couldn't make payroll. As the *New York Times* reported, "I think about it every minute,' Ms. Kuvaas, 60, said in an interview, her manner polite but harried. 'Because of this, we can't focus on things that matter, like schools or care for the elderly." "

Had the financial toxic waste only polluted towns like Narvik, the crisis could have been contained easily. But it poisoned major financial institutions as well.

If you're a bank or an investment house holding billions of dollars of these securities and/or swaps on them, you're in big trouble. Some of your assets, maybe most of them, just evaporated. You've got to write them down and you've got to raise more capital. You might also have to sell other assets to stay solvent. The more you sell, and the more the others sell, the more steeply the prices drop. Your liabilities might be greater than your assets because the value of a whole bunch of housing-based securities just vanished. Your books are full of toxic waste. You're teetering on bankruptcy.

And it gets worse.

It gets worse because of the swap part of the financial equation. Many of the major CDO players also were major swap players. They had made bets all over the place. If one of the major swap players—like Bear Stearns, for example—goes under, billions of dollars' worth of swaps also go under. Bear Stearns won't be able to pay out on the swaps it wrote. Those who wrote swaps on Bear Stearns's debt also would have to pay up. It didn't take

long for the CDO toxic waste that polluted Narvik to contaminate Bear Stearns, Merrill Lynch, AIG, Fannie Mae, Freddie Mac, Wachovia, IndyMac, and Washington Mutual, forcing the government to merge them away or take them over. Lehman Brothers also went down but was not rescued.

Here's how CDOs and CDSs collapsed AIG, the largest insurance company in the world. AIG, once a highly profitable company, had earned a triple-A rating on its debt. In addition to its renowned insurance and leasing divisions, it had gotten into writing credit default swaps because—well, they were just too sweet to resist. AIG wrote book on (that is, issued unregulated "insurance" on) more than \$450 billion in swaps on all kinds of securities, including the most risky equity tranches. The company used its AAA status to make those it insured feel safe and sound. Also, because of that rating, they didn't have to put up any collateral for the insurance they wrote. They just collected the premiums. It was like minting money. The holders of these tranches paid AIG up front and then made periodic payments to be insured against the possibility that their CDO securities would default. In effect, AIG was getting hundreds of millions in fees just for a promise. But these deals were based on the assumption that AIG would keep its AAA status. The swaps stipulated that if AIG's ratings were lowered, the company would have to put up collateral to make sure they could pay off the bets. AIG thought the odds that the triple-A-rated CDOs they were insuring would default were minimal—and the odds that AIG itself would be downgraded were positively minuscule. AIG felt secure and rich. Partridge hunting anyone?

Now watch what happens when those triple-A CDOs turn to toxic waste. As we've seen, when the housing bubble burst and subprime mortgage defaults multiplied, the rating agencies often reclassified the tranches as junk—and many tranches went into default.

AIG now had to pay up to those it had insured against default. But in making good on those IOUs, AIG ran out of cash. They

tried to raise billions in a hurry, but lenders refused. Not only did lenders in the private markets recognize that it would now be risky to give money to AIG, but a lot of these lenders were in a similar pickle with CDOs and swaps themselves. When the credit agencies saw AIG starting to struggle, they lowered the ratings on AIG debt—which triggered the collateral requirements of the swaps. Now AIG needed massive infusions of cash or it would go under. It tried to sell assets but it was too little, too late. To prevent collapse and utter chaos, the feds stepped in with about \$100 billion and in effect took over the teetering insurance giant. (The cost of that bailout jumped to about \$180 billion as of March 2009. At that time, AIG was posting a loss of \$60 billion and in negotiations for more federal money.)

In addition, the Federal Reserve Bank of New York set up a new entity, Maiden Lane III, to buy up and remove synthetic CDOs from AIG books. The idea was to have Maiden Lane III purchase the underlying assets and unwind the swaps so that AIG could be relieved of the burden. Then if the underlying assets somehow grew in value again, Maiden Lane III, which is jointly owned by the New York Fed and by AIG, would reap the gains. In the spirit of fairness, one would hope that the Federal Reserve or the U.S. Treasury also would buy up the synthetic collateralized debt obligations that were foisted onto the Wisconsin school districts. (As of this writing, such a request is being made by the Kenosha Teachers Association to the Wisconsin congressional delegation and to the Fed.)

Had AIG gone bankrupt and failed to pay up on its swaps, company after company that relied on that money might have failed as well. This would have triggered more swap payments and more failures, with no end in sight. It could have been the equivalent of the bank runs that led to the Great Depression.

Joseph Cassano, who ran the small unit of AIG traders in London responsible for this fiasco, was confident this scheme would work. As late as August 2007 he told investors that "It's hard for us with, and without being flippant, to even see a scenario

within any kind of realm of reason that would see us losing \$1 in any of those transactions." When it came to his own money, that, indeed, was the case: His compensation totaled \$280 million over eight years and earned him a million a month for six months as a "consultant," after he was forced to retire in April 2008.

To add insult to injury, in March 2009, AIG, which by then was eighty percent owned by the government, used taxpayer money to pay out \$165 million in bonuses. Many of the bonuses went to those in the division that cooked up the disastrous derivative insurance that drove the company and the economy into the ground. Edward Liddy, AIG's chief executive, then came up with one of the lamest excuses since "the dog ate my homework." He wrote to treasury secretary Tim Geithner, "We cannot attract and retain the best and the brightest talent to lead and staff the A.I.G. businesses—which are now being operated principally on behalf of American taxpayers—if employees believe their compensation is subject to continued and arbitrary adjustment by the U.S. Treasury."

Frank Partnoy, like virtually every financial writer, deploys a gambling metaphor to explain how the few major derivative dealers could bring down the house. He writes, "Imagine a poker game where everyone is borrowing from everyone else. Now supposing the biggest loser goes bust after losing a big bet with someone not at the poker table. Suddenly, all of the poker players at the table are insolvent."¹⁰

But let's take that metaphor a step further. Imagine that each insolvent player is now unable to pay his debts to players at other poker tables. Those other poker tables would go bust as well, and so on, right through the casino. Or, in reality, right through the entire credit system.

Enter the famous "credit freeze" of 2008. What exactly is that? In chapter 2 we used the analogy that the banking system in general provides the oxygen for the real economy. Like the air we breathe, money flows in myriad directions at the same time.

Companies use short-term loans on a daily basis to cover expenses like payroll. They need longer-term loans to invest in their plants, equipment, and research and development. Mortgages, car loans, student loans, credit cards, all need bank funds to circulate. Even the Wisconsin school districts borrow short-term money each year to smooth out their income flows as they wait for local tax revenues and state funds to arrive.

But this circulation depends on basic bank-to-bank loans. Smaller banks in the hinterland lend their surplus deposits to big banks in the financial capitals who in turn lend the money to large employers back in the hinterland. Large banks lend back and forth among each other for countless purposes. If they stop, all manner of lending grinds to a halt. And grind to a halt it did, once those derivatives went bust.

Think about it from the point of view of one of the nine surviving large national banks. You've got billions of dollars' worth of CDO assets that have plummeted in value. You are afraid to sell them because then you'd have to book the enormous losses and you might be declared insolvent. So you hold onto them and pray they come up in value. You also have billions upon billions of dollars' worth of swaps that might soon come due if other banks and companies fail. In fact you have bets in all directions—you're giving out insurance and buying insurance. Because of the crash in your toxic assets, you might have to write them down, so now your capital base is declining. You need more capital. You're also worried about having enough cash around to meet any unexpected obligations from the swaps. And to top it all off, you know for dead certain that every other financial institution is in a similar fix. Even if you thought you could profit by making loans to other banks you hold back because you don't know how bad off they really are since their toxic assets are hidden in special-purpose vehicles.

Given these conditions, are you going to lend away your precious money? No way. You'll sit tight, thank you very much.

And that's exactly what banks did (and are still doing as of this writing). They don't trust anyone and for good reason: They know they are loaded with toxic waste and they know everyone else is as well. If they lend, they might not get paid back. It's taken massive federal guarantees to start unfreezing some of these markets. So far, all the government has managed to do is turn some of the ice to slush. We're still a long way from freely circulating financial air.

With inadequate financial air, it's just a matter of time before the "real" economy asphyxiates. No car loans mean very few car sales. No mortgage money means sharp declines in home sales and prices. Workers get laid off. Consumers stop spending. And the economy spirals downward.

Ben Bernanke, the self-proclaimed Great Depression "buff," did not take these events lightly. In a flash, his academic research no longer was academic. He knew full well what could happen if the financial system froze up and lending ceased. It happened in the 1930s, and now it was happening again.

Bernanke attacked the crisis the way his research suggested it should be attacked. Recall that he subscribed to Milton Friedman's view of what caused the Great Depression. He thought economic research had proven that speculative booms did not have to lead to disaster, even when they burst. While the 1929 stock market crash certainly caused a major disruption in the financial system, it did not have to lead inevitably to the Great Depression. Instead, Bernanke believed that the Federal Reserve had failed to provide enough liquidity to keep the economy going. It failed to bail out enough banks and inject enough money into the banking system to break the freeze. And the Fed of the 1930s had stayed glued to the gold standard, which actually reduced the amount of money circulating around the globe. In Bernanke's view, economists had

conclusively demonstrated that countries that had avoided such tight-money policies during the 1930s had ducked the worst of the Depression.

So as the financial crisis deepened, Bernanke knew just what to do. He lowered the Fed interest rates to just about zero. And he sounded the alarm. He knew that if the financial atmosphere stayed depleted for any length of time, the economy would slide into recession, or worse. It had to. There just would not be enough credit available for business as usual. More and more businesses would fail. And since so many institutions were linked together by swaps, the failure could spread rapidly around the globe. Bad news.

Bernanke also avoided the worst of free-market ideology. He, treasury secretary Henry Paulson, and other top Bush administration officials could not look the other way and pretend that the financial free markets would resurrect themselves. That would guarantee the next Great Depression. Government had to intervene and intervene directly.

Bernanke soon realized that the intervention would have to be massive. First the Fed helped to merge Bear Stearns into JPMorgan and to guarantee about \$25 billion in toxic waste stuck on their books. Then they took over Fannie and Freddie, and guaranteed more than \$200 billion in junk securities held by the two. They let Lehman Brothers fold. But they had to loan over \$100 billion to AIG, which held nearly a half trillion dollars in credit default swaps. They helped to merge away Merrill Lynch and Washington Mutual—companies that had been badly burned at the CDO casino. Next they asked for \$700 billion from Congress, ostensibly to clean the banks' books by buying up as much financial toxic waste as possible.

When all of that didn't work fast enough, Bernanke basically proposed nationalizing the nine major banks (without calling it that), as Sweden had done in a previous crisis and England was doing in this one. He and Paulson chose a very mild form of

temporary nationalization: They gave the banks a massive injection of capital in return for preferred shares. The government also received stock warrants that give it the right to buy shares of the banks in the future for a price set now. If the banks increased in value, taxpayers would be rewarded through these warrants. But, they didn't want to interfere too much with bank operations, so the government set no conditions on how the money could be used. After all, they all were bankers and shared an understanding about how the game should be played.

Had Bernanke become a socialist? Hardly. Fundamentally, he didn't trust the very government he was part of. As he put it during questioning before the House Financial Services Committee on February 25, 2009, he wanted to rely on "private sector specialists, not government bureaucrats."

But he was not about to go down as a dumb free-market ideologue. He was clearly coming to terms with the obvious fact—the financial free-markets had run amok. Only massive government interventions, here and abroad, could save our financial system from crashing and taking the real economy down with it. The Fed had failed in 1929. This time Bernanke would get it right.

If the Bernanke-Friedman theory of the Depression is correct, these massive "loans" to the financial sector will get the economy moving again. More capital from the Treasury will make the banks solvent and will renew lending. Step by step, the Fed will be able to unfreeze the various financial markets, from corporate money markets to student-loan securitizations. We'll have a recession, maybe even a deep one, but nothing more chronic.

But what if the current crisis isn't really about a bank capital shortage? What if the crisis stems from larger, structural problems? What if these guys are wrong about the Great Depression? Maybe conservative scholars *haven't* really disproved the liberal-left theory of the Depression. Maybe it actually *was* a crisis of overproduction and underconsumption caused by the decline of working-class buying power during the late 1920s. Maybe our current

crisis really happened because most of the productivity increases that should have gone to increase workers' wages instead went to "the investor class," and then into the fantasy-finance casino. And maybe the trigger was that consumers couldn't keep piling on more debt to buy goods and services since their real wages had stalled over the past twenty years. What if the Bernanke-Friedman theory is just plain wrong?

We're the guinea pigs and we're in the process of finding out.