

The End of Fantasy Finance?

YOU WANT FANTASY FINANCE? Turn on cable financial news and you can still find free-market cheerleaders tossing their pom-poms high in the air.

Rah-rah: Government interference has distorted free markets! Freddie Mac and Fannie Mae have propelled the nation into the subprime crisis by giving mortgages to unworthy lower-income people.

Sis-boom-bah: Government regulations blessed the three rating agencies and allowed them to mislabel securities, which exacerbated the subprime crisis. And the bailouts and stimulus plans will make it all worse.

Go-Markets-Go: Remove any and all government constraints, lower taxes and let the wisdom of the markets work its magic!

Even as the entire credit system freezes solid, throwing the global economy into crisis, former senator Phil Gramm sings the fight song. As he recently put it, "By and large, credit-default swaps have distributed the risks. They didn't create it. The only reason people have focused on them is that some politicians don't know a credit-default swap from a turnip."¹

Fortunately, no serious policy maker, vegan or otherwise, is listening. Most realize that market fundamentalism is no match for the real world. They know that defusing the crisis will take a hefty dose of government intervention. One would hope that the era of blind faith in financial markets is over. Fantasy finance has hit reality and we're done with delusions.

Or not.

Even some moderate pundits are warning of "too much govern-

ment interference” in the financial sector. Thomas Friedman, for example, writing in the *New York Times* on October 26, 2008, argues that government intrusion could prevent banks from taking the kind of healthy risks needed to “grow the economy.” Now that the government has become the largest investor in the nine major U.S. banks, Friedman thinks we should give the banks a little privacy. He asks us to imagine a couple of young, hip entrepreneurs, like the two who founded Google, walking into a bank that is under government supervision and asking for a loan. Friedman suspects that the banker would say, “Boys, this is very interesting. But I have the U.S. Treasury as my biggest shareholder today, and if you think I’m going to put money into something called ‘Google’ . . . you’re fresh outta luck.”²

Oh, you know what staid government bureaucrats are like. They are too thick and cautious to see what Friedman calls, “the fine line between risk-taking and recklessness. Risk-taking drives innovation; recklessness drives over a cliff.” He wants someone or something to curb the recklessness without killing the risk taking.

Sound familiar? This argument goes all the way back to the financial bubbles that roiled England in the early nineteenth century. Then, as now, economic liberals tried to navigate the fine line between risk taking and recklessness, between innovative finance and the casino. They never found that line. Instead, they repeatedly let the casino run wild. And, with the partial exception of the Great Depression, after every bubble and inevitable bust, the business class managed to resist regulation. Even then they avoided the strongest regulations proposed by advocates like Keynes, and after a few short decades managed to weaken and dismantle even those that had been imposed. Today, we will fail yet again, as long as thoughtful opinion makers and policy setters conflate real-world economic investment with fantasy finance.

I doubt Ben Bernanke or other policy makers are particularly worried about banks loaning money to funky start-ups. Starting the new Google would require a tiny sum compared to the trillions

of dollars that at the moment are frozen in the financial markets. The real problem is what to do with those dangerous derivatives. Lending to the next Googles had stalled well before the government started its interventions. Banks stopped lending because their balance sheets were polluted with toxic-waste derivatives, and they were teetering on the edge. So now the government is infusing them with public funds and government guarantees so that they will start lending again. It's the banks that now are risk averse, not the government.

Thomas Friedman also warns us that regulation is no substitute for good management. He argues that banks like JPMorgan Chase and Banco Santander in Spain "are not surviving because they were better regulated than banks across the street, but because they were better run. Their leaders were more vigilant about their risk exposure than any regulator required them to be."³

That's a very low bar to clear. The most risky derivatives that turned into toxic waste are still completely unregulated! We should not forget that JPMorgan Chase was up to its eyeballs in many questionable derivative deals that helped Enron cook its books. And right now, JPMorgan Chase is part of the problem: They're contributing to the credit freeze the government is trying to break. They're certainly not loaning much out to young Google-like entrepreneurs. And investors and shareholders might welcome significantly more regulation on the "vigilant" leaders of Banco Santander who lost over \$3 billion to Bernie Madoff's Ponzi scheme.

It's risky business singling out exemplary banks. They all played in the casino and any one of them, at any moment, could go down. Perhaps it's time to move beyond regulatory phobias as well as risk-taking fictions. It's increasingly clear that without the firm hand of the government, we're toast.

Most financial leaders agree that we must create wise regulations to control these financial excesses. The consensus seems to be

that we need more “transparency.” When world policy leaders from Ben Bernanke to Nicolas Sarkozy wring their hands about “exotic and opaque” derivatives that are too complex to understand, they conjure up the casino’s back room—the place with the lap dancing and other illicit activities. When they tell us we need “transparency” within the credit default swap and CDO markets, it’s as if they want to shine a bright light into that dim room, hoping to halt the unsavory transactions. Will that work or will the fantasy finance just find another dusky room to do its business?

In 2003, Frank Partnoy, a noted expert in the field, proposed a thorough set of reforms. He focused on credit default swaps and CDOs, and was particularly exercised by the potential damage from synthetic CDOs. Like us, he was awed that these items involved swaps on bonds neither party owns. He called them “the ultimate in financial alchemy.”⁴

Partnoy knew that CDOs could not miraculously increase the value of the portfolio of bonds or mortgages from which they were derived. The tranche slices could not really be made more valuable than the underlying pool of assets. And yet, he noticed, the increased value enabled the derivative dealers to siphon off about 2 percent of the total cost of the tranche in fees. Plus, investors got higher rates of return than comparably rated investments. (Gunter Meissner in his textbook, *Credit Derivatives*, claims that the fees were more like 10 percent.) How could they pull that off?

Partnoy believed the fictitious increase in value came from gaming the credit agencies—the oligopoly of Standard and Poor’s, Moody’s, and Fitch’s that put their seal of approval on the tranches. These agencies were granted unique status by the Securities and Exchange Commission, which has enabled them to become highly profitable gatekeepers for the investor community. Based on the ratings they assign, these agencies can either permit or prohibit a financial institution from buying a certain security. Under federal regulations, a top rating opens large

markets among banks, insurance companies, pension funds, and the like.

How did the derivative dealers receive such favorable ratings?

Here is Partnoy's complaint. (I couldn't resist.) He argues that derivative dealers at the major commercial and investment banks hoodwinked the poor schmos at the rating agencies.⁵ Partnoy does not mince words:

Anyone looking closely at the credit-rating agencies would find it difficult to justify their importance. The analysts at the three rating agencies were perfectly nice people, but they were not—to put it charitably—the sharpest tools in the shed. Banks snapped up the best analysts, and investment banks hired the second best. Based on their recent track record, the remaining employees would have done a better job if they had simply followed the business section of a daily newspaper.⁶

And this was written in 2003, long before our current meltdown, but after the collapse of Enron, Global Crossing, WorldCom, and Orange County, whose debts were vastly overrated by the credit agencies to the bitter end.

Synthetic CDOs are incredibly complex to analyze because their value depends on a vast array of underlying bonds or mortgages. It takes intricate (error-prone) modeling and incredible skill to get even an approximate estimate of their true risk. As we've discussed, the models were manipulated. Partnoy reports that bank employees privately admitted to him that "they could tweak these models to make a CDO deal appear to add value."⁷

So, what if a ratings-agency employee detected these shenanigans? That was easy to solve, said Partnoy: "the banks doing the CDO deal would hire him or her, at a significantly higher salary."⁸

Partnoy's complaint has since been studied by academics and validated. In their paper for the National Bureau of Economic

Research released in January 2009, Professors Thomas Philippos and Ariell Reshe concluded:

In retrospect, it is clear that regulators did not have the human capital to keep up with the financial industry, and to understand it well enough to be able to exert effective regulation. Given the wage premia that we document, it was impossible for regulators to attract and retain highly-skilled financial workers, because they could not compete with private sector wages.⁹

This problem worsened after 2003. That's when the credit rating agencies began to realize that they could reap huge profits by giving triple-A ratings to these exotic instruments. It was big business. From 2002 to 2007, their revenues doubled from \$3 billion to \$6 billion. Moody's profits quadrupled between 2000 and 2007, and it had the highest profit margin of any company in the S&P 500 for five years running.¹⁰

The pressure was on to rate anything and everything as favorably as possible, lest the competition land the deal. After the bust, congressional hearings revealed the inevitable embarrassing e-mail and instant-message traffic within the ratings agencies: "We rate every deal," wrote one ratings agency analyst to another. "It could be structured by cows and we would rate it."¹¹

(Wisconsin, no stranger to cows, became a victim of these bogus ratings. The school districts were told that they were investing in double-A securities, when in fact they were getting securities that should have been rated like junk bonds.)

To help their bank clients achieve the highest ratings for their CDOs, the ratings agencies actually helped the derivative dealers adjust the tranche structures. The agencies also tested the tranches using a mathematical technique called "Monte Carlo." According to a July 2007 report, "The Ratings Charade" in *Bloomberg Markets Magazine*, the Monte Carlo program "effectively rolls the dice more than 100,000 times by running the

information randomly.”¹² Supposedly this technique helps to determine the default probabilities of CDO tranches. However, as one ratings executive put it, “If the input data that you use is a little bit uncertain, your numbers are going to be trash, but they will look convincing.”¹³

With the world looking for targets, the credit rating agencies are now in the crosshairs. Members of Congress complain that their constituents who trusted AAA ratings feel betrayed. They are angry and want heads to roll. Even Alan Greenspan is tossing them under the bus, saying, “The consequent surge in global demand for U.S. subprime securities by banks, hedge, and pension funds supported by unrealistically positive rating designations by credit agencies was, in my judgment, the core of the problem.”¹⁴

Who knows what will happen to these benighted credit agencies. Obama officials are discussing ways to have them financed from sources other than from the companies they are supposed to rate. Some free marketeers believe the only solution is to open a flourishing market for more and better credit agencies, free of “government interference.” But the odds are that the derivative dealers would quickly learn how to game these new agencies against each other until they got what they wanted.

Partnoy has suggested that we could rein in the ratings agencies by removing their “free speech” defense in lawsuits. As things now stand, the credit agencies are considered to be offering “opinions” and so cannot be sued for just being wrong. For the time being, the agencies are coated in cow dung and will probably exercise extreme caution in doling out high ratings. And Congress will be keeping them under a very bright light until the crisis lifts.

What to do about “exotic and opaque” derivatives is a tougher problem. The consensus is that it’s past time to adopt the regulatory proposals offered more than a decade ago by Brooksley Born and the GAO. We should stop allowing investors to trade unregulated derivatives in that dark back room. All deals should be recorded properly on the balance sheet, including over-the-counter trades. Prices for all derivatives should be available

online to everyone. Once we all can see them, the worst abuses should stop. Investors will run from companies that rely on exotic and opaque derivatives.

The standard wisdom is that simply by regulating all securities and derivatives, we will remove much of their *raison d'être*—to skirt regulations that govern other securities. When banks wanted more leverage than they were permitted under banking regulations, they used derivatives. When private firms like Enron wanted to show a steady rise in profits, they used mysterious swap derivatives (offered by Thomas Friedman's good managers of JPMorgan Chase). Few major firms could resist the temptation of using the unregulated derivatives to manipulate what they had to disclose. As Partnoy put it, "As long as 'securities' were regulated, but similar 'derivatives' were not, derivatives would be the dark place where regulated parties did their dirty deeds."¹⁵

Partnoy and others also are calling for stiffer criminal prosecutions against lawbreakers. Many on Main Street would love to see a few billionaires share a cell with Bernie Madoff.

Will these new approaches solve the problem?

I have my doubts. Even the most astute critics are continually dazzled and blinded by financial engineering. For example, in his 2003 book *Infectious Greed*, Partnoy actually *praises* both the derivatives and the banks that use them. He writes, "Derivatives and financial innovation generated great benefits, enabling parties to reduce risks and costs." Even more surprising, in describing the collapse of Enron, WorldCom, and more than a hundred other companies in the early 2000s, he writes: "The regulators, too, have remained composed, in part because banks, which now use credit derivatives to reduce their risks, have virtually *eliminated the threat of a system-wide banking collapse*, the primary concern of regulators in the United States" (emphasis added).¹⁶

That passage, from one of the most astute derivatives critics, is worrisome. How could he get it so wrong? As we have learned painfully, the "threat of system-wide collapse" was not eliminated. It happened—credit derivatives helped *make* it happen.

One conclusion we must draw is that the derivatives in question are much more lethal than Partnoy suspected at the time—so lethal that “transparency” might not be enough to make them safe.

Why did critics like Partnoy, as well as the establishment leaders like Greenspan, so underrate the danger of derivatives? Why didn't they sense the threat to the financial system as had the GAO and Born a decade earlier?

Perhaps they were fooled by past experience. They'd seen that the collapse of nearly a hundred corporations earlier this decade did not harm the banking system as a whole. There was no system financial meltdown during the post-9/11 economic slowdown and stock market drop. The apparent conclusion was that since the banks were major players in derivatives, they must have hedged themselves very well, that they had identified the risk and dispersed it. In fact Partnoy worried that they were dispersing the risk to others who were far less equipped to handle it. But even under duress, the essential features of our credit system remained intact.

“Infectious greed” (the infamous Greenspan phrase Partnoy used as the title of his book) probably helps explain why knowledgeable people failed to sound the alarm about derivatives. Partnoy hints at this when describing how American Express lost \$826 million on corporate bond CDOs in 2001. Starting in 1997, American Express, a highly sophisticated financial operation, created pools of corporate bonds and sliced them into tranches. It kept the safer, low-risk, super-senior slices for itself and sold the higher-risk tranches to adventuresome investors. After Long-Term Capital Management crashed in 1998, AmEx couldn't find buyers for the riskier tranches. This was the obvious time to stop creating CDOs. But the fees were so good that AmEx continued to tranche away.

So what did AmEx do with those unsellable risky tranches? It held onto them! When several corporations in the underlying pools defaulted on their bonds, the lower tranches crashed

in value. The losses in the pool were so great they pulled down the value of the higher tranches as well. Quicker than you can say “fantasy finance,” AmEx was out nearly a billion dollars and its chairman, Kenneth Chenault, had to admit publicly that American Express “did not comprehend the risk.”¹⁷

Partnoy and Greenspan believed that after this 2001 debacle, no one would be so stupid again—certainly not the major banks and investment houses, who always hired the best and the brightest. Obviously, the banks that created the equity tranches knew they were toxic waste that needed to be disposed of. Partnoy was certain that the big derivative players would use credit default swaps to unload the risk onto other investors like a “hot potato.”

Greenspan claims to be stunned that so many institutions kept toxic waste on their books, and admits he should have accepted more regulation. As he put it on October 23, 2008, “Those of us, who have looked to the self-interest of lending institutions to protect shareholder’s equity (myself especially) are in a state of shocked disbelief.”¹⁸

But even after AmEx, the major banks repeated the same mistake: They kept the toxic-waste tranches when they couldn’t sell them, because they just wouldn’t let go of the fees on the entire CDO. They were too delectable, and the returns on the equity tranche were enormous . . . while they lasted. Even a keen student of greed or bubble psychology could not imagine that AIG would book billions of dollars’ worth of bets to insure CDO subprime tranches, and then not hedge their bets. Partnoy and Greenspan were sure that credit default swaps would disperse risk. They never imagined that the banks that were at the heart of the credit-default-swap business would crash the entire financial system.

Greenspan the defender and Partnoy the hardcore critic both got it wrong. And if so, how can we expect even the most astute knowledgeable regulator to get it right?

The fundamental flaw is that nearly all the reformers assume that credit default swaps and CDOs have intrinsic economic and

social value. They assume that we can use these instruments to disperse risk efficiently, lower overall credit costs, allocate credit more efficiently, and protect the credit system as a whole. It seems the major piece of evidence for this position is that the financial markets placed value on CDOs and swaps, and by assumption, market value means economic worth. Yet Partnoy himself in 2003 and again in 2006 suggests that CDOs are fool's gold—that the only value they have comes from gaming the credit agencies and avoiding regulations. As the government tries to figure out how to pluck toxic CDOs from polluted bank balance sheets, can we still say they have “real” positive economic value?¹⁹ After all, there is no market for these instruments unless the government steps in to create one with massive loans and virtual profit guarantees. Much of their value seems to have evaporated into the recesses of fantasy finance. I'm waiting for someone to admit to the possibility that these bold new financial “innovations” were never socially useful in the first place.

The bottom line is that *there is no evidence that credit default swaps have helped stabilize the financial system*. All of the evidence points to the exact opposite conclusion. If AIG had been allowed to succumb to market forces and go bankrupt, the financial dominos still would be falling all around the globe.

It's high time for the defenders of collateralized debt obligations and credit default swaps to show us the money, not just in theory but in tangible gains for the real economy. Where is the evidence to justify their worth?

The decision makers who once charged that the regulations proposed by Born and the GAO would cool the “cauldron of financial innovation” are now pushing for those regulations themselves. But they still cling to the old language, warning that we must be sure not to kill creative genius—that financial innovation must be encouraged and not stifled through regulatory reform.

Maybe we need some financial Luddites to step forward. It seems pretty clear that “financial innovation” ran amok, creating

more financial toxic waste than we can handle. If financial innovation leads us into economic catastrophe, we should at least consider what the world might be like without so much of it. Maybe the casino already has enough games of chance to last a millennium.

And finally, there's Partnoy's complaint. How can we develop an effective regulatory régime governing these complex derivatives when the sharpest "tools in the shed" have already been bought off by the banks? How will the government find and retain competent regulators when they can be so easily lured away?

It's a case of simple economics. You'd have to be a powerfully self-possessed, civic-minded person to work for the government when you could be earning 10 to 100 times more at a bank, investment house, or hedge fund. If you're smart enough to understand the myriad complex derivatives, then odds are you won't be working for the feds for long. (Unless maybe you're Henry Paulson or Robert Rubin or Rahm Emmanuel, and you've already made your millions on Wall Street and can afford a stint of public service.) Imagine the temptation for a young government regulator who is smart enough to master derivatives. How long would it be before the fast-spinning revolving door whisks her away toward a seven-figure salary?

Perhaps the Obama administration's call for public service will draw forth idealistic experts that comprehend these "exotic and opaque instruments." But it would be a lot easier if we narrowed the enormous compensation gap between the financial industry and every other sector in the economy. (We'll return to this problem in chapter 11.)

Not only does the financial sector make money from money, it also mints new money. When we put one hundred dollars in a commercial bank, regulations allow the bank to make a series of new loans totaling approximately \$1,150.²⁰ Quite literally, the bank is creating new money through those loans by leveraging

your deposits. When investment banks and hedge funds leverage 30, 50, or even 100 times their base capital, they are creating wads of new money. The unregulated derivative markets created huge amounts of leverage. Just think how much money people made from synthetic CDOs and CDO-squareds, all based on a relatively small number of real underlying mortgages. As asset prices rose during Greenspan's term at the Fed, so did the ability of derivative dealers to further leverage those increases. CDOs and credit default swaps in combination and separately helped stir up the froth of fantasy finance.

Let's slow down and walk through this idea of leverage. Anyone who has a mortgage is using leverage. If we put 20 percent down and borrow 80 percent, our leverage is 4 to 1 (debt to equity). With that leverage we can make a very nice return from our investment. For example, if the price of our home increased by 20 percent, our equity would increase by 100 percent. Of course, leveraging also means we could lose more. If our home's value declines by 20 percent, our equity is wiped out.

Financial derivatives increase leverage. Options allow you to use a relatively small amount of money to buy a claim on a large amount of stocks, bonds, or commodities. When you think about it, credit default swaps also enhance leverage. If you are insuring a bond and receiving payments, you've created a new security out of nothing. You've put up nothing but are receiving payments. You can then use your new asset—the swap—to borrow more funds. And when you have insured an asset through a swap, you've made that first asset more valuable and should be able to leverage more loans on it.

Regulated banks used off-the-books special-purpose vehicles to create and hold CDOs. Those CDOs allowed banks to increase their leverage beyond the regulatory limits. In fact, our global casino never runs out of ways to make sure its patrons enjoy the benefits of leveraging.

Can there ever be too much leverage?

We said that "real" economic production takes place on the

surface of the earth. And we said that finance is the atmosphere—the clouds and the air that allow our “real” earthly economic entities to breathe and grow. This financial atmosphere is directly connected to “real” production, because all loans are claims on the “real” assets of the global economy. A certain, but unknown, amount of financial air is needed for robust economic production. Too much can lead to violent economic storms. “Fantasy finance” is the drifty, opaque stuff building up in the atmosphere.

This simple image allows us to pose fundamental questions: What is the proper balance between the financial air and the “real” economy on the surface of the globe?

Here are some scary statistics provided by Charles R. Morris in *The Trillion Dollar Meltdown*. “Not long ago, the sum of all financial assets—stocks, bonds, loans, mortgages, and the like, which are claims on the real things—were about equal to global GDP. Now they are approaching four times global GDP. Financial derivatives, a form of claim upon financial assets, now have the notional [face] values of more than ten times global GDP.”²¹

While one may quibble with Morris’s numbers, he is describing layers of financial atmosphere floating on top of the “real thing.” Some of these layers help the “real” economy below breathe and prosper. But too many layers are a problem, since each layer of leverage makes claims on the real economy. While most commentators in 2007 thought the economy could easily weather the housing downturn, Morris predicted that we’d lose at least one trillion dollars’ worth of financial value. He underestimated by several trillion . . . and counting.

So: How do we reduce the extra fantasy-finance layers before they destroy us?

First we need to take a closer look at what kind of capital makes up the financial atmosphere. Some of those extra “fantasy finance” clouds may be pumped up there by clever derivative dealers, but they’re there for a reason. Derivatives are created to solve problems for investors (for a fee, of course). Sometimes derivatives help investors get around tax laws and other kinds

of regulations. Other times they enable a firm (like Enron or WorldCom) to post fictitious revenues. Most often, however, they are designed to generate higher returns for investors and fatter fees for the derivative dealers.

And those fantasy-finance clouds actually come from somewhere, even though they've been hugely puffed up by fancy financial engineering. What is the primary source of that capital? Left-leaning as well as mainstream economists seem to agree that our current fantasy-finance clouds were inflated by surplus global capital searching for higher returns.

But where did all that surplus capital come from? This is key to understanding our crisis and takes us back to where we started in chapter 2. As the economy was deregulated starting in the mid-1970s and then accelerated by Reagan's tax cuts and further cuts in regulations, wealth shifted to the very richest among us. The weakening of labor law and the attacks on unions made it increasingly difficult for working people to bargain for their fair share of rising productivity. These trends were reinforced when the Soviet Union collapsed and capitalist globalization took hold. The fall of the Iron Curtain opened up new markets and gave global producers access to cheap labor. The emerging economies of China and India also provided cheaper labor and vast new markets. The growing global labor markets put downward pressure on U.S. wages, while productivity and profits rose rapidly. The world became awash with profits. Because the supply of surplus capital was so high, the rates of return in sound financial instruments were relatively low. Those holding the global surplus capital were eager to find good investments. But they were running out of "real" economy investments that matched the level of risk they would accept.

In our metaphor, they couldn't find high enough returns on their investments on the surface of our economic globe. The clouds of fantasy finance provided a new attractive home . . . for a while. CDOs in their various shapes and sizes were sold as sure things, and they were gobbled up by all manner of institutions

and investors from all over the world. Credit default swaps were sold to further protect investors who owned the shakier tranches. All this created more and more layers of leveraged finance—more and more fantasy-finance clouds puffed up with capital that couldn't find enough sound investments back on terra firma.

As we saw in chapter 2, the real wages of U.S. workers stagnated and declined starting in the mid-1970s. Yet productivity continued to rise. For the first time, there was a growing disconnect between those two trends. Not only were American workers forced to compete with cheaper labor from around the world, but fewer than ever were in unions. Profits increased, and the investor class got enormously wealthy. Tax cuts moved even more money to the top. Meanwhile, workers went deeper in debt to maintain their consumption levels.

Who funded that consumer debt? Much of it came from fantasy finance. The surplus capital captured by the investor class from around the world bought into new securities made deceptively safe and attractive by complex derivatives. In effect, some of this surplus capital had been recycled, via CDOs, into risky mortgages and consumer debt. But it turned out that the risk had not been engineered away.

Our current crisis, therefore, is not really about a housing bubble here or a dot.com bubble there. It's about a long-term fantasy-finance bubble—too many clouds of surplus capital and derivative-created leverage. If this is correct (and even mega-investor George Soros seems to agree²²), long-term reforms must keep the fantasy-finance clouds from expanding. We need to control the financial community's ability to create more and more leverage—more and more financial atmospheres that inevitably become unstable and threaten the real economy below. Even more importantly, *we need to find ways to bring that surplus capital back to planet earth.*

How do we reduce those extra cloud layers of fantasy finance? Regulations would certainly help as they did during the Depression and from then through the collapse of Bretton Woods. But in

our incredibly complex global economy, we also need additional tools to prevent the creation of fantasy-finance bubbles.

Here's our framework: First, move money from Wall Street's paper economy to productive real-economy investments (chapter 10); and second, move wealth from the top of the income distribution back to the middle and the bottom (chapter 11)—precisely the opposite of what we've been doing for the past three decades.