The Economist

How to grow

A special report on the world economy

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How to grow

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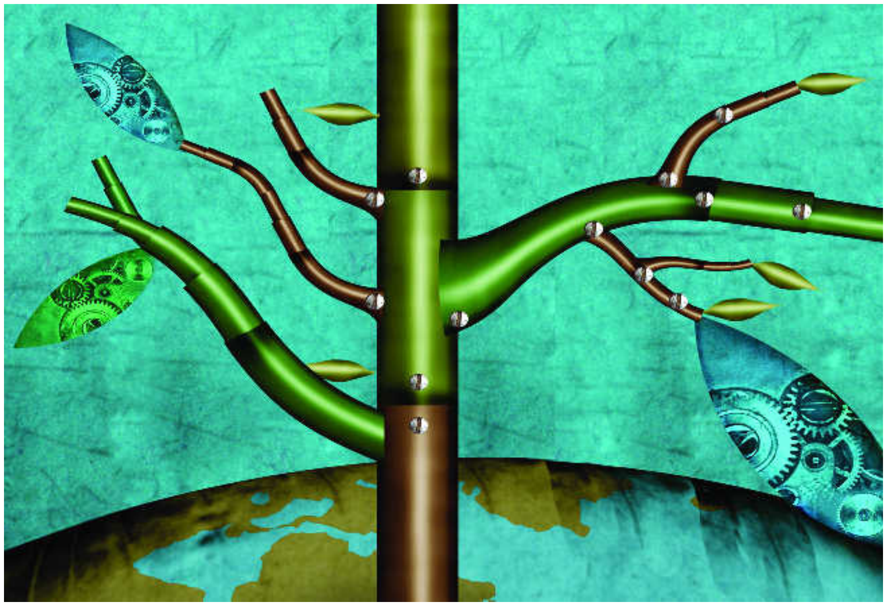


Without faster growth the rich world's economies will be stuck. But what can be done to achieve it? Our economics team sets out the options

WHAT will tomorrow's historians see as the defining economic trend of the early 21st century? There are plenty of potential candidates, from the remaking of finance in the wake of the crash of 2008 to the explosion of sovereign debt. But the list will almost certainly be topped by the dramatic shift in global economic heft.

Ten years ago rich countries dominated the world economy, contributing around two-thirds of global GDP after allowing for differences in purchasing power. Since then that share has fallen to just over half. In another decade it could be down to 40%. The bulk of global output will be produced in the emerging world.

The pace of the shift testifies to these countries' success. Thanks to globalisation and good policies, virtually all developing countries are catching up with their richer peers. In 2002-08 more than 85% of developing economies grew faster than America's, compared with less than a third between 1960 and 2000, and virtually none in the century before that.

This "rise of the rest" is a remarkable achievement, bringing with it unprecedented improvements in living standards for the majority of people on the planet. But there is another, less happy, explanation for the rapid shift in the global centre of economic gravity: the lack of growth in the big rich economies of America, western Europe and Japan. That will be the focus of this special report.

The next few years could be defined as much by the stagnation of the West as by the emergence of the rest, for three main reasons. The first is the sheer scale of the recession of 2008-09 and the weakness of the subsequent recovery. For the advanced economies as a whole, the slump that followed the global financial crisis was by far the deepest since the 1930s. It has left an unprecedented degree of unemployed workers and underused factories in its wake. Although output stopped shrinking in most countries a year ago, the recovery is proving too weak to put that idle capacity back to work quickly (see chart 1, next page). The OECD, the Paris-based organisation that tracks advanced economies, does not expect this "output gap" to close until 2015.

The second reason to worry about stagnation has to do with slowing supply. The level of demand determines whether economies run above or below their "trend" rate of growth, but that trend rate itself depends on the supply of workers and their productivity. That productivity in turn depends on the rate of capital investment and the pace of innovation. Across the rich world the supply of workers is about to slow as the number of pensioners rises. In western Europe the change will be especially marked. Over the coming decade the region's working-age population, which until now has been rising slowly, will shrink by some 0.3% a year. In Japan, where the pool of potential workers is already shrinking, the pace of decline will more than double, to around 0.7% a year. America's demography is far more favourable, but the growth in its working-age population, at some 0.3% a year over the coming two decades, will be less than a third of the post-war average.

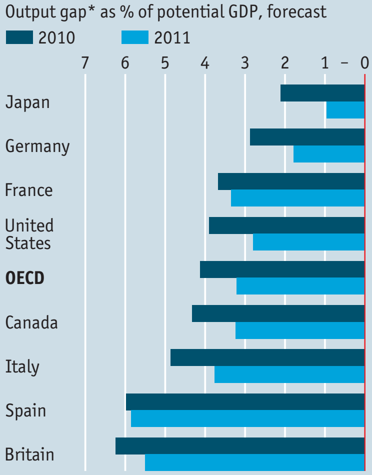
With millions of workers unemployed, an impending slowdown in the labour supply might not seem much of a problem. But these demographic shifts set the boundaries for rich countries' medium-term future, including their ability to service their public debt. Unless more immigrants are allowed in, or a larger proportion of the working-age population joins the labour force, or people retire later, or their productivity accelerates, the ageing population will translate into permanently slower potential growth.

Calculations by Dale Jorgenson of Harvard University and Khuong Vu of the National University of Singapore make the point starkly. They show that the average underlying annual growth rate of the G7 group of big rich economies between 1998 and 2008 was 2.1%. On current demographic trends, and assuming that productivity improves at the same rate as in the past ten years, that potential rate of growth will come down to 1.45% a year over the next ten years, its slowest pace since the second world war.

Faster productivity growth could help to mitigate the slowdown, but it does not seem to be forthcoming. Before the financial crisis hit, the trend in productivity growth was flat or slowing in many rich countries even as it soared in the emerging

Yawning 1

Output gap* as % of potential GDP, forecast

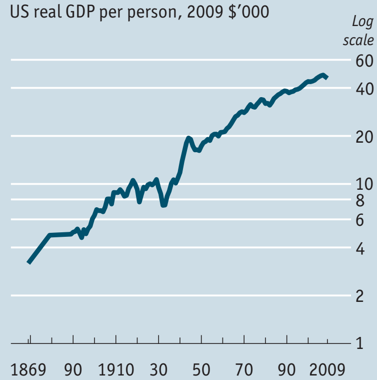


Source: OECD

*Difference between actual and potential GDP

Onwards, ever upwards 2

US real GDP per person, 2009 $'000



Sources: US Department of Commerce; BLS; *The Economist*

world. Growth in output per worker in America, which had risen sharply in the late 1990s thanks to increased output of information technology, and again in the early part of this decade as the gains from IT spread throughout the economy, began to flag after 2004. It revived during the recession as firms slashed their labour force, but that boost may not last. Japan's productivity slumped after its bubble burst in the early 1990s. Western Europe's, overall, has also weakened since the mid-1990s.

The third reason to fret about the rich world's stagnation is that the hangover from the financial crisis and the feebleness of the recovery could themselves dent economies' potential. Long periods of high unemployment tend to reduce rather than augment the pool of potential workers. The unemployed lose their skills, and disillusioned workers drop out of the workforce. The shrinking of banks' balance-sheets that follows a financial bust makes credit more costly and harder to come by.

Optimists point to America's experience over the past century as evidence that recessions, even severe ones, need not do lasting damage. After every downturn the economy eventually bounced back so that for the period as a whole America's underlying growth rate per person remained remarkably stable (see chart 2). Despite a lack of demand, America's underlying productivity grew faster in the 1930s than in any other decade of the 20th century. Today's high unemployment may also be preparing the ground for more efficient processes.

Most economists, however, reckon that rich economies' capacity has already sustained some damage, especially in countries where much of the growth came from bubble industries like construction, as in Spain, and finance, as in Britain. The OECD now reckons that the fallout from the financial crisis will, on average, knock some 3% off rich countries' potential output. Most of that decline has already occurred.

The longer that demand remains weak, the greater the damage is likely to be. Japan's experience over the past two decades is a cautionary example, especially to fast-ageing European economies. The country's financial crash in the early 1990s contributed to a slump in productivity growth. Soon afterwards the working-age population began to shrink. A series of policy mistakes caused the hangover from the financial crisis to linger. The economy failed to recover and deflation set in. The result was a persistent combination of weak demand and slowing supply.

To avoid Japan's fate, rich countries need to foster growth in two ways, by supporting short-term demand and by boosting long-term supply. Unfortunately, today's policymakers often see these two strategies as alternatives rather than complements. Many of the Keynesian economists who fret about the lack of private demand think that concerns about economies' medium-term potential are beside the point at the moment. They include Paul Krugman, a Nobel laureate and commentator in the *New York Times*, and many of President Barack Obama's economic team.

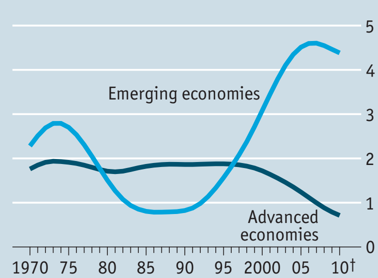
Stimulus v austerity

European economists put more emphasis on boosting medium-term growth, favouring reforms such as making labour markets more flexible. They tend to reject further fiscal stimulus to prop up demand. Jean-Claude Trichet, the president of the European Central Bank, is a strong advocate of structural reforms in Europe. But he is also one of the most ardent champions of the idea that cutting budget deficits will itself boost growth. All this has led to a passion-

All right for some 3

GDP per person employed*

% increase on previous year



Source: The Conference Board *Structural trend †Forecast ate but narrow debate about fiscal stimulus versus austerity.

This special report will argue that both sides are blinkered. Governments should think more coherently about how to support demand and boost supply at the same time. The exact priorities will differ from country to country, but there are several common themes. First, the Keynesians are right to observe that, for the rich world as a whole, there is a danger of overdoing the short-term budget austerity. Excessive budget-cutting poses a risk to the recovery, not least because it cannot easily be offset by looser monetary policy. Improvements to the structure of taxation and spending matter as much as the short-term deficits.

Second, there is an equally big risk of ignoring threats to economies' potential growth and of missing the opportunity for growth-enhancing microeconomic reforms. Most rich-country governments have learned one important lesson from previous financial crises: they have cleaned up their banking sectors reasonably quickly. But more competition and deregulation deserve higher billing, especially in services, which in all rich countries are likely to be the source of most future employment and productivity growth.

Instead, too many governments are determined to boost innovation by reinventing industrial policy. Making the jobless more employable should be higher on the list, especially in America, where record levels of long-term unemployment suggest that labour markets may not be as flexible as many people believe.

Faster growth is not a silver bullet. It will not eliminate the need to trim back unrealistic promises to pensioners; no rich country can simply grow its way out of looming pension and health-care commitments. Nor will it stop the relentless shift of economic gravity to the emerging world. Since developing economies are more populous than rich ones, they will inevitably come to dominate the world economy. But whether that shift takes place against a background of prosperity or stagnation depends on the pace of growth in the rich countries. For the moment, worryingly, too many of them seem to be headed for stagnation. ■

Withdrawal symptoms

After the stimulus, the hangover

SOME Americans have always taken the national debt personally. During the 1940 census (according to the late David McCord Wright, an American economist) a housewife was asked if she had a mortgage on her home. "Yes," she replied. "For $40 billion."

That figure (about 40% of 1940 GDP) now seems quaint. The federal debt held by the public was $8.9 trillion in August 2010, or about 60% of GDP. Add to that the Treasury debt held by America's public-pension scheme, and the national debt reached $10 trillion back in September 2008. The extra digit obliged the national debt clock near New York's Times Square to move its dollar sign to make room.

Many of today's Americans feel as indignant about the debt as that 1940s housewife did. But they are just as profligate as their government (see chart 4, next page). Their mortgages and other debts also amount to around $13 trillion, almost 120% of their annual disposable income.

The most remarkable thing about that figure, though, is not how big it is, but that it is smaller than it was two years ago. For over 60 years after the second world war, household debt moved in only one direction: upwards. Then, in the second quarter of 2008, it started to fall—not just as a proportion of income, or after allowing for inflation, but in everyday dollars and cents. Between March 1st 2008 and June 30th 2010 households reduced their debts by $473 billion. Businesses and banks joined in later. Although the federal debt displayed on the Times Square clock is ticking remorselessly upwards, the true national debt, including households, banks and firms, is now lower than it was in the first quarter of 2009.

In 2008-09, for the first time since the 1930s Depression, consumer spending in real terms fell for two years in a row. Households are now saving 6% of their disposable income, compared with just 2.7% in the years before the crisis. Combined with the stockmarket's fitful rallies, this frugality has helped American households rebuild some of the wealth washed away by the recession. Their net worth is now about 490% of their disposable income, compared with just 440% in the worst months of the crisis. As a cushion against a riskier world, American households will probably try to set aside a stash of assets worth some 540-550% of their income, according to Martin Sommer of the IMF and Jirka Slacalek of the European Central Bank. If that figure is right, their balance-sheet repairs are currently only half completed.

This new thrift is not confined to America. Household debt is also falling in Spain. In Britain households saved 6.3% of their disposable income in 2009 (though less in the first half of 2010), compared with 2% in 2008. Nor is the frugality limited to households. In the wake of the financial crisis, companies across the rich world have been piling up cash. Small firms have been unable, and many big firms have been unwilling, to borrow. In Japan and Britain corporate investment fell by about a quarter from peak to trough. The pace of investment has recovered somewhat, but companies are still not rushing to add new factories and machinery when so much of their existing capacity lies idle.

All told, across the OECD households and businesses are forecast to spend $2.6 trillion less than their incomes this year, the equivalent of 7% of GDP. This follows another huge private-sector surplus, of 7.2%, the year before. In 2007, by contrast, the rich world's households and businesses ran a combined deficit. This astonishing rise in private saving is the main reason why the recession was so deep and the recovery is so muted. After two years of private-sector austerity in the rich countries, the biggest macroeconomic controversy now facing their governments is whether to embrace some austerity of their own.

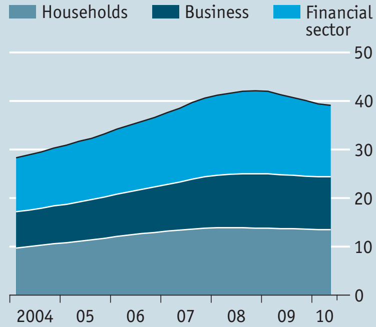
Squirrel it away

Squirrels save by burying nuts in the ground. In sophisticated economies, people save by amassing financial claims on someone else. Savers therefore need borrowers. In textbook economics households save and banks use those savings to lend to firms. For both households and firms to run a surplus, someone else must run a deficit. That someone else could be a foreign nation. But none of the economies outside the OECD is big enough to absorb the excess private saving of the rich world. China would have to run a current-account deficit of over 40% of GDP to offset a $2.6 trillion surplus. Even if the task were spread across all the Asian countries outside the OECD (of which Japan and South Korea are members), they would have to run deficits of over 25% each.

The only other possibility is governments. That is why the rich world's private surpluses have been mirrored by equally vast public deficits. Last year the OECD's governments ran a combined deficit of 7.9% of GDP, and this year it is likely to be only marginally less. Among the big economies, Britain's deficit will be the largest, at 11.5%, with America not far behind. In an accounting sense, these eye-popping deficits are simply the counterpart of private surpluses. In an economic sense, their remarkable increase is less the outcome of government profligacy than private thrift.

Chipping away at the mountain 4

US non-government debt, $trn



Source: Federal Reserve

According to the IMF, when the final bill for the budgetary cost of the crisis is calculated a few years hence, the unpopular bank bail-outs and fiscals splash-outs will account for less than 30% of it. The rest will be down to the crisis itself, which squeezed revenues and reduced growth.

Regardless of its source, borrowing on this scale plays havoc with the public finances. According to the IMF, gross government debt in the world's big rich economies reached 97% last year and is rising at its fastest pace in modern history. By 2015 the IMF expects them to have a combined debt burden of 110% of GDP, against less than 70% in 2007.

Earlier this year fears about soaring public deficits and debt in some countries seemed about to bring on another financial meltdown, thanks to Greece's brush with default. More than 200 years ago America's first treasury secretary, Alexander Hamilton, warned of the "extravagant premium" countries must pay if their credit is "questionable". This spring Greece's credit was severely questioned. The premium, or spread, it had to pay on its bonds, relative to German bunds, rose extravagantly, from about 2% at the start of the year to almost 10% at the height of the crisis in May. Spreads on Irish, Portuguese and, to a lesser extent, Spanish debt also spiked. These fears re-emerged in September, particularly in Ireland.

Greece had to be bailed out by the EU and the IMF. Along with other wobbly euro-zone borrowers, it was forced to make radical budget cuts. But the Greek crisis had a palpable effect even on countries under no obvious pressure from financial markets, especially Britain, where the new coalition government announced tax increases and dramatic cuts in spending. According to the Institute for Fiscal Studies, these are even tougher than the cuts imposed on Britain by the IMF in 1976.

In America bond yields are near record lows and the economy is slowing, but the government's efforts to introduce a second stimulus have foundered (though it is now trying again). Much of the political debate in Washington, DC, is about the scale of fiscal tightening; in particular, whether to allow any of the Bush tax cuts to expire at the end of this year, as scheduled.

Even though the rich world's economies continue to operate below capacity, in 2011 they are heading for what is likely to be their biggest collective budget squeeze in at least four decades. The appetite for government releveraging is coming to an end before private deleveraging is over.

Too soon to tighten?

Is this a mistake? Economists are deeply divided. Many Keynesians think the answer is yes. They fret that the costs and risks of higher public debt are wildly exaggerated, and that as long as households are cutting back and economies are operating so far below their potential, governments should not try to trim public deficits.

Nonsense, say the advocates of austerity, pointing to the fickleness of financial markets and to the dangers government debt poses to long-term growth. Many claim that fiscal austerity could even boost growth in the short term. By reducing the spectre of massive government debt, it would lift private confidence and unlock spending. Entrepreneurs would be emboldened to invest and households might feel freer to spend, without fear of future tax increases to help repay the debt.

Keynesians are right that deficits, so far, have been more a symptom than a source of economic distress. The fiscal swing undoubtedly helped to contain the damage from the crisis. Without it the private sector's determination to save would have depressed spending across the economy even further. That would have caused a correspondingly steeper fall in incomes, making it harder for households to repair their balance-sheets.

Nor are most rich countries anywhere close to the limits of what they can borrow. A new study from the IMF suggests that most advanced economies still have plenty of "fiscal space". In America and Britain, for instance, the fund's economists calculate that public debt will not reach its absolute limit until it hits 160% of GDP or more, far higher than its current levels. The wolf is not at the door.

But termites are in the woodwork, as Charles Schultze, a former White House official, once put it. Governments have big underlying structural budget gaps that will not be filled by economic recovery. Rising health-care and pension spending will put relentless pressure on government debt. Eventually the rich world's economies will return to full employment, and when they do, public borrowing will crowd out private investment and hurt growth.

How much damage can these termites do, and when does it get serious? Carmen Reinhart of the University of Maryland and Ken Rogoff of Harvard University have examined the effects of a couple of centuries of sovereign debt. Their verdict is that public debt does little discernible harm until it reaches about 90% of a country's GDP, but then the effect on growth can be sudden and big.

So far and no farther

Other scholars reach somewhat grimmer conclusions. Looking at 99 countries since 1980, Mehmet Caner and Thomas Grennes of North Carolina State University with Fritzi Koehler-Geib of the World Bank identified a threshold of 77% of GDP. Every member of the G7 will breach that limit this year. If the authors have got it right, these debts will knock half a percentage point off the collective growth rate of the G20's rich members.

The IMF says governments should aspire to cut their debt ratios back to 60% by 2030. To do so they will have to perform some fiscal heroics. Their budgets will have to swing from a projected underlying primary deficit of 4.9% of GDP in 2010 (see chart 5) to a surplus of 3.8% by 2020 and stay there for a decade, even as ageing populations add 4-5% of GDP to their fiscal costs. In America, Britain, Greece, Ireland, Japan and Spain a swing of 9% or more of GDP is required.

Given the scale of the task, it seems best not to put it off for too long, especially since economies are no longer shrinking, just growing slowly. Numerous studies suggest that consolidation based on spending cuts is more likely to stick, and will do more to boost medium-term growth, than measures involving tax increases. Cutting public-sector wages and welfare payments is better than cutting government investment.

Putting in place reforms that slow down the rise in pension and health-care spending ought to be a particular priority, since the net present value of governments' promises to the elderly dwarf today's debts. Raising the retirement age is a particularly good idea because it simultaneously cuts governments' liabilities and boosts future growth and tax revenue as people work longer. If revenues must be raised, taxes on consumption and property are less harmful to growth than those on income or saving.

By these standards most rich-country fiscal-consolidation plans score reasonably well. Britain's government plans to squeeze three-quarters of its budget adjustment from spending cuts. In Greece the share is 51% and in Spain 62%. Several European countries are raising their statutory retirement ages, albeit in small steps. Where there have been tax increases, they have mostly been on VAT. By comparison, America's fiscal plans—a rise in taxes on income and capital if the Bush cuts expire, and no progress on reforming pensions or health-care spending—are much worse.

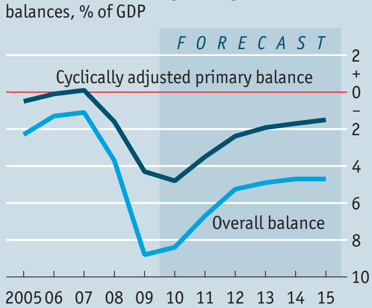
However, the advocates of austerity tend to exaggerate the beneficial effect on short-term growth of such contractions (even if properly designed). Alberto Alesina and Silvia Ardagna of Harvard University have identified many examples of economies that expanded even as their deficits were squeezed through spending cuts (though not tax increases), yet a study in the IMF's latest *World Economic Outlook* shows that in some of their examples the deficits were not really squeezed.

For instance, in 1998 Japan's government injected over ¥24 trillion into Japan National Railway; in the following year it did not. Between those two years its budget balance appeared to improve by about 4.8% of GDP even though it had neither cut spending nor raised taxes. Similarly, in 1995 Germany's government took on east German housing and industrial debts worth about 6.8% of GDP. The following year its budget seemed to improve dramatically after that one-off event—even though there had been no squeeze.

The IMF's researchers looked at countries that actually raised taxes or cut spending and found no evidence that such measures boosted growth. In fact, they reckon that a fiscal contraction worth 1% of GDP typically cuts output by about 0.5% after two years. To cut public debt below 60% by 2030, as the IMF advocates, America would have to endure that kind of fiscal pain every year for ten years.

Recovery position 5

Advanced economies, general government balances, % of GDP



Source: IMF

Ration the morphine

Fiscal tightening hurts less if offset by monetary easing. Central banks typically cut interest rates and the currency weakens when governments tighten fiscal policy. These lower interest and exchange rates roughly halve the pain of budgetary repairs, the IMF calculates.

But governments cannot expect as much monetary morphine this time. If households are paying back debt, cheaper credit may provide less of a stimulus than at other times. Since so many governments are tightening at once, and not every country's currency can cheapen against every other's, they may not benefit from much of a depreciation.

Moreover, central banks cannot cut their policy rates by as much as governments might like. Rates in America, Britain and Japan are already at or near zero. In such cases a fiscal contraction of 1% of GDP is more damaging to growth, knocking about 1% off output in the following year, according to the IMF's researchers.

This lack of leeway is a real constraint on recovery. But although central banks cannot lower their policy rates any further, they are not impotent. They can, and do, ease monetary policy in other ways. Some have tried to steer inflationary expectations with words. The Fed has promised to keep rates "exceptionally low" for an "extended period". Several have swelled their balance-sheets by printing money to buy assets, such as government bonds, a process known as "quantitative easing".

The biggest easer, relative to the size of the economy, has been the Bank of England. Since March 2009 it has bought almost £200 billion-worth of government bonds, or gilts, equivalent to 14% of GDP, as well as a smattering of corporate bonds. The Bank's research shows that its purchases of gilts raised their price, as well as that of other securities that compete with government paper. When prices go up, yields go down: they fell by about one percentage point on gilts and 0.7 points on the safest corporate bonds and by 1.5 points on riskier junk bonds.

But it is not clear whether quantitative easing on its own changes people's expectations of monetary policy and inflation. A more direct way to do so would be to raise the Bank's inflation target, currently set at 2%. A figure of 4-5% might make central bankers' lives easier, according to some economists. But most central bankers do not like the idea. They think that the costs of higher, and possibly more volatile, inflation would outweigh any gains. A less-discussed but potentially more useful innovation would be price-level targeting (PLT), meaning that a central bank targets the level of prices, not their rate of change. Targeting a price level that rises by 2% a year is different from targeting an inflation rate of 2% a year because rather than washing its hands of past mistakes, the central bank has to make up for past errors, returning prices to their prescribed path.

That should make inflation expectations a more powerful stabilising force. In a slump, inflation often falls uncomfortably low: prices might rise by only 1% over the year, for example. Under PLT, the central bank has to make up this lost ground, so prices might rise faster than 2% to catch up. With a conventional inflation target, by contrast, the central bank must promise inflation no higher than 2% in each and every year, regardless of the rate the year before.

In central banking, as in many industries, the most innovative outfits are often the small ones. Inflation-targeting was pioneered by New Zealand's central bank 20 years ago before being taken up by bigger institutions such as the Bank of England. America's Federal Reserve is still suspicious of it. Similarly, much of the best research on PLT is being conducted at the Bank of Canada. It will take time to catch on even if its theoretical appeal survives contact with reality.

What seems clear is that if the economic weakness persists and inflation rates fall further, central banks may become more willing to experiment. Policies that look outré today may seem necessary tomorrow. It is worth recalling that less than two years after it began quantitative easing in March 2001 the Bank of Japan was buying equities. And in 2003 it was advised to adopt price-level targeting by none other than Ben Bernanke, now the Fed's chairman.

Beware self-fulfilling prophecies

Some economists argue that central banks' determination to avoid deflation could have the opposite effect. The Fed's pledge to keep interest rates low for "an extended period", for instance, suggests that it believes the economy will remain underemployed (and inflation subdued) for an extended period. If its pessimism spreads, it may become self-fulfilling. People will hoard cash because they expect prices to fall and investments to fail, thus prolonging the economy's weakness.

This is the "peril" that befell Japan, according to James Bullard of the St Louis Fed. The private sector came to expect deflation and its expectations were duly fulfilled. The central bank could not cut rates below zero, and it did not raise them because inflation was already too low. Mr Bullard argues that America "is closer to a Japanese-style outcome today than at any time in recent history".

Others worry not that the Fed will prolong the slump but that it may sow the seeds of the next crisis. Low rates are supposed to help the economy mobilise its resources, but they can also cause it to misallocate them. After the 2001 recession they generated "excessive growth of sectors that rely on either fixed-asset investment or credit", argues Raghuram Rajan of the University of Chicago. He fears that by setting rates at zero the Fed may "merely pump up growth in the short term only to see it collapse later". Low rates subsidise borrowers at the expense of savers. If this transfer were easier for voters to see, they might find a lot to dislike. But "because the Fed picks investors' pockets silently and forcibly…no one asks questions about cost," he writes.

Given that the main reason for the recession and the weakness of the recovery is the dramatic increase in private thrift, this seems an odd short-term concern. The rich world is short of private borrowing and awash with saving. Overall credit has been shrinking. Nonetheless, Mr Rajan's worries about the medium term are reasonable. Years of ultra-loose monetary policy are likely to have unwelcome side-effects. That is a reason for governments to beware of overly fast fiscal tightening. It is also a reason to look for antidotes to stagnation beyond macroeconomic policy. The longer-term remedy must be creating new jobs and increasing productivity, but the most urgent need is to hurry up the repairs to a broken financial system. ■

The cost of repair

A battered finance sector means slower growth

ALL recessions are painful, but the hangovers that follow financial crises are particularly long and grim. Growth is substantially lower than it is during "normal" recoveries as households and firms reduce their debt burdens. That is the depressing conclusion from a growing body of research on the aftermath of big financial busts. In one such study, Prakash Kannan, an economist at the IMF, looked at 83 recessions in 21 countries since 1970. He found that in recessions that followed financial crises, growth was a lot slower and credit growth stagnated—whereas after normal recessions it soared (see chart 6, next page).

So far the current recovery is following this post-crisis script. Output is sluggish and credit is growing weakly or shrinking across much of the rich world. But is this because over-leveraged households and firms have become less willing to borrow, or because banks have become less willing to lend? In other words, is the credit problem one of demand or supply? The answer will make a difference to the rich world's growth prospects and to the way policymakers should respond. People's unwillingness to borrow bodes ill for short-term demand. Firms' reluctance to invest also risks denting productivity growth. But a broken financial system's inability to allocate capital efficiently has bigger long-term consequences.

In practice, both supply and demand probably play a role. There is plenty of evidence that consumers and firms have become less willing to borrow. A study by Atif Mian of the University of California at Berkeley and Amir Sufi of the University of Chicago, for instance, shows a close correlation between American car sales and the level of household debt. In places where households had heavier debt burdens at the start of the recession, subsequent car sales were weaker.

Across the rich world, companies, particularly big ones, have been piling up cash. Firms' cash stockpiles are at, or near, record levels, and bond investors are clamouring for more corporate debt. In August Johnson & Johnson, a top-rated American pharmaceutical, medical device and consumer-products company, issued $1.1 billion in bonds at the lowest yields then on record for ten- and 30-year corporate debt, even though its operating cash flow far exceeds its investment needs.

The historical record suggests that the lack of demand for credit is likely to persist. In a recent paper Carmen and Vincent Reinhart estimate that in past crises it took an average of seven years for households and businesses to bring their debts and debt service back to tolerable levels relative to income. In many countries that process has yet to begin. In America, where progress has been fastest, the Reinharts reckon that about half the rise in the ratio of credit to GDP accumulated during the boom era has been unwound.

At the same time the supply of credit is clearly constrained. Banks in the euro zone continue to tighten credit standards, and in America they have only just begun to ease standards after several years of tightening. Most worrying is the potential damage that starving companies of credit will do to productivity.

Credit crunches do not affect all companies the same way. In a paper in 1996, Mr Rajan and Luigi Zingales, also of the University of Chicago, argued that the more a company depends on external financing such as bank loans or issues of stocks and bonds, rather than internal cashflow, the more sensitive its fortunes are to the health of the financial system. Mr Kannan of the IMF came to the same conclusion in his study. In the 13 recessions caused by financial crises, the industries most dependent on external finance grew 0.8 percentage points more slowly, on average, than those least dependent. There was no such gap after other kinds of recession.

Cash conundrum

The latest recession is likely to have similar effects. For example, Luc Laeven, an economist at the IMF, and Randy Kroszner of the University of Chicago have found that listed biotech companies, which make up 10% of America's total stockmarket listings, are heavily dependent on external finance and their growth is likely to suffer far more from a withdrawal of credit than that of the overall economy. As Mr Laeven says, "we may only see the real impact five years from now when, without a crisis, some of those investments would have paid off and generated new products."

Venture-capital raising, which never fully recovered from the bursting of the internet bubble in 2000, has been "harmed immensely" by the latest crisis, says Steve Jurvetson at Draper Fisher Jurvetson, a venture-capital firm (see chart 7, next page). Endowments, foundations and pension funds, enthusiastic participants in venture capital before the crisis, pulled back after their stock and private-equity holdings were clobbered. The moribund IPO market makes it harder for venture funds to cash in their investments.

If the bear market in IPOs proves transitory (which is what usually happens), the harm will be small. A prolonged drought would be another matter. In the mid-1970s the dearth of venture capital and IPOs set back the development of computer and network technologies that would prove to have such a revolutionary impact in the 1980s and 1990s, says Josh Lerner of Harvard University. Venture-capital firms raise only about a third as much money in Europe as in America. The aftermath of the crisis could widen the gap by reinforcing continental mistrust of free-wheeling Anglo-Saxon finance.

What will ultimately be more important, though, is the health of banks. Early-stage entrepreneurs are generally thought to rely on them less than on friends, family, venture capitalists and angel investors. But Alicia Robb at the University of California at Santa Cruz and David Robinson of Duke University, who examined the sources of finance of 4,000 American start-ups, found that bank loans are far more important than other sources of finance. On average, new firms borrow seven times as much from banks as they do from friends and family.

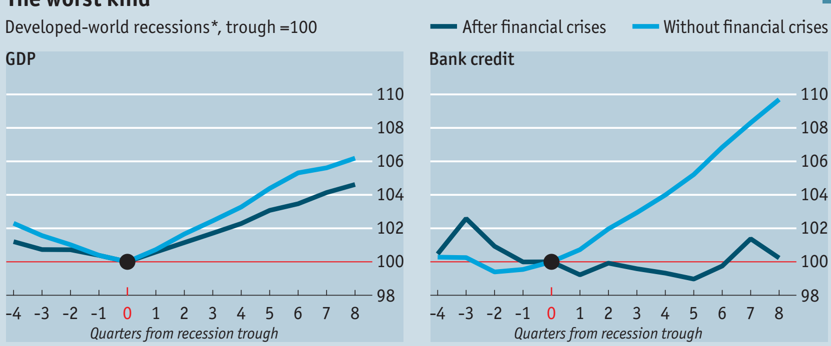
Mr Robinson says the damage to start-up financing from the crisis is "potentially quite severe". The collapse in house prices has undercut the many entrepreneurs who rely on home-equity loans. This will also depress jobs growth, which over time depends disproportionately not on either small or large firms but on small firms that become large, according to work by the Kauffman Foundation.

Japan offers a sobering case history. Regulators were slow to force banks to recognise the problem of collapsed collateral values, but they did require banks to meet new international standards for capital. Banks that acknowledged non-performing loans risked falling below those standards, so they kept zombie borrowers alive on a drip-feed of fresh money. They continued to "extend credit to insolvent borrowers, gambling that somehow these firms would recover or that the government would bail them out", according to Ricardo Caballero, Takeo Hoshi and Anil Kashyap in a 2006 paper.

They estimate that zombie companies—those getting by on subsidised credit—which had made up 5-15% of banks' borrowers in the early 1990s, increased their share to 25% later that decade. The effects were variable. Zombies were much less prevalent in manufacturing, which was constantly exposed to international competition, than in construction and retailing, where job turnover and productivity growth were lower.

The worst kind 6

Developed-world recessions*, trough =100

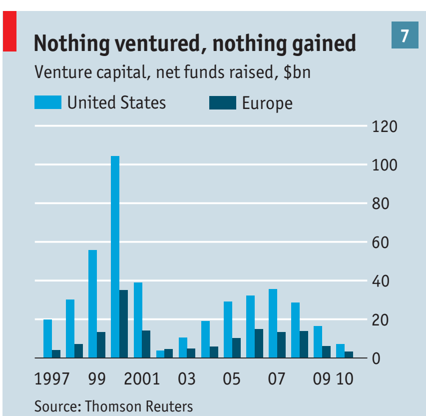


Source: Prakash Kannan, IMF

*Based on 83 recessions in 21 industrial countries since 1970

Policymakers have laboured to learn these lessons. In America and Europe they have imposed stress tests to see how vulnerable their banks are to bad loans. Ireland and Germany have set up "bad banks" to shift bad loans to the public sector, as Sweden and Korea successfully did after their respective crises in the 1990s. Still, there is a widespread belief that banks have not fully owned up to their problems, partly because of political pressure. Germany's *Landesbanken*, which have ties to local politicians and firms, are widely thought to be in deeper trouble than the stress tests suggest.

In America, banks and Fannie Mae and Freddie Mac, the nationalised mortgage companies, have been discouraged by federal and state governments from foreclosing on homeowners unable to keep up their payments. Banks do not mind all that much since it allows them to put off recognising losses. But the non-performing loans may come to constitute a drain on banks' resources that inhibits lending to more productive borrowers.



In Japan bad loans were to corporations rather than households, but the problem is essentially the same. Despite their noble intent, federal subsidies that keep stressed owners in their homes delay the necessary reallocation of capital away from property. "Fortunately we've been pretty unsuccessful," says Mr Jorgenson, a productivity expert at Harvard University, noting the small number of temporary mortgage modifications that have become permanent.

Weak banks are not the only reason for a credit squeeze. There is also uncertainty over the effect of new regulations on the financial system's ability to channel savers' funds into investments. America recently passed its biggest overhaul of financial rules since the 1930s, known as the Dodd-Frank act after its leading congressional sponsors. On September 12th the Basel Committee of international bank regulators agreed on a new set of requirements for banks' liquidity and capital. These rules, known as Basel 3, will require global banks to have common equity equal to at least 7% of their risk-weighted assets, against 2% now. That includes a minimum common-equity standard of 4.5% plus a countercyclical buffer of another 2.5%.

Experience shows that higher capital requirements do dent credit growth, at least in the short term. The first Basel agreement on bank capital contributed significantly to a steep decline in loan growth in America in the early 1990s, according to a 2000 study by the Bank for International Settlements (BIS).

Bankers say the new rules will also hurt lending. The Institute of International Finance, which is backed by the world's big banks, argued in a report published in June that the rules then being contemplated would trim annual economic growth by 0.5 percentage points in America, 0.9 in the euro area and 0.4 points in Japan over five years. But in a study of its own the BIS predicted a far more modest effect: less than 0.2 percentage points in most countries, though in the medium term there would be a gain from greater stability.

Make me virtuous, but not yet

Compelling banks to set aside a lot more capital without much warning is clearly risky. The Federal Reserve found it would have to lower short-term interest rates by 40 basis points to soften the impact of bigger capital buffers on growth—an impossibility now that rates are, in effect, at zero. To deal with this concern, the new Basel rules have a long lead time. The minimum level for common equity is not due to take effect until 2015, and the additional buffer not until 2019.

Equally contentious is the effect of the post-crisis regulatory clampdown on high-octane finance. America's new financial rules compel banks to trim their holdings of private equity and hedge funds. They require greater transparency in derivatives markets and demand greater disclosure from hedge funds. These new rules are as yet imperfectly understood, but are already having an effect. For example, Ford Motor's credit arm pulled an asset-backed bond deal because credit-rating agencies, fearful of new liabilities under the Dodd-Frank act, forbid the use of their opinions in the deal document. The deal went ahead when the Securities and Exchange Commission temporarily suspended the requirement that deal documents include such ratings.

In Britain and America sophisticated finance is ingrained enough to survive tighter regulation. Continental Europe, however, has never had America's breadth of financing options for fast-growing companies such as junk bonds, mezzanine debt and private equity, note Thomas Philippon and Nicolas Véron in a 2008 report for Bruegel, a Brussels-based think-tank.

So far the European response has been less draconian than many feared. New rules currently being negotiated by the European parliament and EU finance ministers could stop foreign hedge funds and private-equity funds from marketing themselves to EU investors unless they accept certain restrictions. But Mr Véron notes that they have yet to pass, and Britain has raised objections. New proposals for regulating derivatives trading, released by the European Commission on September 15th, were less onerous than expected, and in some ways less likely to discourage innovation than America's new rules.

Nonetheless, increased regulation is likely to slow the pace of financial innovation. How much that matters depends on whether such innovation boosts growth. It has become fashionable to say it does not. Paul Volcker, a former Fed chairman, has caustically called the ATM cash dispenser the only worthwhile financial innovation of recent decades, a sentiment widely shared by venture capitalists and non-financial businesses. "I can't think of any financial or banker product or service that's ever helped us," says Mr Jurvetson. "Engineers contribute to the economy, lawyers and bankers…subtract."

In a new book Amar Bhidé, a professor at Tufts University, argues that modern banks reduced loan decisions to arm's-length algorithms based on credit scores and asset values, biasing them towards homogeneous loans such as residential mortgages. Yet the prospects of young, innovative businesses are not easily summarised in a credit score; a bank manager must sample its wares, kick the delivery van's tyres and meet the founders. Mr Bhidé says that is how banks worked before deregulation in the 1980s and 1990s, and thinks a return to that old model would boost credit to young businesses.

The uses of novelty

However, this too easily dismisses the contribution of financial innovation. Work by Mr Laeven of the IMF with Ross Levine and Stelios Michalopoulos suggests that finance innovates to meet the changing needs of the economy as it evolves; whether that innovation is beneficial depends on the economic purpose it serves. Subprime CDOs helped facilitate a reckless overinvestment in property, whereas preferred shares, a 19th-century innovation, financed that era's railroad boom.

Financial innovation may even help the economy cope with the aftermath of the crisis. Lloyds Banking Group and Rabobank have led the way in issuing "contingent convertible bonds" which can be converted to equity if the bank is about to become undercapitalised. In theory, this lessens the risk of future insolvency and taxpayer bail-out and lowers the cost of raising fresh equity capital. Private-equity firms are currently dabbling in buying deeply discounted "underwater" mortgages from banks, then restructuring the terms to prevent foreclosure. There is even a fledgling market in bonds explicitly backed by delinquent mortgages. Meanwhile, American local governments are issuing "property assessed clean energy" or PACE bonds, then lending the proceeds to homeowners to make their homes more energy-efficient. Homeowners repay the loans through their property tax.

There are many more ideas on the drawing board. Robert Shiller of Yale University, whose theories led to the development of property derivatives, has proposed their use in developing home-equity insurance for homeowners. Mr Caballero and Pablo Kurlat of the Massachusetts Institute of Technology would like to see governments sell "tradable insurance credits" which give any financial institution the right to buy a government guarantee in a financial crisis.

Nothing may come of these ideas, yet their potential should not be dismissed. In the early 1990s America's Resolution Trust Corporation used securitisation to offload billions of dollars in property loans inherited from busted banks more quickly and at better prices than if it had disposed of them one at a time. It would be ironic if financial innovation, so reviled for helping to bring on the latest crisis, were to play a part in cleaning up the mess. ■

From hoarding to hiring

Some countries have successfully preserved jobs. Now they must create new ones

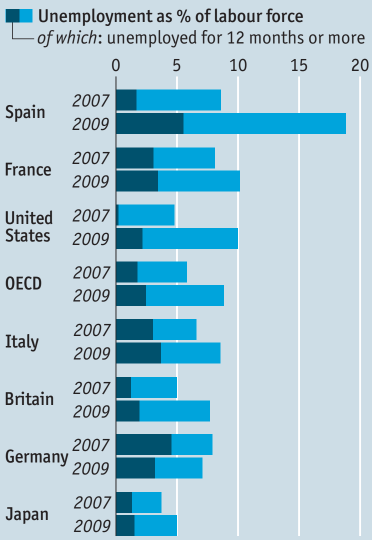
HIGH unemployment is the most visible scar left by the recession. In the 32 rich OECD countries the downturn and its aftermath threw over 17m people out of work. There was a comparable rise in the number of people who would take a full-time job if it were available but instead have settled for part-time work or given up looking altogether. This rise in unemployment matches that in the deepest of the OECD's post-war recessions. But, astonishingly, the damage is not as bad as it might have been.

When output falls, employment follows. This link is predictable enough to qualify as an economic law, named after Arthur Okun, who showed that when America's GDP fell by 2%, its unemployment rate rose by about half that. In this recession, however, Okun's law did not work as expected in a number of countries. In America, New Zealand and Spain it applied with a vengeance: Spanish employment fell by twice as much as output. But in most countries its effect was mercifully mild. In Germany unemployment by the end of 2009 was lower than it had been two years earlier.

These disparate outcomes have challenged long-held stereotypes. The German labour market has "undergone a strange mutation from a bulwark of eurosclerosis into a champion of flexibility", writes Joa-

More misery 8

Labour market, Q4



Source: OECD

chim Möller of the Institute for Employment Research (IAB). America, long the poster child for efficient labour markets, suddenly looks sclerotic. Not only is it grappling with unemployment of 9.6%, but almost half of its jobless have been out of work for more than six months, the highest share since the Depression.

What explains this divergence of fortunes? First, the effects of the recession were unevenly spread. In countries such as America, Spain or Ireland, the bursting of housing bubbles caused construction to slump, with the loss of many jobs that are unlikely to return soon. By contrast, in exporting countries such as Germany or Japan the damage was done mainly by the collapse of global trade, which proved more temporary.

Second, labour-market rules vary widely. Some countries have long tried to trump Okun's law with legislation of their own, making it costly or cumbersome to lay off workers. Pierre Cahuc of France's École Polytechnique and his colleagues point to Spain's rules on firing permanent staff, which are particularly tough, though recent reforms have eased them slightly. That has been good for those lucky enough to hold a permanent contract. But Spanish rules give little protection to temporary workers. So employers hired lots of them—they made up about 30% of all employees before the crisis—and fired them when the downturn arrived.

But what made the biggest difference was companies' response to the crisis. In most rich countries they cut hours more than bodies. German firms last year reduced working time by the equivalent of 1.4m full-time employees. And even when their staff did clock in, they worked less hard. For the first time in decades output per hour fell, reducing the input of labour by the equivalent of 1m people.

The German government encouraged this labour-hoarding with its celebrated *Kurzarbeit* scheme that subsidises shorter working weeks. But this was responsible for only about a quarter of the reduction in working hours. Firms were not forced or bribed to keep their workers; they chose to do so. Before the recession industries such as metals, chemicals and machinery had found it hard to fill vacancies. Workers in these industries are highly trained and specialised and can cost up to €32,000 ($42,000) each to replace. When demand for labour falls, firms want to hang on to them, just as they might mothball an expensive piece of machinery.

In America, in contrast, firms proved keener to cut workers than hours. In the 1973-75 recession, the OECD calculates, employment cuts accounted for less than a third of the reduction in man-hours. The remainder was achieved by shortening the working week or year. In the recent recession the split was reversed. Robert Gordon of Northwestern University says that American firms have come to view their employees as "disposable".

Mr Gordon's judgment on the American labour market is one-sided. If American firms are quicker to fire their workers than their European rivals, they are also quicker to hire. Over recent decades Americans have entered unemployment at seven times the rate of Germans, but they have exited from it ten times as fast: some 58% of workers who are unemployed one month will not be the next, according to calculations by Michael Elsby of the University of Michigan, Bart Hobijn of the San Francisco Fed and Aysegül Sahin of the New York Fed. Discarded American workers have not rusted on the scrapheap, as so many do in Europe.

At its best, then, the American labour market does not dispose of its workers; it recycles them. Sadly, the market is now far from its best. For every 100 people unemployed in the autumn of 2009, only 24 had escaped their predicament within a month, an historic low. The harder it is to escape joblessness, the longer people remain unemployed; and the longer they remain unemployed, the harder they find it to escape. Mr Elsby and his co-authors fear that America will be stuck with a "persistent residue of long-term unemployed workers with relatively weak search effectiveness, depressing the strength of the recovery". Students of Europe's stubborn unemployment in the 1980s call this "sclerosis", an accumulation of scar tissue that makes the market more rigid.

One obvious reason why American workers are taking longer to escape from unemployment is a lack of job openings. As long as vacancies remain low, unemployment will remain high. That is another economic relationship stable enough to carry someone's name: the Beveridge curve, named after William Beveridge, a British economist. His curve is, however, a poor guide to the recent behaviour of America's labour market. In 2009 a fairly steady stream of job openings did not stop unemployment rising from 7.7% to 10%. And in the first months of this year vacancies jumped, with little effect on the jobless rate (see chart 9).

Keep them keen

What explains this puzzle? Some economists blame the extension of unemployment benefits, which America's jobless can now claim for 99 weeks, as long as in France. European benefits will buy you European sclerosis, argues Robert Barro, an economist at Harvard University. He reckons that the unemployment rate would be 6.8% rather than 9.5% if benefits had remained at 26 weeks. Most other economists think the effect is much smaller.

Whatever the magnitude, there is bound to be some impact. The sooner the money runs out, the sooner people grab a job. The interesting question is not whether longer benefits delay re-employment, but why. Mr Barro thinks it is a case of "moral hazard": if people are insured

Slightly out of line 9

US Beveridge curve, Jan 2007-Jul 2010

Sources: BLS; Thomson Reuters

against a risk such as joblessness, they will try less hard to escape it. But Raj Chetty of Harvard has a subtler answer.

He points out that workers who receive generous lump-sum severance payments also take longer to find a new job. The lump-sum payouts are theirs to keep whether they take another job or not, so by taking their time they are spending their own money. They may find this worth their while because by waiting for the right job they will secure higher earnings. In an ideal world the unemployed would finance their own job search by borrowing against these higher future wages. In the real world, however, benefits have to fill the gap.

Some economists do not take the Beveridge curve too literally. They point out that there may be a floor below which vacancies will not fall, however dire the state of the job market. Even shrinking firms post vacancies for about 2% of their jobs, according to Steven Davis of the University of Chicago, Jason Faberman of the Philadelphia Fed and John Haltiwanger of the University of Maryland. And in the early stages of an upturn there is often a lag between vacancies rising and unemployment falling. It takes time to fill the posts the recovery opens up. Moreover, for every jobless worker who fills a vacancy, a discouraged worker may renew his job search, rejoining the labour force and adding to the official unemployment tally. So it is just a matter of time before the Beveridge curve snaps back into shape.

Redrawing the Beveridge curve

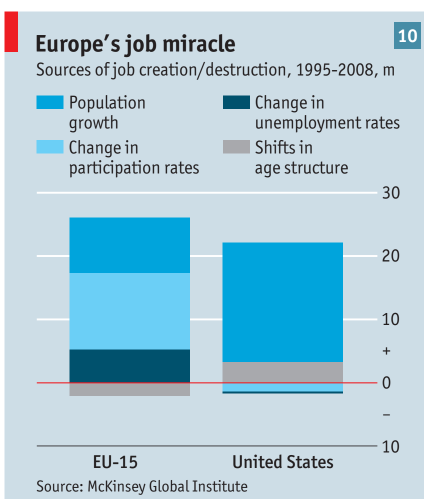
Other economists are worried that the odd behaviour of the Beveridge curve suggests a mismatch between the skills of jobseekers and those required for new jobs. David Autor, of the Massachusetts Institute of Technology, believes that the recession has reinforced trends that began 30 years ago. He reckons the American labour market has polarised, creating jobs for the well-educated and the low-paid but offering little in between. Janitors and managers weathered the recession, but white-collar sales, office and administrative jobs—the "production jobs of the information age"—fell by 8% between 2007 and 2009. The production jobs of the manufacturing age, such as craftsmen's, repairmen's and machine operators', fared even worse.

Even as the economy has regained (and surpassed) its former size, it has not recovered its shape. So workers fired from a sunset industry may have to break into sunrise industries to get a job. A shift in occupation

may also require a change of mindset as much as skillset. "Too often the construction worker does not think of himself as a health technician," says Larry Katz of Harvard University.

The new jobs may also be in a different place. But the recession has left Americans uncharacteristically "flat-footed", according to William Frey of the Brookings Institution. The share of people moving house from March 2007 to March 2009 was the lowest since figures were first collected in 1947. The share moving across state borders, at 1.6%, was half that in 1999-2000.

Mr Frey puts much of the blame on the housing market. If you cannot find a buyer for your home, you cannot move to a new one. Almost one in four Americans with mortgages have "negative equity", owing more than their house is worth. They often decide to stay put rather than default. According to Marcello Estevão and Evridiki Tsounta of the IMF, geographic immobility



Europe's job miracle

Sources of job creation/destruction, 1995-2008, m

Source: McKinsey Global Institute

and skill mismatches reinforce each other. As a result, they say, America's underlying, or "structural", rate of unemployment rose from 5% before the financial crisis to between 6% and 6.75% in 2009. So even if the recovery gathers steam, almost one-third of the rise in joblessness may endure.

Few policymakers think that America's jobless problem is mainly structural. An exception is Narayana Kocherlakota, president of the Minneapolis Fed, who reckons that "most" of it is. And Edmund Phelps, a Nobel prize-winning economist at Columbia University, worries that the focus on deficient demand "lulls us into failing to 'think structural' in dealing with long-term problems". The economy is not like a skater who just needs help to get up after a fall, he wrote recently in the *New York Times*. "Our skater has broken some bones and needs real attention."

What kind of attention? Among a long list of proposals, he advocates tax credits for companies employing low-paid workers. In January Mr Obama proposed a $5,000 credit for firms that hired people in 2010. As a flat sum, the credit would have represented a bigger subsidy to low-paid workers. But scepticism about a stimulus forced him to scale the tax break back to $1,000 for hiring people who had been unemployed for 60 days or more. That may be a pity. According to a study by Ms Sahin and two colleagues, the $1,000 credit could cut the unemployment rate by almost one percentage point. But a $5,000 credit might have cut it by over three points, at least in the short run.

Hiring incentives might tempt employers, but they will not help if workers have the wrong skills or are stuck in the wrong part of the country. That is why the IMF's economists also advocate an overhaul of federal training programmes and more effort to deal with negative equity, for instance by changing America's bankruptcy law to allow judges to restructure mortgage debt. America spends only 0.17% of GDP on active labour-market policies, such as training and job search, far less than the OECD average. Such schemes as it has are fragmented and not particularly effective. That may need to change. Having long taken their labour market's flexibility for granted, Americans may now have to work at it.

Even as Americans are beginning to fear that their labour market is turning European, Europeans still feel under pressure to turn Anglo-Saxon. The American labour market may be less dynamic than it was, but it is still more dynamic than Eu-

Pass and move

Spain offers a test case for labour-market reform in Europe

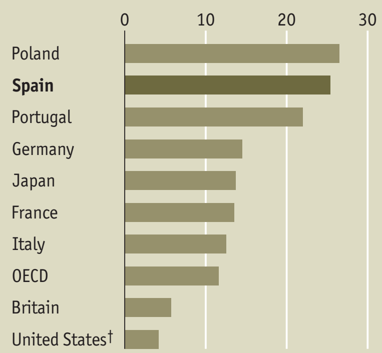
WHEN Spain won the World Cup in July, it confirmed its reputation for fluid and efficient football. If only its economy worked as well. GDP growth is sluggish and a fifth of the workforce is unemployed. Two features of Spain's jobs market share much of the blame: the high cost of firing permanent workers, and a wage system that binds firms to industry-wide pay deals. On June 16th, the day Spain played its first World Cup match, the government set out its plans to cure these ills. The reform bill, passed by parliament on September 9th, falls well short of what was needed but may nevertheless do some good.

Changes were long overdue. Because it is so costly to lay off workers, businesses are reluctant to hire them in the first place. A 1994 measure to promote jobs made it easier to hire temporary workers and led to a sharp rise in their numbers. But only a small proportion of them move on to "protected" jobs. Most are laid off at the end of their contract. The high churn among temporary workers, most of them young, female or migrant, means firms have little incentive to train them.

This has pushed many into low-skilled work. The impact on Spain's productivity is compounded by rigid wage rules. Last year nominal pay rose by 3% despite the weak economy. Firms have to pay the rates that are negotiated centrally between unions and employer groups, rather than tailor pay to prevailing business conditions. That costs jobs and hurts efficiency. Firms cannot undercut rivals on wages, which limits their ability to grow. Research by Rafael Doménech, at BBVA, a Madrid-based bank, shows that Spanish firms are less productive than American ones partly because they tend to be small.

Easy come, easy go 11

Temporary* employment, 2009, % of total



Source: OECD

*Jobs with a pre-set termination date
†2006

Ideally the rules would allow wage bargaining to take place locally and promote a good balance between job flexibility and security for all workers. A group of 100 Spanish economists had pushed for a "single contract", with employment rights that rise gradually with tenure. That would make it cheap and easy to get rid of recent recruits that turn out to be flops (which is an appealing feature of temporary contracts), but firms would also have an incentive to invest in the workers they hold on to.

The reforms fall short of that. A change in the main contract for new permanent workers lowers severance pay from 45 to 33 days' wages for each year worked. (Existing workers are unaffected.) This could fall to 20 days' pay for all workers at firms that can show they face large and persistent losses. Spain's complex wage-bargaining system remains intact but firms can now opt out if their employees agree.

How effective these new rules will be depends on how they are interpreted. "It could take years to clarify under what circumstances firms can fire workers and pay only 20 days' compensation," says Luis Garicano, of the London School of Economics. In the past, Spain's labour courts have taken a dim view of firms seeking to cut jobs. Firms may find it tricky to persuade workers to accept lower wages than mandated by national pay deals. Spain's jobless benefits are quite generous and are paid for long periods, so many workers may opt for redundancy rather than take a pay cut.

A lot also depends on how actively the government promotes the reforms. A big worry is that the labour ministry seems just as attached to the status quo as labour unions and business groups are. And even if officials support the changes, few economists expect Spain's jobless rate to plummet. But a fall in the share of temporary employees in the workforce, and weaker wage growth in response to high unemployment, would be promising signs that the reforms are working.

Since only a year ago the possibility of any reform at all seemed remote, even such mild progress has been greeted with relief. "This takes Spain from worst to better," says Angel Ubide, at Tudor Investment Corporation. But it may not catch up with its football team for a while.

rope's. America's exit rate from unemployment, at 24% a month, is still far faster than rates in recent decades in France (8%), Germany (6%) and Italy (4%). And although long-term unemployment in America has risen markedly (at the end of 2009 2.2% of workers had been out of a job for more than a year, compared with 0.5% before the recession), a bigger proportion of workers in Germany, France and Italy has been jobless for more than a year.

Many European countries fail to make the most of their working-age population, even as that population is poised to shrink. In Germany it has already contracted by 2.2% over the past decade. Countries with an unfavourable demography grow more slowly not only because fewer people work but also because they save and invest less. From 1990 to 2008 the combined GDP of the EU-15 (the 15 members of the EU prior to its 2004 enlargement) grew by about 2% a year on average. Thanks to a less favourable demography it can expect to grow only 1.6% a year over the next two decades, other things equal, according to the McKinsey Global Institute (MGI).

Governments are not entirely powerless to deal with the effects of demographic trends. They can raise the retirement age, open the doors to immigration and tempt more people into the labour force. Japan, for instance, is greying faster than Europe, but its employment rates are better than America's. In Denmark the working-age population is already shrinking, but a larger proportion of this smaller population is actually working.

Indeed, a number of European countries have changed far more than many (especially Americans) give them credit for. In a forthcoming report the MGI heralds the "unsung" progress in European labour markets. Despite a far smaller growth in their population, the 15 west European member states of the EU created more jobs than America between 1995 and 2008. They countered their adverse demography by reducing their jobless rates and boosting participation in the labour market. For example, the share of working-age women in the labour force rose by 11 percentage points between 1990 and 2010.

The EU-15 still get less out work out of their population than America does (733 hours per person per year against America's 913). But the gap is closing. To narrow it further, Europe does not necessarily have to become like America. It could greatly improve its performance simply by adopting its own continent's best practice everywhere. Some progress along those lines is being made. Greece is overhauling its labour rules; Spain has just passed a modest reform (see box, previous page). But there is much more to be done.

Taking up the slack

In Sweden 88% of women aged between 25 and 54 take part in the labour market. It helps that the country's extensive day-care facilities for children are largely reserved for workers, and that couples file their tax returns separately so that households do not get hit by higher marginal tax rates on their second incomes.

A larger share of Sweden's older people, too, remain in the labour force than anywhere else on the continent, not least because they accrue higher retirement benefits for each year they work after the age of 61. If other Europeans aged between 55 and 64 were as industrious as older Swedes, the continent could reduce the gap in hours with America by almost a quarter, according to the MGI.

The rest of Europe could also learn from Denmark's efforts to beat unemployment and from the Netherlands' success in getting youngsters into work. To echo an old joke, heaven is where women and older people work like the Swedes, the young work like the Dutch and the unemployed find jobs like the Danes. Hell is where workers get into unemployment like the Americans and out of it like the Italians. ■

Smart work

Faster productivity growth will be an important part of rich economies' revival

PRODUCTIVITY growth is the closest economics gets to a magic elixir, especially for ageing advanced economies. When workers produce more for every hour they toil, living standards rise and governments have more resources to service their debts and support those who cannot work. As the rich world emerges from the financial crisis, faster productivity growth could counteract the drag from adverse demography. But slower productivity growth could make matters worse.

Workers' productivity depends on their skills, the amount of capital invested in helping them to do their jobs and the pace of "innovation"—the process of generating ideas that lead to new products and more efficient business practices. Financial crises and deep recessions can affect these variables in several ways. As this special report has argued, workers' skills may erode if long-term unemployment rises. The disruption to the financial sector and the reluctance of businesses to invest in the face of uncertain demand may also reduce the rate of capital formation, delaying the factory upgrades and IT purchases that would boost workers' efficiency.

Financial crises can affect the pace of innovation, too, though it is hard to predict which way. Deep recessions can slow it down as firms slash their spending on research and development. But they can also boost the pace of efficiency gains as weak demand forces firms to rethink their products and cost structures and the weakest companies are winnowed out. According to Alexander Field of Santa Clara University, the 1930s saw the fastest efficiency improvements in America's history amid large-scale restructuring.

Here we go again

Almost every government in the rich world has a spanking new "innovation strategy". Industrial policy—out of fashion since its most credible champion, Japan, lost its way in the 1990s—is staging a comeback. But mostly such policies end up subsidising well-connected industries and products. "Green technology" is a favourite receptacle for such subsidies.

In 2008 France created a sovereign-wealth fund as part of its response to the financial crisis; it promises to promote biotechnology ventures, though it has also sunk capital into conventional manufacturers that happened to need money. In 2009 Britain followed suit with a "strategic investment fund". The Japanese too are back in the game. In June the newly invigorated Ministry of Economy, Trade and Industry (METI) unveiled a plan to promote five strategic sectors, ranging from environmental products to robotics. However, past experiments with industrial policy, from France's Minitel, an attempt to create a government-run national communications network, to Spain's expensive subsidies to jump-start solar power, suggest that governments are not much good at picking promising sectors or products.

More important, the politicians' current focus on fostering productivity growth via exciting high-tech breakthroughs misses a big part of what really drives innovation: the diffusion of better business processes and management methods. This sort of innovation is generally the result of competitive pressure. The best thing that governments can do to foster new ideas is to get out of the way. This is especially true in the most regulated and least competitive parts of the economy, notably services.

To see why competition matters so much, consider the recent history of productivity in the rich world. On the eve of the recession the rate of growth in workers' output per hour was slowing. So, too, was the pace of improvement in "total factor productivity" (a measure of the overall efficiency with which capital and workers are used which is economists' best gauge of the speed of innovation). But that broad trend masks considerable differences.

Over the past 15 years America's underlying productivity growth—adjusted for the ups and downs of the business cycle—has outperformed most other rich economies' by a wide margin (see chart 12). Workers' output per hour soared in the late 1990s, thanks largely to investment in computers and software. At first this advance was powered by productivity gains within the technology sector. From 2000 onwards efficiency gains spread through the wider economy, especially in services such as retailing and wholesaling, helped by the deregulated and competitive nature of America's economy. The improvements were extraordinary, though they slowed after the middle of the decade.

The recent history of productivity in Europe is almost the mirror image of America's. Up to the mid-1990s the continent's output per hour grew faster than America's (see chart 13), helped by imports of tried and tested ideas from across the water. Thanks to this process of catch-up, by 1995 Europe's output per hour reached over 90% of the American level. But then Europe slowed, and by 2008 the figure was back down to 83%. This partly reflected Europe's labour-market reforms, which brought more low-skilled workers into the workforce. That seemed a price well worth paying for higher employment. But the main reason for Europe's disappointing productivity performance was that it failed to squeeze productivity gains from its service sector.

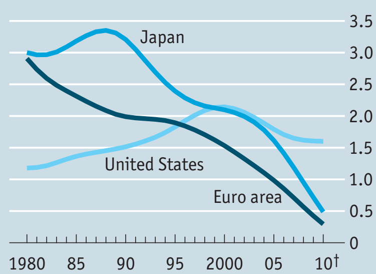
A forthcoming history of European growth by Marcel Timmer and Robert Inklaar of the University of Groningen, Mary O'Mahony of Birmingham University and Bart Van Ark of the Conference Board, a business-research organisation, carefully dissects the statistics for individual countries and industries and finds considerable variation within Europe. Finland and Sweden improved their productivity growth whereas Italy and Spain were particularly sluggish. Europe also did better in some sectors than in others; for example, telecommunications was a bright spot. But overall, compared with America, European firms invested relatively little in services and innovative business practices. A new McKinsey study suggests that around two-thirds of the differential in productivity growth between America and Europe between 1995 and 2005 can be explained by the gap in "local services", such as retail and wholesale services.

Europe's service markets are smaller than America's, fragmented along national lines and heavily regulated. The OECD has tracked regulation of product and services markets across countries since 1998. It measures the degree of state control, barriers to competition and obstacles to starting

It's getting harder 12

GDP per hour worked*

% increase on previous year



Source: The Conference Board *Structural trend †Forecast

a new company, assigning a score to each market of between 0 and 6 (where 0 is the least restrictive). Overall the absolute level of product regulation fell between 1998 and 2008, and the variation between countries lessened. America and Britain score joint best, with 0.84. The EU average is 1.4. But when it comes to services, the variation is larger and Europe has made much less progress.

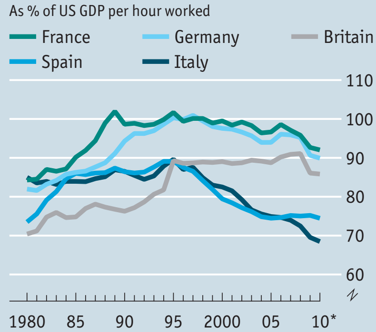
In professional services, the OECD's score for Europe is fully twice as high as for America (meaning it is twice as restrictive). As the McKinsey report notes, many European countries are rife with anti-competitive rules. Architects' and lawyers' fees in Italy and Germany are subject to price floors and ceilings. Notaries in France, Spain and Greece and pharmacies in Greece are banned from advertising their services. Such restrictions limit the ability of efficient newcomers to compete for market share, cosseting incumbents and raising costs across the economy.

In Japan productivity growth slumped after the country's asset bubble burst at the start of the 1990s. One reason, as an earlier

Not catching up 13

GDP per hour worked

As % of US GDP per hour worked



Source: The Conference Board *Forecast

section of this report has described, was the failure to deal decisively with the bad loans clogging its banks, which propped up inefficient "zombie" companies rather than forcing them into liquidation. That meant less capital was available to lend to upstart firms. Another problem was the lack of competition. Japan's service sector, unlike its world-class manufacturers, is fragmented, protected from foreign competition and heavily regulated, so it failed to capture the gains of the IT revolution.

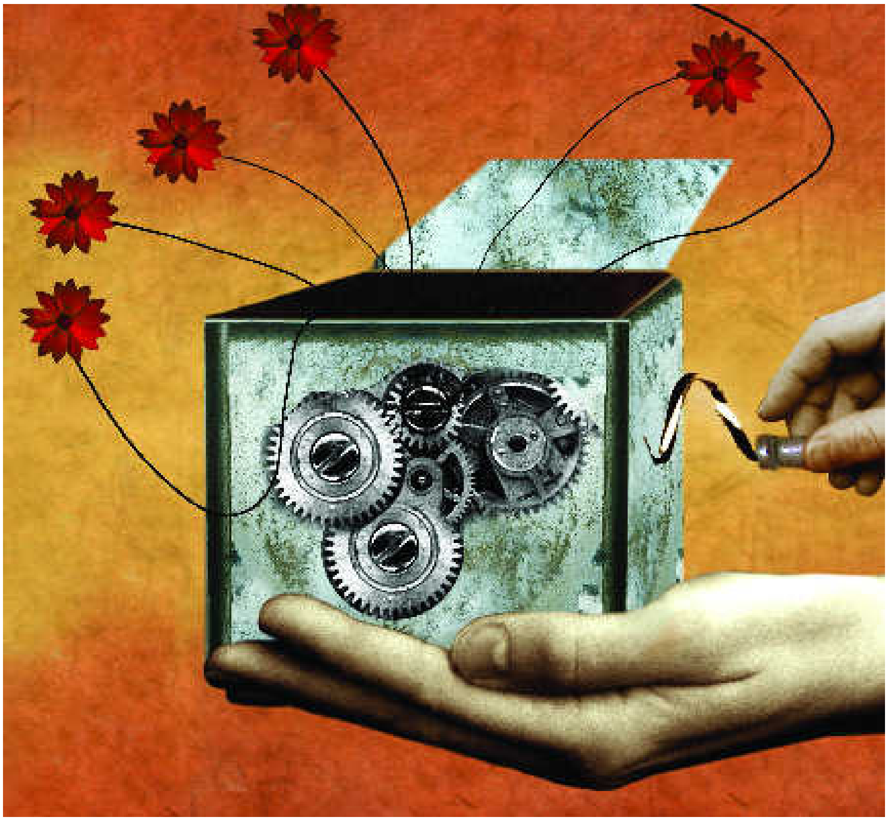
Over the years Japan made various efforts at regulatory reform, from freeing up the energy market and mobile telephony in the mid-1990s to liberalising the financial sector in the late 1990s. These have borne some fruit. Japan's total factor productivity growth, unlike Europe's, began to improve after 2000. But coupled with the continuing weakness of investment, the reforms were too modest to bring about a decisive change in the country's overall productivity prospects.

Learn Swedish

Sweden offers a more encouraging lesson. In the aftermath of its banking bust in the early 1990s it not only cleaned up its banks quickly but also embarked on a radical programme of microeconomic deregulation. The government reformed its tax and pension systems and freed up whole swaths of the economy, from aviation, telecommunications and electricity to banking and retailing. Thanks to these reforms, Swedish productivity growth, which had averaged 1.2% a year from 1980 to 1990, accelerated to a remarkable 2.2% a year from 1991 to 1998 and 2.5% from 1999 to 2005, according to the McKinsey Global Institute.

Sweden's retailers put in a particularly impressive performance. In 1990, McKinsey found, they were 5% less productive than America's, mainly because a thicket of regulations ensured that stores were much smaller and competition less intense. Local laws restricted access to land for large stores, existing retailers colluded on prices and incumbent chains pressed suppliers to boycott cheaper competitors. But in 1992 the laws were changed to weaken municipal land-use restrictions, and Swedish entry into the EU and the creation of a new competition authority raised competitive pressures. Large stores and vertically integrated chains rapidly gained market share. By 2005 Sweden's retail productivity was 14% higher than America's.

The restructuring of retail banking services was another success story. Consolidation driven by the financial crisis and by



EU entry increased competition. New niche players introduced innovative products like telephone and internet banking that later spread to larger banks. Many branches were closed, and by 2006 Sweden had one of the lowest branch densities in Europe. Between 1995 and 2002 banking productivity grew by 4.6% a year, much faster than in other European countries. Swedish banks' productivity went from slightly behind to slightly ahead of American levels.

All this suggests that for many rich countries the quickest route to faster productivity growth will be to use the crisis to deregulate the service sector. A recent study by the Bank of France and the OECD looked at 20 sectors in 15 OECD countries between 1984 and 2007. It found that reducing regulation on "upstream" services would have a marked effect not just on productivity in those sectors but also on other parts of the economy. The logic is simple: more efficient lawyers, distributors or banks enable firms across the economy to become more productive. The size of the potential gains calculated by the Bank of France is stunning. Getting rid of all price, market-entry and other competition-restricting regulations would boost annual total factor productivity growth by one percentage point in a typical country in their sample, enough to more than double its pace.

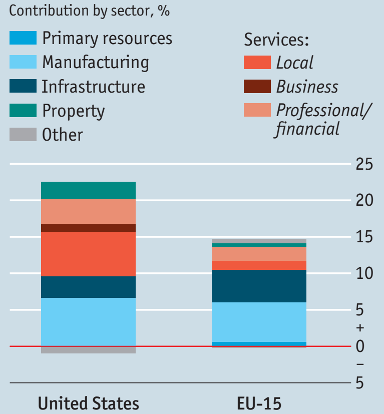
Getting rid of all anti-competitive regulation may be impossible, but even the more modest goal of embracing "best practice" would yield large benefits. The IMF has calculated that if countries could reduce regulation to the average of the least restrictive three OECD countries, annual productivity growth would rise by some 0.2 percentage points in America, 0.3 percentage points in the euro area and 0.6 percentage points in Japan. The larger gains for Europe and Japan reflect the amount of deregulation left to be done. In both cases the productivity gains to be achieved from moving to best practice would all but counter the drag on growth from unfavourable demography.

Even in America there would be benefits. But, alas, the regulatory pendulum is moving in the opposite direction as the Obama administration pushes through new rules on industries from health care to finance. So far the damage may be limited. Many of Mr Obama's regulatory changes, from tougher fuel-efficiency requirements to curbs on deep-water drilling, were meant to benefit consumers and the environment, not to curb competition and protect incumbents. Some of the White House's ideas, such as the overhaul of broadband internet access, would in fact increase competition. The biggest risk lies in finance, where America's new rules could easily hold back innovation.

Services with a smile 14

Productivity growth, 1995-2005

Contribution by sector, %



Source: McKinsey Global Institute

An unlikely role model

The country that is grasping the challenge of deregulation most energetically is Greece, whose debt crisis has earned it a reputation for macroeconomic mismanagement. Under pressure from the IMF and its European partners, the Greek government has embarked on one of the most radical reforms in modern history to boost its productive potential.

Again, this involves freeing up an historically cushioned service sector. So far the main battleground has been trucking. Before Greece descended into crisis, its lorry drivers required special licences, and none had been granted for several decades. So a licence changed hands in the secondary market for about €300,000, driving up the costs of everything that travelled by road in Greece. But under a reform recently passed by the Greek government, the number of licences is due to double. Greek lorry drivers went on strike in protest, but the government did not budge. Lawyers and pharmacists too are slated for deregulation.

If Greece can stick to its plans, it will, like Sweden, show that crises can offer valuable opportunities. Without the country's brush with default and the conditions attached to the resulting bail-out, its leaders would have been unlikely to muster the necessary political will.

The sluggish progress of reform elsewhere underlines this point. Germany, which ranks 25th out of 30 OECD countries on the complications of its licence and permit system, approaches deregulation on tiptoes: it recently reduced restrictions on price-setting by architects and allowed chimney-sweeps easier market access.

Two French economists, Jacques Delpla and Charles Wyplosz, have argued that incumbent service providers should be paid off in exchange for accepting competition. They reckon that compensating French taxi drivers for deregulation would cost €4.5 billion. But buying off the losers from reforms may not hold much appeal.

Boosting European integration could be another way to cut through national resistance to deregulation. As Mario Monti, a former EU competition commissioner, pointed out in a recent call for action, 70% of the EU's GDP is in services but only 20% of those services cross borders. The EU's Services Directive, which is supposed to boost cross-country competition in services, has proved fairly toothless.

How governments can help

Activism on the part of governments is not always misguided. Their investment in basic research is important. The grants doled out by America's National Institutes of Health, for example, generate the raw ideas that pharmaceutical firms turn into profitable medicines. America's Defence Department created the beginnings of the internet. Public spending on building and maintaining infrastructure also matters, though economists argue about how much. Governments can encourage private R&D spending with tax credits and subsidies, and the evidence suggests that more R&D spending overall boosts growth. Other research shows that firms which spend more on R&D are also often quicker to adopt other innovations.

But these traditional ways of encouraging innovation may be less relevant now that research has become more global and more concentrated on software than on hardware. Since the mid-1990s China alone has accounted for a third of the increase in global spending on research and development. Big firms maintain research facilities in many countries. Dreaming up new products and services, as well as better ways of producing old ones, increasingly involves collaboration across borders and companies. As Mr Jorgenson of Harvard University puts it: "Think Google, not lab coats."

In this more fluid world the old kind of government incentives, such as tax credits and subsidies, may do less to boost innovation than more imaginative inducements, such as offering firms prizes for breakthrough innovations. Bigger efforts to remove remaining barriers to collaboration, from limitations on high-skilled immigration to excessively rigid land-use rules, should also help.

A smart innovation agenda, in short, would be quite different from the one that most rich governments seem to favour. It would be more about freeing markets and less about picking winners; more about creating the right conditions for bright ideas to emerge and less about promises of things like green jobs. But pursuing that kind of policy requires courage and vision—and most of the rich economies are not displaying enough of either. ■

A better way

The rich world should worry about growth-promoting reforms more than short-term fiscal austerity

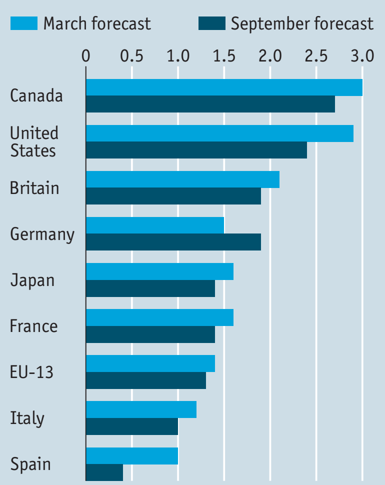
"ONCE you start thinking about growth", said Robert Lucas, a Nobel prize-winning economist, "it's hard to think about anything else." Judging by their rhetoric, the world's policymakers are indeed thinking about little else. The statement released after the most recent meeting of G20 leaders in Toronto in June mentioned the word "growth" 29 times in nine pages. Mr Obama says his economic policy is all about "laying the foundations for long-term growth". Britain's prime minister, David Cameron, used his first speech in office to lay out a "strategy for economic growth". Japan's government unveiled a ten-year "new growth strategy" in June.

The task is immense. The rich world's nascent recoveries are losing momentum even though joblessness remains worryingly high. The slowdown has been most obvious in America, where GDP growth shrank to a paltry 1.6% annual rate in the second quarter and appears to have remained stuck at much the same level over the summer. The housing market has turned down again and the pace of job creation remains painfully slow.

Led by a surge in German GDP, the euro area fared relatively better in the first half

Don't hang your hopes too high 15

GDP, 2011 forecast, % increase on previous year



Source: *The Economist* poll of forecasters

of this year, but as the rebound in global trade wanes, Germany's export-dependent economy is slowing again. The country's latest figures for investor confidence look a lot feebler than they did earlier this year. Japan's economy, too, is weakening for much the same reason.

The OECD's September forecast reckons that the annual rate of GDP growth in the G7 group of big rich economies will fall to 1.5% in the second half of this year, a full percentage point below its forecast in May. Gloomier analysts worry about a "double-dip" recession. Even optimists no longer expect anything more than tepid growth in 2011 (see chart 15).

Looking further ahead, towards the middle of this decade, the picture remains dark as first debt and then ageing populations will weigh heavily on the rich world's prospects. The fall-out of the financial bust will weigh on private spending for several more years as banking systems are repaired and households and firms pay down their debts. Even in America, where households are moving out of the red faster than elsewhere, they have at best got only halfway there.

According to the analysis by Carmen and Vincent Reinhart mentioned earlier in this report, GDP per head, on average, grows 1% a year more slowly in the decade after big crises than in the decade before. Since rich economies as a group grew by an average of 2.5% a year before the financial crisis and then slumped by more than

3% during the recession, that suggests they might grow by less than 1.7% a year over the next few years.

Slower growth in advanced economies will mean lower private investment, higher unemployment and higher public debt, all of which will hurt their longer-term capacity to grow. At the same time the adverse effect of ageing (and in many cases shrinking) populations on growth will become much more noticeable, especially in Europe, where a big rise in the share of women in the labour force has hitherto concealed the demographic drag.

The overall effect of these various elements is likely to be big. The grimmest predictions of the consequences of demography, higher public debt and lower private investment suggest that the potential growth rate of the big advanced economies as a group could halve, from above 2% before the crisis to around 1% over the next few years. Small wonder that Mr Trichet, the president of the European Central Bank and a man not normally given to hyperbole, worries that the next ten years could be a "lost decade".

Are today's growth strategies good enough to prove him wrong? There are three big reasons to doubt it. First, rich countries, collectively, are relying too much on foreign demand as a source of growth. Second, they are at risk of both overdoing and mismanaging short-term fiscal austerity. Third, most are paying far too little attention to structural reforms that would speed up the pace of debt reduction, make high unemployment less likely to become entrenched and boost productivity growth.

Begin with the wishful thinking on foreign demand. At every international economic gathering there is talk of the importance of "rebalancing" the pattern of global demand. The world economy must rely less on spending by over-indebted Anglo-Saxon consumers and cajole more spending out of thriftier Germans and Japanese, as well as firms and households in fast-growing emerging economies, notably China. Yet there is little sign that these efforts have done any good so far.

The rich world's deficit countries, such as America and Britain, certainly want to push exports to counter weak consumer demand. The Obama administration has said it would like to double America's exports in five years. Britain's new government has put export promotion at the heart of its foreign policy. But the surplus economies, particularly Germany and Japan, are equally determined to go on focusing on trade. Japan recently intervened in currency markets for the first time in six years to stem the yen's rise.

Nor is there much sign of a rapid rebalancing towards the emerging world. China, as the biggest saver, should bear the brunt of such a shift. Its current-account surplus declined sharply between 2008 and 2009, but this year it is rising again. Although the government promised a more flexible currency in June, the yuan has barely moved in recent months.

More important, the structural barriers that get in the way of higher domestic spending—from government monopolies in many services to taxes, subsidies and corporate-governance rules that favour profits over wages—will take years to remove. Nor is there much sign that other emerging economies are keen to run big deficits for now. In the longer term faster growth in poorer countries' demand is bound to be good for the advanced economies, but it will take time.

A dangerous squeeze

The rich countries also seem to underestimate the risks that fiscal austerity poses to domestic demand. Virtually all the advanced economies are planning some combination of tax increases and spending cuts next year as their stimulus packages expire and budget consolidation begins. Collectively, says the IMF, these will amount to a tightening of some 1.25% of GDP. That would be the biggest simultaneous fiscal squeeze since modern records began. The IMF's own recent analyses, which refute the idea that fiscal contractions boost growth in the short term, suggest that such a tightening might reduce the rich world's already weak growth next year by a percentage point or so.

Is this a sensible trade-off? Countries in which financial markets have lost confidence, such as Ireland or Spain, have no choice. Others must weigh the costs of slower growth against the benefits of greater prudence, particularly the reduced risk of a sudden jump in bond yields and the prospect of lower public debt later. For many individual economies, particularly open and indebted ones, that points towards earlier austerity. But what makes sense for individual countries may not make sense for the rich world as a whole.

More important, policymakers' obsession with cutting deficits in the short term has deflected attention from the more important question of how to do it. Some countries are setting about it the right way. France, for instance, is pushing through pension reform; and in Britain three-quarters of the fiscal adjustment will come from spending cuts. But America, if Mr Obama has his way and the Bush tax cuts for high earners are eliminated, is heading for the worst possible outcome: raising taxes on income and capital but failing to trim the country's pension liabilities and rising health-care costs.

In most rich countries the detailed plans for fiscal austerity contrast sharply with a lamentable lack of microeconomic ambition. Greece is the only rich economy that is responding to the crisis with broad

and radical reforms to boost its productive potential. In Britain, whose economy is already relatively deregulated, spending cuts will help reduce the role of the state. But elsewhere progress has been limited. Spain has gone some way towards freeing its labour markets, and Japan's "growth strategy" proposes a series of small liberalising steps, such as cutting rules around nursing care. But Germany's politicians are far keener to denounce deficits than to deregulate domestic services. And in America the policy debate revolves almost entirely around demand, the wisdom of stimulus and the Bush tax cuts. Most officials barely acknowledge that supply-side reforms, such as an overhaul of training schemes to help combat long-term joblessness, or bigger efforts to reduce household debts, might even be necessary.

The economic case for a growth strategy that combines hefty fiscal cuts with timid structural reforms is not obvious, especially when private demand is likely to stay weak. In the long run bold productivity-enhancing reforms will do more to boost the rich world's growth prospects than short-term fiscal austerity. And better growth prospects will, themselves, make government debt less onerous. In a recent study, economists at the IMF analysed the respective impact of deficit reduction, global rebalancing and productivity-enhancing structural reforms on the growth prospects of big rich economies and found that by far the strongest positive effect came from structural reforms.

There is also a political logic to favouring a bigger prop for demand along with bolder action on structural reforms. The contrasting stories of Sweden and Japan suggest that although big crises can offer an opportunity to overhaul an entire economy, a prolonged period of sluggish growth makes structural reforms increasingly difficult. Both politicians and voters become accustomed to gradual decline. In many rich countries an extended bout of high unemployment could easily lead to policies such as protectionism that will further hurt long-term growth.

All told, there is a case for changing the debate about growth in the rich world. Fiscal consolidation should be more nuanced and supply-side reforms should be given greater prominence. This is particularly true for America. In an ideal world, America's politicians would come up with a package of medium-term spending cuts and tax reforms to fill the country's fiscal gap. But since that is impossible, given that Republicans refuse to countenance any tax increases and Democrats refuse to cut any spending on entitlements, the best short-term remedy would be to extend the Bush tax cuts for another three years.

America's structural reforms ought to focus on encouraging households to reduce their debts more quickly and tackling entrenched joblessness. By the standards of previous financial crises America's banks have been recapitalised remarkably quickly, but much less has been done to deal with the $800 billion-worth of American mortgages (almost 25% of the total) where the house is worth less than the outstanding loan. Legal reforms that made it easier to reduce this debt overhang would allow a more efficient allocation of capital and hence boost investment. They would help to deal with high unemployment, too, by making it easier for workers to move to new jobs. A comprehensive strategy to counter structural joblessness would also include things like hiring subsidies for the hard-to-employ and an overhaul of training schemes.

Outside America the design of fiscal consolidation is more sensible, though the scale may be excessive. In both continental Europe and Japan reform should concentrate on boosting growth by freeing up labour markets and services. Rules that stifle competition should be struck out in industries from health care to road transport.

The to-do list is familiar, not least because the OECD has spent years cataloguing and comparing the rich world's supply-side rigidities. It even produces a handy annual publication, called "Going for Growth", that sets out priorities. But rich-world governments have found it hard to summon up the political courage to act.

The recession and its grim aftermath offer an opportunity to do better.

If the rich world really wants to go for growth, it must get away from its narrow focus on public debt and embark on a broader economic overhaul. Instead of promising to halve their budget deficits by 2013, for instance, big rich economies could decide to raise their retirement ages or free up their professional services. Fiscal consolidation would not be ignored: it would just not be the only priority.

An American official famously quipped after the 2007-08 debacle that you should "never let a serious crisis go to waste". It is advice that the rich world would do well to heed. ■