

SURVEY: THE WORLD ECONOMY

The unfinished recession

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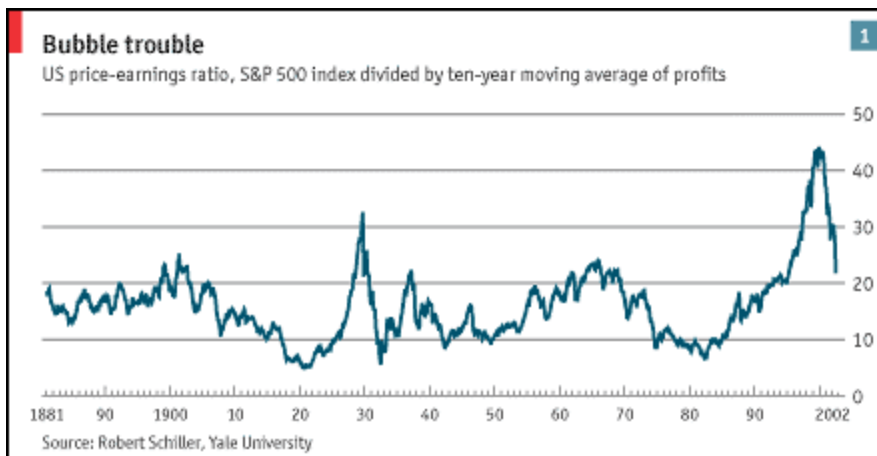


Obituaries for the business cycle were premature. Indeed, economies could become more volatile again over the coming years, argues Pam Woodall, our economics editor

“IT’S only when the tide goes out that you can see who’s swimming naked.” This famous remark by Warren Buffett, America’s best-known investor, is a perfect description of what is happening in the American economy at present. The bubble in the late 1990s masked excessive borrowing by firms and households, widespread accounting fraud and the incompetence of company bosses, but now the effects of irrational exuberance and infectious greed are being shockingly exposed. Share prices have suffered their steepest slide since the 1930s. The tide has well and truly receded.

Yet most economists are still predicting robust economic growth of 3-3.5% over the next 12 months. Many of these are the same economists who in the late 1990s dismissed the idea that America was experiencing a bubble, and who insisted only last year that the economy was not heading for a recession. They were wrong then and are likely to be wrong again. America’s economic downturn is not yet over. A protracted period of slow growth—perhaps even a further slump in output—is likely to expose more financial embarrassment of the Enron and WorldCom sort.

This is no normal business cycle, but the bursting of the biggest bubble in America’s history. Never before have shares become so overvalued (see chart 1). Never before have so many people owned shares. And never before has every part of the economy invested (indeed, overinvested) in a new technology with such gusto. All this makes it likely that the hangover from the binge will last longer and be more widespread than is generally expected.



Three-way split

America's mild recession last year followed its longest unbroken expansion in history. The euro area, now in its ninth year of growth, has escaped outright recession, but has seen a sharp slowdown. In contrast, Japan's economy has suffered three recessions since its own bubble burst at the beginning of the 1990s. This survey will consider what the varying fortunes of the big economies reveal about the changing nature of the business cycle.

Views about governments' ability to tame the business cycle have themselves moved in cycles. In the 1950s and 1960s it was widely believed that Keynesian demand-management policies could stabilise economies: a slight touch on the brake or the accelerator was all that was needed. But the stagflation of the 1970s produced a new economic consensus that governments were powerless to do anything except restrain inflation. The business cycle returned with a vengeance: America had three recessions between 1974 and 1982. However, since then it has enjoyed two long booms, in the 1980s and again in the 1990s, interrupted only briefly by a mild downturn, leading many to believe that recessions were a thing of the past.

The "death" of the business cycle has often been exaggerated. In the roaring 1920s, just before the Great Depression, firms and investors thought the good times would never end. In the late 1960s, after what was then the longest expansion in history, America's Department of Commerce, deeming the business cycle to be defunct, changed the name of one of its publications from *Business Cycle Developments* to *Business Conditions Digest*, only for the expansion to end a year later. Again, in the late 1990s the "new economy" was thought to be immune to the business cycle, thanks to information technology, more flexible markets and globalisation. Yet economies, like drunks, continue to move in wavy lines.

Receding recessions

The business cycle is not dead, but it does appear to have become more subdued. During the past 20 years, the American economy has been in recession less than 10% of the time. In the 90 years before the second world war, it was in recession 40% of the time. In most other economies, too, expansions have got longer and recessions shorter and shallower. The exception is Japan, which in the past decade has suffered the deepest slump in any rich economy since the 1930s.

The revolt against Keynesian policies since the 1970s was based on the belief that government intervention destabilises the economy. However, America's recent experience shows that the private sector is quite capable of destabilising things without government help. The most recent bubble was not confined to the stockmarket: instead, the whole economy became distorted. Firms overborrowed and overinvested on unrealistic expectations about future profits and the belief that the business cycle was dead. Consumers ran up huge debts and saved too little, believing that an ever rising stockmarket would boost their wealth. The boom became self-reinforcing as rising profit expectations pushed up share prices, which increased investment and consumer spending. Higher investment and a strong dollar helped to hold down inflation and hence interest rates, fuelling faster growth and higher share prices. That virtuous circle has now turned vicious.

Since March 2000 the S&P 500 index has fallen by more than 40%. Some \$7 trillion has been wiped off the value of American shares, equivalent to two-thirds of annual GDP. And yet share prices still look expensive. Martin Barnes, an economist at the Bank Credit Analyst, a Canadian research firm, estimates that over the 40 years to 1995 the S&P 500 traded at an average of 15 times historic operating profits; today the ratio is 20. Moreover, experience shows that markets generally overshoot on the way down: at the trough of the previous bear market in 1982, the S&P 500 traded at only eight times profits.

For corporate America, the recession has been far from mild: profits and business investment have suffered their steepest decline since the 1930s. But despite the collapse in share prices, the economy as a whole has so far held up much better than expected. Consumer spending has remained strong, partly thanks to rising house prices that have offset some of the equity losses suffered by households. By refinancing their mortgages, households have been able to borrow more against the increased value of their homes. But debt cannot rise faster than household income forever. Eventually households will be forced to save more and spend less.

Optimists cling to the fact that growth in labour productivity remains strong, which should help firms to restore profits as well as ensure robust long-term growth. The slide in the stockmarket, they argue, largely reflects a crisis of confidence in corporate governance and accounting fraud, not deep-seated economic problems. They need to get some spectacles.

Diminishing returns

It is true that America has benefited from faster productivity growth since the mid-1990s (although the rise is less than once thought). But as with all previous technological revolutions, from railways to electricity to cars, excess capacity and increased competition are ensuring that most of the benefits of higher productivity

go to consumers and workers, in the shape of lower prices and higher real wages, rather than into profits. Equity returns are therefore likely to be a lot lower over the next decade than the preceding one.

Mr Barnes reckons that investors will be lucky to see an average real return on equities of 5%, compared with 25% in the four years to 1999. As a result, households will need to save much more towards their pensions, which will drag down growth. And if the profitability of investment in IT turns out to be significantly lower than expected, investment will remain much weaker than in the late 1990s, eroding productivity growth.

The unwinding of America's economic and financial imbalances has barely begun. Share prices are still overvalued by many measures. Companies still need to prune much more excess capacity. Most worryingly, debts still loom dangerously large. Although much of the increase in reported profits in the late 1990s was illusory, the increase in corporate debt to finance that unprofitable investment was horribly real. Dresdner Kleinwort Wasserstein, an investment bank, estimates that American corporate balance sheets are more stretched than at any time during the past half-century.

American households' net worth is likely to shrink again this year, for the third year running, after a long, uninterrupted rise since the second world war. If lower share prices cause households to increase their saving sharply, America could be pushed back into recession. Even if saving rises more gradually, the economy is headed for several years of below-trend growth. A weaker dollar would help to cushion the economy, but only by squeezing growth in other countries. The rest of the world, which benefited so handsomely from America's speculative binge, will now have to share its hangover.

American short-term interest rates are already at their lowest for 40 years. If the economy went back into recession now, the Fed would have little room to cut rates. Recession would reduce inflation from its already historically low level of around 1%, raising the risk of a deflation along Japanese lines. Falling prices would increase the real debt burden, reduce spending and so push prices even lower.

The bursting of a bubble is much riskier when inflation is low, and inflation in America today is even lower than it was in Japan in the early 1990s. Even if America escapes deflation, low inflation will mean that wages and profits grow more slowly, making it harder for firms and households to work off their debts.

Vicious cycles

Over the past decade investors, firms and consumers put far too much faith in the power of information technology, globalisation, financial liberalisation and monetary policy to reduce volatility and risk. IT, the very sector that was supposed to smooth out the business cycle through better inventory control, has ended up intensifying the current downturn.

In principle globalisation can help to stabilise economies if they are at different stages of the cycle, but the very forces of global integration are likely to synchronise economic cycles more closely, so that downturns in different countries are more likely to reinforce one another. Financial liberalisation is supposed to help households to borrow in bad times and so smooth out consumption, but again it is a two-edged sword: it also makes it easier for firms and households to take on too much debt during booms, which may exacerbate subsequent downturns.

Alan Greenspan is widely considered a highly successful chairman of the Federal Reserve, but the belief that he has special powers to eliminate the cycle is foolish. In July 2001 Mr Greenspan himself said in testimony to Congress: "Can fiscal and monetary policy acting at their optimum eliminate the business cycle? The answer, in my judgment, is no, because there is no tool to change human nature. Too often people are prone to recurring bouts of optimism and pessimism that manifest themselves from time to time in the build-up or cessation of speculative excesses."

Indeed, speculative excesses in asset prices and credit flows might occur more frequently in future, thanks to the combined effects of financial liberalisation and a monetary-policy framework that concentrates on inflation but places no constraint on credit growth. The current conventional wisdom that central banks will reduce economic and financial instability by keeping inflation low and stable is flawed. Low inflation is no guarantee of economic stability.

If the Fed had increased interest rates sooner in the late 1990s, America's economy might now be in better shape. Some economists worry that it may be making a similar mistake now by allowing low interest rates to encourage a rapid increase in house prices and mortgage borrowing. The Fed may be offsetting the bursting of one bubble by inflating another.

This survey will analyse the causes of recessions, examine whether economies are becoming more or less volatile and ask what policymakers can do to prevent downturns. It will also explore the controversial idea that recessions are a necessary, sometimes even desirable feature of economic growth: they purge the excesses of the previous boom, paving the way for the next expansion.

Its two main conclusions will not make comfortable reading. They are, first, that after decades of declining economic volatility in developed economies, the business cycle is likely to become more volatile again over the coming years; and second, that America's "recession", defined as a period of growth significantly below trend (and hence accompanied by rising unemployment), is far from over. Until America's excesses have been purged, robust growth is unlikely to resume.

The job of policymakers is ideally to curb the build-up of speculative excesses. If they fail, then their task is to ensure that recessions do not become too deep, rather than try to prevent them altogether. Such efforts simply leave large economic imbalances. An economy that has been on a binge will inevitably suffer indigestion. Stuffing it with yet more credit is unlikely to aid its recovery.

Of shocks and horrors

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The causes of booms and busts

IN THE bible, Joseph tells the pharaoh to expect seven years of plenty followed by seven lean years. That was, perhaps, the first documented business cycle—and the first (and probably last) example of an accurate economic forecast. Recorded data on business cycles go back to the early 19th century, but economists still cannot agree about what causes contractions and expansions in economic activity.

Economists have come up with all sorts of explanations, from the effect of sunspot activity on climate to the alignment of planets and their magnetic forces. The current preference is to look for more down-to-earth causes, which come in two main varieties: those that explain the business cycle as a self-perpetuating process, and those that blame recessions on shocks or policy mistakes. The main theories are:

- **Exogenous shocks.** Recessions, it is argued, are caused by unexpected events, such as the rise in oil prices in the mid-1970s or, as some (incorrectly) tried to argue, the terrorist attacks on September 11th last year. If so, recessions are, by definition, totally unpredictable. They cannot be prevented, but once they have arrived governments can use fiscal and monetary policies to cushion demand.

- **Keynesian theory.** John Maynard Keynes blamed recessions on the inherent instability of investment caused by “animal spirits”: swings in the mood of producers, from optimism to pessimism. As investment slumps, jobs and household incomes fall, amplifying the initial drop in demand. Unemployment rises because workers will not accept the pay cuts required to price the jobless back into work. So, to bring the economy back to full employment, the government needs to pursue expansionary policies.

- **Real business-cycle theory.** This theory, which emerged in the early 1980s, sees productivity shocks as the cause of economic fluctuations. For example, if productivity falls, current returns decline, says the theory, so workers and firms choose to work less and take more leisure. Rather than explaining the cycle in terms of market failure, as Keynes did, real business-cycle theory views a recession as the optimal response by households and firms to a shift in productivity. If so, there is no point in governments stimulating the economy. But most economists find this theory hard to swallow. Mike Mussa, a former chief economist at the IMF, and now at the Institute for International Economics, describes it as “the theory according to which the 1930s should be known not as the Great Depression, but the Great Vacation.”

- **Policy mistakes.** The late Rudi Dornbusch, an economist at the Massachusetts Institute of Technology, once remarked: “None of the postwar expansions died of old age, they were all murdered by the Fed.” Almost every recession since 1945, with the exception of last year’s, was preceded by a sharp rise in inflation that forced central banks to raise interest rates. The first mistake was to allow economies to overheat; the second to slam on the brakes too hard. This theory gave rise to the popular belief that recessions could be avoided so long as governments pursued prudent monetary policies to keep inflation low and stable. Yet the recessions in Japan after the 1980s bubble and America more recently suggest that price stability does not prevent booms and busts.

- **Austrian business-cycle theory.** This is the oldest, developed by Austrian economists such as Ludwig von Mises and Friedrich Hayek in the early 20th century. Unlike Keynes, who thought recessions were caused by insufficient demand, these economists put them down to excess supply brought about by overinvestment. As a result of mutually reinforcing movements in credit, investment and profits, each boom contains the seeds of the subsequent recession and each recession the seeds of the subsequent boom.

According to Hayek, output fluctuates because the short-term interest rate for loans diverges from the “natural” or equilibrium interest rate—the rate at which the supply of saving from households equals the demand for investment funds by firms. If central banks hold interest rates below this rate, credit and investment will rise too rapidly, and consumers will not save enough. This creates a mismatch between future output (which will increase as a result of higher investment) and future spending (which will fall as a result of lower saving today). Cheap credit and inflated profit expectations cause both overinvestment and “malinvestment” in the wrong kind of capital. The mismatch between saving and investment will eventually push up interest rates, making some previous investments unprofitable. Too much capacity will also reduce profits. Investment collapses, ushering in a recession. As excess capacity is cut, profits rise and investment eventually recovers.

According to this theory, central banks would not be able to avoid a downturn by heading off a rise in interest rates. The only way to prevent the cycle from turning is to inject ever more credit, which becomes unsustainable. A recession is inevitable, and indeed necessary to correct the imbalance between saving and investment.

A tour of the Austrian Alps

In the second half of the 20th century, self-perpetuating theories of the business cycle were almost completely ignored in favour of theories that stressed shocks or policy mistakes. Most recessions were caused largely by economies overheating, forcing central banks to raise interest rates. Now, however, the fall in inflation has brought the inherently cyclical behaviour of credit, investment and profits to the fore.

In the late 1990s inflation rose only slightly, leading most economists to believe that growth would continue in America. Only a few economists, such as John Makin, at the American Enterprise Institute, and Stephen King, at HSBC, recognised that this cycle was different: that it was an investment-led boom that carried the seeds of its own destruction.

The recent business cycles in both America and Japan displayed many “Austrian” features. Hayek argued that the natural rate of interest could rise if faster productivity growth increased expectations about profits and hence investment opportunities. This is what happened in Japan in the 1980s and in America in the 1990s. If such a shift in investment occurs, central banks need to raise interest rates. But because inflation was low (and because Austrian economics had long gone out of fashion), the Fed and the Bank of Japan failed to do so. The cost of capital therefore fell below its expected return, fuelling a surge in credit, equity prices and investment.

Investment normally accounts for about one-sixth of America's GDP, but during the three years to 2000 the investment boom pushed up its share of GDP growth to one-third. Overinvestment caused the return on capital to decline. Anybody who looked at the profits of corporate America in 2000, as reported in the national accounts (which allow for the true cost of stock options) rather than by the companies themselves, should have seen trouble coming. Profits had been falling since 1998, as before every previous recession (see chart 2). Investment will not rebound until excess capacity has been cleared and profits have improved.



Strict Austrian-school disciples would argue that because the current downturn is due to overinvestment, the Fed's repeated easing of interest rates is wrong; it delays the correction of past excesses. The present economic and financial disruption is needed to bring saving and investment back into balance. But most economists today would accept that in the face of a severe recession central banks need to act. Even the Austrian economists recognised that a collapse in confidence could push the economy into a much deeper recession than necessary. Monetary and fiscal policy therefore still has a role—not to avoid recession, but to head off a downward economic spiral.

Many economists still do not accept that this recession has been quite different from all previous post-war cycles, and that the shape of the recovery will therefore also be different. Investment-led downturns tend to last longer because it takes much more time to eliminate financial excesses than to tame inflation. High debts and excess capacity will restrain growth.

The complete rejection of Austrian-school ideas over the past half-century partly reflected a desire by economists to develop a framework that could explain all business cycles. The truth is that there is no single cause of cycles. Sometimes an oil-price shock or a policy mistake may trigger a recession, but the endogenous movements in credit, investment and profits are also always at play. Indeed, the Austrian cycle may become more common again if, as this survey will argue, financial liberalisation has made bubbles in credit and investment more likely

Defining the R-word

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What is a recession?

WHEN your neighbour loses his job, it is called an economic slowdown. When you lose your job, it is a recession. But when an economist loses his job, it becomes a depression. This old joke probably contains a grain of truth about the way economists perceive the severity of recessions. But what, exactly, are they?

According to a popular rule of thumb, recessions are defined by at least two consecutive quarters of declining GDP. However, the National Bureau of Economic Research, America's official arbiter of recessions, takes a more sophisticated approach. A recession, it says, is "a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income and wholesale-retail trade." The NBER's recession-dating committee does not actually look at GDP figures, because they come out only quarterly, not monthly, and are continually revised. Last year's figures initially showed that output fell in only one quarter, but revised figures now show three consecutive quarters of decline.

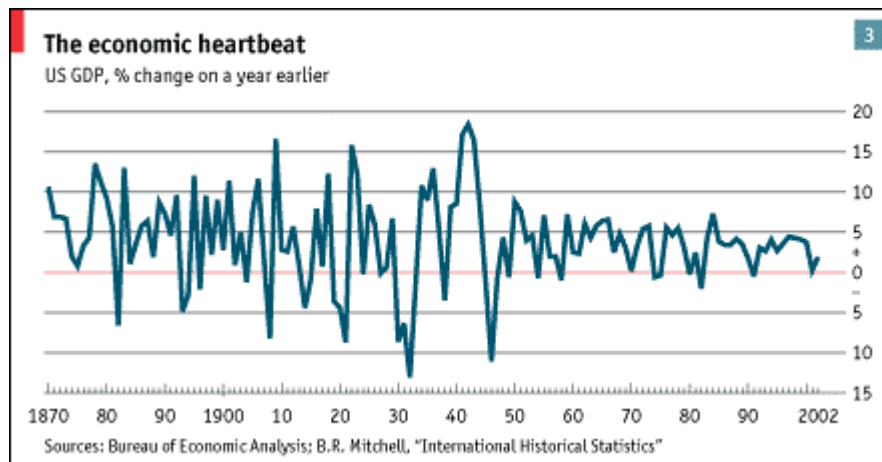
The NBER defines a recession as an absolute decline in economic activity. However, some economists view it as a period when growth falls significantly below its long-term potential. This makes more sense where an economy's potential growth rate shifts over time, or when comparing economies that are growing at different speeds. Suppose country A has a potential growth rate of 4% and country B one of only 2%. A growth rate of 2% in country A will cause unemployment to rise, but in country B it will leave unemployment unchanged. By this definition, country A would be in recession.

The Japanese have long defined a recession as below-trend growth. By that definition, they suffered several recessions between 1950 and 1992 even though during that period their country's GDP fell in only one year. Their average annual growth of under 1% in the 1990s, compared with over 4% in the 1980s, makes their decade-long recession as deep, by this gauge, as in many economies during the Great Depression. The snag with this definition is that potential growth rates are devilishly hard to estimate. An easier definition of a recession is a drop in GDP per head. This would allow for the fact that America's population is rising, whereas Japan's and Europe's is flat, so slow GDP growth in America can leave the average person worse off.

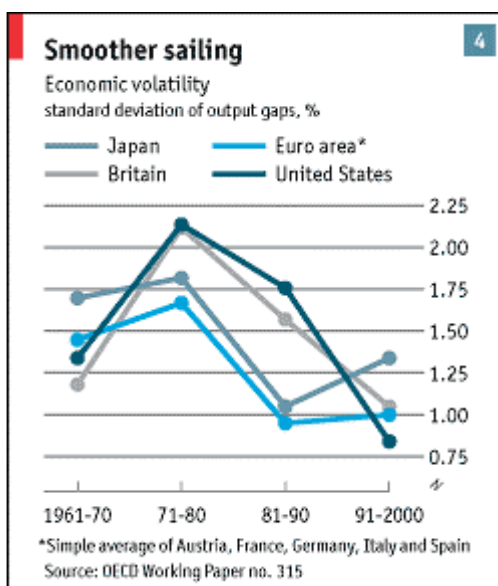
The choice of measure makes a huge difference when comparing the severity of recessions. Suppose that America's potential growth rate is 3.5%, as the optimists claim, and that the economy grows by an average of less than 2% a year over the next few years, as this survey will suggest it might. If so, the total shortfall in output relative to potential over the four years to 2004 would amount to 8% of GDP, making this the worst recession since 1945.

Economies have become less volatile—but they may not stay that way

ECONOMIES are much less volatile than they used to be, for all that the newspaper headlines seem to suggest otherwise. A century ago deep recessions were common; now they are rare. Why has economic activity become less bumpy?



America's NBER has dated the peaks and troughs of the country's cycles back to 1854. Over the years, expansions have got longer and recessions shorter and shallower (see chart 3). An analysis by Victor Zarnowitz, an economist at America's Conference Board and one of the world's leading experts on business cycles, has found that before 1945 the American economy was in recession for two years in every five. Since the second world war, it has been in recession only about one year in six, and the average length of a recession has fallen from 21 months to 11. Since 1945 the standard deviation (a measure of volatility) of quarterly changes in GDP has been only half of what it was before 1918 and only one-third of its level in 1919-45.



Other economies have also experienced flatter cycles. An IMF study of 16 developed countries found that the average peak-to-trough decline in GDP during recessions was 4.3% in 1881-1913, 8.1% in the turbulent period between the wars but only 2.3% since 1950.

The business cycle has continued to moderate during the past half-century. In the past 20 years, America has been in recession for only 18 months (assuming the recent one ended in January). Indeed, the past decade was the economy's most stable in its history. An OECD study of 13 developed countries found that economic volatility rose in the 1970s, but has since fallen sharply everywhere. In the 1990s all the big economies were less volatile than in the 1960s—even Japan's (see chart 4).

After 1945, recessions in Japan and continental Europe seemed to disappear. Following the devastation of the war, these economies grew without pause for a couple of decades: Germany did not suffer a fall in GDP until 1967, Japan not until 1974. In general, America's economy has been more volatile than Europe's, with more frequent, though shorter, recessions.

Seeking the source

Economists have plenty of theories about why the business cycle has flattened:

- **Services.** One of the most common explanations involves the shift in output and jobs, first from agriculture to manufacturing and then from manufacturing to services. The variability of harvests makes agriculture the most volatile sector. Services, it is argued, are the least volatile. Households buy durable goods, such as cars, to use over a period of time, so if income falls such purchases can more easily be postponed than services such as haircuts.

- **Better inventory control.** Inventory investment is the smallest component of GDP, but it plays a big role at turning-points in the cycle. Over the past 50 years, changes in inventory investment have, on average, accounted for more than half of the fall in GDP during recessions. But now, thanks to information technology, up-to-the-minute information about sales and inventories and just-in-time production techniques allow firms to hold fewer stocks and to match output more closely to sales. This, it is argued, helps to prevent an unwanted build-up of stocks. American manufacturers of durable goods now hold only two-thirds as much inventory relative to sales as in the 1970s.

- **Globalisation.** Increasing international trade, the theory goes, operates as a safety valve. During a boom America, say, can tap spare capacity abroad through imports. This helps to hold down prices and so allows the economy to expand for longer without overheating. Conversely, in a recession exports help to offset weak domestic demand.

- **Bigger government.** In recessions governments, unlike firms, do not slash spending and jobs, so they help to stabilise the economy. At the start of the 20th century, public spending amounted to less than 10% of GDP in most countries. Today public spending in developed economies accounts for an average of 37% of GDP. Europe's higher public spending helps to explain why its economies have tended to be more stable than America's.

- **Automatic fiscal stabilisers.** Even more important is the counter-cyclical role played by taxes and unemployment benefits. In a recession, income taxes fall and unemployment benefits automatically rise. This helps to support incomes.

- **Discretionary fiscal policy.** Traditional Keynesians argue that since the Great Depression active measures by governments to cut taxes or increase spending have made recessions less severe. But the effectiveness of fiscal policy is debatable. The stimulus often arrives too late, fuelling tomorrow's boom rather than preventing today's recession.

- **Better monetary policy.** Until the 1930s the money supply typically shrank during recessions, partly because the gold standard denied countries any independent monetary policy. This caused deflation, and by increasing the real

burden of debt deepened recessions. According to the IMF, before the second world war two-fifths of recessions were accompanied by falling consumer prices. Since then, only Japan has experienced deflation. At the other extreme, rising inflation in the 1970s exacerbated economic volatility because it forced central banks to slam on the brakes. Since the 1980s, more prudent monetary policy has helped to stabilise output.

- **Bank reform.** Some of the worst recessions before the second world war were aggravated by banking crises. The introduction of deposit insurance, bank supervision and regulation, and a stronger lender-of-last-resort role for central banks has helped to prevent the panics that could turn recessions into depressions.

- **Financial deregulation.** The improved efficiency of financial markets in recent years has made it easier for consumers and firms to smooth their spending over time. Better access to consumer credit has allowed households to go on spending even if their incomes drop temporarily.

Taking stock

With so many reasons for greater stability, it is a wonder that the business cycle has any pulse left at all. But which of these reasons really matter? If volatility has lessened because of structural changes, such as the shift to services or new technology, then the change may be permanent. If, as others claim, milder recessions largely reflect better monetary policy, or a large dose of good luck, then the flatter cycles will persist only for as long as good policy or good luck continues.

Probably the two most important reasons why recessions have become milder since the second world war are higher government spending and hence more powerful built-in fiscal stabilisers, and measures to prevent banking crises. Neither of these is likely to be fundamentally reversed. But there is less agreement about the reasons for the decline in economic variability over more recent decades. Several of the explanations that hinge on structural changes do not stand up to scrutiny.

Take the shift from manufacturing to services. Services have increased from 39% of America's GDP in 1960 to 55% in 2001. But if the relative weight of manufacturing and services had remained constant over those 40 years, the decline in economic volatility would have been virtually the same. Many services, from telecommunications and air travel to finance and advertising, are in fact highly cyclical.

The idea that globalisation can cushion downturns is also suspect. If anything, increased global integration exacerbated the recent downturn, as most of the world slowed in unison. As American firms slashed their IT spending, they pushed East Asia into recession. Those economies, in turn, cut their imports from America, deepening the initial downturn.

Better inventory control as an explanation for reduced volatility has also lost some of its appeal. In the fourth quarter of 2001 American firms slashed their inventories by the equivalent of more than 3% of output, the biggest reduction in over 50 years. At first sight, this suggests that for all their investment in IT, firms are still not managing their inventories effectively. A study by James Kahn and Margaret McConnell, two economists at the New York Fed, concludes that during most of last year's recession firms did manage their stocks better than in previous post-war

cycles, but that in the fourth quarter of last year firms were caught out by an unexpected rise in demand as consumers took advantage of free credit, so they had to run down inventories. IT allows firms to adjust output more rapidly to changes in sales, but it has not solved the problem of forecasting demand.

A study by Olivier Blanchard, at MIT, and John Simon, at the Reserve Bank of Australia, concludes that much of the dampening of the economic cycle in the big economies is due to a decline in inflation volatility (on top of the fall in inflation itself). The volatility of inflation increased in the 1970s, at the same time as output volatility, and then fell from the mid-1980s onwards as central banks were given more independence to pursue price stability. By anchoring inflationary expectations, central banks have made economies more stable. Unlike other theories, this explains why economic instability increased in the 1970s and then declined.

James Stock, at Harvard, and Mark Watson, at Princeton, agree that better monetary policy has been an important factor. They estimate that it could account for up to a quarter of the total reduction in the volatility of America's GDP in the 1990s. They rule out better inventory management as an important cause of lessened volatility. A large part of the fall in output volatility seems to be due to a fall in the volatility of sales rather than to an improved match between production and sales. Another quarter of the decline in volatility seems to be due to the fact that there were fewer external shocks, such as jumps in oil prices. But the two economists reckon that sheer luck explains as much as half of the fall in volatility in the 1990s. In other words, it cannot be relied upon to continue indefinitely.

One important element of good luck in the 1990s was that the big economies became unusually decoupled, in contrast to the 1970s and 1980s when they were more synchronised. When different economies boom together, inflation is likely to pick up sooner and so bring the expansion to a halt. But in the 1990s the big economies were mostly out of step. When America fell into recession in 1990 the economies of Japan and continental Europe remained robust, helping to cushion America's downturn. Europe was given a boost by German unification, and Japan's economy remained bubbly until 1992. Only after America's recovery was well under way did Japan and continental Europe stumble.

During America's boom, European growth was restrained by tighter fiscal policies in preparation for monetary union, and Japan stagnated. Weak overseas demand helped to hold down America's inflation, allowing its boom to continue for longer than usual. Later in the decade, the spare capacity caused by the slump in East Asia also helped to restrain inflation. But this decoupling was a fluke. If economies become more synchronised again, volatility is likely to return.

The reluctant recession

Whatever the reasons for the flatter business cycles over the past couple of decades, the mildness of America's recent recession is still surprising. Despite a stockmarket slump, the bursting of the IT investment bubble, a jump in oil prices and the tragic events of September 11th, the recession was one of the mildest on record. From peak to trough, GDP fell by only 0.6%, compared with an average decline of just over 2% in recessions since the second world war.

One possible explanation is that because America's trend rate of growth has risen, thanks to faster productivity growth, an absolute drop in output becomes less likely when the economy slows. Most economists reckon that America's potential growth rate is now 3-3.5%, compared with 2.7% in 1980-95. This means that if growth falls by three percentage points below trend the economy now simply stalls, whereas previously it would have contracted.

Monetary and fiscal easing played a big part in keeping the recession in check. Interest rates had been cut by three percentage points even before September 11th, to be followed by almost two more points afterwards—the biggest reduction in two decades. And by sheer luck, the tax cuts, planned when the economy looked stronger, turned out to be particularly well timed, as did the increase in government spending in the wake of September 11th.

Another element of luck was that America entered the recession without the over-supply of housing that has been the norm in previous downturns, because builders had underestimated the extra demand resulting from immigration. Combined with low interest rates, this has fuelled a housing boom, helping to shore up consumer spending.

The increased efficiency and resilience of financial markets also deserves some credit. American banks entered the recession with strong balance sheets. More important, the capital markets provided a ready alternative supply of credit through last year's downturn. The financial sector, it is argued, helped to insulate the economy from the financial implications of the recession by redistributing risk. A large chunk of bank lending during the boom had been bundled into securities and sold on the secondary market, shifting risk away from banks to institutions better able to bear it.

A final explanation for America's surprisingly mild recession, favoured by Alan Greenspan, is the increased flexibility of business, thanks in part to its use of IT. More nimble firms with better information are able to adjust more quickly. Flexible labour and product markets also allow economies to cope with shocks more effectively. This may explain why recessions often last longer in Europe's set-in-their-way economies. In Germany, recessions since 1960 have on average lasted almost twice as long as in the United States. Because of market rigidities, economic excesses take longer to wring out.

Economies may be less bumpy than they used to be, but until somebody invents an antidote to swings in the mood of firms, investors and consumers, cyclical fluctuations will persist. The mildness of the recent recession and the decline in economic volatility over the past decade were both partly due to luck. In a later chapter this survey will argue that the economic cycle could become more volatile as the luck of the 1990s fades, and booms and busts in asset prices occur more often. What can fiscal and monetary policy do to cushion the ride?

Can monetary and fiscal policy eliminate the business cycle?

THE ability of macroeconomic policy to erase the business cycle has in turn been greatly over- and underestimated over the decades. The broad consensus now is that monetary and fiscal policy can moderate the ups and downs, but they will never abolish the cycle altogether. In the 1950s and 1960s policymakers believed that by increasing government spending, trimming taxes or cutting interest rates they could avert recessions and control unemployment. But as inflation took off in the 1970s and public debt exploded, Keynesian fine-tuning went out of fashion. Policy in the 1980s and 1990s was aimed largely at reducing inflation, not stabilising output. Governments rejected active monetary and fiscal policies in favour of adherence to rules. Central banks were made independent, and many were given explicit inflation targets. Meanwhile, governments laced themselves into fiscal straitjackets. America set balanced-budget targets in the 1990s and the euro area adopted a fiscal stability pact with strict limits on government borrowing. The notable exception was Japan, which embarked on a decade of fiscal expansion.

In the past year, interest in fiscal policy has revived. The American government administered its biggest budget stimulus for two decades. In the euro area, too, there has been a vigorous debate about whether governments should stick to their medium-term fiscal targets or allow budget deficits to widen as their economies weaken. So why did governments abandon fiscal policy in the first place?

The first reason was that public debts were on an unsustainable path. But after a decade of fiscal rectitude, by 2000 budgets in most rich countries had moved close to balance, if not surplus. That allows governments to have a more flexible fiscal policy. A second reason for disenchantment with fiscal measures was a widespread conviction that they did not work. Extra government borrowing, the argument went, would push up long-term interest rates and crowd out private investment. In addition, as public debts mount up, households expect taxes to rise in future so they may save more, offsetting the stimulus—the so-called “Ricardian equivalence” effect. In practice, most studies have found that an increase in government borrowing does indeed boost demand. However, recent research suggests that fiscal policy may pack a smaller punch than it used to.

Roberto Perotti, an economist at the European University Institute in Florence, examined fiscal policy in five countries (America, Britain, Canada, Germany and Australia) and estimated the impact on GDP of discretionary fiscal-policy changes after stripping out the automatic movements in taxes and spending over the cycle. He found that the effects of fiscal policy on GDP have become much weaker in the past 20 years compared with the previous 20. Also, increases in public spending have less effect on demand in smaller economies than they do in America.

Identifying the size and impact of discretionary fiscal policy is a tricky business, so it would be unwise to place too much weight on the exact size of the fiscal impact estimated by Mr Perotti. But the evidence that fiscal policy is becoming less effective is worth bearing in mind. This does not seem to be due to a change in monetary policy. Mr Perotti finds that real interest rates increased by less in response to bigger budget deficits in the later two decades than in the first. Nor can it be explained by households saving more for fear that unsustainable public debts will force governments to raise future taxes: personal saving rates have fallen over the past two decades in most economies.

One possible explanation lies in the increased openness of economies and greater international capital mobility. This means that a larger share of any increase in spending leaks into imports, and that a fiscal stimulus may be offset by a stronger exchange rate as higher bond yields attract capital inflows. A recent IMF paper on the impact of fiscal policy during recessions in 29 countries since 1970 found that in relatively closed economies (where imports amounted to less than 20% of GDP), such as America and Japan, fiscal policy did boost output during recessions, although by less than generally assumed. But in open economies with floating exchange rates a fiscal stimulus had little effect.

Even where fiscal policy still works, getting the timing right is tricky. In some countries, notably the United States, it can take months to get political approval. By the time a stimulus is administered, the economy may have already recovered. In contrast, interest rates can be cut without delay, and swiftly reversed if the economic outlook suddenly improves.

Discretionary budget measures are therefore usually best avoided. Built-in fiscal stabilisers may be more effective. The automatic fall in taxes and rise in jobless benefits in recessions help to support spending. An OECD study estimates that in the 1990s automatic fiscal stabilisers on average reduced cyclical fluctuations in rich economies by a quarter. In countries with large government sectors, such as Finland and Denmark, they reduced output volatility by more than half; in Japan and America, where taxes and spending are smaller relative to GDP, their effect was more modest. A study by Alan Auerbach, at the University of California, Berkeley, finds that in America fiscal stabilisers remain just as potent today as in the 1960s.

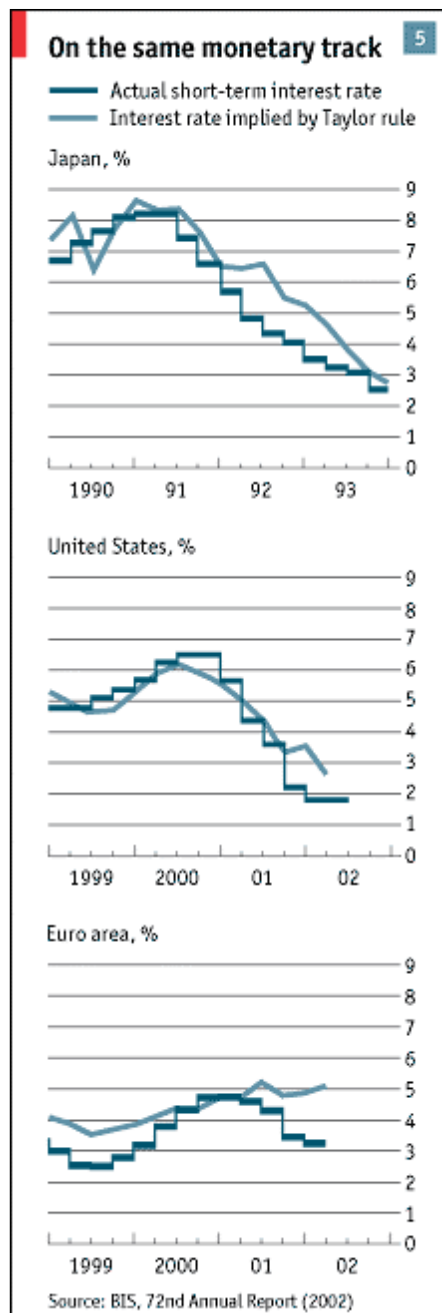
Ideally, budget deficits should be broadly balanced over the cycle, but automatic fiscal stabilisers should be allowed to take full effect. There is nothing wrong with a budget deficit in a recession, so long as it moves into surplus during the boom. In the euro area an individual country cannot cut interest rates to counteract a shock that affects only its own economy, so allowing automatic fiscal stabilisers to operate is especially important.

Europe's stability pact is too rigid. It sets a limit of 3% of GDP on budget deficits and requires budgets to be balanced in the medium term. That does not leave enough room for budget deficits to widen in a recession. Portugal broke the 3% ceiling last year and is now having to tighten its fiscal policy severely, despite weak growth. Germany also seems almost certain to bust the 3% ceiling this year.

Given the difficulty of timing a fiscal stimulus correctly, most economists agree that monetary policy is a better tool for stabilising growth. Yet how does this fit with the widely held view that central banks' prime goal should be price stability? According to Ernst Welteke, the president of the German Bundesbank, "The European Central Bank doesn't have the job of steering the economy. The best contribution monetary policy can make to growth and employment is to keep prices stable."

Inflation isn't everything

In practice, however, central bankers do not concentrate on inflation to the exclusion of everything else. Benjamin Friedman, an economist at Harvard University, argues that although central bankers strenuously deny having any policy objective other than price stability, in practice they all take growth into account. For example, if inflation rises above target, a central bank will generally aim to reduce it gradually rather than suddenly, to avoid inflicting too much damage on growth.



Besides, by aiming to keep inflation stable a central bank will, in effect, also stabilise output. When the economy is producing below potential, inflation will fall and the central bank will cut interest rates, helping to boost growth. When output is above potential, inflation will rise and the central bank will increase interest rates, thereby dampening down growth.

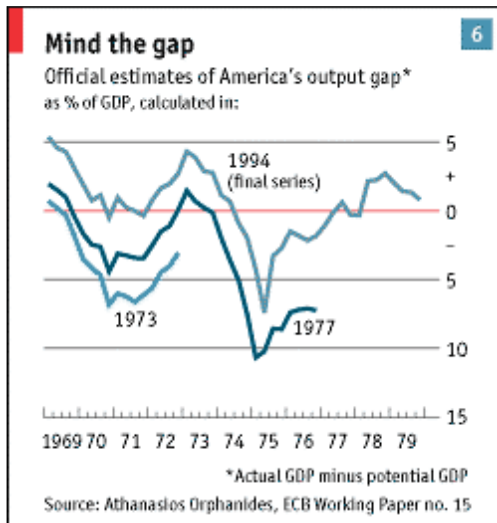
The popular perception is that America's Fed takes more account of growth than the ECB. Whereas the Fed often explains its interest-rate cuts in terms of propping up demand, the ECB always puts inflation first. Yet an analysis by the Bank for International Settlements (BIS) suggests that differences between the two central banks' policies are much exaggerated.

Chart 5 compares actual interest rates with those that would be required under the "Taylor rule". Named after its inventor, John Taylor, now at America's Treasury, this offers a method of calculating the appropriate interest rate, taking into account the difference between actual and target inflation and the size of the output gap (the amount by which actual output is above or below potential output).

The chart shows that, allowing for different movements in output and inflation in each economy, the Fed and the ECB seem to set interest rates in fairly similar ways. The ECB cut interest rates by less than the Fed last year because the economic slowdown in Europe was less severe than in America and because inflation was higher. The BIS's chart also shows that, judged by the Taylor rule, the Bank of Japan cut interest rates just as fast after Japan's bubble burst in the early 1990s as the Fed did last year.

In recent years Americans have placed excessive faith in the ability of the Fed, and particularly of Alan Greenspan, to tame the economic cycle. But monetary policy cannot be used with surgical precision. Not only are there long and variable lags before changes in interest rates affect output, but there is also much uncertainty about the potential growth rate and the size of the output gap.

Many people believe that the sharp increase in inflation in the 1970s could have been avoided if only the Fed had been using today's monetary-policy framework. But work by Athanasios Orphanides, an economist at the Fed, suggests that if the central bank had used the Taylor rule, inflation in the 1970s would have been just as high. It was



not the monetary framework that caused inflation to surge, he argues, but a misperception of the size of the output gap. Official estimates of potential output at the time failed to spot the slowdown in productivity growth in the late 1960s and early 1970s. Partly as a result, monetary policy tried to stabilise output at too high a level, causing inflation to rise.

In 1973 the output gap was estimated at minus 3%, implying considerable economic slack. With the benefit of hindsight, it is now put at plus 4% for that period, implying massive upward pressure on inflation (see chart 6). With such measurement errors, a monetary policy that tries too hard to smooth the cycle could easily increase output volatility.

Too low for comfort

Nevertheless, compared with the double-digit inflation rates in the 1970s, low and less volatile inflation has helped to deliver greater economic stability. In many economies inflation is at its lowest for 40 years. Might it now be too low?

Once inflation is around 3%, squeezing it even lower will do little to improve an economy's growth performance. Indeed, as inflation approaches zero, the risks of greater economic volatility start to rise. One reason is that interest rates cannot be negative, so if inflation is close to zero there is no way to achieve the negative real interest rates that may be needed to stimulate an economy. This is the so-called "liquidity trap" into which Japan has fallen.

If real interest rates are too high, the risk of deflation increases. Deflation is much more damaging to economic stability than inflation. It deepens recessions because it increases the real burden of debt and encourages consumers to delay purchases in the hope of even lower prices later.

The lower the average inflation rate, the greater the risk of falling into the liquidity trap. Simulations by the IMF conclude that given the range of economic shocks experienced over the past 40 years, the probability of interest rates hitting zero—and hence the risk of deflation—increases markedly if average inflation targets are set below 2%. Moreover, as inflation falls below 2%, the volatility of output starts to increase. This suggests that the mid-point of an inflation target should be set well above 2%. The Bank of England and the Reserve Bank of Australia both have mid-points of 2.5%, but the ECB's target is "less than 2%", which is far too strict. If central banks set their inflation sights too low, warns Olivier Blanchard at MIT, at some point in the next decade another country is likely to join Japan in a liquidity trap.

That fate may yet befall the United States. Its inflation rate, measured by the GDP deflator, is currently running at only 1%. If America's recession were to resume, the Fed's ability to act would be limited.

The bank seems to be well aware of this risk. In a recent Fed study of Japanese deflation, it argues that monetary policy in Japan in the early 1990s was not too tight, given the forecasts of growth and inflation at the time, and fiscal policy was generally expansionary. However, growth and inflation forecasts consistently proved too high. At the time, nobody in Japan or abroad was predicting deflation. The Bank of Japan's big mistake was to fail to take out the necessary insurance against downside risks when its bubble had burst.

The Fed concludes that as interest rates and inflation move closer to zero and the risk of deflation rises, central banks need to cut interest rates by more than would normally be justified by prevailing economic conditions. Once deflation emerges, monetary policy can do little to pull the economy out of a slump. If, on the other hand, a central bank injects too much stimulus, it can correct this later.

Keynes argued that even when deflation has taken hold and monetary policy is "pushing on a string", fiscal policy can still stimulate demand. Japan has tried this, running a huge budget deficit over the past decade, yet its economy remains sick and prices continue to fall. Why?

"Forecasting is always difficult, especially when it is about the future"

THE dismal scientists have a dismal record in predicting recessions. In 1929 the Harvard Economic Society reassured its subscribers days after the crash that: "A severe depression is outside the range of probability." Despite huge improvements in data and computing power, forecasters remain in the dark. In a survey in March 2001, 95% of American economists thought there would not be a recession, yet one had already started.

Why are recessions so difficult to forecast? One excuse is that economists, unlike weathermen, do not know if it is hot or cold today because their data are always out of date. They have to forecast not only the future but also the immediate past. A less good reason is that economists have a tendency to run with the pack. Predicting a recession is unpopular (especially if you work for an investment bank), and predicting one prematurely will prove costly to clients. It may also cost you your job.

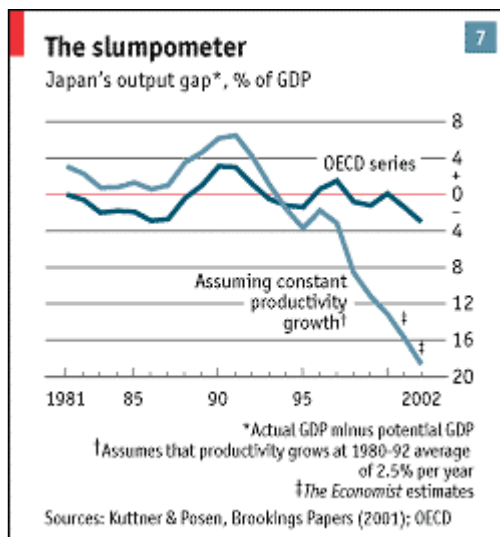
Forecasts produced by economic models with hundreds of equations are notoriously bad at predicting recessions because they tend to extrapolate the recent past. This leads to big forecasting errors near turning-points, because recessions are caused by abrupt changes in the behaviour of firms and consumers. A more reliable way to spot a coming downturn is to scrutinise indicators that have given warning signals in the past. Financial indicators have the longest lead times, but a gauge that performs well in one period may do badly in another. An inverted yield curve (meaning that short-term interest rates have risen above long-term rates) has traditionally been one of the best predictors of recession. But ahead of America's 1990-91 recession the yield curve did not properly invert.

Stockmarkets are another favourite bellwether. But Paul Samuelson, a Nobel prize-winner in economics, famously quipped that the market had predicted nine of the past five recessions. In 1987, for instance, the stockmarket wrongly signalled a recession in America and Europe. Few economists believe that the recent market slide signals a further recession.

Leading indicators that combine several economic and financial measures seem more promising. The index of leading economic indicators (LEI), originally produced by America's Department of Commerce and now by the privately run Conference Board, is a weighted average of indicators such as share prices, interest-rate spreads, consumer confidence and new orders. Unfortunately, the LEI failed to predict any of the past three recessions.

The Economic Cycle Research Institute, a private research group, has been more successful. It was set up by the late Geoffrey Moore, a pioneer of research into business cycles. ECRI believes that turning-points can be systematically predicted. It tracks no fewer than 14 leading indices for different parts of the economy and with different lead times. ECRI was one of the few firms to forecast both of the past two American recessions. Its leading indicators for other economies have also fared well. It successfully forecast recessions in Japan in 1997 and 2001. Encouragingly, as this survey went to press ECRI was saying there was no risk of a double dip in America.

Japan is not so much in a cycle as in a rut



THE annual growth rate in Japan has averaged less than 1% over the past ten years, compared with over 4% in the previous decade. The OECD estimates that Japan's output gap, a measure of spare capacity, is a modest 3% of GDP, but this assumes that its potential growth rate has fallen sharply along with its actual growth. If productivity growth had remained constant at its 1980-92 average, then Japan's output gap would now be a huge 18% of GDP (see chart 7). Assuming that the truth lies somewhere in-between, Japan has suffered the deepest slump in any developed economy since the Great Depression.

Japan's policymakers, unlike America's in the 1930s, appear to have followed the

Keynesian textbook: the government's budget has swung from a surplus of 2% of GDP in 1990 to a deficit of 8% of GDP. Yet the economy is still flat on its back. Is this more evidence, as argued in the previous section, that fiscal policy is becoming less effective? Some economists conclude that fiscal policy simply does not work in Japan. The government's debt of 140% of GDP is unsustainable, especially considering the future burden of a rapidly ageing population. Households know that taxes will need to rise, it is argued, so they save more, neutralising the fiscal stimulus.

Kenneth Kuttner, of the New York Fed, and Adam Posen, of the Institute for International Economics, disagree. They argue that fiscal stimuli in Japan in the past decade have been successful in boosting demand. Without them, Japan's economy would have been even weaker. However, the government's fiscal stimulus has been more modest than generally thought. The endless packages announced by the government did not contain as much new money as they appeared to. Most of the increase in the budget deficit has been caused not by public-spending increases or tax cuts, but because tax revenue has automatically shrunk as output has fallen.

Watch that output gap

Widely quoted OECD figures show a big increase in Japan's structural budget deficit during the 1990s. But if, as suggested above, Japan's output gap is really much bigger than the OECD estimates, the discretionary fiscal stimulus must have been smaller. Messrs Kuttner and Posen reckon that since 1997 fiscal policy has been causing output to contract. But in earlier years, when there were genuine tax cuts or spending increases, they did boost GDP.

Far from being ineffective in Japan, fiscal policy might actually work better there than in some other countries, because Japan is relatively closed to international trade and capital. Imports account for only 10% of GDP, the lowest proportion in any OECD country, and capital is still not fully mobile: Japanese savers remain reluctant to move their money abroad in search of higher returns. This captive pool of saving makes it easier to finance debt without pushing up interest rates.

The alarming increase in Japan's public debt has prompted talk in Tokyo about cutting government borrowing. Now is not the time. A rise in taxes would reduce growth and hence tax revenues, thereby increasing the government's deficit even further. Mr Posen argues that even now it is neither too late nor too costly for Japan to revive its economy by pursuing proper fiscal reflation, financed by the Bank of Japan buying government bonds.

But the shape of any fiscal stimulus is as important as its size. Japan's earlier packages were never designed for maximum macroeconomic effect, but often to help out politically well-connected firms. During the past decade, tax cuts have done much more to stimulate demand than increases in public spending, partly because public works were widely regarded as wasteful. This suggests that a reduction in public works accompanied by an identical cut in taxes would boost GDP.

Martin Feldstein, the president of America's NBER, suggests the use of targeted fiscal incentives. For example, the government could announce that the rate of sales tax was to be cut immediately from 5% to zero for a limited period, after which it would increase gradually to 10% once the economy was growing again. That would give consumers an incentive to buy goods now. It would, in effect, offset deflation, by creating an expectation of rising prices. The immediate revenue loss could be made up by cutting public works, and the future tax increase would put Japan's finances on a sounder path.

Demand or supply?

Some economists think this emphasis on boosting demand is misplaced. Echoing the Austrian economists, they argue that monetary and fiscal stimulus is a narcotic that prevents structural adjustments. Japan's real problem, they say, is the failure of the government to clean up the banking system. Banks keep rolling over bad loans rather than writing them off. This sustains overcapacity as unprofitable firms are kept alive, and locks resources into low-return sectors such as construction and retailing.

In a provocative paper, Robert Dugger and Angel Ubide, economists at Tudor Investments, an American fund-management company, argue that Japan is not in a "liquidity trap" but a "structural trap", meaning that political and economic obstacles are preventing the reallocation of capital from low-return to higher-return firms. The symptoms—slow growth and deflation—are the same as those of a liquidity trap, but the condition calls for a different policy response.

In a structural trap, loose monetary and fiscal policy can exacerbate deflation and sluggish growth because unproductive but politically important firms are allowed to survive. In Japan public works have propped up inefficient construction firms; subsidies and zero interest rates help troubled firms to stay in business. By perpetuating excess capacity, this feeds deflation.

Messrs Dugger and Ubide argue that if there is strong political resistance to reallocating capital, as in Japan, monetary policy needs to be tighter than if the government were actively attacking the economy's structural rigidities. Higher interest rates, they argue, would force unprofitable firms out of business, eliminate excess capacity and release labour and capital for more productive uses.

However, raising interest rates to eliminate inefficient firms goes well beyond the mandate of any central bank. Moreover, although scrapping excess capacity would improve the return on capital and eventually help to boost growth, in the short term it would worsen deflation as unemployment rose. Much better that the government should clean up the banking sector, forcing banks to write off bad loans, which would cause unprofitable firms to close down. Monetary and fiscal policy could then be used to cushion, not prevent, the painful consequences.

Market rigidities may well blunt the effectiveness of monetary and fiscal policies. For Japan, macroeconomic stimulus and microeconomic reforms are not alternatives: they should be used to complement each other.

Should we learn to love recessions?

WHEN America's bubble burst last year, the Fed swiftly cut interest rates. This has become a habit: every time there has been any financial turmoil at home or abroad—such as the crises in East Asia and Russia and the near-collapse of Long Term Capital Management in 1998—the Fed has pumped more money into the economy. Low interest rates have saved America from a deep recession. But after such a binge, might the economy not benefit from a cold shower?

Most people would consider this a heretical question. They assume that it is a central bank's job to avoid recessions at all cost. According to one survey, four-fifths of Americans believe that preventing recessions is as important as preventing drug abuse. But are recessions always an unmitigated disaster, or do they also offer some economic benefits? And if central banks respond to every danger sign by pumping in more money, does this not risk simply transferring the problem elsewhere? As America's stockmarket bubble has burst, another bubble now seems to be inflating in its housing market. This allows consumers to go on partying, but what happens when the drink runs out?

According to the Austrian economic paradigm described in the second section of this survey, recessions are a natural feature of an economy. Joseph Schumpeter argued that recessions are not an evil that should be avoided, but a necessary adjustment to change. Only by allowing the "winds of creative destruction" to blow freely could capital be released from dying firms to new sectors of the economy, thereby boosting future productivity.

Hayek counselled against massive monetary easing to prevent a recession. If unprofitable investments were made during a boom, then it was better to shut those firms down and clear the way for new, more productive investment. For the Austrian economists the policy choice is not between recession or no recession, but between one now or an even nastier one later. A recession is necessary to work off an imbalance between too much investment and too little saving.

Keynes, quite reasonably, ridiculed the idea that in the long run the Great Depression might turn out to have been a good thing. In the early 1930s the Fed and the American Treasury did not pursue expansionary policies, precisely because they thought these might hinder the necessary adjustment. Andrew Mellon, the secretary of the Treasury, urged the market to "liquidate labour, liquidate stocks, liquidate the farmers, and liquidate real estate...It will purge the rottenness out of the system." America's output duly fell by 30% as the Fed sat on its hands.

Today, a slump on that scale would be unlikely even if the Fed had not cut interest rates swiftly. It would have been headed off by a variety of changes made since the Great Depression: higher government spending and hence more powerful automatic fiscal stabilisers; bank deposit insurance; and a stronger commitment by the Fed to its role of lender of last resort. But even the Austrian economists themselves came to reject the idea that faced with a potentially severe recession, policymakers should do nothing. They approved of stimulus measures to stop recessions from turning into deep depressions, but not of preventing recessions altogether.

The case for the defence

Why is economic instability always assumed to be bad? Some economists argue that recessions result in a permanent loss of output. This rests on the notion that there is a fixed ceiling for output, rising over time, so any shortfall against potential is a permanent loss. On this view, demand-management policies can fill in the troughs without shaving off the peaks, thus increasing average growth.

A more realistic way of looking at it, however, is that business cycles are fluctuations in output above and below an equilibrium trend. This suggests that demand-management policies can mitigate recessions only to the extent that they also choke off expansions; they cannot increase the average rate of growth or employment.

Admittedly, cyclical increases in unemployment may become permanent if labour-market rigidities, such as strict hiring-and-firing laws, make it hard for the jobless to find work even when the economy recovers, a condition known as hysteresis. If this is present, as it is in many European countries, then recessions can have a permanent cost. But this is really an argument for labour-market reform to minimise the cost of recessions, not one for measures to prevent them altogether.

A second argument against letting recessions rip is that households may value economic stability for its own sake, even if it makes no difference to the average unemployment rate. Justin Wolfers, an economist at Stanford University, has used surveys of consumer satisfaction from several rich economies to estimate the value that households place on stability. He reckons that starting from current levels of volatility, eliminating the business cycle would increase average well-being by the equivalent of a fall in the unemployment rate of only 0.2 percentage points. By contrast, labour-market reforms could reduce unemployment by several percentage points.

A third common claim is that economic instability and uncertainty may discourage investment, thereby reducing long-term growth. Yet the evidence is weak. More volatile economies do not appear to invest less as a share of GDP. Moreover, looking back, the 20 years to 1938 were by far the most volatile in economic history, yet the average growth rate in developed economies was 3.8%, well above the average growth of 2.7% during the past two decades of relative stability. An analysis of 20 developed economies since 1960 by Bill Martin of UBS Global Asset Management finds little evidence that macroeconomic stability promotes faster growth. If anything, he concludes, countries with greater output variability have enjoyed slightly faster growth in productivity.

This is not as odd as it sounds. A perfectly stable economy would miss out on the advantages of booms as well as the alleged disadvantages of slumps. For instance, in boom times, when credit flows freely, it is easier to finance the risky innovations that may boost future productivity growth. Booms also encourage mergers and acquisitions, a powerful tool for restructuring. More important, as Schumpeter argued, recessions are a process of creative destruction in which inefficient firms are weeded out, releasing resources for more productive firms.

But can we be sure that it will be the least productive firms that go bust in recessions, and that they really will be replaced by new, more profitable ones? Awkwardly, work by Ricardo Caballero and Mohamad Hammour, economists respectively at MIT and DELTA, a French research organisation, finds that good times may be more conducive to economic restructuring than bad. The two economists examined gross job creation and destruction in American manufacturing over the period 1972-93 and found that at the onset of a recession job destruction increases, but it then falls below normal levels until well into the recovery. Job creation declines during a recession and remains relatively low during the initial recovery. Adding up the net effect of job destruction and creation, Messrs Caballero and Hammour conclude that the pace of restructuring actually falls during a recession.

The figures on which the study was based are available only for manufacturing, which has a shrinking share of the economy. Once services are added in, the picture might look different. Still, the study does raise the question of why recessions might hinder rather than help industrial restructuring. One answer is that credit markets are imperfect. When credit is tight in a recession, even profitable firms can find it harder to raise money to finance restructuring or new investment.

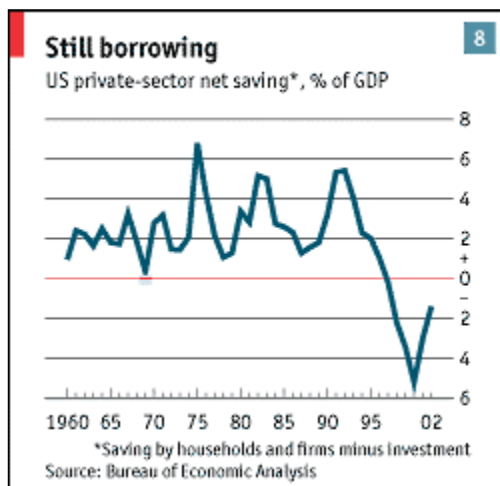
The dark side of the boom

Even if recessions are not always the most efficient way to reallocate resources, they are necessary to purge the excesses of the previous boom. Stephen King at HSBC argues that a recession should be seen as an unpleasant cleansing experience which leaves the economy in a healthier state: "A bit like taking a cold shower with a lump of carbolic soap." But America's economy has not yet completed this cleansing process: it still has an inadequate savings rate, excessive debt and a huge current-account deficit. The recent mild recession did little to correct these imbalances, making further pain inevitable.

A good indication of the size of the adjustment yet to be made is the private sector's financial balance (or private-sector net saving, equivalent to saving minus investment), a concept elaborated by Wynne Godley, an economist at Cambridge University. In the United States the private-sector balance shifted from a surplus of 5% of GDP in 1992 to a deficit of 5% of GDP in 2000 as households and firms went on a borrowing spree, an astonishing change after almost four decades when the private sector never ran a deficit at all (see chart 8).

The corporate sector's financial position was not wildly out of line with previous periods of expansion: firms usually run a deficit during booms to finance investment. It was the behaviour of the personal sector that was exceptional, and remains so. The surge in share prices during the 1990s encouraged households to save less and less.

In the past, when a country's private-sector net saving has fallen so sharply, a deep recession or a prolonged period of stagnation has usually followed. Events in Japan, Britain and Sweden after their late 1980s booms are prime examples. Mr Godley has long argued that the same outcome is inevitable in the United States. But America's adjustment still has a long way to go. The private sector's financial deficit has narrowed to 1.4% of GDP this year, but that still leaves it well below its 1960-95 average of a surplus of 3% of GDP.



So far, most of the belt-tightening has come from firms, which have slashed their investment and laid off workers. Consumers, on the other hand, have continued to borrow, encouraged by easy money and rising house prices. But the collapse in share prices is now likely to prompt households to save more of their income. If the household saving rate rises back to its long-term norm, at the very least a period of slow growth, and perhaps another recession, will surely follow.

Was it a mistake for the Fed to slash interest rates last year and thereby delay this adjustment by households? Some economists believe that a deep but short

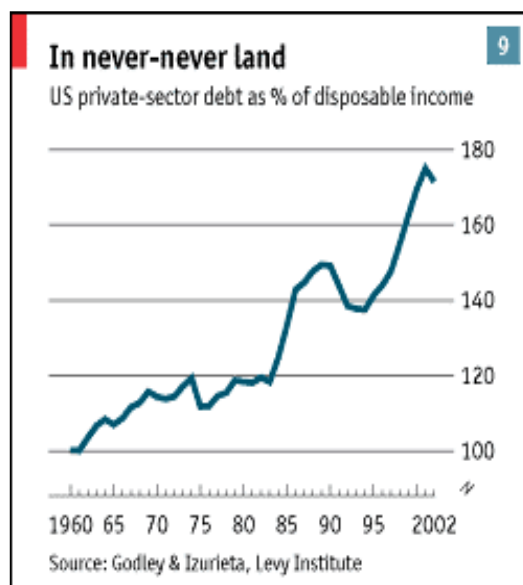
recession is preferable to a prolonged period of sluggish growth, because recovery comes much sooner, with less damage to the economy's potential growth rate. However, it is arguably better to unwind imbalances gradually to avoid the risk of

severe financial problems. Moreover, the Fed has been worried that a deeper recession at a time when inflation is already so low might lead to debt deflation, which central banks should avoid like the plague.

Lower interest rates have helped to prop up spending in America largely by fuelling a credit-driven boom in house prices. This fixes one problem at the risk of creating another. Rather than injecting more liquidity, would it not be better if central banks tried to smooth the path of credit over the whole business cycle?

Central banks need to keep a closer eye on credit and asset prices

AMERICA'S current economic woes—from the collapse in share prices to the surge in bankruptcies—can all be traced back to the biggest credit boom in its financial history. Private-sector credit surged at an unprecedented pace in the late 1990s (see chart 9). Without easy credit the stockmarket bubble could not have been sustained for so long, nor would its bursting have had such serious consequences. And unless central bankers learn their lesson, it will happen again.

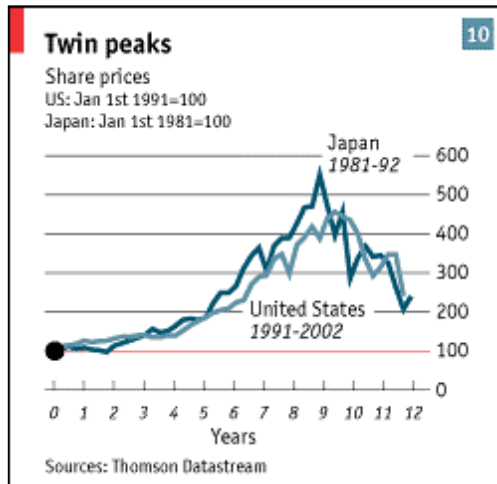


Central banks' main task over the past two decades has been to defeat inflation. But now they face an even tougher challenge: preventing ever bigger booms and busts in economic activity caused by increasingly large swings in asset prices and credit. Low and stable inflation was supposed to promote financial stability, yet greater stability in inflation and output has not been reflected in greater asset-price stability. Instead, the prices of assets, such as shares and property, have been subject to bigger swings over the past two decades. It now seems clear that low inflation does not guarantee financial stability. The three biggest bubbles this century—America's in the 1920s and 1990s and Japan's in the 1980s—all developed when inflation was low.

Indeed, low inflation may even encourage a build-up of financial imbalances. It can heighten the excessive optimism that helps to fuel unsustainable booms in credit and asset prices. If people believe that central banks are fully committed to price stability, inflation will be held down even as demand pressures mount, removing the need to raise interest rates sharply. That encourages a bigger build-up of debt and higher share prices as firms and households come to believe that the expansion will continue indefinitely—as they did in America in the 1990s.

A paper by Claudio Borio and Philip Lowe, economists at the BIS, suggests that a useful way of gauging the vulnerability of a monetary regime to financial instability is to consider its "elasticity": its potential to allow financial imbalances to build up unchecked during a boom. Compared with the early part of the 20th century, today's financial regulation and supervision helps to curb banks' ability to lend recklessly. On the other hand, the external constraint on credit imposed by the gold standard has

gone. Central banks now virtually ignore the pace of credit expansion so long as inflation is under control. As a result, the “elasticity” of private credit creation has increased significantly.



Until the 1980s, in most economies the growth of credit was constrained in some way. After the gold standard collapsed, this discipline had been provided by tightly regulated financial markets. Most countries had some sort of credit controls that restrained the financial cycle, but at a severe cost to resource allocation. Since then governments have set their financial systems free. In the 1980s money-supply targets helped to curb credit, but these, too, were abandoned as the various measures of money sent out confusing signals.

Messrs Borio and Lowe argue that today's combination of a liberalised financial system, a money standard with no exogenous anchor such as gold, and a monetary policy focused only on short-term inflation increases the risk of longer and bigger build-ups in credit. That makes asset-price and debt bubbles more likely.

Swings in credit growth and asset prices have always played an important part in business cycles, but their role seems to have increased of late. Financial deregulation and innovation have increased the scope for more pronounced financial cycles which, in turn, can amplify the business cycle. For instance, rather than holding loans on their books, banks now bundle loans into securities and sell them on the secondary market. The resulting stream of liquidity allowed the banking system to lend more during the boom. New financial instruments and greater competition in the mortgage market have made it easier for households to borrow.

The increase in debt since financial liberalisation is not necessarily a bad thing: savings are better channelled to borrowers with profitable investment opportunities than lying idle under the mattress. However, easier access to credit can encourage overborrowing, which leaves the economy more vulnerable to a recession. Over the past decade the deepest downturns have tended to be in countries that had previously seen big increases in debt. Now it is America's turn.

Cycles in credit and asset prices usually occur in tandem, reinforcing one another. Rising asset prices boost growth and make it easier to borrow by raising the value of collateral. Faster growth in credit and output then feeds back into higher asset prices. When asset prices fall, the process goes into reverse. More households now own houses and shares, so swings in asset prices have a bigger effect on the economy.

Riding the risk cycle

In its 2001 annual report the BIS argued that the financial system tends to be too pro-cyclical because of a misperception by banks and markets about how risk moves over the cycle. Lenders tend to underestimate risk during booms, when collateral values are rising and profits are strong. They reduce their lending spreads and loan provisions, and extend too much credit. In recessions, lenders' perception of risk rises too late as borrowers default, so they tighten their lending standards and raise provisions. All this amplifies the business cycle, extending booms and increasing the depth or length of downturns.

Some economists worry that the new Basel Accord on banks' capital standards could make things worse. From 2006 banks will have to adjust their minimum capital requirements over time, in line with changes in measured risk. The danger is that banks' internal risk assessment will vary more than it should over the course of the cycle, leading to undesirable reductions in capital cushions during booms and increases during recessions. That would make the financial system even more pro-cyclical than at present.

Should central banks try to curb unsustainable credit and asset-price booms? The usual answer is that policymakers are unlikely to make better judgments about risk and sustainability than does the private sector. But as Keynes once wrote, "A 'sound' banker, alas!, is not one who foresees danger and avoids it, but one who, when he is ruined, is ruined in a conventional way, along with his fellows, so no one can really blame him." Central bankers are less likely to run with the herd. They have longer time horizons and different incentives, as well as a better understanding of the feedback between the financial sector and the real economy, so they may respond differently to the same information.

One policy option is for capital requirements to be increased during a boom if supervisors see a potential increase in risk. Or, to cool a housing boom, regulators could restrict the maximum mortgage as a percentage of a property's value. But it would be tricky to identify exactly when this should be done. If regulators got it wrong, they might undermine the efficiency of the banking system.

The alternative is to raise interest rates to check an unsustainable rise in credit and asset prices. However, not only is it difficult to identify financial imbalances early enough to act, but central banks do not have a mandate to prick bubbles. They already do take account of rises in share or house prices to the extent that these feed into higher spending and hence future inflation, but asset-price and debt bubbles can build up with little immediate effect on inflation. Higher interest rates would be hard to explain to the public if today's inflation were well under control.

Moreover, there are doubts about the effectiveness of higher interest rates in containing share prices. Interest rates are more like a blunderbuss than a laser-guided weapon. A small rise in rates might be counterproductive if it increased confidence in the central bank's anti-inflation commitment and so boosted asset prices further. A big rate rise would probably work, but it might lead to a deep recession.

Because of these uncertainties, most central bankers believe they should not raise interest rates to stop a boom in asset prices and credit, but wait to see if the asset-price bubble bursts and then respond to the adverse consequences. That is what the

Fed did last year. But prevention is surely better than cure. The BIS concludes that although caution is required in tightening monetary policy or adjusting supervisory instruments, this should not rule out the occasional use of such policies when serious financial imbalances threaten economic and financial stability.

"Identifying a bubble in the process of inflating may be among the most formidable challenges confronting a central bank," said Alan Greenspan in 1999. It is impossible to determine a share's fundamental value, so, it is commonly argued, central banks should ignore asset-price booms other than where they have a direct effect on inflation.

But the emphasis on asset prices alone is wrong. It is when a boom in asset prices is combined with a big increase in debt that it becomes really dangerous, because when house prices or share prices fall, borrowers get squeezed. There is therefore a stronger case for tighter monetary policy when a surge in asset prices goes hand in hand with rapid credit growth. In their study, Messrs Borio and Lowe, looking only at information available to policymakers at the time, concluded that a simultaneous explosion in both credit and asset prices usually provided a useful warning of financial problems ahead.

The argument that central banks should act only when they are absolutely certain that they are dealing with a bubble does not stand up. Central banks have to deal with uncertainty all of the time. For example, the uncertainties over the size of the output gap are also large. The real issue is whether central bankers are prepared to start arguing the case for raising interest rates in response to serious financial imbalances, and whether they are prepared to live with unpopularity if they burst a bubble in equities or house prices. Mr Greenspan would not be so revered today if he had intentionally pricked America's stockmarket bubble.

With hindsight, the Fed should have raised interest rates much sooner in the late 1990s. Its failure to do so is an understandable mistake, because with inflation so low it would have come under political attack. Less forgivable was Mr Greenspan's irrationally exuberant endorsement of the "new economy", which contributed to the euphoria. Productivity growth has increased, but an official at another central bank argues that it would have been wiser if he had remained more agnostic, rather than acting like a fireman-turned-arsonist.

Views about how the economy works and what role monetary policy should play have changed many times in recent decades. From the 1950s to the 1970s the main objective of monetary policy was full employment. Once inflation took off, governments abandoned full employment to make the control of inflation their number one priority. Persuading the public that credit and asset-price bubbles are just as bad for them as inflation is surely no harder than making the switch from fighting unemployment to fighting inflation.

During the past century, every monetary rule has broken down in the face of changing economic circumstances: the gold standard, the Bretton Woods system of fixed exchange rates, and monetary targeting. Now it seems that strict inflation targeting is not the promised panacea either. Central bankers' fixation on short-term price stability can blind them to other important signs of financial imbalance. In turn, those imbalances can cause deeper recessions and even a future risk of deflation. Without some redesign of monetary policy to take more account of swings in credit and asset prices, economic booms and busts could well become more disruptive in future.

Increasing globalisation could lead to bigger economic booms and busts

WHEN America sneezes, the rest of the world catches cold, and last year the effect of America's downturn on the rest of world seemed more brutal than usual. As America went into recession, the euro area's economies ground to a halt, Japan's slump deepened, and emerging economies from Mexico and Argentina to Singapore and Taiwan suffered deep recessions. Does global economic integration mean that business cycles now move more closely in step?

Economies have often been hit simultaneously by common global shocks, such as the jump in oil prices in the 1970s. However, during most of the 1990s business cycles were unusually desynchronised because of shocks that affected only particular countries. When the American economy stumbled in 1990, German unification kept continental Europe aloft until 1993, and Japan, buoyed by rising land prices, continued to boom until 1992.



In contrast, last year's global downturn was unusually synchronised. According to J.P. Morgan, an American bank, the dispersion of growth rates across 41 economies fell to its lowest level in at least 30 years (see chart 11). Some of this was due to common factors, such as the bursting of the IT bubble and higher oil prices. But it seems that different economies' business cycles are also becoming more closely correlated over time, possibly because of greater economic integration.

It used to be argued that increasing trade would stabilise GDP. In a recession, exports could offset the slump in domestic demand; in a boom, spare overseas capacity would help to hold down inflation.

But increased trade also causes economies to move more closely in step. Last year an investment slump in America spread quickly to Asia as American firms imported less IT equipment. In turn, Asian economies bought less from the United States and elsewhere, which depressed growth further. Greater synchronisation is likely to exacerbate the business cycle.

World trade now accounts for 25% of GDP, double its share in 1970. However, trade figures understate the degree of international interdependence. Foreign direct investment, cross-border mergers and financial markets have an even bigger effect.

A recent OECD study explored the growing internationalisation of production through global supply chains. Multinational firms base different parts of their operations in different economies to make use of comparative advantages, such as cheap or highly skilled labour. Foreign direct investment has increased the importance of international trade within firms. One-third of both America's and Japan's total trade takes place within multinationals and their affiliates. The share of intra-firm trade is especially high in the IT sector, which is why the IT investment bust spread so rapidly around the world. The OECD concludes that thanks to the internationalisation of production, a demand shock in one country will have wider international effects than in the past.

For many multinational firms, foreign direct investment has also become a substitute for trade. For example, a German car maker will produce locally in America rather than exporting there. European firms' dollar sales from their American subsidiaries are now four times bigger than their exports to America. The slump in America last year squeezed such parent firms' profits, prompting some cutbacks in Europe. American multinationals also responded to the slump at home by cutting back at their European subsidiaries.

It's the same the whole world over

Financial markets are another important channel for transmitting shocks across borders. Stockmarkets in Europe have fallen by just as much as Wall Street over the past two years. William Goetzmann, an economist at Yale School of Management, calculates that in recent years the correlation between the markets of America, Britain, France and Germany has been closer than at any time in the past century (see chart 12). The cost of capital for European firms may therefore be more sensitive to ups and downs in America than in the past. A collapse of share prices on Wall Street will also have a bigger effect on wealth and spending all around the globe.



There are many reasons why share prices are dancing to the same beat. Cross-border trading in shares has increased hugely over the past decade, creating a global equity market. In most rich countries, household are increasingly investing in foreign equities. Many big firms are also listed on more than one stockmarket. And thanks to cross-border mergers and foreign direct investment, a growing slice of firms' profits comes from abroad.

Is the recent close-coupling of national stockmarkets a temporary phenomenon, caused by the IT bubble and the consequent global slowdown, or does it reflect the growing international integration of firms?

Robin Brooks, an economist at the IMF, and

Marco Del Negro, at the Federal Reserve Bank of Atlanta, tried to discover whether the increased correlation of stockmarkets can be explained by firms becoming more global, as measured by the percentage of their sales and profits that are generated abroad. They analysed company accounts and share prices for 10,000 firms in 42 markets over the period 1985-2002, and found that such global factors had indeed become more important in explaining variations in companies' profits in the late 1990s. Global factors were especially important in explaining the relative share prices of firms that derive a high proportion of their profits from overseas. This suggests that the rise in stockmarket correlations in the late 1990s may indeed reflect global integration. If so, it is likely to increase further over time.

Another way in which recession can spread from country to country is through business confidence. The IMF finds that there has been a substantial increase in the correlation between business confidence in America and the euro area in recent years. This probably reflects the stronger links between firms in America and the euro area through mergers, as well as the effect of global share prices on business confidence. Either way, the mood of businessmen can be a lethal form of contagion.

As economic and financial interdependence continue to increase, developments in one economic area will affect other economies more than in the past. As a result, global business cycles are likely to become self-reinforcing, which could make booms and recessions in developed economies more severe.

Policymakers clearly need to take more account of what is happening in other countries. Traditional economic models that look only at trade will understate the effect of a shock in America on other economies. Foreign investment, share prices and confidence are likely to be far more important. The ECB was caught out last year when it underestimated the impact of America's downturn on the euro area. Even though Europe did not suffer from the sort of imbalances seen across the Atlantic, its economies stumbled as falling equity markets hurt business confidence.

Does growing economic interdependence increase the case for international policy co-ordination? In the past, attempts at this by the G7 group of rich countries have had unhappy consequences. At the Bonn summit in 1978, Germany agreed to reflate and act as the world's locomotive. But oil prices then surged, triggering a burst of inflation. In the late 1980s, at the Louvre meeting, Japan agreed, under pressure, to ease its monetary policy in return for America cutting its budget deficit. Many now regard this as a prime cause of Japan's financial bubble.

The regular exchange of information and frank discussion about policy in each other's economies is useful. But, wisely, the G7 have avoided formal agreements to co-ordinate policy in recent years. The best global economic policy is the sum of the best national policies that take account of developments elsewhere.

Brace yourself for a bumpier time ahead

DESPITE the slump in share prices, most economists reckon that America's economy will continue to recover this year. They believe that the post-bubble recession was mild thanks to the Fed's superb monetary policy and the American economy's amazing flexibility. In reality, though, America's first recession of the 21st century may not be over.

The optimists base their forecasts on their belief that America's economy is "fundamentally sound"—or as sound as an economy can be with inadequate saving, far too much debt and a massive current-account deficit. America not only had a stockmarket bubble in the late 1990s, it experienced a wider economic bubble that distorted decision-making across its whole economy. This created excesses that need to be purged before the economy can return to vigorous and sustainable growth.

Firms have made great strides to cut costs and capacity, yet corporate debts still look uncomfortably large, so further pruning is likely. Troublingly, consumers have continued to borrow as if little has changed. By slashing interest rates, the Fed has encouraged a house-price boom that has partially offset equity losses and allowed

households to take out bigger mortgages to prop up their spending. But for how long? House prices are high in relation to income, so the room for further gains is limited. Households' debt-service payments are also close to a record high, even though interest rates are low.

Households cannot keep borrowing at their current pace. At some stage they will need to start saving more and spending less. If this happens abruptly, it will trigger another, deeper recession. If instead the adjustment is made gradually, America could face several years of sluggish growth of less than 2%. That would be well below the economy's trend growth rate, so unemployment would rise. In this sense, America's "recession" is far from over.

Could America follow Japan into a decade of stagnation? The popular perception is that America's economy has held up much better than Japan's did after its own stockmarket bubble burst in December 1989. Yet America's economy now looks awfully like Japan's in the early 1990s, when Japanese investment fell but consumer spending and productivity growth remained robust for a couple of years. Deflation did not appear until 1995. America may yet face further troubles.

There are, of course, big differences between the two economies. Market forces work better in America's more flexible and competitive economy, so excess capacity is likely to be scrapped and capital reallocated more speedily than in Japan. America's economy is also much less dependent on banks than Japan's, relying more on capital markets as a source of finance for firms. Capital markets, unlike banks, re-price assets immediately instead of deferring the pain. Japan's sick banks have also been unable to make new loans, which has delayed recovery. American banks are in much better shape.

A third point in America's favour is that its political system is less rigid than Japan's. If politicians fail to deliver economic recovery, in due course they will be replaced. In Japan the LDP is still in power, despite a decade of near-stagnation. The result is policy paralysis.

Nevertheless, American policymakers cannot afford to be complacent. The list of differences between Japan and America has got shorter over the past year. America, it used to be argued, had better corporate governance and more accurate financial accounts than Japan. Enron and WorldCom have exposed that myth. America, it was said, had only a stockmarket bubble, whereas Japan also had a property bubble. The rapid growth in house prices and mortgages in America over the past couple of years is starting to look suspiciously bubble-like.

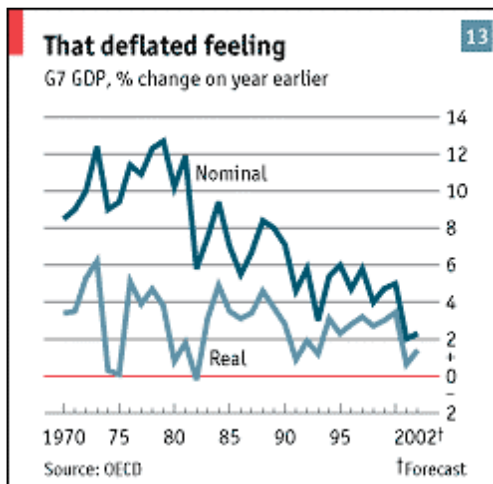
Last, but not least, America supposedly had plenty of room to cut interest rates, so it could avoid deflation. But by now the Fed has shot most of its ammunition: with interest rates and inflation already so low, there is little room for further easing if the economy stumbles. That raises the spectre of falling prices, which would be devastating in an economy so awash with debt.

Some Europeans may be tempted to gloat over America's misfortunes. But if America sinks back into recession, it will take much of the rest of the world with it. As America's current-account deficit becomes harder to finance, a sharp fall in the dollar will export deflationary pressures to other countries. Worse, policymakers in Japan and the euro area currently seem unwilling or unable to offset such a shock.

Measured by real GDP, last year's global recession was relatively mild, but nominal GDP growth in the G7 economies fell to its slowest rate for decades (see chart 13). In this year's "recovery", nominal GDP growth is running at just over 2%, less than the typical rate seen during other recessions since the second world war. In this sort of environment, it becomes much harder for firms to increase their profits and work off their debts. Most companies, investors, households and policymakers have never experienced anything like it during their lifetime.

A false sense of security

Current wobbles aside, most analysts still assume that the greater economic stability of recent decades will continue. They hope that it will allow firms to go even further in eliminating the inventory cycle, and that sound monetary policies will continue to prevent the high inflation rates that caused economic instability in the 1970s. That would have important implications. A more stable economy is a less risky economy,



which would justify a lower equity-risk premium. Historical price-earnings ratios would then be irrelevant, so share prices might now be undervalued. And if incomes and profits fluctuate less over the cycle, then households' and firms' current large debts might prove perfectly manageable.

However, this survey has identified several factors that might make the economic cycle more rather than less volatile over the coming years, thus prompting investors to demand a higher risk premium. One consideration is that America's enhanced economic stability in the 1990s was in large part due to luck, such as the unusually desynchronised nature of business cycles in the main economies. This

helped to curb the usual inflationary pressures during America's boom, allowing it to continue for longer. In future, as economies become more internationally integrated, economic cycles are likely to move much more closely in step. If everybody sinks together, recessions could be deeper.

A second cause for concern is that fiscal policy may be less able to cushion downturns than in the past. There is some tentative evidence that fiscal policy is becoming less potent as economies become more open. More worrying, in some circumstances monetary policy may also prove to be a blunter weapon. If central banks try to hold inflation too low over the cycle, they will leave themselves too little room to ease policy in a deep recession, because it will be harder to deliver negative real interest rates. In the next cycle inflation and interest rates could peak at a lower level than in the last one, and as inflation gets closer to zero economies become more unstable, as Japan has discovered. This is not to argue for a return to double-digit inflation, but to suggest that central banks should aim to keep inflation above 2%.

Even then, low inflation can amplify the business cycle in another way. In the 1970s and 1980s high rates of inflation allowed inflated asset prices to adjust back to their fair values without the need for a big drop in nominal prices. For instance, British property prices in the four years to 1993 fell by 25% in real terms, but by only 8% in

nominal terms. If today's boom in house prices around the globe does turn out to be a bubble, then with such low inflation house prices would need to fall more sharply in absolute terms to bring the market back into balance. That would be painful for those with big mortgages.

In a world of low inflation, excessive swings in asset values are therefore even more dangerous. Yet this survey has argued that financial liberalisation, combined with central banks' single-minded emphasis on inflation, has increased the risk of asset-price and credit bubbles. Japan in the 1980s and America in the 1990s could be just the first of many.

Moreover, equity and property prices are not only likely to be more volatile, they will also have a bigger effect on consumer spending than they used to. As people live longer after retirement and the average age of populations increases, more people will be dependent on the value of their assets, in the shape of both property and equities, rather than income from employment.

After a period of relative calm, the business cycle is likely to become bumpier again. What does this mean for policymakers? Until recently, central banks believed that so long as inflation was kept firmly under control, booms and busts could be avoided. Yet in reality low inflation does not guarantee stable growth. If central banks are to prevent bigger booms and busts in future, they need to take a broader view and sometimes act to curb excessive growth in debt and asset prices.

A second lesson is that governments need to do more to enable economies to cope with volatility. Flexible markets, stronger financial institutions and better corporate governance can help to minimise the cost of recessions. If Japan and the euro area were to press ahead with reforms, it might also help to boost their domestic growth, reduce their dependence on America, and so partly offset the growing synchronisation of economies.

The third and most important point to remember is that the business cycle will never be eliminated; it is part of human nature. Indeed, once people think that the cycle has become a thing of the past, they act in ways that sow the seeds of the next recession. If central banks succeed in postponing a recession, they will simply encourage more reckless behaviour, making the next downturn worse. A recession once in a while may actually be a good thing, as long as it is not too deep. It reminds companies, households and investors of that other R-word: risk.

Sources and acknowledgments

This survey draws on many sources and interviews, not all of them cited in the text. The author would particularly like to thank Adam Posen at the [Institute for International Economics](#), Lakshman Achuthan at the [Economic Cycle Research Institute](#), Victor Zarnowitz at the US [Conference Board](#), Wynne Godley at the [Cambridge Endowment for Research in Finance](#) (University of Cambridge), Bill Martin at [UBS Global Asset Management](#), and economists at the [Bank for International Settlements](#), the [IMF](#) and the [OECD](#).

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