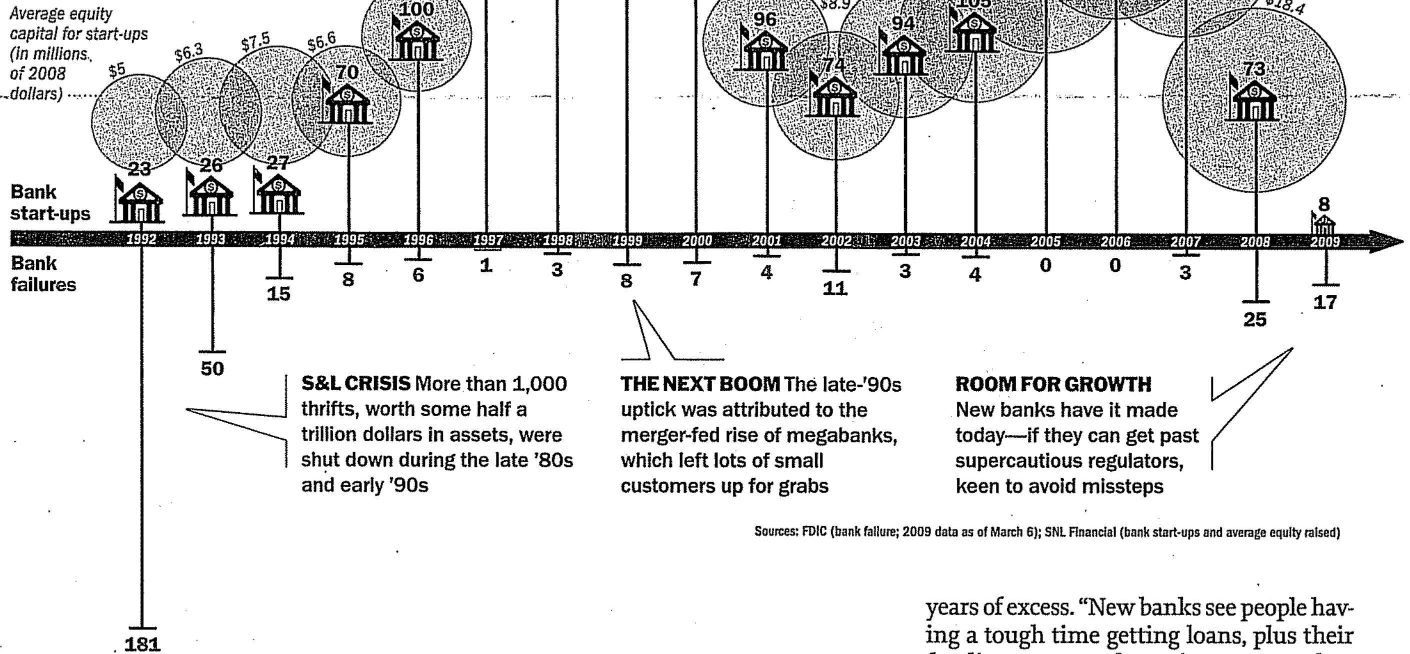
The Rise and Fall of Banks

Some years see more start-ups. Some years see more flops. One thing is for sure: it takes more money to be a banker than it used to



Where Banks Still Work

Financial giants are wobbling. Lending is tight. The FDIC is murder on start-ups. But there's never been a better time to open a small bank

BY BARBARA KIVIAT/EUSTIS

LAST FALL, SOON AFTER CONGRESS decided it would spend $700 billion to shore up the nation's flailing financial system, about 100 shareholders of Reunion Bank of Florida gathered for a party. Over crab fondue and London broil, they toasted the start of their spanking new bank. It had been decades since a locally grown bank had opened in Tavares, an old citrus hub about an hour by car from Orlando. "We had folks drive from 45 miles away," recalls Reunion co-founder and CEO Mike Sleaford. "Everyone was so excited."

Partying bank investors? That doesn't seem quite right. Since September, the bad news about banks has been nonstop—and not just at the top of the food chain. Although teetering giants like Citigroup and Bank of America grab the headlines, at the end of last year 252 institutions were on the problem list of the Federal Deposit Insurance Corporation (FDIC), up from 171 three months earlier. Seventeen banks have failed so far in 2009; expect hundreds more over the next few years.

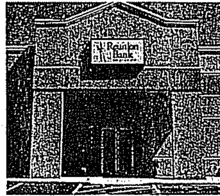
Yet amid all that carnage, there's celebration too. The industry as a whole may be reeling from bad loans and investments, but start-ups like Reunion don't have to wrestle with those problems. Entrepreneurs like Sleaford, even in hard-hit Florida, are setting up shop with completely clean balance sheets. They've got millions of dollars in fresh capital to write loans—and to pursue borrowers cast aside by banks focused on mopping up the mess from the years of excess. "New banks see people having a tough time getting loans, plus their funding costs are cheap since rates are low and they pay next to nothing for deposits," says Richard Sylla, an economist at New York University's Stern School of Business. "There's a profit opportunity there." Odd as it may sound, it's a great time to start a bank.

Bankers get that. Since last summer, at least 30 groups have filed to start new banks, according to SNL Financial. From Richmond, Va., to Tulsa, Okla., to Pacific Palisades, Calif., community bankers are hitting the pavement, raising funds a few hundred thousand dollars at a time from stock-market-wary investors. It's not an easy sell, and regulators, spooked by the wave of failures, are making it tougher than ever to win approval. For entrepreneurs who can run that gauntlet, though, the stars are aligned for small independent banks in a way they probably never will be again.

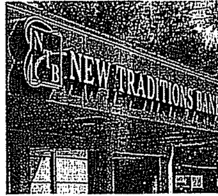
Last March, when Kenneth LaRoe set out to start a bank in Eustis—the next town over from Tavares—the speed bumps were already starting to pop up. Building a bank was old hat to LaRoe. The one he founded in 1999, he sold to a larger company in 2006, quadrupling investors' money. This time around, he lined up $24 million in commitments in three months. Then came IndyMac. On July 11, the FDIC moved to take over the nation's seventh largest savings and loan, a casualty of aggressive home lending and one of the biggest bank failures in U.S. history. Images of depositors lining up to pull their

A group of start-up banks in Central Florida is bucking the bad news

A bank with money Since opening in February, First Green, under CEO Kenneth LaRoe, below left, has been writing loans to doctors, churches and small businesses looking for capital



Personal touch "We're finding people want to go to a bank where they know somebody," says Reunion Bank CEO Mike Sleaford, below center, who is poaching customers from the big banks in town



Positive surprise New Traditions is already larger than CEO David Dotherow, below right, thought it would be a year from now. "It's the best time you could ever start a bank," he says

BOB CROSLIN FOR TIME

money out of the bank flooded the media.

LaRoe started getting calls immediately. People who had pledged to invest half a million dollars were dialing back to $200,000. Those who had been offering $200,000 were opting out altogether. Throughout the fall, the hits kept coming. Washington Mutual collapsed. Wachovia was sold off. Treasury Secretary Hank Paulson went before Congress begging for money, looking as if he'd seen a ghost. "It got to the point where I didn't want to pick up the paper or turn on the TV," says LaRoe. "The mantra I kept singing was 'This is perfect, guys. This is perfect. The banks won't even loan banks money.'"

Eventually, LaRoe won out. First Green Bank opened its doors on Feb. 17—and business has been booming. On a recent weekday morning, loan officers and account reps zipped between desks and offices, sidestepping exercise equipment (the bank is operating out of a defunct fitness center until it completes its new eco-friendly headquarters). When First Green was applying for a charter, it figured to make $39 million of loans in its first year. The bank already has nearly $60 million worth in the pipeline.

That's partly because First Green is picking up qualified borrowers that other lenders are shedding. Banks that have placed too many bets on real estate and construction loans are stumbling and cutting back lending. "Banks are looking to lessen the risk on their balance sheets," says Gerard Cassidy, managing director and banks analyst at RBC Capital Markets. "Even a good customer may be encouraged to leave."

Consider Perth Blake, a family physician who has rented a building in Eustis for a decade. Three years ago, he took the first step toward his dream of constructing a building for his practice and borrowed money to buy a parcel of land. Last October, having paid off more than half his land loan, he went back to his bank and said he was ready to start building. His bank declined to lend him more. So Blake figured out how to shave some $130,000 off the construction cost and applied again. Still no dice. Three banks later, he got the same result. Then LaRoe came along. "It befuddles me," says LaRoe. "We looked at it, and it underwrote fine."

It's not just business owners who benefit. Last fall, Ivan Lefkowitz, a tax attorney in Orlando, says he got a letter from Morgan Stanley telling him his $150,000 home-equity line of credit was being frozen. He was current on his account and owned his home free and clear—though the value had dropped from $800,000 to about $625,000. Now he has a line of credit with New Traditions National Bank, another start-up. "Were it not for the financial crisis, we wouldn't have grown to the size we are," says CEO David Dotherow, who after 6½ months finds himself at the helm of a bank with $148 million in assets—a size he didn't expect to hit for at least a year and a half.

For banks moving down the chute now, though, winning clearance is decidedly tougher. LaRoe's First Green was the last bank to be approved by the FDIC, and getting that blessing was "without a doubt the biggest challenge of my career," says LaRoe. He drew up a spreadsheet of potential customers and how much each would probably deposit or borrow, hiding their identities. The FDIC sent the list back, wanting to know names. "Keep in mind, these are start-up businesses," says Mark Schmidt, the FDIC's regional director in charge of the Southeast. "We ask a lot of questions about how they're going to carry out their business plan when the economic headwinds are against them."

You don't have to leave Central Florida to understand why regulators are so cautious. An hour's drive north of Eustis, up in horse country, sit a handful of CenterState Bank branches. Until Jan. 30, the signs outside said Ocala National. That was the day FDIC agents swooped in and took over. For years, Ocala had ridden the real estate boom for all it was worth, indiscriminately lending money to home buyers (often speculators) and to builders putting up more houses. The bust took the bank down, and the FDIC is spending some $100 million to clean it up. "The system is imploding," says RBC's Cassidy. "Regulators are in batten-down-the-hatches mode. Opening up new banks is the last thing on their mind."

If the same fraction of banks fail this time around as did during the last downturn—the S&L crisis of the late 1980s and early '90s—we will eventually see a thousand-plus banks close, Cassidy figures. Since mid-January, the FDIC has been shutting down a couple a week. Yet at the same time, the system could use the extra capital. Since October, the government has plowed hundreds of billions of dollars into banks to bolster their balance sheets. Last year the average start-up bank brought more than $18 million of fresh capital into the system, according to SNL Financial.

That juxtaposition makes things particularly frustrating for Geoffrey Longstaff. After months of getting nowhere, he and his colleagues at Mercantile Commercial Capital in Altamonte Springs, a suburb of Orlando, decided to give up on the idea of starting a bank. "We were willing to put $37 million in capital into a new banking organization with no past-due loans," says Longstaff. "If we want to foment new lending, wouldn't it be nice to have those investor dollars instead of taxpayer dollars?"

The answer is yes. That's not to say the FDIC should simply bless every application. But this is how the downslope of the business cycle is supposed to work—weak companies get wiped out, and fresh ones rush in. Dropping millions of dollars here and there is hardly going to cure the banking system's sickness. But it might make it a little easier for a few more doctors to set up shop. ■

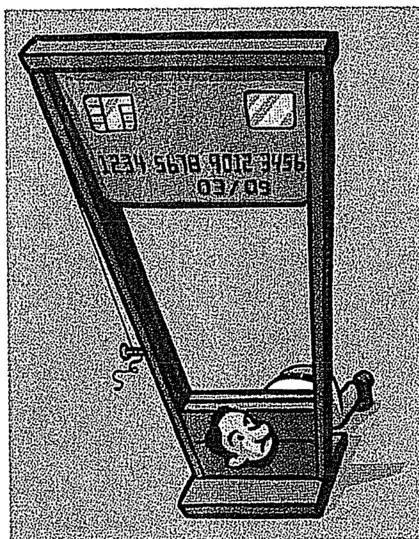
THE FINANCIAL PAGE
HOUSE OF CARDS

In tough times, businesses will do nearly anything to get new customers—look at the big markdowns at retailers and the cheap financing at auto dealerships. But there is an exception to the rule: these days, credit-card companies are trying to get rid of customers. They're shutting down accounts, shrinking credit lines, and, in some cases, actually paying customers to go away. American Express recently offered some of its customers three hundred dollars if they would pay off their balance and close their account.

This is a pretty startling change of direction for the lords of plastic. For decades, they've been deluging Americans with come-ons (in 2007, 5.2 billion offers for new cards were sent out), so much so that, as of 2006, there were nearly 1.5 billion charge cards in circulation. And these cards did not go unused: between 2000 and 2006, even as Americans' real income was essentially stagnant and their savings rate negligible, credit-card borrowing rose by about thirty per cent. Our willingness to spend beyond our means served the credit-card companies well: their profits jumped forty-five per cent between 2003 and 2008. But while making borrowing easier boosted the companies' profits, it also increased the risks they faced, risks that started to hit home once the economic slowdown began. According to Fitch Ratings, credit-card chargeoffs—debts that companies determine they will not be able to collect—rose to almost 7.5 per cent in December, up forty per cent from a year earlier. And, as unemployment continues to rise, so, too, will the number of people who are unable to pay their bills.

It's little wonder, then, that credit-card companies are now scrambling to shed the customers they think are most likely to default, and to limit the amount that others can spend. In effect, they're trying to follow the advice given by Larry Selden and Geoffrey Colvin in a book called "Angel Customers & Demon Customers." Not all customers are equal, it turns out: some are tremendously profitable, while others, like the guy who calls customer service six times a day to check his account balance, cost more than they're worth. To boost profits, you must cultivate the angels and protect yourself against the demons.

That sounds easy enough. But credit-card companies have created a strange business, in which there's a fine line between good and bad customers. Their best customers aren't those who dutifully pay off their balance every month; instead, they're the ones who charge a lot and pay only a little every month, carrying a sizable balance and racking up interest charges and late fees. These are the "revolvers," and the credit-card business feeds on them. Credit-card companies don't necessarily want revolvers to pay off their debts; if they did, there'd be no interest or fees to collect. They want their loans to be, in the words of a banking regulator, "a perpetual earning asset." And they've thought a lot about how to keep those interest payments coming. For instance, they used to keep minimum payments relatively high. But, over time, companies started lowering minimum payments, sometimes to just two per cent of the balance. The lower the minimum payment the less people pay off each month and the longer they stay on the hook.



The catch is that while revolvers are the companies' best customers, they're also more likely to default, which would make them the worst. That's why credit-card companies have had to rein in their lending and shed accounts. Since that risks shrinking profits, they're also trying to get as much as they can out of their existing customers, by doing things like sharply increasing their interest rates. This increase is partly a response to the greater risk of default, but it also takes advantage of the recession. Many cardholders don't have enough money to pay off their balance in full, so when interest rates rise they aren't able to just close their account and get a different card. Effectively, they're captive customers. And since credit-card companies, unlike most lenders, are allowed to change the terms of their loans at any time, people who borrowed a big chunk of money at, say, nine per cent may now be paying seventeen per cent on the loan.

These tactics are not going to improve the credit-card industry's dismal reputation. They're also not going to help an economy in recession, since reduced credit lines take away an important cushion for consumer spending, and higher interest rates and increased fees are likely to drive more people to default. But the odd thing is that while less access to revolving credit is a bad thing for us in the short run, having people rely less on credit cards is a good thing in the long run. The easy availability of credit cards encouraged people to live beyond their means—studies suggest that people really do spend more when they can pay with a credit card, and that big credit lines further encourage extravagance. And the high price of credit-card debt meant that billions of dollars in interest and late fees went to credit-card companies instead of to more productive uses. Smaller credit lines and less borrowing make sense. But in the short run they're going to throw a lot of sand into the economy's gears.

This is the paradox of deleveraging: it's good for borrowers to reduce their debt, and good for lenders to be more rigorous in their standards, but when everyone deleverages at once it does real damage. It's like a drug addict whose dealer cuts him off: it's good to stop using, but withdrawal is painful. The end of the credit-card boom isn't going to wreak as much havoc as the end of the housing boom. But it is helping to put a brake on our spending. And, at this point, every little bit hurts.

—*James Surowiecki*

To Catch a Corporate Thief

Bad times bring out dishonesty in some employees. But new technology is snagging more internal crooks

By Michelle Conlin

There's no polite way of saying this: In bleak times, people are more likely to rip off their employers. According to a Deloitte survey, two-thirds of executives expect insider crime to rise in the next two years. Corporate grifters seem to be getting nervier. Recently, a Maryland man swiped 32 laptops from his nonprofit health-care employer and put them on eBay. A chief financial officer changed the color of the type on some spreadsheet data from black to white so as to render the fake numbers invisible while juicing the totals—and his bonus. One regional vice-president for sales billed his corporate card $4,000 for Victoria's Secret lingerie—and not for his wife, either.

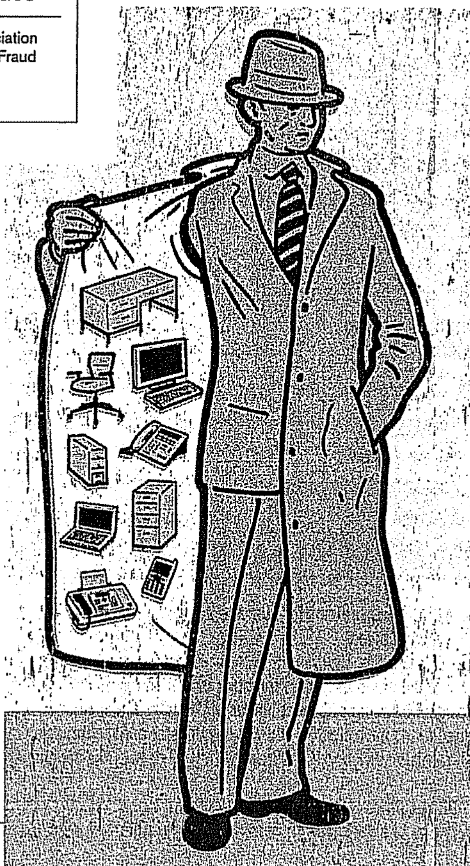
On average, insider fraud is equal to **7%** of revenues

Data: Association of Certified Fraud Examiners

That these schemers are getting caught is a testament to the strides made by the corporate fraud police. Sleuthing technologies are light-years beyond where they were in the last recession, of 2001. And with most companies looking to cut costs, managers are eager to crack down on insider malfeasance, which on average equals 7% of revenues, says the Association of Certified Fraud Examiners. "You can think of us as the electronic cop looking for good and bad behavior," says Ralph Baxter, CEO of ClusterSeven, which sells monitoring software to the likes of Dresdner Kleinwort and Mitsubishi.

After the September 11 attacks, companies stepped up physical security. The Sarbanes-Oxley Act then forced them to increase internal controls, which translated into continuous monitoring and surveillance of electronic records. "Every time someone sends a file, whether over e-mail or a Web site, or transfers data onto a cell phone or a thumb drive, it can be monitored," says Gunter Ollmann, IBM's Internet security czar.

Increasingly, information is the fraudster's currency. Just before Christmas, a prized employee at a software company resigned, citing family problems. When he turned in his documents and cell phone, he reported his laptop stolen. Something didn't sit right. So the boss asked the IT guys to trace the employee's laptop. Using the Web, they tracked it to the man's house. "He'd been poached by one of our competitors and was using our methodology, system design, and technology to cement him in his new role," says the company boss.



DAN PAGE

T&E ABUSES

Technology is helping companies fight theft right down to the rank and file. The restaurant industry has long battled such scourges as buddy punching (clocking in for a friend) and lollygagging (doing anything but work). At Valenti Management, which owns and runs 117 Wendy's and 17 Chili's franchises, IT chief Pachy Torresola was looking for "as foolproof a method as we could find" to tie all actions at the cash register to individuals. The answer: installing fingerprinting scanners on Chili's cash registers. Torresola says workers would say things like, "Umm, gee, that wasn't me." But he says the company hasn't heard such excuses since getting the scanners. Valenti will soon install them at its Wendy's operations.

Fudging travel and entertainment is not new. But in times like these some employees figure: "I could get laid off anyway, so I might as well dip while the getting's good." In recent months, Nakia Williams, an accounts payable boss at Carl Zeiss Vision, has been extra zealous about this kind of abuse. Like many companies, Carl Zeiss uses Concur Technologies' expense report software. It can scour T&Es for fishy activity: rounded-up numbers, unauthorized travel upgrades, the same meal expensed by two colleagues. Recently, Williams nailed employees who were amping up car mileage, inflating tips, and submitting duplicate reports. Says Williams: "Employees didn't know we were checking their reports." | BW |

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

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

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

Trust's slow accumulation pushes financial markets forward; its shattering betrayal batters them back. Sometimes this is through bad faith, as when Bernie Madoff, a grand fund manager, allegedly made his investors $50 billion poorer, or mortgage-sellers tempted naive borrowers. But promises made in good faith can be broken too. Indeed, honest failure is even more corrosive of trust than outright criminality. Everyone understands that now.

New order

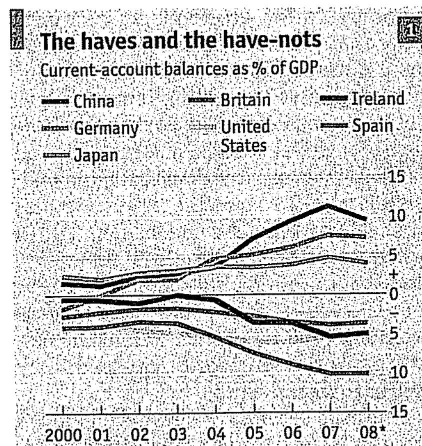
The failure of finance will affect ideology, too. Many people find capitalism's central planner hard to put up with at the best of times. Free markets shun seemingly worthy causes, whereas the frivolous or apparently undeserving are rewarded. Look at the financial-services industry itself. In America middle-class pay has stalled in recent years but financiers have figured prominently among the tiny number of people who have captured much of the extra income. For as long as the world economy was growing fast, financial markets commanded grudging allegiance. Yet the same financiers who preached the necessity of free markets on the way up have since depended on taxpayers to save their industry at a cost of trillions of dollars.

Financiers will find the arguments for free markets harder to make now that they have lost the benefit of the doubt. Charles Kindleberger's classic study, "Manias, Panics and Crashes: A History of Financial Crises", updated by Robert Aliber in 2005, suggests that financial instability feeds on itself. Japanese savings fled their own bust and sloshed first into the Nordic countries and then into Asia, which suffered contagion in 1997.

Some see today's disaster as a result of that Asian crash. Asian nations—especially China—have been determined to be part of global capital markets but not to run current-account deficits which would leave them vulnerable to sudden currency outflows. So they have been happy to see their money go abroad. In the phrase of Martin Wolf, an economic columnist at the *Financial Times*, they "smoke but do not inhale".

In 2006 America's current-account deficit peaked at 6% of its GDP (see chart 1). Between 2000 and 2008 the country received over $5.7 trillion from abroad to invest, equivalent to over 40% of its 2007 GDP. Over the same period Britain and Ireland absorbed around a fifth of their 2007 GDPs and Spain a vast 50%. The financial system had the job of recycling the money to borrowers. Inevitably, credit became cheaper and savings declined. In America savings fell from around 10% of disposable income in the 1970s to 1% after 2005.

Not everyone agrees about the cause of this torrent of foreign capital. Although some blame Asian saving, others point to Western extravagance. But there is little doubt about the consequences. All four of the debtor countries in the chart enjoyed housing booms. Jeffry Frieden, a political economist at Harvard University, says about three-quarters of credit booms financed from abroad end up in crashes.



And yet financial services were not so much a victim of the inflows of foreign capital as an eager accomplice. The question is why financial systems are so liable to turn foreign credit into ruinous busts. In particular, why did America, home to the world's most advanced financial system, turn foreign credit into the world's most serious post-war bust?

The suspicion is that American know-how and talent made the disaster worse. Of all the financial instruments to have failed, newfangled collateralised-debt obligations (CDOs) have turned out to be among the most devastating. One way of thinking about CDOs, says Raghuram Rajan, a professor at the University of Chicago, is as a mechanism for converting mortgage securities and corporate bonds from huge, illiquid assets owned by local investors into liquid financial instruments that could be flogged across the world. Philip Lane, of Trinity College Dublin, thinks that sophisticated American financial services combined dangerously with relatively unsophisticated financial services elsewhere.

Never again, etc

If the price of sophistication is instability, something is wrong. You might conclude that the thing to do is to shackle finance as it was shackled in the 1950s and 60s. If ever there were a moment for this, it would be now. It takes a big upheaval to open the way for radical reform. The structure of financial regulation in America still bears the mark of ideas forged in the Depression.

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

In fact, the aim should be neither to banish finance nor to punish it, but to create a system that supports economic growth through the best mix of state-imposed stability and private initiative. Modern finance is flawed, unstable and prone to excess. But think of those boots and those wasted lives: planned markets are flawed, unstable and excessive too. ■

Greed—and fear

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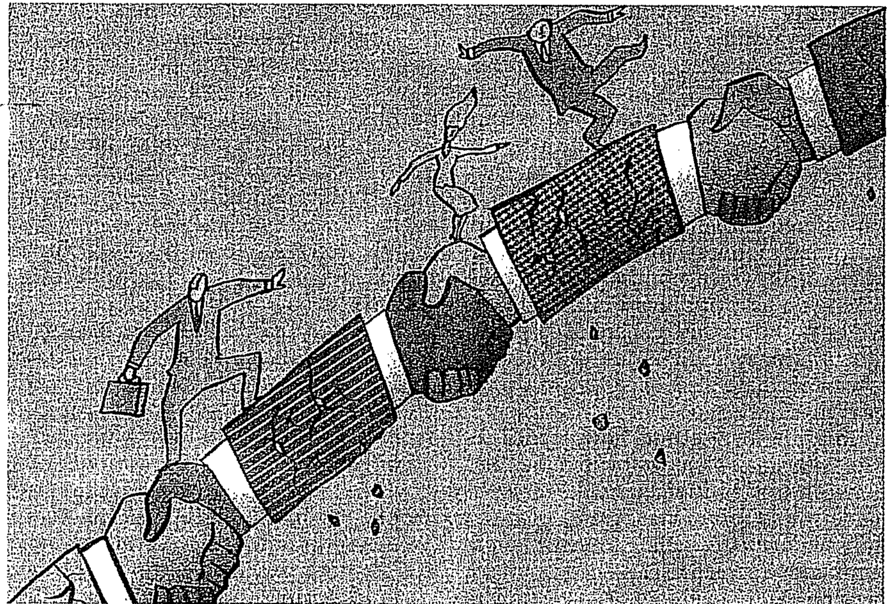
A list of sources is at
www.economist.com/specialreports

An audio interview with the author is at
www.economist.com/audiovideo



The golden age of finance collapsed under its own contradictions. Edward Carr asks why it went wrong and what to do next

THE monument to Soviet central planning was supposed to have been a heap of surplus left boots without any right ones to match them. The great bull market of the past quarter century is commemorated by millions of empty houses without anyone to buy them. Gosplan drafted workers into grim factories even if their talents would have been better suited elsewhere. Finance beguiled the bright and ambitious and put them to work in the trading rooms of Wall Street and the City of London. Much of their effort was wasted. You can only guess at what else they might have achieved.

When the financial system fails, everyone suffers. Over the past 22 months the shock has spread from American housing, sector by sector, economy by economy. Some markets have seized up; others are being pounded by volatility. Everywhere good businesses are going bankrupt and jobs are being destroyed. For the first time since 1991 global average income per head is falling. Even as growth in emerging markets has come to a halt, the rich economies look set to shrink. Alan Greenspan, who as chairman of America's Federal Reserve oversaw the boom, calls the collapse "a once-in-a-half-century, probably once-in-a-century type of event". Financial markets promised prosperity; instead they have brought hardship.

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

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

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

Finance is increasingly fragile. Barry Eichengreen of the University of California at Berkeley and Michael Bordo of Rutgers ▸▸

Wild-animal spirits

Why is finance so unstable?

WHEN people look back on a bubble, they tend to blame the mess on crookery, greed and the collective insanity of others. What else but madness could explain all those overpriced Dutch tulips? With hindsight, today's mortgage disaster seems ridiculously simple. Wasn't it the fault of barely legal mortgage underwriting, overpaid investment bankers and the intoxication of easy credit? Yet there is an element of the madhouse in that explanation too. Cupidity, fraud and delusion were obviously part of the great bust. But if they are the chief causes of bubbles—which have repeatedly plagued Western finance since its origins in the Italian Renaissance—you have to suppose that civilisation is beset by naivety and manic depression.

In fact, observes Abhijit Banerjee, an economist at the Massachusetts Institute of Technology, a little irrationality goes a long way. When reasonable, self-interested people trade with each other, optimism tends to breed optimism—until it subsides into corrosive pessimism. In the words of Willem Buiter, of the London School of Economics, "finance is a scary, inherently unstable, essential activity."

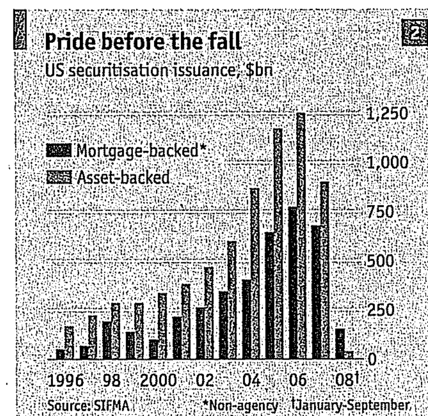
Financial services are different from other industries, if only because so much of the business is writing bets. One side pays the other for a claim that comes good if, say, oil prices fall, or a company defaults on its bonds, or householders make their mortgage payments on time. When people talk about losses in finance, they are often thinking about only one side of these contracts. In fact, for every loser on a credit-default swap, for example, there is a corresponding gainer. These are bets, remember: if the punters are down, the bookies are up by the same amount. In the jargon, the claims "net to zero".

That sounds safe enough. Yet the winners and losers behave differently. The winners' extra spending may not offset the losers' retrenchment. And the losers may not be able to afford to pay out, either because they do not have the money—they are insolvent—or because they cannot easily raise the money—they are illiquid. This "counterparty risk", which grows with the volume of bets, has been the outstanding feature of this crisis. American International Group (AIG), once the world's biggest insurer, was bailed out by the American government when it became clear that it would not be able to honour its vast one-way bets on financial stability. Had AIG failed, the banks on the other side would have been in trouble. Although the market netted to zero, it was poised for disaster.

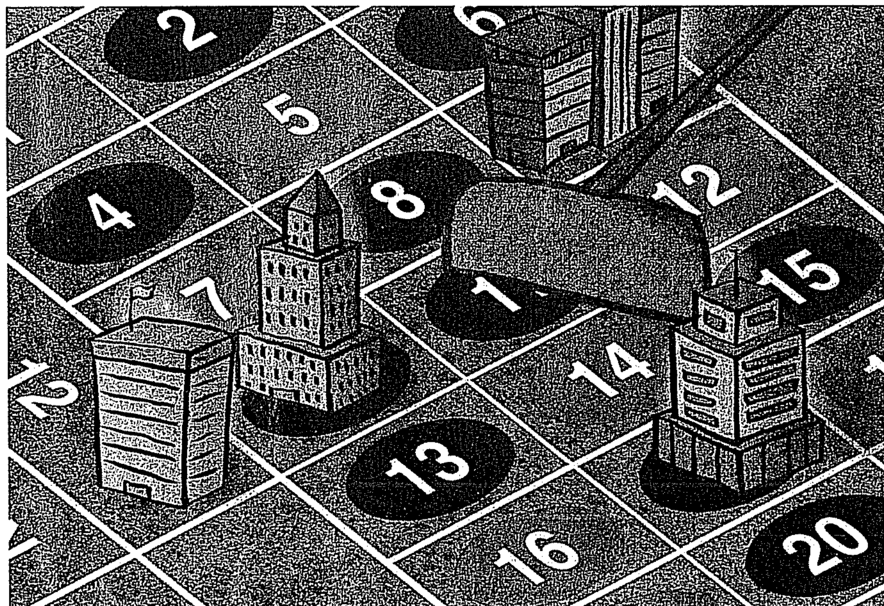
Infectious optimists

In a boom there is every chance that the betting will get out of hand. Expansion in most businesses is held in check by the need to build assembly lines, rent retail space or hire workers. All that takes time and money. By contrast, financial contracts can be written almost instantaneously and without limit.

Whenever issuers compete for market share or buyers pile in because they are afraid of missing the boat, a boom may be in the making. Investors herd together in this way because, as John Maynard Keynes argued, they do not have a sure grasp of the future. Faced with uncertainty, they resort to whatever conventions they can find to cling to, from popular wisdom to new theories. In a boom, overconfident investors take on bets that they later find themselves unable to discharge.



Conventions are one reason why the appetite to buy financial assets tends to feed on itself (see chart 2). In textbook markets for goods, price increases lead to a fall in demand and to substitution. By contrast, rising asset prices tend to be seen, within limits, as a cause to buy. People take rising share prices as a sign of confidence and a reason to put money into their retirement accounts or mutual funds. More recently, falling prices have been taken as a signal to flee, even though shares are much cheaper than they were not so long ago. ▸▸



Asset prices pull themselves up by their own bootstraps. As houses become more valuable, house owners feel richer. If they then spend more, companies make more money, which in turn increases the value of shares and bonds. Profitable companies invest and create jobs. As the economy thrives, there are fewer defaults. Lenders are therefore willing to lend more on easier terms. This extra credit makes asset markets liquid: if ever you need to sell something, there always seems to be a ready buyer. Ample credit also tends to feed into spending and asset prices. That makes people feel richer. And so it goes on.

For as long as people are optimistic, the creation of credit is hard to restrain. Although banks are usually happy to join in, they do not have to be involved, at least for a while. In the boom in Kuwait between 1977 and 1982, people started to use post-dated cheques to pay for shares and property. According to Kindleberger, the value of these circulating IOUs peaked at some $100 billion, a far larger sum than was kept on deposit in the banks.

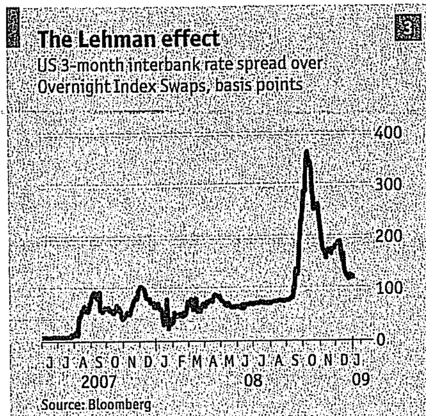
Similarly, when the economy does well, borrowers want to take on more debt. Not only are managers ambitious to expand, but shareholders tend to encourage them. That is partly because in a boom they think it is a low-risk way to increase the return on equity. It is also because the burden of larger interest payments leaves managers with less scope to fritter away cash on pet projects that may not benefit their shareholders.

Things that go pop

Manifestly, this virtuous circle does not operate unchecked. Potential bubbles often collapse early and harmlessly because fundamental forces are pulling in the other direction. Investors, torn between being late and being wrong, are restrained by rules of thumb, such as historical analogies and price-earnings ratios for shares. Their optimism is continually buffeted by scares and speculators who test whether a rising market is robust. The authorities carry out their original duty, to watch over the banking system, and they can use their newer powers by raising interest rates to damp down spending and borrowing.

However, bubbles sometimes get out of hand, and if they do, at some point they will stop inflating and start deflating. The cause can be small or large. A failed airline buy-out finished the debt-fuelled boom at the end of the 1980s; the entire housing market went wrong in 2007.

The more efficient the financial system, the faster fear will spread. As asset prices fall, people spend less and investors foreshadow lower profits and higher defaults by running from corporate bonds and shares. When investors lose confidence that other people will honour the promises that underpin financial assets, they retreat to government bonds, cash or gold, which are more dependable. Liquidity and credit suddenly become scarce and a devastating, value-destroying uncertainty takes hold. In 2007 Dick Fuld, the former head of Lehman Brothers, observed that whereas credit grows arithmetically, it shrinks geometrically. Much to his cost, he was later proved right.



Investors take all sorts of precautions to ensure that the people they deal with will honour their promises. They demand regulation and accurate accounts that price assets at market values; they want loans to be backed by collateral and covenants; they ask specialist agencies to rate borrowers' creditworthiness; and so on. Such safeguards, essential as they are in policing individual lenders, tend to feed greed in greedy times and fear in fearful ones.

Chart 3 shows how lenders to banks registered alarm after Lehman collapsed in September last year. So worried were they about the risk of being wiped out in a bankruptcy or a state rescue that they suddenly started to demand that banks hold much more capital against their assets. For decades this ratio had been stable, below 10% of book assets, though it was over 50% in the 1840s, when banks were apt to fail more often.

Nobody can be sure how much capital shareholders now want banks to hold, but Alan Greenspan, a consultant these days, thinks the figure could have grown to 15% of their assets. If so, the banks will have to raise money and sell loans and securities even as politicians are asking them to lend more. Investors' desire for extra protection has made the contraction of credit worse.

The same thing happened with collateral. As the number of defaults falls in the boom, borrowers' credit ratings improve, assets are highly valued and lenders accept a broader range of them. In the bust many borrowers have had to find more collateral to offset falling asset prices. Some borrowers may have had to post cash or some other liquid asset. Precisely when markets have turned down, forced asset sales have weakened them further. Borrowing has become harder and more expensive.

In the booming American housing market mortgage originators were happy to accept no security at all, lending 100% of the value of the house—partly because they thought house prices would continue to rise, and partly because they assumed the market would be liquid enough for them to palm the mortgages off on other investors. As it happened, the mortgage originators were wrong and the loans that were stuck on their books helped destroy their businesses.

Just say no

Some would seek to limit the ebb and flow of confidence with early warnings, as if financial busts were a hurricane or an outbreak of plague. Gordon Brown, Britain's prime minister, would like to see the IMF cast in that role.

History suggests that such schemes do not work. People enjoy booms. Walter Bagehot, an editor of *The Economist* in the 19th century, observed that "all people are most credulous when they are most happy." Whatever Mr Brown says now, politicians like booms too. As chancellor of the exchequer, if the IMF dared criticise the British economy he used to be dismissive.

Seers like Henry Kaufman, a Wall Street veteran, and Nouriel Roubini, of the NYU Stern School of Business in Manhattan, pointed to the risks of a disaster, but were largely ignored. When Paul Warburg, a renowned banker, spoke about a possible Wall Street collapse in 1929, he was accused of "sandbagging American prosperity". J.K. Galbraith, who recounts the story in "A Short History of Financial Euphoria", detects a whiff of anti-Semitism in Warburg's treatment.

If it is hard to stop booms once they are in full swing, it is no easier to prevent them from starting in the first place. Hyman Minksy, an unconventional economist who made it his life's work to study crises, was convinced that they arose spontaneously. Financial stability itself creates con- ▶▶

fidence and risk-taking, eventually leading to recklessness and instability. After the bust, stability will return and the cycle will begin again. Similarly, David Roche and Bob McKee, of Independent Strategy, an investment consultancy, among others, think credit started flowing more easily in the 1980s because the rich economies conquered inflation and the large emerging markets embraced globalisation.

Relax and enjoy it

Some booms started with liberalisation. Japan created a huge share and property bubble in the 1980s by relaxing its strict banking regulation. The banks fell over each other to lend money as they jostled for market share. Extra credit found its way into stock and property prices. Kindleberger identified a similar pattern in Latin America and again in Poland and in parts of the former Soviet Union. Liberalisation brings many advantages, but unless it is carefully managed it can lead to trouble.

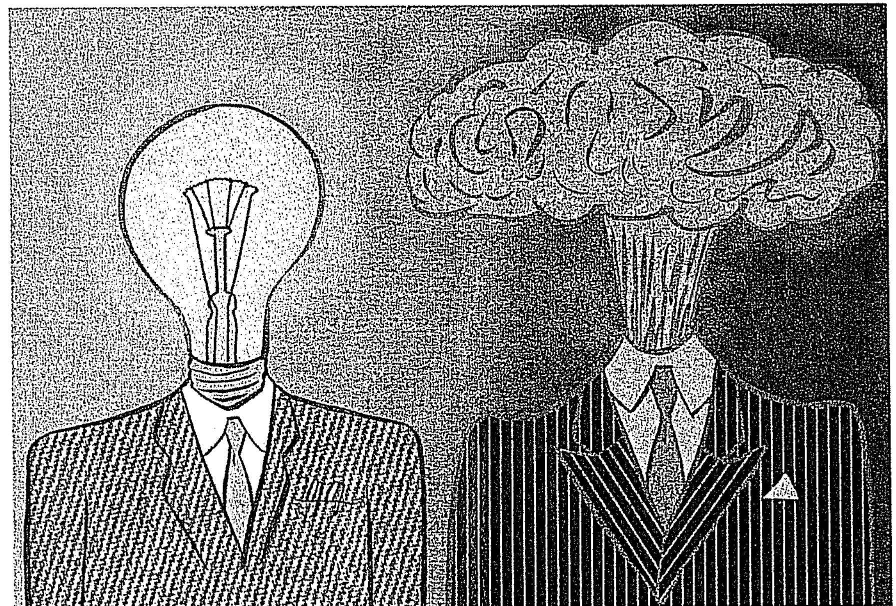
Some booms started with technological innovation. Carlota Perez, a Venezuelan economist, thinks that each new industrial technology favours its own sort of financing. Local banks grew up to raise capital for the small companies created in Britain's industrial revolution; joint-stock companies thrived when businessmen needed to finance the railways in the 19th century; industrial banks backed new continental European industries; consumer finance helped Americans buy cars and fridges in the early 20th century. Ms Perez links each financial innovation to its own booms and busts.

That seems deterministic. But the internet revolution really did spill over into the rest of business and finance. Paul Krugman, the most recent Nobel laureate for economics, puts it with characteristic acerbity: the huge, strait-laced, bureaucratic corporations that ruled the roost before the dotcoms were, he says, like "socialism without the justice". By contrast, internet business was full of optimism. And in finance, optimism is everything.

Powerful new computers also created a platform for a new sort of mathematical finance. In the hands of "quants"—the mathematicians and physicists expert in the arcana of quantitative analysis—this proved immensely versatile. Unfortunately, it also led financial services astray. ■

In Plato's cave

Mathematical models are a powerful way of predicting financial markets. But they are fallible



ROBERT RUBIN was Bill Clinton's treasury secretary. He has worked at the top of Goldman Sachs and Citigroup. But he made arguably the single most influential decision of his long career in 1983, when as head of risk arbitrage at Goldman he went to the MIT Sloan School of Management in Cambridge, Massachusetts, to hire an economist called Fischer Black.

A decade earlier Myron Scholes, Robert Merton and Black had explained how to use share prices to calculate the value of derivatives. The Black-Scholes options-pricing model was more than a piece of geeky mathematics. It was a manifesto, part of a revolution that put an end to the anti-intellectualism of American finance and transformed financial markets from bull rings into today's quantitative powerhouses. Yet, in a roundabout way, Black's approach also led to some of the late boom's most disastrous lapses.

Derivatives markets are not new, nor are they an exclusively Western phenomenon. Mr Merton has described how Osaka's Dojima rice market offered forward contracts in the 17th century and organised futures trading by the 18th century. However, the growth of derivatives in the 36 years since Black's formula was published has taken them from the periphery of financial services to the core.

In "The Partnership", a history of Goldman Sachs, Charles Ellis records how the derivatives markets took off. The International Monetary Market opened in 1972; Congress allowed trade in commodity options in 1976; S&P 500 futures launched in 1982, and options on those futures a year later. The Chicago Board Options Exchange traded 911 contracts on April 26th 1973, its first day (and only one month before Black-Scholes appeared in print). In 2007 the CBOE's volume of contracts reached almost 1 trillion.

Trading has exploded partly because derivatives are useful. After America came off the gold standard in 1971, businesses wanted a way of protecting themselves against the movements in exchange rates, just as they sought protection against swings in interest rates after Paul Volcker, Mr Greenspan's predecessor as chairman of the Fed, tackled inflation in the 1980s. ▶▶