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In Praise of More Primitive Finance

Amar Bhidé*

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^{*} Glaubinger Professor of Business, Columbia University Graduate School of Business

"Where industry leads" the economist Joan Robinson wrote in 1952, "finance follows." But now finance has led industry into an awful ditch. The financial debacle – the first to implicate the widespread use of complex financial instruments, rather than simple speculation or imprudent lending – isn't just the result of the recent missteps of bankers, rating agencies or mortgage brokers. Finance has been on the wrong trajectory for more than half a century. Its defects derive from the academic theories and regulatory structures that have evolved since the 1930s – dysfunctional foundations that have not drawn the scrutiny they deserve. But without addressing the deep defects, we are likely to lurch from crisis to crisis.

<u>Underpinnings</u> and tradeoffs

Alan Greenspan, erstwhile Federal Reserve maestro, recently made a supposedly startling admission: he had overestimated the self-corrective powers of the free market. A central assumption of modern financial theories is more astonishing: because everyone is omniscient, there are no mistakes to correct, or even any differences of opinion between individuals. The Capital Asset Pricing Model (CAPM), taught to generations of B-school students, assumes that all investors place exactly the same value on all stocks. This is self-evidently false: without buyers who believed IBM's shares were cheap and sellers who thought them dear, there would be virtually no trading of IBM's stocks. Indeed the assumption is so farfetched that its existence is virtually never acknowledged when MBAs are taught CAPM.

How did these "science fiction" theories, to use the philosopher Jon Elster's (2007) phrase, gain currency? Until the 1930s economists had two views of uncertainty. John Maynard Keynes and Frank Knight (who dominated the University of Chicago's economics department through the late 1940s) highlighted uncertainties that could not be reduced to quantifiable probabilities. On the other side, followers of the Reverend Thomas Bayes developed theories in which all uncertainties could be quantified, like bets on a roulette wheel. The Bayesian view became dominant, not because humans can or do always think probabilistically, but rather because it allowed the construction of seemingly scientific mathematical models. And if breakthroughs such as the CAPM required the even more outlandish assumption of identical probability estimates, why that was a small price to pay.

Worse, its conquest of scholarly journals provided a springboard for mathematical modeling to extend its sway over financial practice. Faced with unquantifiable uncertainty, sensible investors, bankers or borrowers make subjective judgments in the holistic manner of a common law judge, considering all the relevant precedents and features of the case at hand, and anticipating the possibility of mistake and

ignorance. If all uncertainty can accurately be reduced to probability distributions however, case by case judgments are unnecessary. Returns are maximized for the least risk simply by diversification.

In 1974 Paul Samuelson, who had spearheaded the triumph of mathematical economics, issued investors a "Challenge to Judgment." The world of "practical operators" was giving way to a "new world of the academics with their mathematical stochastic processes" – who understood that valuing individual securities was a wasted effort. So should, counseled Samuelson, ordinary investors. Eschew stock picking – or pay a professional to do this for you. Just buy the diversified market portfolio and throw away the key.¹

Of course it's imprudent for investors to put all their eggs in one basket. Hasty judgments that market prices are too high or low are also unwise. But except in an imaginary universe of known probability distributions, relying on diversification as substitute for due diligence and ongoing oversight is delusional. Backing twenty thieves or inflated bubble stocks does not produce higher returns than going with a single Madoff or WorldCom. Moreover blind diversification involves free-riding and can't work if it becomes widespread. Dispensing with the costs of active management seems astute, high minded even. Like littering or not voting, it's unsustainable en masse: if everyone eschews judgment, who will make market prices even approximately right or exclude thieves and promoters of worthless securities?²

Nonetheless the Samuelson prescription proved enormously influential. Reading "Challenge" inspired John Bogle to launch the first stock index fund in 1976, that by November of 2000 became the largest mutual fund ever with \$100 billion in assets. Free-riding through blind diversification took off in the credit markets as well. Bruce Bent launched the first money market fund in the U.S. in 1971. Now nearly 2000 funds manage about \$3.8 trillion. Like stock index funds, money market funds eliminated the costs of case by case judgment: they simply bought a diversified portfolio of short-term instruments, certified as high quality by a rating agency -- at zero cost to the money market fund. The traditional model of bank lending, encumbered by the overhead of loan officers and committees, naturally could not compete.

The emergence of ingenious schemes to take advantage of money market funds who depend entirely on the free certification by Standard and Poor and Moody's (who themselves have come to rely on modeling stochastic processes rather than the costly shoe-leather due-diligence) was also unsurprising. Losses on debt issued by Lehman Brothers broke Bent's pioneering Reserve Fund last September and the SEC is preparing to file suit against Bent.

Regulatory Tradeoffs

The regulatory apparatus whose origins date back to the 1930s has had dangerous unintended consequences. According to an S.E.C. account, the "outraged feelings of voters" caused Congress to pass the Securities Acts of 1933 and 1934. The Acts and the expansion of investor protection rules in the decades that followed have played an important role in maintaining the liquidity of U.S. stock markets by certifying their integrity. Casinos with reputations for rigged games eventually drive away patrons. But the rules have also severely impaired corporate governance. For instance, penalties for insider trading undergird a liquid market in which many buyers bid for stocks without much regard for the identity or motivations of the seller. But, placing special burdens on insiders discourages stockholders from accumulating control positions or even serving on the boards of directors. Inevitably boards comprise individuals who don't have a significant economic stake in the company.³

Takeover threats may deter flagrant abuses but aren't a substitute for informed oversight by insiders.⁴ In banks and other financial service firms, even that threat is absent because regulations (and highly leveraged capital structures) make hostile takeovers practically impossible.

The reassurance provided by the rules and faith in the wonders of diversification also helped increase what is euphemistically called market "breadth". Differently put, the ranks of publicly listed companies were swollen by businesses that simply don't belong in the 1980s and 1990s. After 1979 IPOs increased from about 140 to nearly 600 per year, a process culminating in the Internet bubble, when companies with no profits and tiny revenues famously went public. But it wasn't just dotcoms. Investment banks such as Salomon Brothers, Morgan Stanley and Goldman Sachs that had flourished as private partnerships also secured listings. After centuries of having to worry about their own capital, bankers were free to play 'heads we win, tails public stockholders lose.'

The unintended consequences of Depression Era rules on banking have inflicted even more damage than did the stock market rules. In principle the case for bank regulation was strong. The rules protected depositors from imprudent bankers — and bankers from jittery depositors. Before this, the fear of bank runs made depositors and lenders inordinately cautious: Mortgage loans, for instance, rarely exceeded half of the value of the property. Unregulated banking was also especially problematic in a rapidly industrializing economy. In small agrarian communities, depositors can personally know their bankers and assess the prudence of their lending practices; with borrowing by large dispersed organizations, that's impossible.

The creation of the FDIC both ensured the safety of deposits and also freed bankers from the challenge of earning the confidence of depositors. Bank examiners became the main restraint.

The switch initially produced good side effects. Banks lowered down payments on mortgages, making home ownership more affordable and could confidently extend credit to the likes of General Motors and IBM. Regulators also provided the cover needed to pursue innovative risk management strategies. In the '70s for instance, banks started using futures to hedge the risks of making long term loans with short term deposits. Without deposit insurance -- and the reassurance of state supervision – most depositors, even sophisticated ones, would shun banks that traded futures. Paltry passbook rates simply wouldn't compensate for the risks.

Eventually however, as money market and bond funds eroded traditional lending franchises, banks used their regulatory canopy to undertake more complex and dangerous innovations.

Banks securitized all kinds of loans: mortgages, credit card balances, and auto loans were packaged as bundles and shares sold off to investors. And that was just the start. Securitization meant that banks had to warehouse their loans for short periods; this encouraged a reduction in credit standards. Famously, mortgages were extended to impecunious or reckless sub-prime borrowers.

Securitization spawned more securities, with slices used to synthesize new bundles – an alchemy that created AAA gold from sub-prime mortgage dross.

New securities also created opportunities to speculate with virtually unlimited leverage: 'sidebets' on the prices of sub-prime bundles amounted to more than ten times the face value of the bundles themselves.

This proliferation of financial products increased risks substantially. Futures and swaps were used not just to hedge risks, but increasingly to take large bets with little money down. While the going was good, banks' risks and profits from their trading operations came to rival those from traditional lending. Banks were also exposed to the missteps of other players: they extended credit to the trading operations of investment banks and hedge funds and warehouses of dodgy sub-prime loans awaiting securitization. They also faced counter-party risks: if a hedge fund (remember LTCM) or investment bank (such as Bear Stearns) couldn't honor its trading obligations, banks would often be left holding the bag.

The now almost quaint government bond futures used to hedge the risks of borrowing short and lending long are well standardized and trade on highly liquid exchanges. Trading positions can be

accurately 'marked to market' by the minute and exchanges settle up gains and losses at the end of the day. But the customized nature – and the sheer number – of the new instruments precluded a liquid market with reliable prices. Traders could hide losses, by like the Red Queen, asserting that the value their positions was whatever they said it was. And buying and selling was conducted 'over-the-counter' with no exchange to force daily settling up.

Regulators apparently succumbed to the idea, peddled by financiers and modern theorists, that if a little financial innovation was good, a lot must be great. Instead of curbing innovations that were far outside their capacity to monitor, regulators tried to adapt: They required banks to hold more capital for riskier assets and disclose what proportion of their trading positions could not be marked to market. The Fed pressed dealers to improve the processing of trades in over-the-counter derivatives. Unsurprisingly, given the asymmetry of resources and incentive the measures proved inadequate – the regulators could not keep up.

Banks' CEOs weren't on top of things either. Freed of both stockholder and depositor restraints, banks (and their financial next of kin) became sprawling, Too Complex to Manage enterprises whose balance sheets and trading books are but wishful guesses. CEOs famously frolicked on golf courses and at bridge tournaments while their businesses imploded because they didn't know any better. Moreover ⁵turning a blind eye to reckless bets wasn't a bad policy for executives with limited personal downside. CEO Richard Fuld's Lehman stock may now be worthless--but he gets to keep the \$500 million he took out in previous years. Sandy Weil has laughed all the way away from Citibank, which he turned into a hodgepodge of investment banking, trading, retail brokerage, commercial banking and insurance. Hank Paulson sold \$500 million of Goldman's stock – at twice its current price, and without paying capital gains taxes – when he become treasury secretary in 2006. His predecessor at Goldman and Treasury, Robert Rubin received \$115 million for providing direction and counsel at Citigroup while its stock lost 70 percent of its value.

In fact one of the sorriest consequences of our financial system is the toll exacted on the legitimacy of providing great rewards for great contributions. Finance certainly contributes to prosperity, but the vast wealth secured in recent years by a small number of financiers does not map into a commensurate increase in their economic productivity: they haven't created or financed new industries or turned around failing companies. Rather they have used subsidized borrowing to leverage the returns of questionable schemes, secure in the knowledge that if things go wrong the authorities will step in, trying to shore up asset prices or prop up failing counterparties. The sharp rise in income inequality at the top of the scale* owes much more to reverse Robin Hood regulation than to a small decline in personal income tax rates.

President Clinton, whose administration midwifed the first large scale production of financial toxins, blames the current crisis primarily on the absence of good investment opportunities outside housing in the Bush administration. In fact, elected officials and appointees from both parties -- and respected economists - had so undermined our financial system that anything could have triggered a collapse.6

Neither Principled nor Practical

Shocked to find poison in its Kool-Aid, the establishment has panicked. Just as the Nixon Administration abandoned its conservative principles to impose wage and price controls to fight inflation, the specter of debt deflation stampeded Bush administration into helter-skelter bailouts that hold as little promise as Nixon's price controls. Recall that it was Volcker's steadfast and painful monetarism that tamed inflation. The bailout machine also reeks, whatever the reality, of cronyism. When small businesses get into trouble, lenders routinely ask the owners to invest every cent they have back into the enterprise – and sign personal guarantees. Putting bankers to such trouble isn't part of the Troubled Assets Recovery Program (headed by a Goldman Sachs alumnus). The citizens of the Republic, according to the Fed, aren't even entitled to know who it has given \$2 trillion in loans to.

For the long term, the prevailing wisdom believes, as President-elect Obama put it "old institutions cannot adequately oversee new practices." And Modernization means More. Already, Goldman Sachs, Morgan Stanley and General Motors Acceptance Corporation have become bank holding companies, subject to the supervision of the Fed. Trading of credit derivatives is being moved to regulated exchanges. Nobel laureates have suggested an FDA like body to vet new financial products. Others call for transnational regulatory bodies. Former Fed Chairman (and libertarian) Alan Greenspan wants to create a "standby panel of senior federal financial authorities" to decide when interventions are needed

But which agency has the capacity to spare? Bank examiners continue to struggle with traditional lending and the SEC with garden variety fraud. The Fed hasn't yet mastered the problem of central banking in a globalized economy or properly supervised bank holding companies that have long been

^{*} Kaplan and Rauh (forthcoming) show that much of the recent increase in the skewness at the top end of income distribution originates in the financial sector.

under its purview. And, adding capable regulatory staff to oversee fiendishly complex innovations and institutions – and then keeping them from going over to make the big bucks on Wall Street – isn't like recruiting baggage screeners at airports.

If international bodies can't stop blatant piracy, can they forestall global financial crises? And, after the LTCM debacle, should we entrust economists, even Nobel Prize winning ones, to vet new financial products?

And, why does putting more cops on the Wall Street beat to make the world safe for derivatives trading represent a better use of regulatory resources, than say, adding agricultural inspectors to protect farmers and consumers from salmonella scares?

A Modest quasi-libertarian proposal

Reversing many age-old dysfunctions isn't likely. We aren't going to retrain business school processors in the art and science of traditional fundamental analysis or due diligence. Nor is repeal of the Securities Acts of the re-privatization of financial firms on the cards.

We could however go long way to limiting future meltdowns by a simpler more primitive regulatory regime that keeps banks from enabling dangerous and opaque schemes. Let's revive the radical idea of narrow banking and tightly limit what banks (and any other entities that raise short term deposits from the public) can do: nothing besides making loans - after old-fashioned due diligence -- and simple hedging transactions. The standard would simply be whether the loan can be monitored by bankers and examiners who don't have PhDs in finance.

Anyone else: investment banks, hedge funds, trusts and the like can innovate and speculate to the utmost, free of any additional oversight. But, they would not be allowed to trade with or secure credit from regulated banks, except through prudent, well secured loans. This simple, "retro" approach – a more stringent Glass-Steagall Act -- would protect depositors, limit the risks of financial contagion, allow the FDIC and Fed to focus on their primary responsibilities, and not require new agencies or more regulators. Less, would in fact, be more.⁷

Some would of course lose – money market funds would lose their free ride and financial engineers' access to cheap credit – alarming those who claim that the "sophistication" of the US financial system is a prime cause of US prosperity. But, although a modern economy does need the effective provision of some financial basics, such as risk capital, credit and insurance, claims that all the bells

whistles that have been developed over the last couple of decades are a net plus are implausible on their face. Can we really believe that a financial sector now receives more than 30% of domestic corporate profits – double its share from 25 years ago – because it has produced improvements in mobilizing or allocating capital of that magnitude?

More likely, innovators and entrepreneurs in the real economy prospered in spite of the talent and funds that were taken up by the expansion of the financial sector. So if the financial sector shrinks back to the basics, so much the better for long run prosperity.

Amar Bhidé, Glaubinger professor at Columbia Business School, is the author of The Venturesome Economy

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"I think the financial system faces a much sharper change from the trajectory its been on since the early 1980s -- much more so than in the other elements of the modern capitalist system (e.g. low taxes, deregulation, cost conscious managers, privatization, cross-border trade and investment) that I think are here to stay. Of course if the financial sub-system really starts unraveling, the other elements may also be affected.

"One reason for expecting a sharp change is simply that trees don't go to the sky. The growth in the value of financial assets (and in the incomes of bankers) has far outstripped the rate of growth of the real economy (and of other working stiffs)..."

"But that's not the main dimension of the system that's out of whack. In fact, I think the absurd valuations themselves may be a symptom of flawed assumptions about agency problems. To simplify: when a "principal" provides capital to an "agent" he faces two kinds of problems -- that the agent is a crook and that the agent has bad judgment. I don't see too much of a direct problem on the crookedness side--the rules of the game haven't made outright stealing any easier over the last few decades. The systemic problem lies in the lax control over errors of judgment. This has arisen because of the mistaken belief that diversification (and well aligned incentives) can substitute for the control of bad judgment through due-diligence and oversight. Everyone has bought into the belief investors, intermediaries and implicitly (through the promotion of market liquidity) regulators — that diversified portfolios make the problem of bad judgment disappear. Actually, diversification complements due-diligence and oversight; relying on diversification as a substitute exacerbates the problem of bad judgment. Incentives to cheat also may increase -- many fraudulent schemes start out as cover-ups for mistakes.

¹ Samuelson's article appeared in the first issue of the Journal of Portfolio management. I critiqued the Samuelson prescription in the same journal twenty years later. (Bhidé 1994)

² In March 2002 I emailed Matthew Bishop who was writing a survey for the Economist, that Capitalism was in great shape – except in the financial sector because of the pervasive belief that diversification was a substitute for due diligence:

³ Bhidé (1993) analyzed how investor protection rules enhanced stock market liquidity but at the cost of impaired governance.

⁴ My 1988 doctoral dissertation (published in Bhidé 1989) showed that the much feared corporate raiders curbed only the extreme cases of mis-governance, and that too, just the problem of over diversification

⁵ Bhidé (2008) critiques mega-banks.

⁶ Very likely, the knock-on effects of the rapid but uneven advances of the Chinese economy provided an important catalyst. After Deng's reforms (as Edmund Phelps and I wrote in 2005) China its capacity to produce modern goods increased faster than its capacity to consume such goods. Nike could make fancy sneakers in China more quickly than it could create and satisfy local demand. Hence a "savings glut'. But if the Chinese saved, someone had to borrow. And the borrowing had to be channeled through a financial system that could screen for creditworthiness and guarantee repayment. The US financial system offered the illusion of such a capacity but in fact buckled under the amounts that passed through it.

⁷ I argued for tightly regulation the functions of commercial banks in a presentation at a conference held at the council on Foreign Relations in November 2007. Robert Litan who was at the conference told me the idea of "narrow banking" was quite old and that he'd made an argument for it in his PhD dissertation in 1987! John Kay has also argued for narrow banking in his recent FT columns. The regulatory response to the crisis has gone in exactly the opposite direction however.