

Capitalism and its troubles

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The capitalist system has proved surprisingly robust in the face of recent crises, but if it is to keep delivering the goods it needs an overhaul, says Matthew Bishop

CAPITALISM has had a rotten time lately. Not as rotten as in 1917, when those revolutionary shots in St Petersburg launched a form of anti-capitalism that ended (except in Cuba and North Korea) only just over a decade ago. Nor, with luck, as rotten as in 1929, when a stockmarket crash on Wall Street set off the global Great Depression. But rotten, nonetheless. Nobody knows for sure yet, but 2001 might come to be seen as the year when two decades of mostly unbroken progress for capitalism gave way to something more ambiguous and uncertain.



That year was the first in ages, perhaps since the start of America's great equity bull market in 1982, when the world became significantly less wealthy. Total global marketable wealth—that is, all assets traded in the financial markets, such as shares and bonds—fell by 4% last year, according to a study by the Boston Consulting Group. The number of households with at least \$250,000 of marketable wealth dropped from 39m to 37m. Those who believed that in today's economy wealth always increases and the rich keep getting richer have been proved wrong.

The sudden collapse of Enron, a Texan energy-to-finance-to-fraud conglomerate, has shaken faith of another sort: in the integrity of corporate America, and in the Wall Street-centred model of capitalism that has been hawking its wares to investors the world over. The dotcom bubble was one thing; the realisation that apparently profitable companies are not making any money quite another. Much of the appeal of American securities to investors rested on the belief that companies have become much more productive and profitable. After Enron, investors are now questioning the accounts of many American firms, including such admired stalwarts as General Electric and American International Group (AIG), as well as some foreign ones. Given that the American economy has become the engine of the world economy and its companies are being held up as models, this is troubling.

If the doubts about the supposed revolution in productivity and profitability prove justified, the consequences could be dire. Huge amounts of debt have been accumulated by firms and individuals alike, in the belief that the general optimism about corporate America—reflected in continuing high share prices—is justified. Huge amounts of foreign capital have flooded into America for similar reasons, allowing the country to run an enormous current-account deficit and keeping the dollar strong. If these trends were reversed, America's economy could suffer serious damage, and America's model of capitalism might lose much of its appeal to other countries.

In many countries, experience calls that model into question in any case. Argentina's problems have already dealt a serious blow to the idea that the global triumph of capitalism is inevitable. Even such rich countries as Japan flinch from American efficiencies such as securitising bad debt and getting it off bank balance sheets. To a lesser degree Europe is also a reluctant capitalist. Progress of the model can no longer be taken for granted in large parts of Asia, Latin America

and the former Soviet Union, and has never been a serious prospect in much of Africa and the Arab world.



The most awful shock of the past year was the terrorist attack on September 11th. The financial system stood up to it remarkably well. Moreover, both the American economy and, more broadly, the world economy have rebounded much more strongly than anybody dared hope. Yet the attacks proved that even where capitalism is well established, it is increasingly vulnerable to those who hate it. No amount of success in the current war on terrorism will eliminate this hideous new risk, which is impossible to quantify—as the insurance industry is indicating by making cover against it prohibitively expensive.

Assuming terror can be kept away from the developed world, there are two broad schools of thought about the future of capitalism. The bulls argue that the system's performance over the past year, particularly in America, bodes well for the future. Clearly, bursting stockmarket bubbles and scandal-ridden collapses of leading companies are cause for concern. But America has a long record of learning from its excesses to improve the working of its particular brand of capitalism, dating back to the imposition of antitrust controls on the robber barons in the late 1800s and the enhancement of investor protection after the 1929 crash. There is no reason why it should not turn the latest calamities to its advantage too. Senator Jon Corzine, a former boss of Goldman Sachs, puts the case for the optimists: "At the conclusion of any bull market there are always elements of excess that get washed out or cause the system to evolve. But the fact is, we are coming out of the most shallow recession in post-war history, and the outlook is good."

Star performer

The resilience of the financial system has surprised even the regulators responsible for its health on both sides of the Atlantic. As one of them put it, "If you had told me on September 10th that we were going to get the terrorism, Enron and Argentina, I'd have predicted at least one major international financial institution going bust, and serious consequences for the economy." As it is, the only financial firms to go under were on the fringes of the system: some banks in Argentina, and a handful of mostly long-troubled or small insurers.

The bears too have been surprised by the system's resilience, but they still see a large remaining financial bubble which they fear may burst, possibly plunging America and the world into a depression similar to that of the 1930s, or at least of the past decade in Japan. The threat of further terrorism, fighting in the Middle East (with its repercussions for the oil price) and maybe a transatlantic trade war, conjuring up ghastly parallels with the 1930s, have all clouded their crystal balls further. With Argentina's default, they feel, perhaps globalisation has peaked.

The dotcom bubble has burst, but not the bubble in the broader stockmarket. Pessimists predict economic collapse when it does. As Robert Shiller noted in his best-seller "Irrational Exuberance", it can take a while for bubbles to burst, and longer for their full economic consequences to become clear. The Wall Street crash of 1929 was followed by numerous rallies and dips, and only a couple of years later by the Depression. For now, Alan Greenspan, the chairman of the Federal Reserve (and the man who coined the phrase "irrational exuberance"), continues to blow air into the bubble that his loose monetary policy has created. But he cannot pull off this trick forever. Interest rates can go only so low.

Neither the optimists' nor the pessimists' scenario is inevitable. In America and elsewhere, there are important choices to be made that will influence the outcome. Should there be new rules to curb abuses by investment banks? Can accounting information be made more meaningful? Can the incentives of company bosses be aligned more closely with the interests of shareholders? Can capitalism take root in the developing world? The answer to each of these questions is yes, up to a point, but what needs to be done to achieve that result is not easy.

One big hurdle is that the will to reform may be lacking, especially if the world economy continues to recover. Already, there are signs that Congress is backing away from some of its more radical proposals (several of which will be no loss). As Harvard's Andrei Shleifer and others point out in a recent article, Wall Street's heart may not be in it either: "Compared to the profits directly related to high stock prices, those from unwinding bubbles must be minuscule." Although market forces are likely to solve some of these problems, and are already punishing any firm that might conceivably become the next Enron, they may not be sufficient. Bill Gross of PIMCO, a huge bond fund, is unimpressed by the market's response: "My fear is that this newborn faux hostility in the investment attitudes of lenders and stockholders will go the way of many other short-term jiggles in the inevitable march of capitalistic excess."

Is Mr Gross right? The answer lies in the financial system, which is where this survey begins.

Crisis? What crisis?



The financial system has coped remarkably well with a horrendous couple of years

A HUGE, unexpected decline in profits. A sharp and equally unexpected rise in corporate bankruptcies. A sudden nationwide plunge in personal wealth. These are the classic early signs of a banking crisis, of the sort that has happened roughly every decade in America and has also become increasingly common in the rest of the world over the past quarter-century. Among the victims have been Britain, Scandinavia, France, Turkey, Thailand, South Korea, Mexico, Japan and Argentina.

Even without the tough economic environment, it would not have been surprising if the terrorist attacks of September 11th had caused system-wide banking failure, by disrupting the transmission of payments between banks and creating an atmosphere of fear. Yet in the event, banking and the broader financial system proved remarkably resilient. This is worth celebrating. Research into the banking crises of the past 25 years suggests that they typically cost around 25% of GDP to put right. How did things, so far, turn out so much better this time?

Clearly, after the horrors of September 11th, fortune smiled in adversity. The war on terror proceeded as planned, and there were no immediate follow-up attacks on American soil. Consumers remained confident and carried on spending, keeping both the economy and the financial system stronger than had seemed possible straight after the attacks.

It also turned out that the system was better prepared to survive the attack than might have been supposed. The elaborate precautions taken to deal with the supposedly devastating millennium computer bug, which until recently had been ridiculed as a waste of money, proved to have been an invaluable "stress test" for the financial system. They ensured that back-up systems and emergency procedures were in place when the disaster happened.

But luck was not the only reason why things turned out better than expected. Both the authorities and the market participants also showed remarkable skill in restoring the financial system after the attacks. Inevitably, there were unexpected heroes, including the usually despised local telephone company, Verizon, whose employees laboured impressively to reconnect downtown Manhattan. The interbank payments system slowed for a while after the attacks that Tuesday morning, but did not break. The bond market reopened on the Thursday. The New York Stock Exchange trading floor was back in action on the following Monday.

Textbook response

The Fed and other central banks played their parts to perfection. In effect, they allowed unlimited lending, and suspended normal prudential requirements for banks to set aside capital against loans. Banks increased their lending to provide short-term finance for companies suddenly deprived of access to the commercial-paper market. If ever there was a time to flood the system with liquidity and deal with the consequences later, this was it, especially given the technical difficulties faced by some banks (notably the Bank of New York) in clearing payments.

Had the market started to fear that some payments would not be cleared, the resulting panic could easily have taken down one or more big global banks and many of their clients as well. The Fed, and some foreign regulators, took on enormous credit risk. But so long as the liquidity was withdrawn (which it was as soon as the need had passed), for once there was no concern about creating a moral hazard. Banks would hardly leave themselves recklessly exposed to the after-effects of a terrorist attack simply because they expected the Fed to come to the rescue.

For a crucial moment, regulators everywhere turned a blind eye to rules—for example, on solvency for insurers—that would have caused chaos if rigidly enforced. New York and London proved more interchangeable than expected. Many firms were able to shift their operations to London immediately, flying lots of staff over from America. Britain's Financial Services Authority helped by giving instant authorisation to the workers when they arrived. Most of the banks, brokers, stock exchanges and other firms that operate the financial system also suspended their usual practice of competing at every opportunity, pulling together in the interest of the system as a whole. This has not always happened in past financial crises.

Not quite everything went smoothly. The Bank of New York discovered it had been unwise to keep its main back-up facility only two blocks from its head office. Other firms have taken note. In New York, back-up facilities are now being placed in New Jersey or even farther afield. In London, banks based in the City are opening back-ups in Canary Wharf a few miles away, and vice versa.

Is that far enough apart? “If something takes out both the City and Canary Wharf at once, there will probably be more to worry about than the health of the financial system,” says one regulator. Another explains that thanks to the steps taken after September 11th, the financial system is now “inoculated against every terrorist act, short of nuclear or other weapons of mass destruction”. That will have to do.

Bigger, broader, stronger

In America and the richer European countries, in particular, the financial system has undergone huge changes over the past decade. Some of them help to explain why the recent calamities did not do more damage. But not all of them are for the better, and some raise new dangers.

For the most part, the industry leaders today are no longer banks, but financial-services companies. Their activities extend far beyond traditional commercial-banking tasks such as taking in savings and making loans. Many now engage in investment-banking activities such as underwriting bond and equity issues, advising on mergers and acquisitions and, crucially, selling on loans to other investors (by organising syndicates, buying credit derivatives that pay out in the event of a default or issuing securities bundling loans together).

Enron's use of such techniques may have given them a bad name, but many banks seem to have used them to reduce their exposure to credit risk—the traditional way they lost money—so they could remain active in the more profitable business of arranging credit for clients. Asset management, for both institutions and individuals, also accounts for a growing share of revenues, and is expected to become much more significant over the next five years. So, too, is the sale of insurance products.

What a difference a decade makes 1

Top financial firms, market capitalisation, end year \$bn

1990		
1	Industrial Bank of Japan	57.1
2	Fuji Bank	52.0
3	Mitsui Taiyo Kobe Bank	46.3
4	Sumitomo Bank	46.0
5	Dai-Ichi Kangyo Bank	44.8
6	Mitsubishi Bank	44.0
7	Sanwa Bank	41.2
8	Nomura Securities	25.5
9	Long-Term Credit Bank	24.8
10	Allianz	24.6
11	Tokai Bank	21.3
12	Mitsubishi Trust & Banking	17.2
13	Deutsche Bank	16.4
14	American International Group	16.3
15	Bank of Tokyo	15.9
2001		
1	Citigroup	259.7
2	American International Group	207.4
3	HSBC Holdings	109.7
4	Berkshire Hathaway	100.2
5	Bank of America	99.0
6	Fannie Mae	79.5
7	Wells Fargo	73.7
8	J.P. Morgan Chase	71.7
9	Royal Bank of Scotland	69.4
10	UBS	67.1
11	Allianz	62.9
12	Morgan Stanley Dean Witter	61.4
13	Lloyds TSB	60.3
14	Barclays	55.2
15	Credit Suisse	51.3

Source: Morgan Stanley Capital International

A decade ago, continental European banks were typically engaged in a broader range of activities than their American counterparts, which under the Glass-Steagall act, now scrapped, had to make a choice between commercial banking, investment banking or insurance. But the big multinational financial-services firms today have gone much further than the European firms of ten years ago. They are certainly much bigger than any previous financial businesses, as measured by the latest market capitalisation of the top 15 firms compared with the 1990 figure (see table 1).

A bigger balance sheet makes it easier to absorb the sorts of losses that J.P. Morgan Chase suffered when Enron went bust. There are hardly any triple-A rated banks left, but with the exception of Japanese banks—many of which might face bankruptcy without the implicit support of the government—the world's big financial firms are mostly well-capitalised. This is thanks in part to regulatory pressure, notably through the Basel capital-adequacy standards, and in part to growing market sensitivity to the financial soundness of lenders. Today, the big financial firms mostly have more capital relative to liabilities than regulators require, though recent losses may have reduced the cushion.

Growth has been achieved both organically and through a wave of mergers and acquisitions. M&A has been particularly important in helping the big financial firms to become genuinely international in their operations. In America, where until the 1980s many banks faced severe prohibitions on expanding across state lines, M&A has also helped reduce the exposure of individual firms to any one local economy. In the 1980s, a failure like Enron's would probably have taken down the Texas banking system. But Texas Commerce Bank, one of the company's long-standing bankers, was long ago absorbed into J.P. Morgan, which is able to cope with bigger-than-expected losses from Enron without any

serious threat to its viability. Argentina's main banks are part of institutions based in Madrid, Boston and New York, which probably gave the country more time to deal with its problems than it would otherwise have had. Unfortunately, it did not use the breathing space to best advantage.

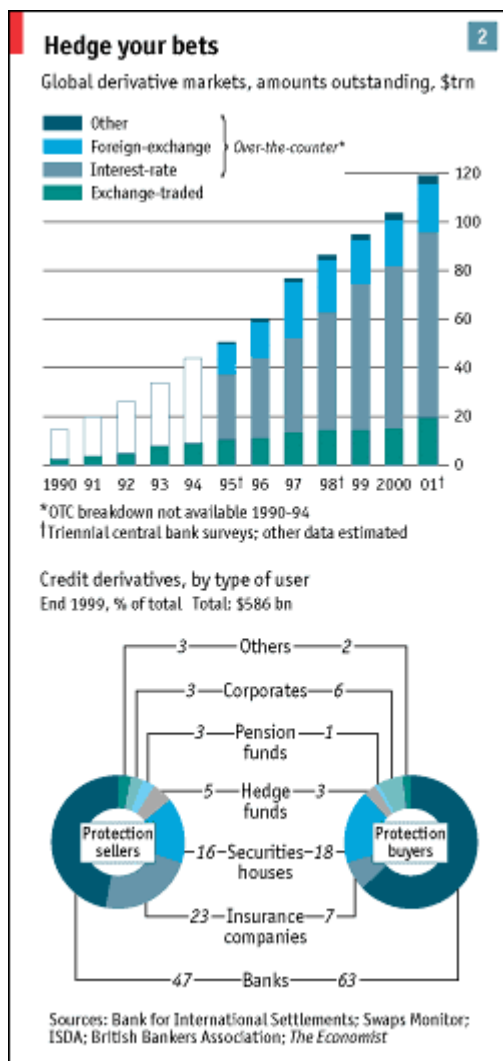
Overall, today's bigger financial institutions are finding it easier to heed the old advice about not putting all their eggs into one basket. Their exposure to credit risk is now geographically diversified and balanced by exposure to risks in other lines of business which, they hope, are not

closely correlated with the credit cycle. More of the credit risk has been shifted to other investors who, at least in theory, are able to suffer losses without the troublesome consequences for credit creation, and thus economic growth, that big losses in the banking system have often caused in the past. The emergence of thriving public-debt markets has anyway reduced the economy's dependence on bank credit.

The recent bout of bubble-bursting and the huge sovereign and corporate failures of Argentina and Enron seem to have more in common with financial crises in the half-century before the first world war, when the damage from bank failures to other sectors was limited, than with the failures in the 1930s and recently in Japan, when the damage done to banks affected every aspect of the economy. Even so, there remains plenty to worry about.

New dangers

Relying less on banks and more on the markets creates fresh problems



BANKS are putting their eggs into more than one basket, and even selling some eggs to investors with baskets of their own. But are they as skilled at diversifying and transferring risk as they like to think? Are those to whom they are transferring the risk capable of managing it? Do these new holders even understand what risks they now bear? In short, could the shift from a bank-based system to a market-oriented one bring new dangers of its own?

Diversification does not absolve lenders from being prudent in their credit decisions. Banks have made some pretty dreadful loans in recent years. Obvious examples include the hundreds of billions of dollars lent to telecoms firms during the tech bubble, and generous credit extended to Enron and Argentina. From the mid-1990s, huge sums of money were promised to companies through guaranteed back-up credit lines to support issues of commercial paper, often without charge if no money changed hands at the time the credit lines were set up. When the economy turned down and credit became harder to find, many companies suddenly called on their back-up facility. By this time, lending billions of dollars to firms such as Xerox and Lucent had become an act of high-risk speculation that the banks had never contemplated, let alone priced, when the facility was first agreed.

One reason for this excessive generosity is that commercial banks were trying to win investment-banking mandates from companies, a business traditionally dominated by investment banks such as

Morgan Stanley and Goldman Sachs. Underwriting an initial public offering or advising on mergers and acquisitions is much more profitable than lending money, so banks have been offering free loans to entice companies to give them investment-banking business. Judging by the chorus of complaints from the investment banks, this seemed to be working. However, the

economics of the strategy are now looking less attractive in the light of the commercial-paper problems and a number of big losses on loans to large investment-banking clients.

The same forces that have pushed financial firms to grow bigger and more diversified are also raising the level of competition in the industry. In many product areas, a combination of fiercer competition, more transparency and the introduction of electronic systems is driving down margins. For example, margins on institutional brokerage are declining by around 5% a year. The collapse of IPO underwriting and the shrinkage of M&A in the past two years has taken out two of the few remaining lucrative areas of business, and helps to explain recent job cuts in investment banking.

Bob Gach, of Accenture, a consultancy, reckons that within a few years the industry could be dominated by only four to six global financial-services firms. Five years ago there were perhaps 20-25 banks with a chance of making it into this new "bulge bracket". Now the number is less than a dozen. Each of the winners will probably need access to at least \$100 billion of capital on its balance sheet. A few niche players will also survive. Dedicated investment banks such as Goldman Sachs will find it hard to decide whether to remain independent, says Mr Gach.

All this gives rise to various dangers. An ever-tighter squeeze on the profits of financial firms may tempt them to take bigger risks in their proprietary trading operations, in the hope of staying independent long enough to make it into the bulge bracket. A surprising number of them invested heavily in venture capital during the tech boom, and after initially trumpeting stellar returns have now had to write off most of the money.

Derivatives allow their users both to shed risks and to take bigger risks. This dual role makes it hard to tell whether their impact is benign or malign, and there are plenty of people who argue for each side. What is certain is that financial firms, especially on Wall Street and in the City of London, love derivatives, and have hired an army of mathematicians and physicists to work as "financial engineers", creating complex new derivatives to shift risk around the financial system. The market for these products is growing rapidly, both on futures and options exchanges and in private sales, which tend to be more complex and more lucrative. Credit derivatives already have a nominal value of almost \$1 trillion, up from around \$100 billion five years ago. They are forecast to top \$3 trillion by 2005. The nominal value of over-the-counter derivatives now exceeds \$100 trillion, 60% of which is handled by a mere five dealers, including J.P. Morgan and Citigroup. Derivatives and other tools of financial engineering can be used to manage risk better by hedging positions and transferring unwanted risk to a counterparty, which is what banks say they mostly use them for. However, those tools can also be used to increase risk, perhaps by a big margin, and there is a growing danger that this will be done accidentally.

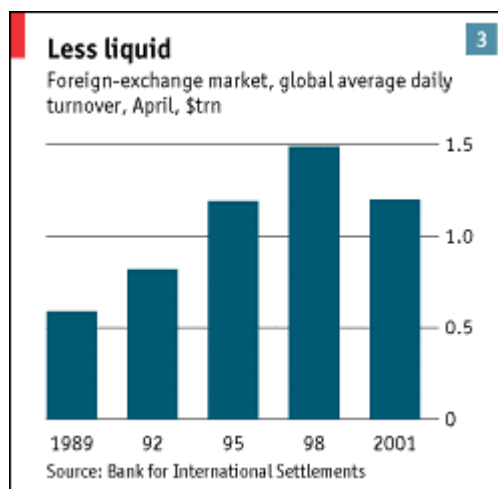
Emanuel Derman of Goldman Sachs describes much of what a financial engineer does as "a high-tech version of estimating the unknown cost of fruit salad from the known price of fruit, or often, in reverse, estimating the unknown cost of fruit from the known price of fruit salad". A financial engineer can take the risk in, say, a bond and break it down into a series of smaller risks, such as that inflation will reduce its real value or that the borrower will default. These smaller risks can then be priced and sold, using derivatives, so that the bondholder keeps only those risks he wishes to bear. But this is not a simple task, particularly when it involves assets with risk exposures far into the future and which are traded so rarely that there is no good market benchmark for setting the price. Enron, for instance, sold a lot of those sorts of derivatives, booking profits on them straight away even though there was a huge question-mark over their long-term profitability.

Black holes

The consolidation in the banking sector may be increasing the riskiness of the financial system in other ways. In a recent paper, Avinash Persaud of State Street, a bank, describes the growing frequency of what he calls “liquidity black holes”. Investors wishing to sell, particularly in large volumes, suddenly find that they can do so only at a much lower price than that set by brokers for small amounts, if at all. This is happening increasingly in some of the markets typically regarded as highly liquid, such as those for American Treasuries and foreign exchange, as well as in smaller markets such as for emerging-country debt. Volumes in the foreign-exchange market have fallen sharply (see chart 3).

The reason these black holes can develop, explains Mr Persaud, is that liquidity is a function not just of the size of a market but also of the diversity of opinion of those trading in it. The less they disagree, the less liquidity there will be. Several factors have reduced diversity, he argues. Technology has allowed information to spread faster, reducing the scope for disagreement arising from disparity of information. Consolidation has cut down the number of big market participants. In 1995, 20 banks in the United States accounted for 75% of forex transactions; by 2001, the number was down to 13.

Moreover, the big firms are increasingly using similar internal risk-management systems. These are sensitive to movements in the markets, and cause their users to respond in similar ways, so the few big firms that dominate the markets increasingly move as a herd, reducing diversity of opinion and thus liquidity, argues Mr Persaud. Some bank regulators say this danger is not all that significant because the underlying risks taken by financial institutions are quite different even if their risk-management systems are similar. But everybody agrees that less liquid markets may be more prone to financial crisis.



Is there a way of increasing the diversity of opinions? One possibility would be for institutional investors with different time horizons to become providers of liquidity. Big private investment-banking partnerships, such as Salomon and Goldman Sachs, used to be willing to take big contrarian bets in markets that they thought were out of line. But now that they are public companies, they are too concerned about short-term earnings volatility to take many such risks. Obvious candidates to take their place include hedge funds, which are free to invest against the grain of the market if they wish, and insurers and pension funds, which have very long-term liabilities and no need for market-sensitive risk-management systems.

Warren Buffett, a famously contrarian investor, often hints at this opportunity in the annual report of his firm, Berkshire Hathaway, which is, at root, an insurance company. The firm has plenty of liabilities that will not be called in for a long time, as well as diverse earnings, vast liquid resources and shareholders willing to accept the earnings volatility that can result from taking relatively risky positions. This “enables us to assume risks that far exceed the appetite even of our largest competitors”, as Mr Buffett puts it.

Where the buck stops

Some insurance companies are now starting to take on some of the risk that the banking system and traditional market intermediaries no longer want. Swiss Re and Munich Re each account for about 10% of the credit-derivatives markets. Insurers have also become huge buyers of asset-backed securities.

This may have its downside. Diversity of opinion is certainly welcome, but few contrarians, particularly within the insurance industry, are as sophisticated and well-informed as Mr Buffett. Indeed, many insurers have a reputation as the hicks of the financial world. Tim Freestone of Seabury Insurance Capital, a consulting firm, reckons that the investment and risk management of the typical insurer is roughly as sophisticated as the typical bank's was 10-15 years ago. Few insurers have a good record of underwriting, supposedly their bread and butter. During the 1990s many insurance companies simply parked premiums in the stockmarket, where they grew so much that there was no need to worry about underwriting losses. Now that the investment climate is harsher, the insurers are looking for new high-yielding (ie, riskier) investments, which banks are providing through financial engineering.

Fixed-income products, such as asset-backed securities, are particularly attractive to insurers with fixed nominal liabilities who failed to predict low inflation and low interest rates. Much of the Japanese life-insurance industry has gone bust because of its inability to deliver promised nominal yields. In Britain, Equitable Life got into trouble for similar reasons.

But some observers worry that problems lie ahead when the true risks of these investments become clear. In its December 2001 Financial Stability Review, the Bank of England devoted a whole chapter to risk transfer between the banking and insurance industry, mentioning "challenges for market participants and the authorities: in tracking the distribution of risks in the economy, managing associated counterparty exposures, and ensuring that regulatory, accounting and tax differences do not distort behaviour in undesirable ways". Privately, one regulator admits that some insurers are "doing very racy investments to get yield".

There is a danger that this risk will eventually find its way back into the banking system. Much of the risk-transfer apparently being undertaken may be an accounting ruse, designed to escape regulatory capital requirements without truly shedding the risk. And if insurers are unable to meet their liabilities and go bust, the banks may be caught short. There are potential legal risks too. J.P. Morgan, for example, faces a court battle to get the \$1 billion it expected from a surety bond it had bought from a group of insurers to reduce its exposure to Enron.

Much of the risk may end up in the hands of less sophisticated investors, including some of the individuals now being targeted by the financial-services firms. They may be taking on this risk unwittingly. Nobody knows how those individuals might react if they found out, or how this would affect the economy as a whole. They might feel poorer and less inclined to spend, which could inflict the sort of damage on the economy and the banking system that the bears had predicted when the dotcom bubble burst.

If there is still a bubble in share prices, as many economists believe, the entire financial system—traditional and new bearers of risk alike—remains exposed to its bursting. But it has become harder than ever to say how great this exposure is.

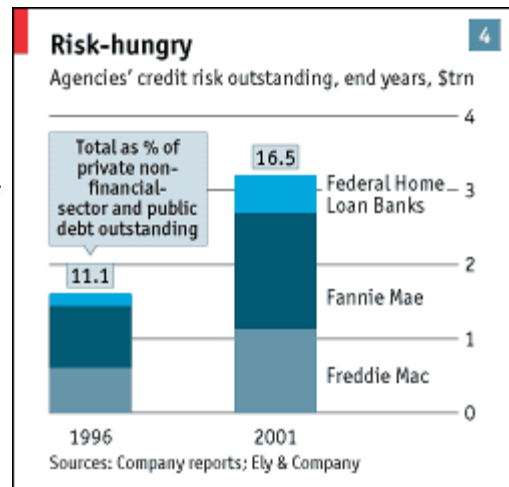
Still, as long as risk remained concentrated within a country and largely its banks, its financial regulators should have been able to keep tabs on it. The trouble with today's global pool of capital is that regulators may be out of their depth.

Unexploded bombs

Beware of Fannie and Freddie

BANKS may be busy trying to get rid of risk, but two huge American institutions cannot get enough of it. The Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation, known affectionately as Fannie Mae and Freddie Mac, have become arguably the two most worrying concentrations of risk in the global financial system. This is because of their portfolio of mortgages and securitisations, their use of derivatives and the habit of many other borrowers, including hedge funds, of using their debt as collateral.

At the end of 2001, Fannie had a total credit risk of \$1.56 trillion (a \$705 billion mortgage portfolio and guarantees on securitised mortgages of \$859 billion). Freddie's was \$1.14 trillion (\$492 billion plus \$646 billion), adding up to a combined exposure of \$2.7 trillion, nearly double the 1996 figure of \$1.45 trillion. Bert Ely, an economist, calculates that the current level amounts to a hefty 13.9% of the total credit risk in the non-financial sector of the American economy, and 49.8% of home-mortgage credit risk.



Worries about Fannie and Freddie owe more to concerns about corporate governance and sheer size than to any evidence of poor risk-management. The two were set up to ensure that the poor had access to affordable mortgages. They are “government-sponsored”, a vague status that allows them to maximise profits for their private-sector shareholders. It also earns them a subsidy from the markets worth an estimated \$10 billion a year, because despite official insistence that there is no federal guarantee, Fannie and Freddie are so big, and so plugged into the Washington establishment (their boards are rest-homes for former government officials), that it is hard to imagine them being allowed to fail.

What might go wrong? They do not appear to be making the common error of using short-term finance to back long-term liabilities—though, as with any big derivatives user, it is hard to be sure. They stress-test their portfolios, for instance to see what would happen if the Texas real-estate crisis 15 years ago were repeated nationwide: say, a 25% fall in house prices, no home equity left, people defaulting on mortgages. They think they could survive that. The biggest danger may be counterparty risk: Fannie and Freddie are heavily dependent for their risk-management programmes on a handful of big banks. If there were an unexpected sharp rise in interest rates, those banks might be unwilling or unable to provide the derivatives Fannie and Freddie need to hedge their risks. The chance of this is small, but if it ever came to pass, the consequences would be huge

The regulator who isn't there

Does a global financial system need a global regulator?

WHO regulates Citigroup, the world's largest and most diverse financial institution? With its operations in over 100 countries, selling just about every financial product that has ever been invented, probably every financial regulator in the world feels that Citi is, to some degree, his problem. America alone has the Federal Reserve, the Securities and Exchange Commission, the Commodities and Futures Trading Commission, the New York Stock Exchange, 50 state insurance commissioners and many others. Yet in a sense nobody truly regulates Citi: it is a global firm in a world of national and sometimes sectoral watchdogs. The same is true of AIG, General Electric Capital, UBS, Deutsche Bank and many more.



Might that be a good thing? Howard Davies, boss of Britain's Financial Services Authority, notes that it has become fashionable to think of regulators as Shakespeare's "caterpillars of the commonwealth, creatures who, far from adding value, get in the way of the market". Naturally Sir Howard does not share this opinion. All the same, it seems clear that much of the dynamism in global finance during the past three decades has been due to fewer regulations on the movement of capital, particularly across borders, and on what can be done with it. For the most part, money is now free to flow wherever an opportunity presents itself, and has generally done so, leaving everybody better off than with heavy regulation.

Leaving capital free to move where it could earn the highest return also showed up over-costly or misplaced regulation: the money simply went elsewhere. For instance, because Japan prohibited the use of derivatives, options in Japanese securities were traded in more accommodating Singapore. As Japan gradually eased these restrictions, some of the offshore business shifted back to Tokyo. In general, competition for capital has encouraged countries to improve their regulation to appeal to mobile capital—although some, such as Malaysia, have resisted this pressure, and continue to impose controls on cross-border capital flows.

Strikingly, there has been no race to the bottom in regulation. Behind every great market is good regulation—whether by a government agency or organised by the market participants. Internationally mobile capital has tended to reward regulation that protects investors and minimises privileges for market insiders.

Broadly speaking, this has led to a convergence of regulation around common international standards, but this process is by no means complete, particularly for investment products sold to personal investors. The day when a global firm can sell the same simple stockmarket-index fund anywhere in the world remains a long way off. America remains reluctant to allow European securities exchanges to ply their trade via screens in America, even though technically this is now easy to do. "Outrageously protectionist," comments one European regulator.

Given the political difficulties, the idea of a single global regulator is not on any serious agenda. That may be just as well: competition among regulators has some benefits. What is on the agenda, at least of the regulators in countries open to international capital, is to ensure that good information is available about the state of global markets and about financial firms' global operations. The FSA, for example, is able to regulate only Citigroup's British activities, but it will

have a much better chance of doing it well if it knows enough about the health of the firm worldwide.

Information is already flowing more freely between different national regulators. Multinational institutions such as the International Monetary Fund, the Bank for International Settlements and the Financial Stability Forum all play a useful part in this, but it is bilateral communication between national regulators that matters most—and the global financial system is nowhere near as transparent to national regulators as it should be.

One reason is that no global consensus exists on what exactly should be regulated. For instance, in Britain reinsurers are regulated by the FSA, but in their home markets Munich Re and Swiss Re, the world's largest reinsurance companies, are mostly unregulated.

Non-financial firms with big financial operations do not fit comfortably into the current regulatory framework anywhere. Enron, which has been plausibly described as an investment bank or hedge fund with an energy business on the side, was not regulated in America. In Britain, the firm itself was not regulated, but its financial subsidiaries were monitored by the FSA. There are big question marks over who regulates the growing number of firms now transforming themselves into financial behemoths, modelled on GE with its huge GE Capital operation. Hedge funds and other highly leveraged institutions are regulated lightly in most countries, and not at all in America. A proposal by a presidential working party for tougher regulation of hedge funds, prompted by the collapse of Long-Term Capital Management, was unexpectedly blocked in Congress.

Too much of a good thing

A second problem, at least in foreign eyes, is that America has too many different regulators. Whereas Britain has merged its numerous financial regulators into a single authority, and several other countries around the world are moving the same way, America continues with its plethora of different regulators for different parts of the financial-services industry. It seems doubtful that any of them has a good overview of what is happening in America's financial system as a whole—though the Fed claims it gets all the information it needs, one way or another. During the Clinton administration, regulation often took place on the golf course between Mr Greenspan, Arthur Levitt, the chairman of the SEC, and Robert Rubin, the Treasury secretary. All the same, single foreign regulators would find it easier to resolve cross-border issues with a single American counterpart.

Some American regulators defend their multiple system, despite the considerable duplication it entails, mainly on the ground that regulatory competition keeps them keen and lean. Certainly, the superiority of the single, consolidated regulator has yet to be proved. According to a report published last year by the Centre for the Study of Financial Innovation, "There is a pervasive mood of discontent in the City with the FSA: people find it bureaucratic, intrusive and insensitive."

Still, the current division of labour among the different American regulators is hard to justify. Why, for instance, should the SEC oversee trading on stock exchanges and the CFTC trading on futures exchanges when the regulatory needs of all exchanges are essentially the same? And why is insurance regulated not federally but at the state level, mostly by elected insurance commissioners? Nobody really thinks this makes sense, but the system survives because each regulatory body has its own supporters in Congress. In some respects, an inefficient regulatory system suits powerful financial firms. The Glass-Steagall laws, which kept banks, investment banks and insurers separate, survived a dozen attempts in Congress to scrap them—until 1998,

when Travelers, an insurer, merged with Citibank, which immediately ended its expensive lobbying against abolition. They went soon after.

One senator who thinks that a single regulator along FSA lines would be good for America's capital markets is Jon Corzine, a former boss of Goldman Sachs. "I hope to get consolidation of American regulation on to the agenda," he says, "but it will need a bigger crisis than Enron to make it happen."

So far America's cumbersome regulatory system does not seem to have retarded the development of its markets, but in the long run it may prove costly, particularly if—and it is a big if—the European Union succeeds in fully integrating its capital markets and introducing appropriate regulation. America has long boasted of having the most efficient capital markets in the world, and to date that has broadly been true. But its unwieldy system of multiple regulators could become a competitive disadvantage should Europe develop a better, less costly regulatory mousetrap.

Regulatory competition

Indeed, it is possible that pressure from the EU will help to consolidate American regulation. Under a forthcoming EU directive, any financial conglomerate operating within the Union will have to choose a main EU regulator who will be responsible for global supervision of the firm. In practice, the European regulator for the big American firms, such as Goldman and Citi, will probably delegate by requiring the firm to nominate one of the American regulators as its "coordinating regulator", which would become a de facto single national regulator for the firm.

Even if the infrastructure for effective global regulation were in place, huge challenges would remain. Some are of an intellectual sort. "How much failure should a regulatory system allow?", asked Sir Howard Davies in a recent speech. He did not supply an answer, beyond saying it should be more than zero, and less than would cause system-wide collapse. Another regulator reckons that the ideal would be "a trickle of little problems, to keep people aware of the risks". It may be a tribute to American regulation that Enron was actually allowed to go bust, and luckily this does not appear to have had system-wide consequences. Some countries might have tried to organise a rescue; indeed, even the Fed has a reputation for keeping alive firms that should have been allowed to die.

Understanding whether the level of risk is getting too high has become harder now that so much risk is being transferred out of the banking system. Andrew Crockett, general manager of the Bank for International Settlements, worries that regulators and financial firms alike are better at judging the relative riskiness of different instruments, institutions and counterparties than the total risk in the system.

The problem has been brought to the fore by the technology bubble, and the fear of a wider American equity bubble. Do regulators know when a bubble has formed and the financial system is becoming dangerously imbalanced? Probably not with enough certainty to base policy on. What is clearer is that aggregate risk ebbs and flows with the economic cycle, says Mr Crockett. Credit officers tend to lend too much in good times, heating up the economy, and then cut back too much in a downturn, making things worse. One way to get round this, Mr Crockett suggests, would be to require banks to set aside higher amounts of capital during economic booms than during recessions, to make risk-taking less pro-cyclical.

How much capital financial firms should set aside against risks going wrong is the trickiest decision international regulators have to make. Since 1988, big banks have been abiding by the

Basel capital regime, which links the amount of capital they have to hold in reserve to the riskiness of the loans they make. However, the categories of risk are too undifferentiated: banks have to set aside as much capital against a loan to Microsoft as to a Hungarian dotcom, as much against a loan to America as one to South Korea. Banks have also discovered ways to use derivatives and other securities to allow relatively risky loans to qualify for a low-risk, low-capital treatment. Regulators fear that a large part of the growth in the use of derivatives and securitisation by banks may stem from evasion of regulatory controls.

Basel 2, a more sophisticated version of risk-based capital rules, is now in the pipeline. It is meant to apply not only to big banks but to all banks worldwide, and to all investment firms in the EU. There is also talk of an insurance Basel before long. But Basel 2 has met with considerable opposition, partly because it is too complicated, partly because some countries disagree over how much capital should be set aside against some sorts of loans. Germany wants a lower capital requirement for loans to small businesses, for example, because bank loans are their traditional source of funding. The launch of the new regime, originally scheduled for 2004, has already been delayed until 2006, and even that may prove to be optimistic. Meanwhile, the banks are operating with a capital regime that does not work as intended, but may be lulling regulators into a false sense of security.

In determining regulatory capital, Basel 2 would give an important role to credit-rating agencies such as Moody's and Standard & Poor's. How good their ratings are is the subject of much debate. As an alternative, banks will be encouraged to use their own in-house credit ratings. But regulators still mistrust the use of quantitative credit-risk models to set regulatory capital. They need better techniques and better data, especially in Europe.

Many big banks already use quantitative models to assess how much capital they need to set aside against portfolios of marketable securities. These "value at risk" (VAR) models typically measure the most the firm could lose in a day, judging by past performance, but they tend to underestimate the frequency with which really bad days occur. There have been half a dozen "perfect storms" in the market in the past decade, during which VAR calculations proved useless in predicting losses. Stress-testing portfolios against imaginary perfect storms remedies some of the weaknesses. But modelling credit risk in this way is much harder, not least because data about past credit performance are scarce.

Another market-based system of regulation has also received some attention. If banks issue short-term subordinated debt that is traded every day and has to be refinanced regularly, and can stay in business only as long as the debt is refinanced, then the market will in effect regulate the bank. Lenders will not finance a bank they think is in risk of default. Alas, the only country to have tried it so far has been Argentina, where the government's fleecing of the banking system after its debt default rather spoilt the plot.

Regulators are only too aware that the sheer complexity of the financial system imposes practical limitations on what they can do. Increasingly, they are having to rely on the private sector to assist them in their regulatory task. They simply do not have the capacity to find out what risks are being taken inside a large international bank unless it tells them.

Caveat emptor

All this suggests that, just as market failures are an inescapable feature of free-market capitalism, so too may be regulatory failures by its watchdogs. The first line of regulation should be those whose money is at risk. In an important sense, Enron was regulated by its bankers. Alas, they made a lousy job of it. The best piece of advice to market entrants is “buyer beware”.

As it is, buyers often seem to be positively reckless, not least in the stockmarket. Recent years have seen the return of the sort of financial bubbles that many economists and regulators thought had gone forever. Why are bubbles back, and can anything

Bubble trouble

And what policymakers should do about it

MR GREENSPAN has allowed the creation of a potentially disastrous financial bubble, say Andrew Smithers and Stephen Wright, two British economists. In a recent article, they argue that the Fed's chairman, having chided the markets for their irrational exuberance in December 1996, should have raised interest rates by enough to bring the exuberance down to more rational levels, and share prices with it. Instead, he did nothing. Share prices continued to rise. People felt wealthier than they should have done, and spent more and saved less than was prudent. Companies with rising share prices borrowed more against their equity, which they invested in all sorts of risky activities, many of which proved unwise.

Messrs Smithers and Wright blame Mr Greenspan's do-nothing stance on two ideas. One is the “efficient-markets hypothesis”, one of the cornerstones of modern financial theory which is credited with revolutionising the workings of financial markets in the past quarter-century. In efficient markets, prices are assumed to reflect fundamental values and to incorporate all relevant information. When ill-informed investors move prices away from their true value, informed investors will arbitrage them back to the right level, so there is no chance of a financial bubble, defined by Peter Garber in his book “Famous First Bubbles” as a high price “at odds with any reasonable economic explanation”. Efficient markets have become an article of faith in some corners of the financial markets. If a price goes to a level for which there is no obvious economic explanation, the believer will simply conclude that there is a non-obvious economic explanation—such as the coming of a more productive “new economy”. What he will not conclude is that there is a bubble.

One illustration of how believers in efficient markets think is the debate about accounting for managers' share options, which has been revived by Enron's collapse. Share options are clearly a cost of employment, an alternative to paying cash. So it would seem to make sense to allow for the cost of the options before calculating a company's profits; but American accounting rules require merely that the options be disclosed in a footnote, not passed through the profit-and-loss account. Efficient-market adherents believe that a footnote is all that is needed, because the market is perfectly capable of subtracting the cost of the options from stated profits when calculating true value. As Holman Jenkins, writing recently in the *Wall Street Journal*, put it, “In the



real world, any information, as long as it is deemed relevant, will be processed into the mill for pricing securities. It doesn't matter whether the data is computed into the income statement, or appears in a footnote, or is shouted up and down Wall Street by a man in a tutu." On the other hand, the fact that senior managers are fighting so hard to stop the cost of their options being set against profits suggests that they, at least, do not think the market is as efficient as all that.

A growing number of economists have turned against efficient-market theory, at least in its extreme "no bubbles" version. One weakness in the theory is its assumption that arbitrage by the informed against the uninformed is riskless and costless. Shorting shares involves borrowing a share and selling it now in the hope of buying it back later at a lower price to return to the lender. But borrowing a share can be costly, especially if the price continues to rise for a while before it falls. The further it goes above the price at which it was sold, the more nervous the lender will get, and the more collateral he will want the borrower to post as security.

Perhaps the most famous example of the cost of arbitrage becoming unbearable was the collapse of Long-Term Capital Management in September 1998. LTCM was betting on the prices of various securities moving closer together, because it believed the true value of different pairs of securities was the same. In the event, many of these prices headed further apart, often much more so than at any point in the past. Later, the prices did move in the direction predicted by LTCM, and would have produced a handsome profit for the company had it been able to hold its positions for long enough. However, when the prices first diverged, the net market value of those positions dropped so much that some of the counterparties of LTCM trades feared it would go bust. They therefore required ever more collateral or became reluctant to do business with LTCM at all. In the end the Federal Reserve had to organise a rescue by several big banks.

At this point, it should have become clear that markets were not as efficient as the theorists claimed. After all, two of LTCM's founders had won the Nobel prize for their work on another cornerstone of modern finance, options-pricing theory. In fact, their fate did not stop millions of people getting caught out soon afterwards when they bought hugely overpriced Internet shares. A fascinating study of the dotcom bubble by Eli Ofek and Matthew Richardson of the Stern School of Business further illustrates the limits to arbitrage. With many of the dotcom companies, the authors point out, the number of shares in circulation was very small. There were not enough available to borrow to meet the demand from would-be shorters. Given that in practice the scope for arbitrage is limited, it is quite possible for people with inaccurate valuations to set prices, and for these prices to get way out of line.

Strikingly, once post-IPO lock-up restrictions on selling by corporate insiders ended, prices often fell sharply—perhaps partly because well-informed investors were able to communicate their knowledge to the market by shorting.

A growing number of economists have become adherents of "behavioural finance", which attempts to explain real-world deviations from the asset prices predicted by modern finance using the insights of human psychology. One example is that people often use a "representative heuristic"—that is, they use data from the recent past as a basis for predicting the future. Thus, when share prices have risen strongly in the recent past, perhaps for a good reason such as a fall in interest rates, investors may assume that they will continue to rise. They will therefore buy the shares, making their rise a self-fulfilling prophecy, at least for a while.

If current share prices reflect a belief that the returns on shares earned in recent years will be repeated in future, they are probably mistaken. The average share-price-to-profits ratio of American equities—as well as British and some continental European ones—remains high by past standards. Jay Ritter, an economist at the University of Florida, estimates that shares might reasonably be expected to earn around one percentage point more per year than the risk-free

rate of interest. That would be far less than the average return on shares during the past 20 years.

In “Triumph of the Optimists: 101 years of Global Investment Returns”, Elroy Dimson, Paul Marsh and Mike Staunton of the London Business School also question whether future returns will match those of the recent past. The global post-war bull market in shares, they say, owed much to two trends that cannot be relied on to continue. First, the world enjoyed a long period of relative peace and prosperity far exceeding expectations at the end of the war. Second, equity holders increasingly diversified their portfolios, which led them to regard their shares as less risky and therefore more valuable.

Physics envy

Why do so many people cling so hard to the notion of efficient markets? Andrew Lo, an economist at MIT, suggests that they may be suffering from a “peculiar psychological disorder known as ‘physics envy’...We would love to have three laws that explain 99% of economic behaviour; instead, we have about 99 laws that explain maybe 3% of economic behaviour. Nevertheless, we like to talk as if we are dealing with physical phenomena.”

There may be some truth in this. In 1947 Paul Samuelson, later awarded the Nobel prize for economics, set out to apply the principles of thermodynamics to economics. More recently, Bill Sharpe, another Nobel-prize winner for his contribution to modern finance, wrote an interesting paper on “Nuclear Financial Economics”, drawing parallels with nuclear science. This work yielded some useful insights, but left a lot of question marks.

Emanuel Derman of Goldman Sachs, one of the growing number of former physicists working in investment banking, puts the financial world's physics envy into perspective. “There is no fundamental theory in finance. There are no laws.” In finance, he says, you are playing against people, who value assets on the basis of their feelings about the future. “These feelings are ephemeral, or at best unstable.”

The art (not science) of valuing shares may be getting harder because of changes in the nature of the economy, creating even greater scope for bubbles to form. When the bulk of a company's assets were physical and its markets were relatively stable, valuation was more straightforward. Now a growing proportion of a firm's assets—brands, ideas, human capital—are intangible and often hard to identify, let alone value. They are also less robust than a physical asset such as a factory. As Enron showed, a reputation for trustworthiness, and the market value resulting from it, can vanish in a moment. The dotcoms pushed this valuation challenge to extremes, often expecting investors to put a price on profits that would not be forthcoming for many years, and would be derived from business models and intangible assets such as brands that had not yet been created.

To pop or not to pop

But back to Mr Greenspan. Messrs Smithers and Wright, having dispensed with market efficiency and established that asset bubbles are possible, next take issue with the Fed chairman's belief that central bankers are supposed to control only inflation, not asset prices. They argue that the downside of a bubble bursting—possibly some combination of depression and deflation—far outweighs the cost of raising interest rates to stop the bubble forming in the first place.

The Fed does take asset prices into account in its policymaking, but only in so far as changes in them are transmitted to demand in the economy and thus potentially affect the rate of inflation. The likely transmission mechanism is the “wealth effect”. As share prices rise, people feel better off and spend more; as they fall, people feel poorer and spend less, reducing inflationary pressure.

In practice, Mr Greenspan has seemed to act on the wealth effect only after share prices have fallen. For instance, when prices tumbled after the collapse of LTCM, the Fed cut interest rates sharply, and shares started to recover at once. This has given rise to the notion of a “Greenspan put”: just as an investor can set a floor for the price of a security by buying a put option, so Mr Greenspan will provide a floor for the stockmarket by cutting interest rates when it gets too low for his liking.

Whether or not there is really a Greenspan put, there is certainly no “Greenspan call”, or ceiling on share prices that would trigger a rise in interest rates. Should there be? It would be a risky strategy. Typically, bubbles begin when something has happened to make people feel more optimistic about the economy—say the building of the railways, or hopes of a new economic paradigm. This optimism might prove quite persistent. Small rises in interest rates might not be enough to burst such bubbles. Indeed, they might reinforce them by creating small falls in prices that provide “buying the dip” opportunities. To be sure of bursting a bubble permanently, a central bank might have to impose huge rate increases, with unpredictable and potentially severe economic consequences. That would make sense only if it could be quite sure that it really had a bubble on its hands that needed to be pricked.

There are various guides for judging whether shares are overvalued, including the ratio of share price to earnings and Tobin's Q, which shows the ratio of a firm's market value to its book value. But the only time anyone can be reasonably certain that there has been a bubble is after it has burst, and even then there could be an element of doubt. Some efficient-market proponents might argue that high share prices reflected fundamental value up to the moment they plunged, and continued to do so afterwards, because the change in valuation had been a rational response to new information coming to light. It would be hard to prove them wrong.

Given that a central bank could never be 100% sure at the time that there is a bubble, would it be justified in trying to burst it if it were 80% sure? Or 40%? This is a tricky question, and not just because raising interest rates would be unpopular; if it were raising rates to control inflation, it would willingly bear that burden for the sake of the economy. Keeping inflation under control does not challenge people's judgments; by maintaining the real value of the currency, it actually helps them to be confident that a price means what it appears to. By contrast, asset prices reflect the free judgments about value made by millions of people who have backed those judgments with their own money. Who is a central banker, even one as wise as Mr Greenspan, to say they are wrong? Should he be free to use heavy monetary artillery to make them change their minds? Probably not without a popular mandate.

In praise of bubbles

Besides, some economists argue that bubbles are really not so bad. They tend to coincide with periods of innovation that make society better off, even if they do not generate much profit for the innovators. The Internet, for instance, may have cost investors a fortune, but it has been a boon for its users. Policies that would be effective for preventing or pricking bubbles might also kill the underlying innovation.

Brink Lindsey, author of "Against the Dead Hand", a robust defence of free markets, argues that the dotcom bubble was more of an example of "messy Schumpeterian creative destruction exploring a new technology than a structural problem". The potential of e-commerce has been explored faster and more thoroughly "thanks to America's open-market system than had it been done by Japan's MITI [Ministry of International Trade and Industry] or a bank-financed system". The bubble represented a "fast-forwarding of experimentation".

Looking back, both the aftermath of the 1929 stockmarket crash and the bursting of the Japanese bubble were bad enough to justify paying a high price to avoid a repeat. But in both instances the authorities made glaring policy errors, including keeping interest rates high for far too long and, in Japan, refusing to acknowledge the extent of losses caused by the bubble bursting, let alone cleaning them up. There is no obvious reason why other central banks should repeat these mistakes. Alan Blinder, a former vice-chairman of the Fed, observed a little while ago, when the economy was still looking much bubblier than now: "For the US economy to go into a significant recession, never mind a depression, important policymakers would have to take leave of their senses." We shall see.

Bubbles might be rarer if investors had accurate data on which to base their decisions. But even after Enron, what are the chances of that?

Think of a number

Accountancy used to be boring. If only it still were

ALL through the long equity bull market, it was considered bad form to say anything nasty about General Electric. The stockmarket suspended its usual dislike of conglomerates to make this one of the world's most valuable firms, cheek-by-jowl with Microsoft. Jack Welch, its combative chief executive (now retired), was lionised by the business press. When the European Commission dared to block the company's acquisition of Honeywell because of plausible antitrust concerns, policymakers in Washington, DC, muttered about a trade war on America.

So an article by the head of America's biggest bond-fund manager, published in March, came as a shock. Bill Gross, of PIMCO, argued that GE's management had "not been totally forthcoming" about how its profits had managed to grow at "nearly 15% per year for several decades". He noted that the firm had lots of debt, giving it "near hedge-fund leverage". Without this leverage, its operations resemble "the failed conglomerates of yesteryear".

None of this information was exactly new. The days when GE's accounts were taught at business schools as examples of conservative best practice were long gone. Mr Welch, it had become clear, liked to "smooth earnings" to deliver remarkably steady growth quarter after quarter, year after year.



On the fiddle

What was new was that Enron, which had appeared to be a highly profitable company until recently, had gone into bankruptcy after it was discovered to have cooked its books. The reason why GE's shares have fallen sharply in recent months is that investors have rumbled that, to a greater or lesser extent, much of corporate America has been fiddling its accounts, and GE is a prime suspect. Nor are American companies alone in this: other countries' accounting rules too offer plenty of opportunity for manipulation. After the Enron debacle, scores of companies with "accounting issues", especially those that smoothed their earnings, have seen their shares tumble. Investors used to reward firms that showed steady profit growth because they disliked volatility. Now they think smooth means fake, and are demanding the truth.

Back in the 1950s, companies prided themselves on the conservatism of their accounting. What changed their mind? One factor was the rise of inflation, which widened the gap between a company's book value on its balance sheet and its market value. Companies could book a profit simply by selling an asset at the higher current price and pocketing the difference over what they had paid for it. A second factor was the emergence of new sorts of assets and liabilities, says Baruch Lev, an accounting professor at New York University's Stern School. A third was the evolution of the modern firm and the blurring of corporate boundaries. Joint ventures, leasing and special-purpose entities all made it harder to determine whether a particular activity should be consolidated into a company's accounts.

The growing use of derivatives and off-balance-sheet financing and the rising importance of intangible assets such as brands and goodwill have all posed challenges to traditional accounting, none of which has been resolved entirely satisfactorily. And serious distortions have been introduced because share options awarded to employees, clearly an employment cost, are not charged against profits. In America, the Fed reckons that this has caused profits to be overstated by an average of 2.5 percentage points a year over the past five years.

There has also been a growing trend to take huge write-offs, and then announce pro-forma profits that supposedly reflect the firm's normal business activities. AOL Time Warner recently wrote off \$60 billion related to acquisitions it overpaid for. JDS Uniphase has written off \$51 billion in goodwill and intangibles.

This can be helpful in several ways. First, if a write-off turns out to have been too large—which may have been the intention all along—some of it can be reimbursed later, directly adding to profits. Second, the firm can pick more or less whatever number it wants for its pro-forma profits. Ostensibly, these are the profits generated by normal business operations, ignoring non-recurring items such as write-offs. In the first three quarters of 2001 the 100 biggest Nasdaq firms reported pro-forma earnings of \$20 billion. For the same period, they reported losses under America's Generally Accepted Accounting Principles (GAAP) of \$82 billion.

It all depends

Over the years, accounting-standard-setters responded to these changes in the business environment at different speeds and in somewhat different ways. America's GAAP, produced by the Financial Accounting Standards Board (FASB), tends to involve minutely detailed rules, spelling out precisely how a specific item is to be treated. By contrast, Britain's Accounting Standards Board, and latterly the International Accounting Standards Board, have tended to set

out broader principles, leaving it to the accountants to work out how these apply to a particular item.

America's approach has fostered "a technical, legal mindset that is sometimes more concerned with the form rather than the substance of what is reported", in the words of Joseph Berardino, until recently boss of Andersen, Enron's auditor until it went bust. America's litigious environment reinforces this emphasis on playing by the rule book and not questioning whether the rules actually provide useful information.

In Britain, some accountants feel that their country's broader, less pedantic approach would have prevented an Enron-like disaster. They also point out that Britain has much tougher rules than America to limit the creation of off-balance-sheet special-purpose entities. But Sir David Tweedie, chairman of the International Accounting Standards Board and former head of Britain's Accounting Standards Board, is sceptical. "History is full of people who said 'it couldn't happen here' and came to regret it," he says about Enron. "I do not plan to repeat that mistake."

For all their differences, accounting rules everywhere have become much more complex as rule-makers have responded to changes within firms and have tried to close loopholes. Martin Whitman of Third Avenue Funds, a veteran investor, agrees that today's accounting is complex. But he blames this on the desire of accounting-standards-setters to meet the needs of the average investor—who tends to be obsessed with getting one "true" number, such as quarterly profits or cashflow per share from normal operations. Enron catered for that obsession, writing in its annual report that it was "laser-focused on earnings-per-share growth". This Mr Whitman regards as folly: "GAAP can never produce a statement of true earnings." He wants accounting to pursue a simpler goal, full disclosure, by providing plenty of useful information—"not truth"—so that trained analysts can judge the financial health of a firm for themselves. Deciding what the numbers in the accounts mean should be up to the users, not those who prepare them.

According to Mr Whitman, even with today's complexity, company accounts will tell seasoned analysts most of what they need to know. This may have been true even of Enron, if only people had cared to look. In a recent article, "Did Enron's Investors Fool Themselves?", Chris Higson of London Business School argues that the information in the firm's published accounts should have set warning bells ringing long before the share price started falling. In particular, its operating return on capital and its return on equity declined sharply during 1996-2000, falling below the economic cost of capital. In other words, the publicly available data showed that the company was operating at a loss, says Mr Higson.

Jack Ciesielski of the *Analyst's Accounting Observer*, a suddenly much-followed journal, agrees. He sees "a crisis on the user side of accounting too. There is a ton of good disclosure out there that nobody is getting excited about." Disclosure in Enron's books was incomplete, but there were plenty of footnotes that should have given analysts "a knot in the stomach".

Hidden meanings

None of this is to say there is no need for reform. "Accounting is being asked to do something it was never meant to do," says Robert Merton at Harvard Business School. "It is like a road system built for when cars did 30mph being used by cars doing 60—and then we wonder why there are accidents." In particular, accounts simply provide a snapshot of a company that gives no indication of the firm's exposures to different sorts of risk in the future.

The concern is not just about the derivatives and other financial engineering that firms increasingly use. Even the treatment of, say, the assets and liabilities of a company's defined-benefit pension fund can be hugely misleading. Assume the pension fund has assets with a current market value of \$100 billion. If the assets consisted entirely of shares, the fund would be much riskier than if they were all Treasury bonds. Yet the accounts would simply record the \$100 billion, offering no clue about the level of risk.

This matters, because the assets of a defined-benefit fund are used as collateral to ensure there is enough money to pay pensioners. The collateral would be needed only if the firm did not have enough money to meet its legal obligation to deliver on its pension commitments. That is more likely to happen during an economic downturn, which might well coincide with low share valuations. Thus, if the pension-fund assets were in shares—especially the firm's own shares—the collateral would be at its least valuable just when it was needed most.

A typical balance sheet is full of such oddities. Mr Merton's solution is for companies to include something similar to the banks' value-at-risk (VAR) measures in their accounts, which would make investors aware of the potential for big shifts in a firm's net assets. Certainly, VAR is not perfect even for banks because the models often ignore the possibility of a truly bad day. It may be even less perfect for assessing the risk in corporate balance sheets because it is hard to gauge the value and potential price volatility of assets that are rarely or never traded. Yet for all its flaws, it is “a damn sight better than what we have now in the corporate sector,” says Mr Merton, who lived at close quarters with VAR during the crisis that brought down the hedge fund he co-founded, Long-Term Capital Management, and is adamant it was not to blame.

Number-crunch time

Immediately after Enron went bust, hopes were high that America would become disenchanted with GAAP and abandon its opposition to adopting the International Accounting Standards (IAS), opening the way to a single, worldwide set of accounting standards. This may happen eventually. But in the short term, the Americans are likely to resist the IAS and instead try to improve GAAP. At the same time the IAS—which currently are not quite as good as GAAP—will also be upgraded. These reforms may move in a similar direction. The incoming boss of FASB has served on the IASB, and the two bodies are likely to pursue a covert strategy of convergence on a common set of standards.

The IASB was reformed last year to make it less vulnerable to political pressures. It seems likely, therefore, that the reform of the IAS will proceed faster than that of GAAP, and that the IAS will, sooner rather than later, become superior to their American cousins. For instance, they will require the cost of share options to be charged against profits, which politics will probably prevent GAAP from doing. At that point, however, market forces will put huge pressure on America to upgrade GAAP to match the IAS, to avoid the risk of its firms and markets becoming uncompetitive internationally.

Already, Harvey Pitt, chairman of the SEC, has made it clear to the FASB that he expects it to do a better job, and has asked it to adopt tougher rules on off-balance-sheet special-purpose entities. The likely effect of this is that many of these entities will be reconsolidated on to balance sheets, particularly in the banking sector. Mr Pitt also wants firms to try harder to bring relevant information to the market at the earliest opportunity. He wants to go further than regulation “fair disclosure”, introduced by his predecessor, Arthur Levitt, which required firms to release material information to small punters at the same time as to professional investors. Mr Pitt wants firms to

have a positive obligation to disclose. He also wants them to use plain English in describing their circumstances and prospects. This is wholly at odds with current practice.

Moreover, Mr Pitt has asked firms to spell out the main assumptions on which their accounts are based, and to state what the results would have looked like on a different set of assumptions. This is a small but welcome step in Mr Merton's direction, giving investors a better sense of the sorts of risks to which a firm is exposed. However, this sort of information is more likely to appeal to professional analysts than to small-time investors, who will continue to search for the single, simple truth about corporate profits. In reality, there is no such thing. Managers will always have a measure of discretion over the way they present their figures.

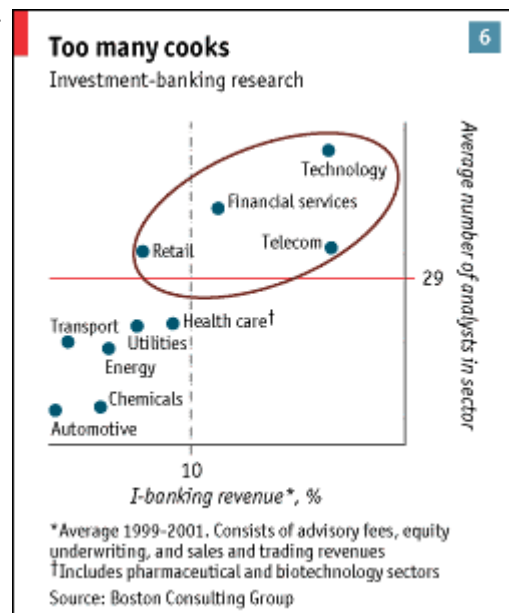
That said, there is nothing in the present rules to stop managers from giving an accurate account of their company. But do they have the will, and are there enough incentives? It would certainly help if the market rewarded companies that provide full disclosure. Equally helpful would be good corporate governance. But that is another story.

Is greed good?

Only if it is properly governed

“THE chairman of your [board's] compensation committee should be richer than you and older than you,” one of America's most admired bosses advised a private gathering of 50 chief executives in New York last November. “That way, he won't get jealous when you make your fortune. In fact, he should be someone who loves to see other people get rich. Under no circumstances should he be from the public sector, or a professor.” Another boss provoked groans when he confessed: “I once made the mistake of giving the job to a distinguished academic.”

“Greed, for lack of a better word, is good. Greed is right. Greed works.” This credo by Michael Douglas, as Gordon Gekko in the 1987 film “Wall Street”, seemed to capture the spirit of the decade, with its sharp-suited investment bankers using mountains of debt to buy up sleepy old companies, fire most of the workers and make themselves a fortune. But compared with the past ten years, the greed of the 1980s was as nothing. And whereas the 1980s story was all about greedy Wall Streeters battling against company bosses who wanted to preserve their firm and its traditional values, in the 1990s a shared greed nurtured a symbiotic relationship between Wall Street and company bosses that made rich men (and, increasingly, women) of them all.



The case for greed was perhaps best made over 200 years ago by Adam Smith, who argued that the invisible hand of market forces would ensure that the efforts of individuals acting in pursuit of their own self-interest made society as a whole better off. In other words, judge capitalism not by the motives of the capitalists but by its fruit. Until recently, the fruit of the 1990s double act of investment bankers and company bosses looked both tasty and abundant, especially in America, where greed was given the freest rein. The economy grew more rapidly, productivity increased faster and the jobless rate fell further than anybody had thought possible. Profits soared, as did

the stockmarket, spreading wealth to investors of all kinds, from fat-cat managers with share options to ordinary workers with stakes in retirement funds. It all seemed ample vindication for those real-world 1980s Gekkos (Ivan Boesky, Michael Milken, Henry Kravis et al) who argued that the way to ensure that corporate America created wealth for shareholders was to give management a piece of the action.

Doubts started to creep in first with the popping of the dotcom bubble, then with the broader drift in share prices and the economic downturn. In America, the ratio of households' net worth to income has fallen back to 5.3, down from its 1999 peak of 6.3, though still well above its long-term norm of 4. The optimists ascribe this simply to the ups and downs of the business cycle, and there is some truth in that. Yet for all the virtues of America's style of capitalism, many of the recent problems were the natural result of bad incentives. If the current slowdown changes those incentives, it will achieve something useful.

The wrong carrots

Managers' share options were supposed to solve the “agency problem” at the heart of the modern shareholder-owned company. The trouble with having owners who are not managers, and managers who are not owners, is that the managers, as agents of the owners, may not run the firm in the best interests of the shareholders. Handing the managers share options gives them a powerful incentive to put the interests of shareholders first. In the 1990s, when this idea gained widespread acceptance, options spread rapidly through corporate America, and, less rapidly, in other rich countries too. What the theory did not allow for was that share prices could deviate substantially from their fundamental value, and that management could help this process along in the short term. The short term might be long enough for them to exercise their share options and sell the shares before the market caught on.

Options also happened to encourage behaviour that was good for Wall Street. In the 1980s, managers had often put up fierce resistance to their firm being bought, not least because they might well lose their jobs. But share options changed their incentives: because the options vest the moment a firm changes hands, they can make a takeover positively welcome to the managers. That suited the investment banks, which are constantly encouraging mergers and acquisitions because of the huge fees they generate—notwithstanding the lamentable economic record of most mergers. The managers at the firm that does the buying do not benefit from vesting options, but they are routinely offered another carrot: a huge bonus for pulling off the deal.

It is above all in America that company boards fail conspicuously to ensure that managers really serve the long-term interests of shareholders. This is not because board members cannot be bothered to do their job. Most big companies today work their board hard. Even so, board members rarely challenge the chief executive. If they do, they are often asked to resign, and usually oblige. As Enron showed, board loyalty may be encouraged with all sorts of incentives, including donations to favourite charities or consulting contracts. But even without such sweeteners, boards seem to have a natural inclination to turn into clubs, and nobody wants to upset the club president.

Divide and rule

Outside America, things are done somewhat differently. British boardrooms, for example, usually have a chairman, typically a non-executive, to balance the influence of the chief executive and run

the board meetings. So the opinions being voiced can be more diverse, and the chief executive does not always get his way.

One idea for making boards more responsible is to hold them properly to account when things go wrong. Generally, board members face no financial penalties if they mess up because the company buys insurance for directors and managers. After Enron's collapse, Paul O'Neill, America's treasury secretary, floated the idea of asking chief executives to sign a financial-health statement that would make them liable for misrepresentations, whether deliberate or not. But the likely effect would be to make it impossible to get anybody to serve on a board. Already, the increased demands of board membership are discouraging chief executives from becoming non-executives elsewhere, says John Whitehead, a former boss of Goldman Sachs and a member of numerous boards over the years. "The risk is you will just get dignitaries who could use the \$40,000 fee, college principals, public figures and the like. Boards may look socially responsible, but they won't act as a policeman."

The big challenge is to ensure that two board committees—compensation and audit—do their job properly. In Britain, the Financial Services Authority has issued tough guidelines for the chairmen of audit committees of financial firms that might usefully be extended to other companies. But unless the chairmen of these committees are full-time, are able to hire their own professional advisers and, ideally, are nominated directly by shareholders, they are unlikely to have the knowledge and independence to be effective watchdogs, reckons Bob Monks, a veteran shareholder activist. He is not hopeful. Failing that, the best way of getting boards to work effectively is for chief executives to encourage robust debate and a culture of accountability. Alas, it is a rare boss who has so enlightened a sense of self-interest.

Proper rewards

If a compensation committee were working as it should, what would it do? For a start, it would reward only genuinely superior performance. If a firm's share price goes up for extraneous reasons—a fall in interest rates, say, or a rise in the stockmarket—why should the managers benefit? Rewards linked to a company's share price should probably be triggered only if the firm outperforms the market as a whole, or an industry peer group. And share options should not, as a rule, be repriced at lower levels if the firm's share price falls.

It may not be necessary to stop using share options (though actual shares are probably a purer incentive and have shown themselves to be effective in motivating managers). However, they do provide an incentive to boost the share price in the short run, which may not be in the company's best long-term interest. One way to remove that incentive is to prevent the manager from selling the shares until some time after he has left the company, say three years. That is a long enough period for any trickery done on his watch to come to light. This need not do much damage to the manager's finances; a bank would be happy to extend a loan secured against the locked-up shares, provided it did not think their value had been artificially puffed up.

The biggest problem is to persuade the members of the compensation committee to care at least as much about rewarding the company's owners as they do about rewarding the chief executive who appointed them. The best answer may be to let the owners themselves vote on managers' compensation, especially options. Such a scheme is now being introduced in Britain. Mr Pitt of the SEC has proposed similar measures in America.

Before Enron's collapse, nobody much cared about audit committees or auditors. Now both are under fire. Strikingly, audit committees' most common response to growing scrutiny is to cover

their backs. Many audit-committee reports this year have come with disclaimers to say that the accuracy of the firm's accounts are not their responsibility.

If anybody is going to take responsibility for a firm's accounts, it should be the external auditor. Following Andersen's humiliation at Enron, this duty is now being taken much more seriously. Yet serious conflicts of interest remain for audit firms that continue to do consulting work for audit clients. Andersen, notoriously, earned more from providing Enron with non-audit services than from the audit.

Given the crucial importance of the audit, everything possible ought to be done to eradicate any conflict of interest that might reduce effectiveness. Non-audit work for audit clients should clearly be prohibited. It would also be wise to introduce mandatory rotation of auditors after, say, five years, to stop auditor and client becoming too cosy.

Every crash has its villains, and this time public enemy number one is the Wall Street research analyst. Supposedly, analysts are another force for good corporate governance, putting pressure on management by providing investors with independent analysis of a firm's accounts and prospects. In practice, it seems, they often simply touted shares on behalf of the investment bank that employed them. This was particularly true of shares sold in IPOs. Investment banks earned huge sums of money from underwriting IPOs, and from other business relationships with companies. They typically earned little or nothing from selling research. No wonder the researchers often bowed to the investment bankers' demand for a buy recommendation to keep client firms happy.

According to the Boston Consulting Group, the potential for such tainted research was greatest in the technology, telecoms and financial-services industries, which contributed the lion's share of investment-banking revenues. As chart 6 shows, firms in these sectors had the largest number of analysts carrying out "research" into them.

Wall Street is worried that Congress will impose new regulations along Glass-Steagall lines to stop underwriting firms selling research. Erecting a new legal barrier of this kind might be a mistake, not least because to some extent this problem is curing itself. The IPO business is comatose and shows no sign of returning to the level of activity seen in the late 1990s. Investment banks are writing all sorts of new rules supposed to ensure the independence of their research, or at least give that impression. Examples include bans on analysts trading in the shares of companies they cover, disclosure of any investment-banking relationships with a company, and even making the occasional "sell" recommendation. Morgan Stanley has abandoned its system of buy and (rarely) sell recommendations for a set of ratings that offer only relative, not absolute advice.

Prudential Securities got out of investment banking altogether to prove its research is not biased. This is a brave move, because independent research firms have so far struggled to persuade anybody to pay for their work. Perhaps nobody really believes that having good research will help them to make money in the stockmarket.

Uncaring owners

In a speech earlier this year, Peter Fisher, a deputy secretary in America's Treasury, urged insurance companies and other institutional investors to get more involved in overseeing the management of the companies they invest in. Enron had highlighted the potential cost of

neglecting to do so. "Corporate governance should be your risk-management programme for the next ten years," he said. But will they take any notice?

So far, institutional investors in America, who own so many shares that nobody could argue with them, have been shockingly indifferent to bad management. If they did not like what they saw in a firm, many simply took the old Wall Street walk and sold their shares. Even index funds, which did not have the option of selling, mostly did nothing to call underperforming firms to order. There were a few honourable exceptions, mainly public-sector pension funds—though even the most active of them all, CalPERS, failed to spot trouble coming at Enron; worse, it invested in one of its notorious off-balance-sheet partnerships.

Why is everybody being so discreet? Many of the biggest fund-management companies are hoping to win investment mandates from corporate pension funds and 401(k) plans, so they do not want a reputation for being troublemakers. Smaller funds may think they do not carry enough weight to make a difference, and that their time would be better spent on other things. Some may feel they lack the expertise to become involved in such complex matters. Robert Litan of the Brookings Institution, a think-tank, reckons there might be a market opportunity for a new firm that advises institutional investors on corporate-governance matters, ideally involving well-known public figures with solid reputations. Instead of trying to save Andersen from bankruptcy, perhaps Paul Volcker, a former Fed chairman, would have made better use of his energies by starting such a business.

Public pension funds started to take a greater interest in corporate governance in the mid-1980s after the government had told them that it was their legal duty to vote their proxies. The SEC recently issued a letter instructing mutual-fund companies that they also have a duty to vote proxies, which may trigger more activity from that quarter.

John Bogle, the former boss of Vanguard, the world's biggest manager of stockmarket index funds, recently proposed the launch of a federation of long-term investors, to cover index funds and other institutional fund managers which rarely sell shares. Just six firms between them hold some \$1.4 trillion-worth of shares, around 10% of all shares outstanding. Such a federation would promote better corporate governance in order to boost long-term share values, says Mr Bogle.

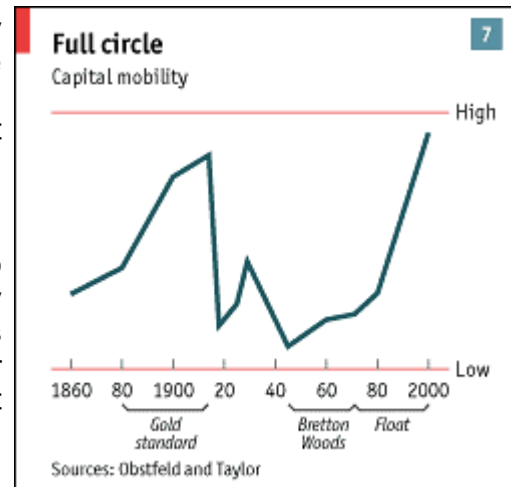
A recent study of the relationship between corporate governance and equity prices in 1,500 firms in the 1990s found that better governance was correlated with higher returns. A strategy of buying shares in companies with good governance and selling the rest would have produced well-above-average results.

In the past, American capitalism has shown a remarkable ability to learn from its mistakes and emerge from them even stronger. The 1929 crash prompted the passing of tough investor-protection laws that greatly improved the quality of the financial markets. After America's savings-and-loan crisis and related property debacle of the late 1980s and early 1990s, the banking system was recapitalised and its risk management much improved. Perhaps now it is the turn of American shareholders to revitalise capitalism, by ensuring that the greed of their managers works with them, not against them.

Better than the alternatives

But capitalism needs nurturing, in poor and rich countries alike

JUDGED by international trade and capital flows and by the integration of markets, the world's economies were almost as globalised 100 years ago as they are now. Arguably, it was only during the past decade that globalisation got back to where it was at its previous peak, on the eve of the first world war. As chart 7 shows, between then and the end of the second world war, globalisation—as measured by capital mobility—went into rapid reverse as anti-capitalists took control of many countries, trade barriers went up and capital markets disintegrated. It was only with the demise of the post-war Bretton Woods fixed-exchange-rate system in 1971 that capital mobility started to rebound.



What lessons should be drawn from the move away from unrestrained capitalism during the first half of the past century? That it can happen, for one thing: capitalism can ebb as well as flow. That it has miserable economic consequences, for another, in rich and poor countries alike: the period when it was at its lowest ebb started with the 1929 Wall Street crash and continued through the Great Depression, probably not by coincidence.

World wars are clearly bad for global capital. So, too, are trade barriers, as capital often moves hand-in-hand with trade flows. Moreover, the globalisation of capitalism may already have peaked. Argentina's debt default, coupled with increasing hostility to foreign banks and capital, looks ominous to many observers. In terms of loans extended by foreign creditors, Argentina was by far the biggest emerging market. If it now submerges, what chance for other emerging markets?

Some economists and international investors have taken comfort from the absence of "contagion" from Argentina to other developing countries. This contrasts with 1997-98, when problems in Thailand spread throughout South-East Asia, and Russia's debt default caused knock-on problems first in Latin America and later in the rich world's debt markets. There has not been much of that this time; even Brazil, despite its close economic ties to Argentina, has suffered few ill effects on its domestic economy and has continued to tap the international capital markets.

Catching something nasty

Some economists are inclined to dismiss the notion of contagion altogether. But if there is such a thing as a financial-crisis virus, it is most likely to be transmitted by big international financial businesses, such as Wall Street firms and hedge funds. In 1998, emerging-market problems spread to rich-country debt markets via their effect on Long-Term Capital Management, a hedge fund that collapsed as a result, and on investment banks that had copied LTCM's investment strategy. International investors last year had much less exposure to Argentina and other emerging countries than in 1998 and, crucially, they were not caught by surprise, as they had

been then when Russia defaulted. In financial markets, being able to prepare for bad news usually means it will end up less bad.

The reduced flows of capital from richer to poorer countries are a worrying sign. Some analysts have predicted that emerging markets will disappear as an asset class through lack of interest, although a recent rise in asset prices in those markets other than Argentina lifted the gloom for a while. In February CalPERS, a huge pension fund for public employees in California, announced it was pulling out of several emerging stockmarkets, starting with Thailand, Indonesia, Malaysia and the Philippines. Other funds may soon follow.

Compared with the previous peak of global capital, the amount of money flowing to poorer countries today is already small. Maurice Obstfeld and Alan Taylor, two economists, point out that less-developed countries' share of total global debt is at an all-time low. In 1900, these countries accounted for 33% of the total; in the 1990s, the figure was down to 11%. In 1913, the countries in the bottom fifth of income per person received around 25% of the world stock of foreign capital, much the same as the countries in the richest fifth. By 1997, the poorest fifth's share was down to under 5%, compared with 36% for the richest fifth. According to Messrs Obstfeld and Taylor, today's capital transactions seem to be "mostly a rich-rich affair, a process of 'diversification finance' rather than 'development finance'...foreign investment in the poorest developing countries lags far behind the levels attained at the start of the last century." Why?

A decade ago, there seemed to be a simple formula for getting capitalism established in a country: bring inflation down, stabilise the exchange rate, create capitalist institutions such as a central bank and a stock exchange, and privatise as fast as possible. Now international investors have realised that sound public finances are also needed, says Richard Sylla, an economist at New York University's Stern School. Argentina was a case in point: its public-sector debt eventually became so large that international investors rightly lost faith in its ability to service it.

Nor did Argentina's pegged exchange rate do it any favours as the dollar appreciated and the Brazilian real depreciated. Although the peg to the dollar was strong enough to cause Argentina's economy enormous problems, it fell short of the total dollarisation embraced by some other Latin American countries, such as Ecuador, and could not prevent a devaluation that damaged Argentina's standing with investors at home and abroad. Argentina's large number of foreign-owned banks might have helped to protect its economy from domestic problems, but the government's treatment of these banks after the country's default undermined this potential force for stability. Corruption is also rife in Argentina, and there is concern that rapid privatisation often merely caused valuable state-owned assets to be handed to political insiders and crooks.

Two crucial ingredients in the successful transition to capitalism are political will and political effectiveness. These have often been overlooked, but that is changing, which may help to explain the lack of contagion after Argentina's default. Wall Street firms are waking up to the need to understand political risk. For example, Lehman Brothers has teamed up with Eurasia Group, a political consultancy, to produce political-risk indices for emerging economies. This kind of analysis can produce quite different advice from standard rankings based only on economic criteria. According to Ian Bremmer of Eurasia Group, "Investors are starting to understand that economic reform depends on the politicians promoting it remaining in power." If international private capital (which in most emerging economies is far more important than aid or loans from international financial institutions such as the World Bank) goes to countries that offer a combination of good politics and good economics, it will send a powerful signal.

Essential ingredients

A society's ability to adopt capitalism also depends heavily on its culture and its legal framework. That is particularly true of market-based capitalism as practised in America, which has increasingly been regarded as the superior model—at least until Enron went bust. Strong investor protection is crucial. So, too, are legal rights to property that treat everybody fairly rather than merely protecting the rich, as Hernando de Soto explained in his book, “The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else”—still the best book on the subject.

According to Ira Millstein, a lawyer at Yale's International Institute for Corporate Governance, market-based capitalism seems much more likely to take root in countries with a legal system based on English common law and with an independent judiciary. It seems to fare less well in countries with legal systems based on European civil law, particularly the French version of it. Common law is more flexible and quicker to adapt to change, provides stronger investor protection and is less likely to sanction heavy-handed state intervention. But it will be difficult for civil-law countries to move in that direction, says Mr Millstein. “You can't just become a common-law system overnight.”

America will have a big part to play in establishing capitalism in the developing world. The terrorist attacks of September 11th appear to have energised the Bush administration to try to spread capitalism as widely as possible. The thinking behind this is that as countries get wealthier, and the wealth is shared by larger numbers of people, they become less likely to provide a breeding ground for terrorism.

One priority will be to lean on the big international financial institutions, notably the IMF and the World Bank, to do a much better job. Over the years these institutions have often handed out poor advice and squandered many billions of dollars on loans that helped governments to postpone necessary economic and political reform. Against that background, the IMF's decision to stop lending Argentina any more money late last year, which made the country's default inevitable, may be seen as progress of a sort. The \$250 billion lent by the IMF during the previous seven years to rescue countries from a variety of crises may have created a moral hazard, convincing borrowers and lenders alike that they would always be bailed out.

The World Bank has achieved little for its \$500 billion of loans during the past half-century, besides saddling very poor countries with huge debts that should now mostly be forgiven. Its own internal review in 2000 found that, of the projects it had sponsored in the poorest countries, barely one in three had achieved acceptable results. It is hard to imagine worse results from America's latest proposal for the World Bank to switch from lending to making grants, subject to performance targets being met.

Establishing a successful capitalist economy in an Arab country would be a particularly precious prize, but so far this has proved elusive. America seems to have settled upon Turkey as the next best thing, encouraging the IMF to treat it much more kindly than it did Argentina. Arabs made wealthy by oil seem to understand enough about capitalism to invest most of their fortunes in America and Europe, but not to allow it to operate at home. Benn Steil, an economist at America's Council on Foreign Relations, points out that the wealth of Osama Bin Laden's family came from the monopoly it was given over much of the construction sector in Saudi Arabia—the “sort of state-fashioned monopoly that dominates the economic landscape across most major sectors throughout the impoverished Arab Middle East”.

A better class of capitalism

Compared with the problems of the developing world, the weaknesses in American capitalism revealed by the Enron debacle or the dotcom bubble may seem minor. But this does not absolve America and other rich countries from putting their own house in order. The financial system has proved surprisingly resilient during the recent shocks, but there is no guarantee that it will remain so in future. The crucial role played by accounting and auditors in a capitalist system needs to be recognised, and legal safeguards put in place to ensure that they play it properly. If this increases the cost of auditing, then it is a price worth paying. Above all, shareholders—particularly big institutional investors—need to accept the responsibilities that come with ownership. If they do not insist on the highest standards of integrity in the running of their companies, no one else will.

Capitalism, like democracy, may not be perfect, but it beats the alternatives. And making it as good as possible will advance the future prosperity of us all.