

The Bright New Financial System

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Abstract: By the end of 2008, Mr. Paul Volcker gave financiers a devastating critique. "For all its talented participants, for all its rich rewards" he said, the "bright new financial system" has "failed the test of the marketplace".

In light of the events of recent weeks, it is hard to disagree. A financial system that ends up with the government taking over some of its biggest institutions in serial weekend rescues and which requires the promise of 700 billion dollars in public money to stave off catastrophe is not a trustworthy system. The disappearance of all five big American investment banks – either by bankruptcy or rebirth as commercial banks – is powerful evidence that Wall Street failed "the test of the marketplace". Something went wrong.

But what exactly and why? A more serious analysis needs to distinguish between three separate questions: what is Mr. Volcker's "bright new financial system"? Second, how far was today's mess created by instabilities that are inseparable from modern finance and how far was it fuelled by other errors and distortions? Third, to the extent that modern finance does bear the blame, what is the balance between its costs and its benefits and how can it be improved?

Keywords: trust, the "bright new finance", securitization, cheap money, leverage, financial regulation.

Introduction

When the financial system fails, everyone suffers. Over the past 24 months, the shock has spread from American housing, sector by sector, economy by economy.

Some markets have seized up; others are being pounded by volatility. Everywhere good businesses are going bankrupt and jobs are being destroyed. For the first time since 1991, global average income per head is falling. Even as growth in emerging markets has

come to a halt, the rich economies look set to shrink. Alan Greenspan, who was a chairman of America's Federal Reserve oversaw the boom, calls the collapse "a once-in-a-half-century type of event" (Greenspan, A., 2007). Financial markets promised prosperity; instead, they have brought hardship.

Financial services are in ruins. Perhaps half of all hedge funds will go out of business. Without government aid, so would many banks. Britain has suffered its first bank-run since Disraeli was prime minister in the 1870s. America has stumbled from one rescue to the next. Hundreds of thousands of people in financial services will lose their jobs; many millions of their clients have lost their savings.

For a quarter of a century, financial globalization spread capital more widely, markets evolved, businesses were able to finance new ventures and ordinary people had unprecedented access to borrowing and foreign exchange. Modern finance improved countless lives.

But, more recently, something went awry. Through insurance and saving, financial services are supposed to offer shelter from life's reverses. Instead, financiers grew rich even as their industry put everyone's prosperity in danger. Financial services are supposed to bring together borrowers and savers. But, as lending markets have retreated, borrowers have been stranded without credit and savers have seen their pensions and investments melt away. Financial markets are supposed to be a machine for amassing capital and determining who gets to use it and for what. How could they have been so wrong?

Finance is increasingly fragile. Barry Eichengreen of the University of California

at Berkeley and Michael Bordo of Rutgers University identify 139 financial crisis between 1973 and 1997 (of which 44 took place in high-income countries), compared with a total of only 38 between 1945 and 1971. Crises are twice as common as they were before 1914, the authors conclude.

The paradox is that financial markets can function again only if this lesson is partly forgotten. Financial transactions are a series of promises. You hand your money to a bank, which promises to pay it back when you ask; you invest in a company, which promises you a share of its future profits. Money itself is just a collective agreement that a piece of paper can always be exchanged for goods and services.

Imagine, for a second, how finance began, with small loans within families and between trusted friends. As the circle of lenders and borrowers grew, financial transactions were able to muster larger sums and to spread risk, even as promises became harder to enforce. Paul Seabright, an economist at the University in Toulouse, France, observes that trust in a modern economy has evolved to the miraculous point where people give complete strangers sums of money they would not dream of entrusting to their next-door neighbors. From that a further miracle follows, for *trust* is what raises the billions of dollars that fund modern industry.

Trust is also the cornerstone of the new financial system.

The "Bright New Financial System"

The "bright new finance" is the highly leveraged, lightly regulated, market-based system of allocating capital dominated by Wall Street. It is the successor to "traditional

banking", in which regulated commercial banks lent money to trusted clients and held the debt on their books. The new system evolved over the past three decades and saw explosive growth in the past few years thanks to three simultaneous but distinct developments: deregulation, technological innovation and the growing international mobility of capital.

Its hallmark is *securitization*. Banks that once made loans and held them on their books now pool and sell the repackaged assets, from mortgages to car loans. In 2001, the value of pooled securities in America overtook the value of outstanding bank loans. Thereafter, the scale and complexity of this repackaging (particularly of mortgage-backed assets) hugely increased as investment banks created a dangerous mixture of new debt products. They pooled asset-backed securities, divided the pools into risk tranches, added a dose of leverage and then repeated the process several times over.

Meanwhile, increasing computer wizardry made it possible to create a dizzying array of derivative instruments, allowing borrowers and savers to unpack and trade all manner of financial risks. The derivatives markets have grown at a stunning pace. According to the Bank for International Settlements, the notional value of all outstanding global contracts at the end of 2007 reached 600 trillion dollars, some 11 times world output. A decade earlier it had been "only" 75 trillion dollars, a mere 2.5 times global GDP. In the past couple of years, the fastest-growing corner of these markets was credit-default swaps which allowed people to insure against the failure of the new-fangled credit products.

The heart of the new finance is on Wall Street and in London, but the growth of cross-border capital flows vastly extended its reach. Financial markets, particularly in the rich world, have become increasingly integrated. Figures show that the stock of assets and liabilities held by rich countries has risen fivefold in the past 30 years and doubled in the past decade. The financial integration of emerging economies has been more modest, but has also increased considerably in recent years, though with a peculiar twist: emerging economies, in net terms, have exported capital to the rich world as their central banks have built up vast quantities of foreign-exchange reserves (Obsfeld, M., Shambaugh, J.C., Taylor, A.M., 2008).

The innovations of modern finance generated great profits for its participants. But were these innovations the root cause of today's mess? That depends, in part, on whether you begin from the premise that financial markets are efficient, or that they are inherently prone to irrational behavior and speculative excess.

The rationale behind financial deregulation was that freer markets produced a superior outcome. Unencumbered capital flow to its most productive use, boosting economic growth and improving welfare. Innovations that spread risk more widely would reduce the cost of capital, allow more people access to credit and make the system more resilient to shocks.

Today, however, a different premise has become popular: that financial markets are inherently unstable. Periods of stability always lead to excess and eventual crisis, and freer financial markets only lead to greater damage. This view was famously expounded by Hyman Minsky, a 20th century American

economist. Minsky argued that economic stability encouraged ever greater leverage and ambitious debt structures. Stable finance was an illusion.

The trouble is that financial innovation did not occur in a vacuum, but in response to incentives created by governments. Many of the new-fangled instruments became popular because they got around financial regulations, such as rules on banks' capital adequacy. Banks created off-balance-sheet vehicles because that allowed them to carry less capital. The market for credit-default swaps enabled them to convert risky assets, which demand a lot of capital, into supposedly safe ones, which do not.

Politicians also played a big part. America's housing market – the source of the greatest excesses – has the government's fingertips all over it. Long before they were formally taken over, the two mortgage giants, Fannie Mae and Freddie Mac, had an implicit government guarantee. As Charles Calomiris of Columbia University and Peter Wallison of the American Enterprise Institute have pointed out, one reason why the market for subprime mortgages exploded after 2004 was that these institutions began buying swathes of subprime mortgages because of a political edict to expand the financing of "affordable housing".

History also shows that financial booms tend to occur when money is cheap. And money, particularly in America, was extremely cheap in the past few years. That was partly because a long period of low inflation and economic stability reduced investors' perceptions of risk. But it was also because America's central bank kept interest rates too low for too long, and a flood of capital swept into Western financial instruments from high-saving emerging economies.

So, modern finance should not be indicted in isolation. Its costs and benefits are, at least in part, the result of the incentives to which the "money men" were responding. But, given those distortions, did the new fangled finance boost economic growth, welfare and stability?

Critics answer no to all three counts. Mr. Volcker, for instance, points out that the American economy expanded as briskly in the financially unsophisticated 1950s and 1960s as it has done in recent decades. But plenty of things, other than finance, were different in the 1950s, so such a simple comparison is hardly fair. And although economists have long been divided on the theoretical importance of finance for growth, the balance of the evidence suggests that it does matter.

According to Ross Levine, an economist at Brown University who specializes in this subject, numerous cross-country studies show that countries with deeper financial systems tend to grow faster, particularly if they have liquid stock markets and large, privately owned banks (Levine, Ross, 2004). Growth is boosted not because savings rise, but because capital is allocated more efficiently, improving productivity.

Within America, several studies have shown that states which did most to deregulate their banking systems in the 1970s grew faster than other states. In 2006, economists at the IMF compared deregulated Anglo-Saxon financial systems with more traditional bank-dominated systems, such as Germany's or Japan's and found that Anglo-Saxon systems were quicker to reallocate resources from declining sectors to new, fast-growing ones (Global Financial Stability Report, 2008).

Many economists argue that financial innovation and the quick reallocation of the

capital that it promotes was one reason why America's productivity growth accelerated in the mid-1990s. Technology alone cannot explain that advance because inventions such as the internet and wireless communications were available to any country. What set America apart was the *strong incentives* it offered for deploying the new technology. Corporate managers knew that if they adapted fast, America's flexible financial system would reward them with access to cheaper capital (Kose, A., Prasad, E., Rogoff, K., Shang, J.W., 2006).

Just because financial innovation can boost growth does not mean it always will. Not every technological breakthrough improves productivity. The mortgage-backed securities helped create a glut of new homes that did little to promote long-term growth. But finance's recent focus on housing rather than more productive forms of investment may have had more to do with *the government guarantees* inherent in housing than finance itself.

What about people's lives? Even if financial innovation does not boost growth, it is a good thing if it improves *welfare* (Prasad, E., Rajan, R., 2008). Modern finance improved people's access to credit. Computers enabled lenders to use standardized credit scores and the risk-spreading from securitization made it safer to lend to less credit-worthy borrowers. This "democratization of credit" let more people own homes. It enabled more households to smooth their consumption over time, reducing their financial hardship in lean times. Studies show that consumers in Anglo-Saxon economies cut their spending by less when they suffer temporary shocks to their income than those in countries with less sophisticated financial

systems. Smoother household consumption often means a smoother economic cycle, too. Many economists believe that financial innovation, including easier access to credit, is one reason for the "great moderation" in the business cycle in the past few decades (Beck, T., Levine, R., Levkov, A., 2007).

Still, in the light of today's bust that welfare calculus needs revisiting, not least because broader access to credit plainly fuelled the housing bubble. Demand for complex mortgage securities led to a loosening of lending standards, which in turn drove house prices higher. Wall Street's fancy computer models, based on recent price histories, underestimated how much the innovation was pushing up house prices, understated the odds of a national house-price decline in America and so encouraged *an unsustainable explosion of debt*. The country's household debt rose steadily, from just under 80% of disposable income in 1986, to almost 100% in 2000. By 2007 it has soared to 140% (Federal Reserve Statistics, 2008). Once asset prices started to come down and credit conditions tightened, this borrowing binge left households – and the broader economy – extremely vulnerable. Not surprisingly, the "wealth effect" (the extent to which a change in asset prices affects people's spending) is bigger in the indebted Anglo-Saxon economies than elsewhere. If financial innovation fuelled the bubble, so it will exaggerate the bust.

That leads to the critics' third point: that far from enhancing economies' resilience, modern finance has added to their *instability*. Mr. Volcker, for instance, points to the absence of financial crises just after the Second World War. At that time, finance was tamed by the rules and institutions introduced after the Depression. But the 1950s were unusual.

In a recent book, Carmen Reinhart of the University of Maryland and Ken Rogoff of Harvard University survey eight centuries of financial crises. Their numbers suggest that, despite all that financial innovation, recent years have seen a surprising period of quiet – at least until the recent crash (2009).

The incidence of crashes is only one measure of risk, however: their *severity* also matters. In theory, derivatives, securitization and a choice of financing should spread risk, increase the financial sector's resilience and reduce the economic damage from a shock. Before securitization, the effect of a crash was intensely concentrated. A property bust in Texas meant mortgages held by Texan banks failed, starving Texan companies of capital. The expectation was that today's decentralized and global system would spread risk and reduce the economic impact of a financial shock. In his book, "The Age of Turbulence", Alan Greenspan points to the aftermath of the telecoms bust in the late 1990s, when billion of dollars went up in smoke, but no bank got into trouble (2007).

At first, that resilience seemed to be on display during the crisis too. The fact that mortgage defaults in Chicago triggered bank losses in Germany was a sign of the system working. But that resilience proved ephemeral. One reason was that risk was more concentrated than anyone has realized. Many banks originated mortgage-backed securities but failed to distribute them, holding far too much of the risk on their own balance-sheets. That was a *perversion of securitization*, rather than an indictment of it (Laeven, L., Valencia, F., 2008).

More troubling to proponents of modern finance was the crippling impact on market liquidity of uncertainty about the scale of

risks and who held them. To work efficiently, markets must be liquid. Yet, the past year has shown that *uncertainty breeds illiquidity*. High leverage ratios and a reliance on short-term wholesale funding rather than retail deposits, two features of the new finance, left the system acutely vulnerable to such a panic. Forced to shrink their balance-sheets faster than traditional banks, the investment banks, hedge funds and other creations of the new finance may have made the economy less resistant to a financial shock, not more (Setser, B., 2008).

That is the conclusion of a new analysis by Subir Lall, Roberto Cadarelli and Selim Elekdag, published in the IMF's latest "World Economic Outlook", (2008) which argues that *the economic impact of financial shocks may be bigger* in countries with more sophisticated financial markets. The study looks at 113 episodes of financial stress in 17 countries over the past three decades and assesses the effect they had on the broader economy. Financial crises, the authors find, are as likely to cause downturns in countries with sophisticated financial systems as in those where traditional bank-lending dominates. But such downturns are more severe in countries with the Anglo-Saxon sort of financial system, because their lending is more procyclical. During a boom, highly leveraged investment banks encourage a credit bubble, whereas in a credit bust they have to deleverage faster.

Excessive and excessively pro-cyclical leverage is clearly dangerous, but was it caused by the new financial instruments and deregulation? Again, not alone. Financial excesses often occur in the aftermath of innovation: think of the dotcom bubble. But throughout history, *loose monetary conditions* have fuelled the cycle: cheap money

encourages leverage which boosts asset prices which in turn encourage further leverage. Sophisticated finance meant that havoc spread in a new way.

What To Do Next?

Given the past year's calamity, how far must Anglo-Saxon finance be remade? The market itself has already asked for dramatic changes – away from highly geared investment banks towards the safety of lower leverage and more highly regulated commercial banks. Some sensible improvements to the financial infrastructure are already in the works, such as the creation of a clearing house for trading credit-default swaps, so that the collapse of a big force in the market, such as AIG, does not threaten to leave its counterparties with billions of dollars in worthless contracts.

The harder question is *where and by how much financial regulation should be extended*. Proposals for reform are pouring out from central banks, securities regulators, finance ministries, banks and universities, much as securitized mortgage debts once poured out from Wall Street. But, just as financial innovation bears only a part of the blame, so regulatory reforms will, at best, yield only a part of the solution (McKinsey Global Institute, 2008).

Indeed, some popular suggestions will not yield much. There is a lot of talk, for instance, of *reforming credit-rating agencies*, which encouraged the creation of mortgage securities by publishing misleading assessments of their quality. But the problem with credit-rating agencies lies in the tension between their business model and their use as a regulatory tool. The markets and regulators use ratings to determine the riskiness of an

asset. Yet credit-rating agencies are paid by the issuers of securities and so have an in-built incentive to tailor their ratings to their clients' needs.

Another popular suggestion is *to change the incentive structures* within financial institutions *to discourage reckless and short-term behavior*. The American government's bail-out will include curbs on the pay of the bosses of troubled banks that benefit from it. This is a poor route to follow. Governments are ill placed to micromanage the incentive structure within banks. Besides, even firms with compensation systems that encouraged their managers to lend carefully got into trouble. In both Bear Stearns and Lehman Brothers, for instance, employees owned a large part of the firm's shares.

Rational risk taking is indispensable to material progress. When it is impaired or nonexistent, only the most necessary actions are taken. Economic output is minimal, driven not by the calculated willingness to take risks, but often as a result of state coercion. The evidence of human history strongly suggests that *positive incentives are far more effective than fear and force*. The alternative to individual property rights is collective ownership, which has failed time and time again to produce a civil and prosperous society. It did not work for Robert Owens' optimistically named New Harmony in 1826, or for Lenin and Stalin's communism, or for Mao's Cultural Revolution.

The evidence suggests that for any given culture and level of education, the greater the freedom to compete and the stronger the rule of law, the greater the material wealth produced. But, regrettably, the greater the degree of competition – and, consequently, the more rapid the onset of obsolescence of

existing capital facilities and the skills of the workers who staff them – the greater the degree of stress and anxiety experienced by market participants. Many successful companies in Silicon Valley, arguably the child of induced obsolescence, have had to reinvent large segments of their businesses every couple of years.

Confronted with the angst of the baneful side of “creative destruction”, some of the developed world and an ever increasing part of the developing world have elected to accept a lesser degree of material well-being in exchange for a reduction of competitive stress.

Could tighter government oversight produce better results? No one doubts that America’s complicated, decentralized and overlapping system of federal and state financial supervisors could be improved. Nor that the enormous new markets, such as the 55 trillion dollars global market in credit-default swaps need more oversight. Nor that better disclosure and transparency are necessary in many of the newest financial instruments. But it would be unwise to expect too much. An entire government agency was devoted to overseeing the housing-finance giants, Fannie Mae and Freddie Mac, but that did not stop them from behaving recklessly. So far, at least, a striking feature of the crisis has been that hedge funds, the least regulated part of the finance industry, have proved more stable than more heavily supervised institutions (World Bank, June, 2008).

Similarly, re-regulation should proceed cautiously and with an eye to unintended consequences. Just as many of the innovations of modern finance, such as credit-default swaps, have been used to avoid the strictures of today’s bank regulation, so tomorrow’s innovations will be designed to

arbitrage tomorrow’s rules. Even after today’s bust, bankers will be better paid and more highly motivated than financial regulators. The rule-makers are fated to be one step behind.

Nonetheless, improvements are possible. The most promising avenue of reform is to go directly after the chief villain: *excessive and pro-cyclical leverage*. That is why regulators are now rethinking the rules on banks’ capital ratios to encourage greater prudence during booms and cushion deleveraging during a bust. It also makes sense for financial supervisors to look beyond individual firms, to the stability of the financial system as a whole, and not just at the national level.

Leverage can be tackled in other ways too. For a start, *governments should stop subsidizing* it. America, for example, should no longer allow homeowners to deduct mortgage interest payments from their taxable income. And governments should stop giving preferential treatment to corporate borrowing as well. Private-equity firms and the like are encouraged to load up companies with debt because tax codes favor debt over equity.

If markets are not always dangerous and governments not always wise, what policy lessons follow? In the aftermath of the crisis, the battle will be to ensure that finance is reformed – and in the right way. The pitfalls are numerous. Banning the short-selling of stocks, for instance, makes for a good headline; but it deprives markets of liquidity and information, the very things that they have lacked in this crisis. Even if the easy mistakes are avoided, improving supervision and regulation is hard. Financial regulators must look beyond the leverage within individual institutions to *the stability of complex financial systems as a whole*. Wherever the state has

extended its guarantee, as it did with money-market funds, it will now have to extend its oversight too. As a rule, though, governments would do better to harness the power of markets to boost stability, by demanding transparency, promoting standardization and exchange-based trading.

Conclusions

Even if economic catastrophe is avoided, the financial crisis will impose great costs on consumers, workers and businesses. Anger and resentment directed at modern finance is sure to grow. The danger is that policymakers will add to the damage, not only by over-regulating finance, but by attacking markets right across the economy.

Governments have an important role to play as regulators. But evidence suggests the best approach to regulation is one which empowers the markets, rather than creating all powerful regulators who may be subject to corruption and political and industry capture. Empowering the market entails enforcing accurate and timely information disclosure and providing the right incentives for market participants to make sure they remain vigilant monitors – for example, through avoiding forbearance policies that distort risk-taking incentives.

I am similarly skeptical of notions that stepped-up regulation of financial markets could improve their performance – particularly the idea of expanding the mandate of the Central Bank to become the market-stability regulator, with broad authority to unearth incipient imbalances and bubbles. That is “mission impossible”. Indeed, the international financial community has made numerous efforts in recent years to establish such

oversight, but none prevented or ameliorated the crisis that began in 2007. Much as we might wish otherwise, policymakers cannot reliably anticipate financial or economic shocks or the consequences of economic imbalances. Financial crises are characterized by discontinuous breaks in market pricing the timing of which by definition must be unanticipated – if people see them coming, then the markets arbitrage them away.

In recent years, critics have pointed to the U.S. current-account imbalance, as indicating a major foreign-exchange-rate crisis in waiting. Instead, exchange rates have moved in the direction needed to rebalance supply and demand. But, at least so far, there has been no abrupt discontinuity. Another feared crisis in waiting was a financial implosion of a number of hedge funds, leading to a cascade of bank defaults. Many hedge funds did liquidate following August 2007, but, as for January 2009 at least, without important consequences to the financial system overall.

The same is true of any crisis or adjustment process – it will never happen exactly the way it is envisaged. That’s why I strongly believe that institutions should have adequate capital and liquidity buffers to weather unexpected turns.

This is especially the case as government regulation gradually gives way to the self-correcting adjustments of global markets. The shift is probably inevitable because the world economy has become so awesomely complex that no individual or group of individuals can fully understand how it works. That it does work is evident from the high degree of stability apparent in markets almost all the time and the ever-rising standards of living on average from generation to generation across the globe.

The exceptions are the crises that arise from human foibles. I know of no regulatory system or degree of protectionism that can transmute irrational exuberance or debilitating fear into a stable growing economy. Those who imagined that the solution lay in an economy organized and run by an elite of central planners rather than competitive market forces failed time and time again during the past century.

Many critics find this reliance on the invisible hand to be unsettling. As a precaution and backup, they wonder, should not the world's senior financial officers, such as the finance ministers and central bankers of major nations, seek to regulate this huge new global presence? Even if global regulation can't do much good, at least, it is argued, it cannot do any harm. But in fact, it can. Regulation, by its nature, inhibits freedom of market action, and that freedom to act expeditiously is what rebalances markets. Undermine this freedom and the whole market-balancing process is put at risk. We never, of course, know all the many millions of transactions that occur every day. Neither does an astronaut know, or need to know, the

millions of automatic split-second computer-based adjustments that keep his "Endeavour" in the air.

Reform is certainly needed, yet, for all the excesses and instability of finance, a complete clampdown would be a mistake. For one thing, remember the remarkable prosperity of the past 25 years. Finance deserves some credit for that. Note, too, that finance has always been plagued by crises, whether the system is open or closed, simple or sophisticated. Attempts to over-regulate finance to make it safe often lead to dangerous distortions as clever financiers work around the rules. If there were a simple way to prevent crises altogether, it would already be the foundation stone of financial regulation.

If history is any guide, new regulations will focus mainly on the causes of the current crisis: lax and fraudulent mortgage lending practices, the indiscriminate securitization of credit products and over-reliance on risky short term funding for long term assets.

In fact, the aim of future research should be neither to banish finance, nor to punish it, but to create a system that supports economic growth through the best mix of state-imposed stability and private initiative.

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