Cardiff Business School
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Julian Hodge Bank

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Foreword

In economic terms this is a fascinating era, if a sometimes disturbing one, with traditional orthodoxies being challenged and the fabric of the world economy being tested. The shock of the banking crisis has been followed by the ever increasing sovereign debt crisis. It has been sobering to watch the consequence of the loose economic policy in Greece and the near anarchy that can ensue as people come to terms with the personal implications of lower wages, fewer services, poorer pensions and higher taxes. The fate of Greece is still in the balance, with the best outcome effectively a controlled default over a period of time. The problems of Portugal and Ireland are little better and the concerns being voiced over Spain and Italy threaten to derail global growth, let alone that of Eurozone countries.

Perhaps the most extraordinary event of the last quarter has been the near default of the US on its National Debt. It is possible to dismiss the episode as a politically motivated and artificial crisis. After all, it is relatively easy for the US to increase its borrowing limit, and there is ample investment demand to take up new issues of US government bonds. However, the history of US debt is an interesting one. Debt peaked at 125% of GDP in the second world war and then fell up to 1980 as strong US growth outweighed the merely inflationary increase in borrowing, which fell to just 35% of GDP. However, Ronald Reagan oversaw the first substantial increase in borrowing, primarily to fund defence spending as the cold war reached a new zenith. When Clinton left office debt was still below 60% of GDP, but then expenditure on Iraq, Afghanistan and a slowing of the US economy after the financial crisis, saw that ratio climb sharply until it stands at nearly 100% of GDP today. The numbers are almost incomprehensible. Debt stands at $14.4tn (2010 GDP was $14.6tn). In the early stages of the Obama presidency the view was that the US would spend its way out of the financial crisis, boosting jobs and growth. This was a very different strategy to the bulk of other developed economies, and at the time was held up by some in the UK as the best role model.

The story today is very different, with a consensus that borrowing needs to be brought under control; $2.5tn of cuts programmed over the next few years.

To put this into context these cuts are the equivalent of almost two years of UK GDP.

With almost all the major economies now aligning themselves around borrowing cuts, there has to be a question over the impact on growth as global demand falls. This causes an interesting dilemma for the MPC.

There are some, albeit muted, concerns that UK measures to reduce indebtedness are not robust enough at a time when UK growth is now likely to be weak for the foreseeable future. However, inflation is eroding real incomes and indeed real interest rates are now negative. The ECB has put additional pressure on the UK by raising interest rates. The argument currently being pursued by the MPC is that higher inflation is the lesser of two evils as weaker growth will bring commodity prices under control, and is acceptable given exceptional factors such as the increase in VAT and while real wages are not growing. This is quite a gamble since inflation may prove difficult to eradicate. If the MPC hold its current position the governor is likely to develop writer's cramp over the next twelve months as he seeks to explain in writing the continued failure to meet inflation targets.

Paul Budd
Julian Hodge Bank
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Julian Hodge Institute of Applied Macroeconomics

In May 1999, Cardiff Business School and Julian Hodge Bank announced a major new initiative, the establishment of the Julian Hodge Institute of Applied Macroeconomics. The aim of the institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. This research has been given especial relevance by the ongoing discussions on the extra powers regularly requested by the European Union and also by the recent crisis in the eurozone.

The institute's director since it was founded has been Professor Patrick Minford, of Cardiff Business School, who is also the Economic Adviser to Julian Hodge Bank. The institute's staff of researchers are mainly based in the school. Recent research has included studies of whether the UK should join the euro and of the economic costs and benefits from UK membership of the European Union. Some other topics have been the UK's inflation and exchange rate behaviour and the relationship between growth and taxation. The institute also carries on the work of the Liverpool Research Group in Macroeconomics which Professor Minford founded and which has been based mainly in Cardiff for a number of years, producing forecasts and policy analysis of the UK and other major economies.

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Patrick Minford, Economic Adviser to Julian Hodge Bank

TIME FOR WORLD-WIDE MONETARY TIGHTENING

Inflation has been taking hold across the world economy. Western central banks have until recently been fuelling it by keeping interest rates close to zero and by printing money as demanded by banks at this cost, then supplementing this with Quantitative Easing in which they aggressively print money and buy market securities with it, bypassing the banks. The demand for this money has been growing very fast in the developing world, mainly in Asia; so money is being borrowed at this very low rate in the West and lent in the East in virtually unlimited quantities. Because the East does not want its exchange rate to go up against the dollar and other western currencies, as fast as this money flows in Eastern central banks buy the dollars, euros, pounds etc. and swap them for their own currency. Thus it is that the growth of money and credit in the East has been fast and furious. It has been fuelling rapid credit-fed growth.

Much the same is true of other emerging market countries. All of them have enjoyed a credit boom, fed by western money. This worldwide boom has renewed the upsurge in commodity prices evident in 2006–8 until the Lehman crash. Since these economies are also short of labour, the boom has led to a general inflation, with prices and wages rising generally, and not just a pass-through of higher commodity prices.

Table 2 shows some key figures around the world. It is clear that inflation has become seriously embedded in some major economies around the world. Inflation in the west so far has been held down by a weak labour market but this will only be temporary, lasting as long as real wages can fall. It cannot be a good idea for western central banks to keep on holding interest rates at so low a level that they feed massive continued growth in credit and money in the developing world which in turn feeds world inflation; Quantitative easing (i.e. the aggressive printing of additional money which is then used to buy market securities) exacerbates this loose monetary situation. Apart from the effect on world inflation this must in the end spill over into western inflation.

The flow of money feeding this inflation is known as the 'carry trade' (whereby dollars at low interest rates are 'carried' and lent in higher interest rate economies) is very low risk in the sense that the dollar is being systematically kept down by the emerging market countries' central banks, with only a few central banks allowing a little bit of appreciation of their currencies. To stop this flow entirely would require these emerging currencies to float upwards until they were too expensive to lend to. However this will not be allowed to happen, so nervous are their governments of the chilling this might bring to growth, particularly of their exports.

At the same time the paradoxical thing is the weakness or sluggish growth at best of the western economies whose

Table 1: Summary of Forecast

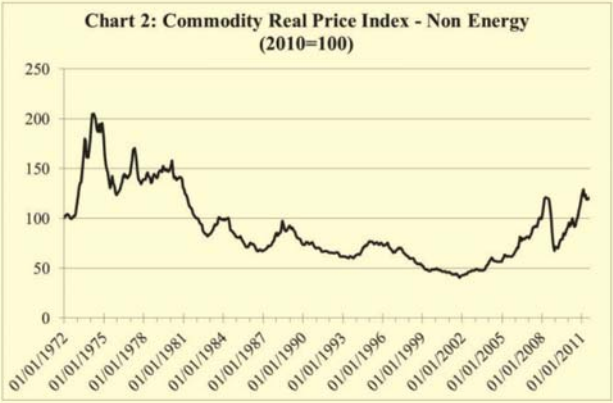
		2008	2009	2010	2011	2012	2013
GDP Growth[1]		–0.1	–4.9	1.4	1.5	2.2	2.9
Inflation	CPI	3.0	1.3	3.8	4.2	3.4	2.2
	RPIX	4.0	–0.5	4.6	5.1	3.9	2.8
Unemployment (Mill.)							
	Ann. Avg.[2]	0.9	1.5	1.5	1.3	1.2	1.2
	4th Qtr.	1.1	1.6	1.5	1.3	1.2	1.1
Exchange Rate (2005=100)[3]		91.1	80.6	80.5	79.7	78.4	77.6
3 Month Interest Rate		5.1	0.8	0.7	0.9	1.5	2.0
5 Year Interest Rate		4.0	2.8	2.3	2.4	2.9	3.4
Current Balance (£ Billions)		–23.8	–23.9	–28.7	–18.0	–17.8	-17.5
PSBR (£ Billions)		72.5	129.7	118.7	120.2	87.2	75.5

[1]Expenditure estimate at factor cost
[2]U.K. Wholly unemployed excluding school leavers (new basis)
[3]Sterling effective exchange rate, Bank of England Index

Table 2: Latest inflation figures for selected countries, percentage increase, year on year, June and July

US	3.6
UK	4.2
Eurozone	2.5
India	8.6
China	6.5
Argentina	9.7

Source: World Bank and US Bureau of Labor Statistics

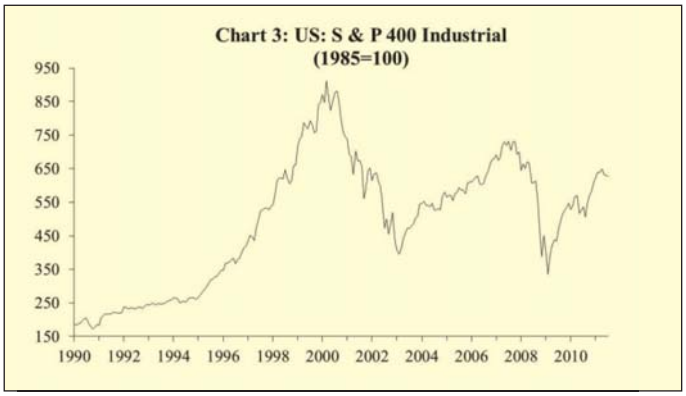


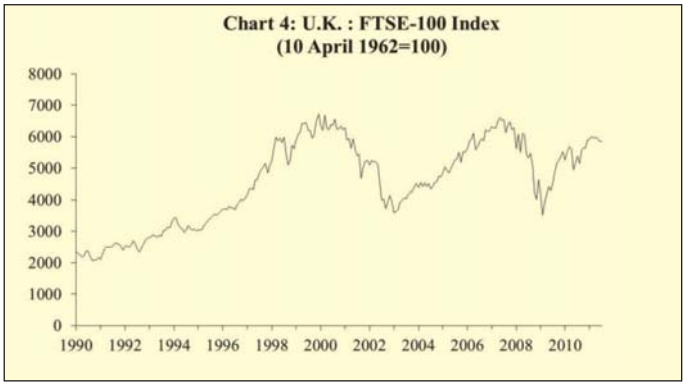
Source: World Bank and US Bureau of Labor Statistics

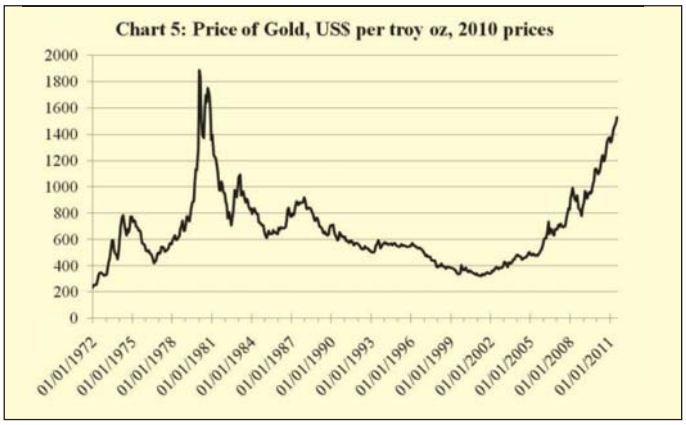
interest rates are so low. The problem for western economies is not one of lacking demand so much as slow growth in supply; high commodity prices, driven up by fast productivity growth in emerging market economies, are damaging to western productivity, both to its level (as it downgrades capacity built on the assumption of cheap commodities) and to its growth rate (as the returns to innovation in the usual hi-tech-related areas are depressed by the high prices of necessary inputs). This depressed productivity outlook is in turn reflected in accompanying demand slowdown, as consumers and governments adjust themselves to weaker income prospects. No 'demand injection' can change these realities and so is doomed to failure if attempted. Hence in these countries commodity price increases have so far produced no sympathetic rise in wages, as labour is in excess supply and job growth is weak; high unemployment is forcing labour to take big real wage cuts. Profits growth has been strong as the recovery, muted as it is, has driven up utilization of capacity. So we observe growing western profits, falling real wages, and limited western inflation. Stock markets reflected this profit strength until the recent Eurozone crisis; once this crisis is resolved (below), they should recover. One could describe this as rising world inflation accompanied by a fall in western terms of trade which is reducing western inflation temporarily. However once this terms of trade (real wage) correction has run its course, inflation in the west will equal world inflation. Already in some countries such as the UK inflation is substantially higher than it has been and closer to this equality than elsewhere. However both eurozone and US inflation has been rising. The ECB has now raised interest rates for the first time since the crisis. The Fed has not yet done so; but it has stopped its Quantitative Easing. As for the UK, a rise is surely needed if the Bank of England is not to become a laughing stock; it too has stopped its QE programme. However the latest signs are that the Bank will persist in refusing to let the inflation overshoot push up Bank rate.

Meanwhile emerging country central banks have tried all sorts of controls to prevent this tide of money from coursing through their economies. These efforts can only be futile in the end unless western central banks stop pumping out cheap money; as fast as the last tide has been 'controlled' the next one is rolling in and the operation has to be repeated. In the end the controls cannot restrict the huge availability of money, by back door or front. Corruption becomes rife as opportunities for massive profits from lending this money illegally become irresistible.

Until recently the main actors in this drama, western central banks, have been complacent about worldwide inflation because they thought it was not their problem. However this had to stop if inflation was not once more going to become embedded in expectations in the west as in the east. As labour markets tighten, real wage cuts could well be reversed and this would temporarily add to future western inflation as the terms of trade losses were also reversed.







Source: World Bank and US Bureau of Labor Statistics

Furthermore, these central banks must be concerned about the inflation they are indirectly causing in the east. They may complain that eastern central banks 'ought' to allow currency appreciation; but the fact is they do no not and in these circumstances western central banks are creating world inflation which in time must spill over back to their own economies.

Our forecasts accordingly have looked for a tightening of western monetary policy, which has now begun, as we discuss in the next section; we expect rising interest rates over the next two years. By the end of 2012 this ought to get world inflation under control. During 2012 there should be general world slowdown. Growth in developed countries will therefore continue to be slow as now. Commodity prices will continue to be kept high by the continuing fast growth of productivity and GDP in the emerging market economies; this in turn will go on restraining western

growth. Commodities are in short supply after the massive world growth of the '90s and '00s. Their shortage was the main factor in our view in triggering the crisis of 2007–9 and their shortage remains the underlying factor limiting world productivity growth.

Tightening money delivers slower world growth in line with resource constraints

The world has been through a sharp recovery from the Great Recession; but as we have seen this immediately triggered a return of the commodity price peak that itself was the creator of the recession. The world raw material availability cannot accommodate growth on the recent scale. We will have to see how much growth it can tolerate as monetary policy continues to tighten and brings down world inflation from its current 5% or so.

While central bank interest rates have remained close to zero in most countries, interest rates charged by banks have been much higher and there is plenty of evidence that banks are still lending slowly, and charging high fees over and above interest rates. This tightening has been enhanced by the recent crisis in the Eurozone which has made it much harder for most European banks exposed to the crisis to raise money to lend. Furthermore the aggressive printing of money, Quantitative Easing, has ended in the UK and now also in the US. Finally the ECB has by now raised its lending rate to 1.5%.There is opposition to this tightening as growth is weak all over the west. But this weakness cannot be remedied by monetary looseness; it is due to the shortage of raw materials that in turn is slowing productivity growth. All that more monetary ease will do is reignite raw material prices.

The debate in the UK has yet to recognize these facts. There is a view in some circles that growth is the result of government policy; hence for example Labour under Ed Miliband is urging less fiscal rebalancing and easier money. Yet it should be plain that growth is weak because of fundamental real difficulties- raw material prices forcing down real income and productivity growth and real public debt problems in the face of these slow growth prospects forcing fiscal consolidation. Some argue that it is simply 'bad balance sheets' that are holding back western growth; but if these constraints on growth were not there, those same balance sheets would look magically better, buoyed by good prospects for future income.

Even now in the US whose government profligacy has been unparalleled in post-war history there is no disagreement about the need for fiscal consolidation; it is just that agreement on particular measures is hard to find. When public finances are this bad, fiscal 'multipliers' on extra deficit spending can turn harshly negative as they trigger fears about solvency.

So far the UK 'cuts' have not materialized in the data; however the public finances have started to improve with better revenues. Spending growth should slow down soon, though it is slower than projected. This consolidation in spite of all the hype is very far from savage; it is gradualism itself. Nevertheless because it has been undertaken and is backed by general opinion as necessary, any anxiety in markets is allayed. Our forecast for UK growth is for moderate expansion in the region of 2% and under the assumption of resumed monetary tightening a fall back of inflation to 2% by 2013. For other western economies the outlook is rather similar. For the emerging market economies growth will slow and inflation remain stubborn but should moderate somewhat.

Whither the eurozone?

The daily saga of talks about the bail-out of Greece would have been high comedy and the source of much *schadenfreude* among the eurosceptics who warned about the euro project from the start, had it not been so serious a potential source of crisis for the financial system. The good thing about the length of time it went on is that the fallout had been well and truly discounted by financial markets by the time the eurozone's ministers finally agreed on a fresh package for Greece, involving rescheduling debts immediately due (including those of a number of eurozone banks) and lowering the interest rate to 3%.

Even so, it is by now obvious to everyone that Greece cannot pay even pay this lower interest rate on its rising debts because it is too large a chunk of its national income and over half of it will go to foreigners. By defaulting it can reduce or even eliminate this outflow of money and so placate the Greek populace which is rioting in protest. It will of course upset Germany and France, its main creditors. But they cannot stop it. The only question really is when Greece will carry out such a more thorough default.

A further question then is whether Greece would also leave the euro? If one goes back to Argentina at the beginning of the 2000s, it defaulted and then abandoned its fixed exchange rate peg to the dollar, so reducing the value to foreigners of any debts they held that were written in the Argentine Peso. After a short time growth resumed in Argentina and it is now a robust economy again, with growth currently running at 10%. This shows there is definitely life after default and devaluation.

The reason Greece needs to do the same and leave the euro is that without a massive devaluation it will not resume growth for many years. In theory it is possible for a country to get the same effect as a devaluation by cutting wages drastically; this means that Greek products, especially tourism, become attractive to buy again and restore growth. But politically wage cuts that would do this will not be feasible; one only has to think of those riots. Also wages

are set in so many different industries that they would take a long time to roll out across the economy, meaning years of misery and recession.

It is actually in the interest not just of the Greeks but also of its creditors that Greek growth resumes, because then there will be more income to help the Greeks pay off more debt and restore their credit status. If one goes back even further to the Latin American debt problems of the early 1980s many of the defaulting bonds were eventually honoured to a bigger extent that was feared at the start. So it could be with Greece if can only get back on its feet and grow. If it does so, it is likely to learn some lessons from this crisis about reforming its economy; reforms are unlikely in the present conditions of economic misery — they just add further pain that will seem unbearable — but with some return of optimism they could become politically popular.

After Greece's exit, other countries may well follow; Portugal, Ireland, Spain, even Italy. Essentially it will be their choice: whether to groan in misery inside the euro or rekindle their prospects outside. The politics of their public opinion will not permit the misery so the markets will soon force them out knowing this. As for Germany and France lending them sufficient money on concessionary terms, their own public opinion will not permit it. The euro will become a mainly 'northern' affair which could work better.

It is the fear of precisely such developments that has triggered the wave of selling of Spanish and Italian bonds, forcing their yields up to 6% or more. To this wave the ECB finally responded by buying these bonds in the market, driving down their yields temporarily at least. But the ECB only did this after asking for and getting assurances from these two governments that they would take more action to reduce their deficits and restore budget balance over time. Meanwhile, since ECB action can only continue if there is fiscal backing for the potential losses it will make, the other eurozone governments, principally Germany and France, have to decide whether to create a fiscal union with common euro bonds being issued backed by all eurozone governments or else to let these Southern countries default and leave the euro. While as usual certain politicians clamour for 'more Europe' and fiscal union, their taxpayers are far from enthusiastic about transferring resources to their southern neighbours; there is serious opposition to fiscal union in the German Parliament and indeed the governing coalition of Christian Democrats and the FDP.

This suggests that a fiscal union is unattainable. If so we will see the euro split, with southern countries leaving. Eventually these exiting countries might rejoin and the eurozone might try again to create a durable framework that could contain them. But one thing is certain: the UK will never join, having now seen the mess that can result. It has reinforced the wisdom of the Treasury's Five Tests which were of course not satisfied — now with our own eyes we have seen why.

The UK economy and monetary policy

The recent news for UK growth and employment has been mixed. The growth figures have been weak, with manufacturing slowing and the ONS GDP figures downbeat. However, employment growth has continued and unemployment has remained roughly constant; while public sector jobs have been cut, private sector jobs have so far slightly more than replaced such losses. Falling real wages must be contributing to this, via a rise in the labour-output ratio. It is also likely that the GDP figures will be revised upwards.

There have been demands, especially from unions and Labour politicians, for a fiscal 'boost to demand' to stimulate UK growth. However, even if the government could risk such action and with it its reputation for solvency, this would probably not succeed as the causes of slow growth here come from difficulties of supply; the financial sector is held back by high and growing regulation, the UK is now viewed as a higher-tax business venue, and above all high oil and raw material prices have reduced viable production capacity and depressed household spending power.

Fortunately jobs are growing as wages fall relative to producer prices and make hiring workers more attractive. This 'flexible labour market' is the one bright point in an otherwise bleak environment.

However, the inflation outlook has worsened, with expectations now that the CPI measure will go over 5% in the second half of this year. Real interest rates are now negative, even on much private sector debt inclusive of risk premia (such as tracker mortgages). It is reckless for the Bank to forecast that inflation will come down even though it is now being rumoured that MPC intentions are not to raise rates for another year. Inflation tends to persist when there is no commitment to reduce it. Since the Bank's reason for taking no action is 'weak growth' there seems to be reason to expect the Bank to keep interest rates on hold sine die: our forecasts, like almost all others, now project weak growth as far as the eye can see.

This situation is dangerous to the Bank's credibility. It was 'endowed' with this in 1997 by the long battle against inflation in the 1980s and 1990s. Until this year and last it has seemed to be reasonably reliable as the holder of this endowment, which can be thought of as a piece of 'social capital'. The Bank is supposed to have as its only objective the hitting of the inflation target 'in the medium term'; so far it has tended to overshoot it on average but at least inflation has tended to return to around 2%.

The Bank retorts that it can keep rates at zero for as long as wage increases are muted and so real wages falling. However it is forgetting its own role in setting the exchange rate. Essentially in an open economy the main transmission channel for inflation is through the exchange rate. This is how a floating currency enables a country to run a different interest rate and inflation rate from elsewhere. The Bank has chosen to run a more expansionary monetary policy than the eurozone for example; this has reduced the sterling/euro rate. No doubt this was appropriate during the financial crisis in 2008/2009. But it has ceased to be appropriate when inflation is threatening to move well above its target. The risk is that the Bank will lose control of sterling first and soon after lose control of domestic wage costs. If that were to happen, credibility would be lost; regaining it could be a painful process. Hence we continue to urge an immediate rise of 0.5% in rates, with a bias to raise further. QE should cease indefinitely.

Table 2: Predicted and Actual Nominal Changes, 2011Q2

	Predicted	Outcome
UK	2.66%	2.70%
North	–2.46%	3.36%
Yorks & Hside	2.41%	2.42%
North West	–0.06%	2.23%
East Mids	0.11%	1.39%
West Mids	4.91%	1.30%
East Anglia	1.70%	1.33%
Outer S East	2.74%	3.33%
London	–0.62%	2.88%
South West	0.67%	2.57%
Wales	5.18%	4.26%
Scotland	-1.38%	2.90%
N Ireland	3.51%	3.03%

A note on UK Housing

If we base ourselves on Nationwide figures the second quarter seems to have been a turning point in the market with prices rising across the UK in every region, much in line with our forecasts (Table 2). The more peripheral markets, like Wales and the North, grew most in this quarter, suggesting that as usual the outer regions will catch up on London and the South East over time. What seems to be happening is that gradually the banks and building societies are beginning to compete again in the provision of loans. The mortgage market volume is picking up slowly and terms have begun to become more common for 90% loan-to-value mortgages which have begun to reinfranchise the first-time-buyer market. Clearly interest rates also remain extremely low and so overall there is now more activity in the market.

Table 3: Nominal UK House Price Indices (Index = 100 at highest level of series*.)

	Nationwide	LSL	Halifax
Jun-10	91.4	91.1	87.1
Jul-10	91.0	92.2	87.3
Aug-10	89.5	92.5	87.6
Sep-10	89.6	89.6	87.6
Oct-10	88.3	90.5	87.3
Nov-10	87.7	89.4	86.7
Dec-10	87.2	88.5	86.7
Jan-11	86.7	88.4	86.9
Feb-11	86.6	88.6	87.5
Mar-11	88.6	88.8	87.6
Apr-11	89.0	88.9	87.3
May-11	89.9	88.9	86.6
Jun-11	90.4	89.6	85.8

* Nationwide House Price Index peaked at 100 in October 2007, LSL Property Services/Acadametrics House Price Comparison Index at 100 in February 2008 and Halifax House Price Index in August 2007

The situation according to other indices is not so strong. The most general index, based on all prices including cash purchases, remains about 10% below its all-time peak like Nationwide, and is also growing but less strongly. The Halifax, with its bias to the North, is gloomier, both being another 4% below the peak and drifting lower. This seems to be due to its regional bias. The point is that the South of England has begun to recover fairly positively and in due course the North will follow. The house price figures, like the employment and unemployment figures, belie the general misery and suggest that current growth figures may rather understate the truth.

Looking ahead, we continue to see a slow recovery in prices, and this will go with a steady rise in volume of activity as confidence returns. It is all against the background of a slow recovery in the economy, with households under continued pressure from falling real (i.e. inflation-adjusted) incomes and a tough job market. With inflation still a problem that will only worsen if sterling falls any further, interest rates will rise slowly as well. Nevertheless housing demand remains strong as always and with supply growth strictly limited by planning and the lack of recent building, prices will go on strengthening.

THE UK ECONOMY

Vo Phuong Mai Le

The UK economy returned to a slow recovery path. Real GDP increased by 0.2% in Q2 2011; in the previous two quarters it had not grown at all overall (dropping 0.5% in Q4, and rising by the same in Q1). Of course these preliminary estimates from the ONS are highly uncertain.

Output grew across all sectors with the exception of manufacturing: manufacturing output decreased 0.3% in Q2 after rising 0.7% in Q1. Other indicators also signalled that the manufacturing sector contracted. The CIPS manufacturing index was 49.1 in July, down from 51.4 in June. According to the CBI's monthly industrial trend survey, manufacturers' expectations of output growth worsened. In July, 18% predicted an increase, while 28% expected a fall, a balance of −10% marks the first big decline in sentiment in two years. This was part of a worldwide pattern, partly associated with the Japanese disaster's effects on the world supply chain, partly also with world monetary tightening.

Construction output rose 0.5% in Q2, compared to a decrease of 3.4% in Q1. The CIPS construction purchasing managers' index of 53.5 signalled a solid increase of activity in the UK construction sector in July.

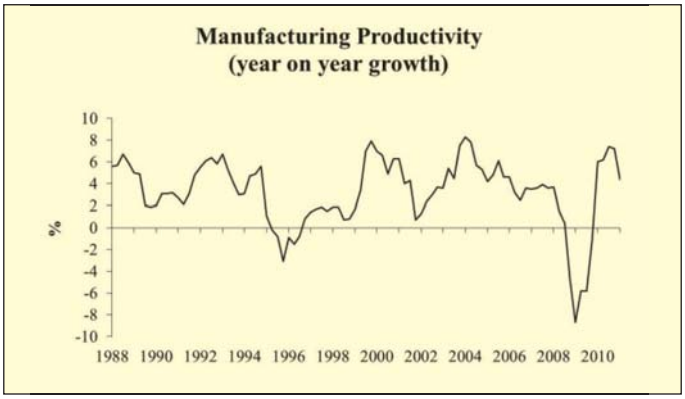
In the service sector, output rose 0.5% in Q2, after an increase of 0.9% in Q1. This is consistent with a strong rise in CIPS services in July to 55.4, up from 53.9 in June. The largest contribution to the growth was from business services and finance which rose by 0.7% in Q2. Government and other services showed zero growth, compared with a 1.1% increase in Q1.

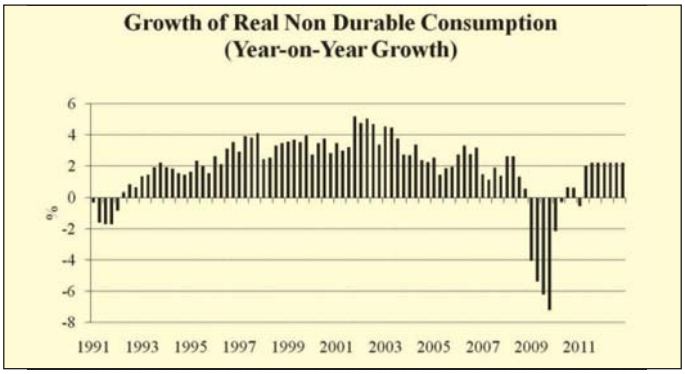
The 0.5% GDP recovery in Q1 went into foreign demand and public spending (we have no demand breakdown yet for Q2). Net trade contributed 1.4 percentage points to GDP growth with increasing exports (2.4%) and falling imports (−2.4%). Public expenditure rose 0.5% in Q2; that is 1.1% higher than the year earlier despite the budget squeeze. All other components of the GDP breakdown continued to decline and contributed negatively to the growth: falls in private consumption of 0.6% and in investment of 4.2%.

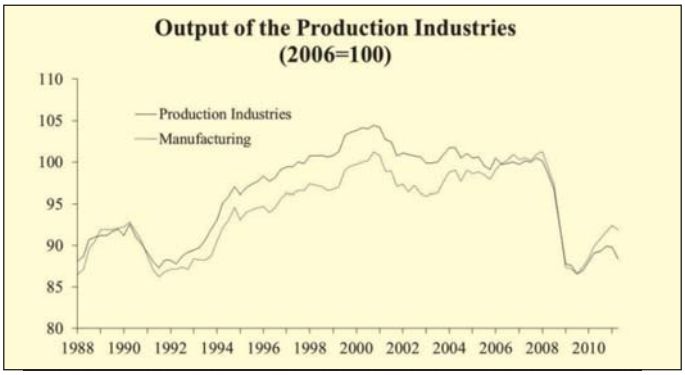
Cost and prices

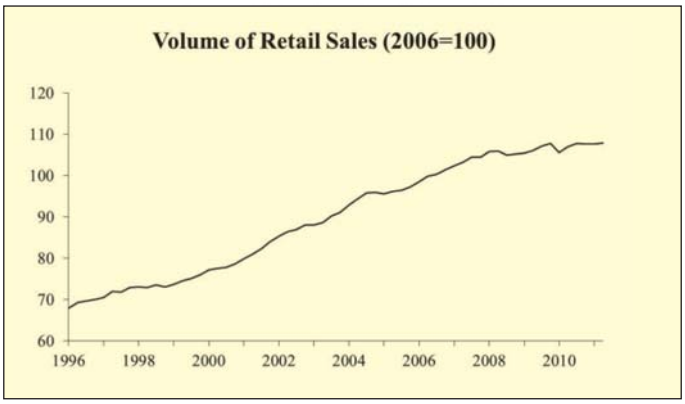
CPI inflation year-on-year was 4.4% in July, rising from June's 4.2%. The acceleration still reflected the effects of past increases in both the standard rate of VAT to 20% and import prices. The RPIX index (RPI excluding mortgage interest payments) was 5.0% in July, unchanged from the previous month.

CPI inflation has been persistently above its 2% target, the Bank of England predicted that it will reach 5% later this









year following rises in utility prices, and past increases in VAT, oil and import prices. It believes that the fading of these effects together with a persistently weak labour market will bring inflation down through 2012 and into 2013. Consistent with this prediction, household's inflation expectations beyond a year ahead were 3.5% in Q1, and slightly lower at 3.3% in Q2, though both are a lot higher than the target of 2%. In spite of the existence of some spare capacity, high inflation expectations lead to higher wages and prices. Annual factory gate inflation for all manufactured products rose 5.9% in July compared to 5.7% in June and 5.4% in May. Input price annual inflation rose to 18.5% in July from 16.8% in June. In May average weekly earnings growth rate (on a year earlier) was 2.3%.

Labour market

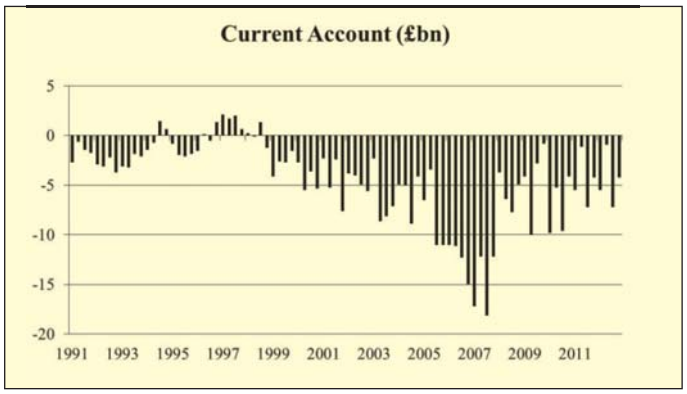
The labour market situation remained very weak. The unemployment rate for three months to June was 7.9%, up 0.1% on the quarter. During the same period, the employment rate also remained unchanged at 70.7%. The claimant count marginally worsened to 4.9% in July, from 4.8% in June.

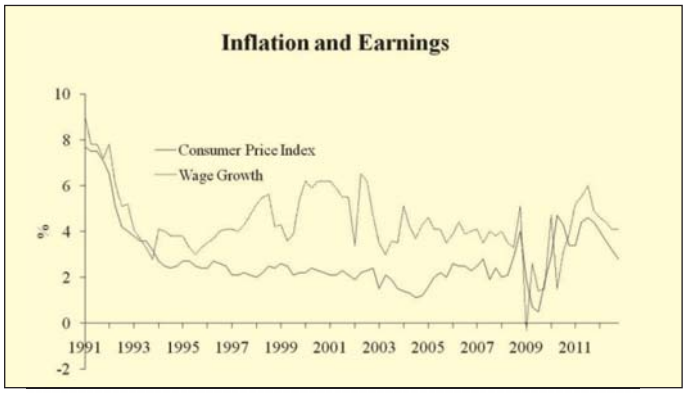
Trade

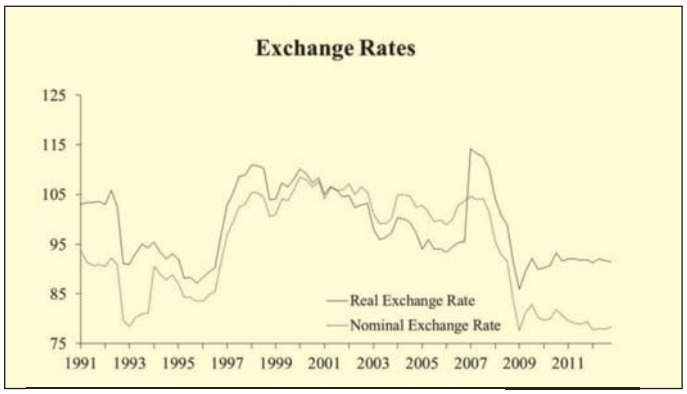
In Q1 the deficit on trade of goods decreased by £5.0 billion to £22.2 billion, the surpluses on trade in services and net foreign income were £13.8 billion and £4.6 billion. Overall the current account deficit decreased to 2.5% of GDP, against 3.5% of GDP in Q4 2010.

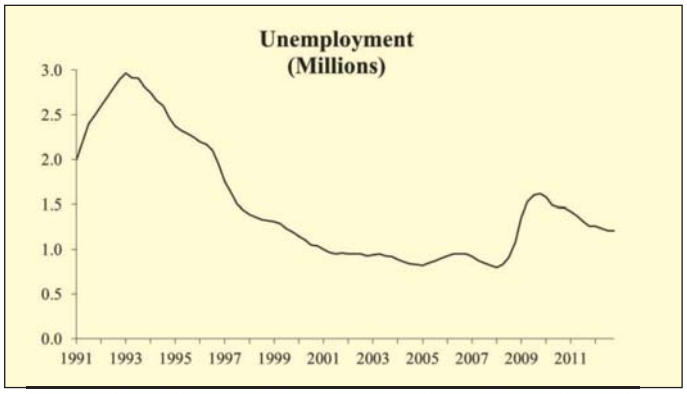
Monetary and fiscal developments

Notes and coins in circulation grew 5.3% in July on a year earlier. The year-on-year growth rate of broad money — M4, including bank and building society deposits held by households and firms — rose to 0.3% in Q2 from 0.2% in Q1. Excluding lending to 'intermediate financial companies', growth was –0.7%. UK banks are still putting a squeeze on their lending to businesses and households while high inflation causes negative real yields on broad money holdings, making deposits unattractive. Corporations have had no external financing needs but what they have raised externally has come through the financial markets where investors have been diverting their funds to find positive real yields.



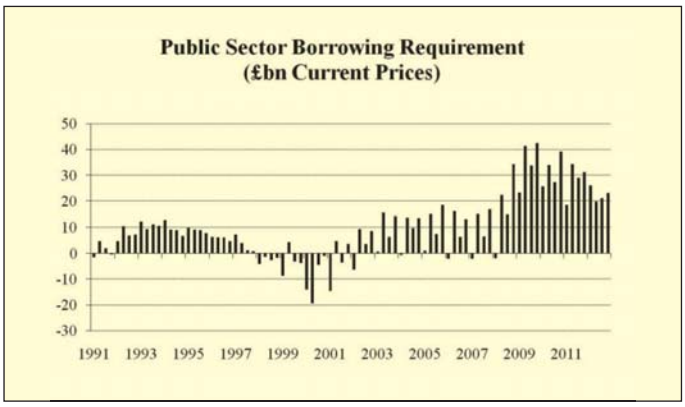


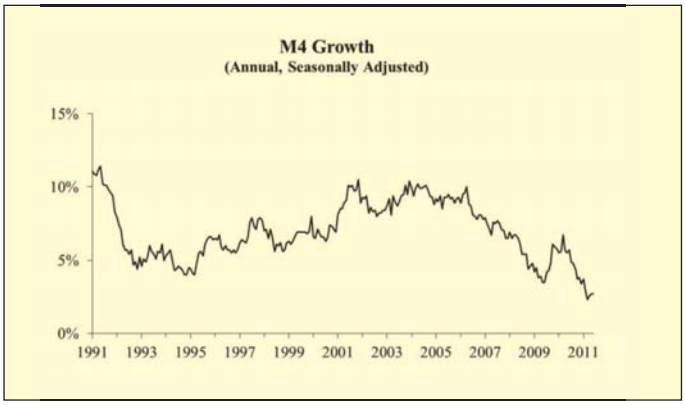




High inflation demands an increase in the policy rate, but the Bank of England maintained its official lending rate at 0.5% at the Monetary Policy Committee meeting in August. It also maintained the stock of asset purchases financed by the issuance of central bank reserves at £200 billion; hence it has done no further Quantitative Easing, but has not unwound what it had already done to date.

In the fiscal year 2011/2012 the public sector current budget — government income minus spending on current costs — was £14.0 billion in June 2011, compared with £13.6 billion in June 2010. Public net borrowing excluding financial intervention was £39.2 billion in the fiscal year to June, down from £39.5 billion from the same period of 2010/2011. At the end of June, public sector net debt was £944.3 billion or 61.9% of GDP. This compares with £803.7 billion (55.3% of GDP) at the end of June 2010. So far it seems that the 'cuts' have not really come into play.





UK FORECAST DETAIL

Prices, Wages, Interest Rates and Exchange Rate Forecast (Seasonally Adjusted)

	Inflation %[1] (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100)[2]	Real Exchange Rate[3]	Real 3 Month Int. Rates %[4]	Inflation (RPIX)	Real Short Dated Rate of Interest[5]
2008	3.0	4.0	5.1	91.1	100.4	3.8	4.0	1.2
2009	1.3	2.8	0.8	80.6	89.6	-3.0	-0.5	-0.1
2010	3.8	2.3	0.7	80.5	91.5	-3.6	4.6	-0.5
2011	4.2	2.4	0.9	79.7	92.1	-2.5	5.1	0.1
2012	3.4	2.9	1.5	78.4	93.3	-0.8	3.9	0.8
2013	2.2	3.4	2.0	77.6	91.6	0.5	2.8	1.4
2010:1	2.9	2.8	0.5	79.7	90.3	-2.9	4.0	0.0
2010:2	4.7	2.2	0.7	80.0	90.8	-3.7	5.1	-0.7
2010:3	4.3	1.8	0.6	81.8	93.3	-4.0	4.7	-1.0
2010:4	3.4	2.3	0.8	80.3	91.6	-3.6	4.7	-0.3
2011:1	3.4	2.7	0.8	80.9	92.1	-3.2	5.3	0.1
2011:2	4.4	2.2	0.8	79.4	92.3	-2.8	5.0	-0.2
2011:3	4.6	2.4	0.9	79.2	91.8	-2.3	5.2	0.1
2011:4	4.4	2.5	1.0	79.4	92.0	-1.8	5.0	0.3
2012:1	4.0	2.7	1.2	78.9	97.9	-1.4	4.5	0.6
2012:2	3.6	2.9	1.4	78.1	92.1	-1.0	4.1	0.8
2012:3	3.2	2.9	1.6	78.0	91.7	-0.6	3.6	0.9
2012:4	2.8	2.9	1.9	78.4	91.5	-0.1	3.2	0.9

1 Consumer's Expenditure Deflator
2 Sterling Effective Exchange Rate Bank of England
3 Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate
4 Treasury Bill Rate less one year forecast of inflation
5 Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100)[1]	Wage Growth[2]	Unemployment (New Basis) Percent[3]	Millions	Real Wage Rate[4] (1990=100)	Long-Run Real Wage Rate[5]	Long Run 'Natural' Level of Unemployment[6]
2008	216.4	3.2	2.8	0.9	135.7	155.6	1.2
2009	219.1	1.4	4.7	1.5	135.8	160.7	1.2
2010	227.1	3.3	4.6	1.5	134.8	164.0	1.4
2011	239.4	5.4	4.1	1.3	137.0	165.8	1.2
2012	249.6	4.3	3.7	1.2	139.0	170.3	1.3
2013	258.7	3.6	3.4	1.2	141.1	174.8	1.4
2010:1	224.1	4.7	4.8	1.6	136.1	160.8	1.5
2010:2	226.0	1.5	4.6	1.5	133.2	162.3	1.5
2010:3	228.0	3.1	4.5	1.5	134.0	165.6	1.3
2010:4	230.4	3.9	4.4	1.5	136.0	167.1	1.3
2011:1	235.8	5.2	4.3	1.4	137.5	163.6	1.2
2011:2	238.4	5.5	4.1	1.4	135.2	165.1	1.2
2011:3	241.7	6.0	4.0	1.3	137.0	166.6	1.2
2011:4	241.8	4.9	3.8	1.3	138.1	168.0	1.2
2012:1	246.5	4.6	3.8	1.3	139.5	168.0	1.3
2012:2	248.8	4.4	3.7	1.2	137.2	169.6	1.3
2012:3	251.6	4.1	3.6	1.2	139.1	171.0	1.3
2012:4	251.6	4.1	3.6	1.2	140.1	172.5	1.3

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as percentage of employed and unemployed, self employed and HM Forces
4 Wage rate deflated by CPI
5 Long-run equilibrium real wage rate (% of actual) 100=Equilibrium
6 Long-run equilibrium values (millions)

Estimates and Projections of the Gross Domestic Product[1] (£ Million 1990 Prices)

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption[2]	Private Sector Gross Investment Expenditure[3]	Public Authority Expenditure[4]	Net Exports[5]	AFC
2008	145.1	694729.2	428524.4	250447.7	176493.3	-52108.8	108627.4
2009	138.0	660862.7	413300.8	205532.9	181442.5	-40858.9	98554.6
2010	139.9	669810.2	411410.8	235510.7	183154.1	-53071.8	107193.7
2011	142.0	679635.2	417430.1	248336.2	177764.5	-47873.1	116022.6
2012	145.1	694861.3	426594.0	264376.5	172846.2	-47836.5	121118.9
2013	149.3	715012.3	438191.4	282882.9	168735.8	-45228.3	124752.5
2008/07	-0.1		0.8	-2.9	3.7		8.7
2009/08	-4.9		-3.6	-17.9	2.8		-9.3
2010/09	1.4		-0.5	14.6	0.9		8.8
2011/10	1.5		1.5	5.4	-2.9		8.2
2012/11	2.2		2.2	6.5	-2.8		4.4
2013/12	2.9		2.7	7.0	-2.4		3.0
2010:1	138.5	165821.0	102421.4	55294.8	48133.9	-13105.8	26923.3
2010:2	140.0	167592.6	103082.2	56440.7	44303.5	-12801.7	23432.1
2010:3	140.9	168624.1	103222.8	59848.4	45318.7	-13187.4	26578.4
2010:4	140.2	167772.5	102684.4	63926.8	45398.1	-13977.0	30259.9
2011:1	140.8	168554.8	101873.2	58179.9	47841.7	-10544.6	28795.5
2011:2	141.1	168891.9	105135.5	61335.2	42525.5	-11692.5	28411.8
2011:3	142.2	170243.0	105484.5	61574.6	43589.1	-11684.5	28720.6
2011:4	143.7	171945.5	104936.9	67246.6	43808.3	-13951.6	30094.7
2012:1	144.2	172633.3	104106.8	61608.2	46362.1	-10529.1	28914.7
2012:2	144.8	173323.8	107443.5	65364.2	41289.9	-11674.7	29099.1
2012:3	145.4	174017.1	107802.4	65493.2	42470.9	-11681.1	30068.3
2012:4	146.1	174887.2	107241.3	71910.9	42723.3	-13951.6	33036.8

1 GDP at factor cost. Expenditure measure; seasonally adjusted
2 Consumers expenditure less expenditure on durables and housing
3 Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building
4 General government current and capital expenditure including stock building
5 Exports of goods and services less imports of goods and services

Financial Forecast

	PSBR/GDP %[1]	GDP[1] (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2008	5.7	1269.0	72.5	33.2	-23.8
2009	10.5	1231.9	129.7	32.5	-23.9
2010	10.2	1319.8	118.7	36.7	-28.7
2011	8.2	1391.5	120.2	42.4	-18.0
2012	5.9	1465.9	87.2	47.6	-17.8
2013	4.9	1540.7	75.5	50.4	-17.5
2010:1	8.3	318.0	25.7	8.4	-9.8
2010:2	10.9	320.3	33.9	8.8	-5.2
2010:3	8.6	328.8	27.3	8.9	-9.6
2010:4	11.7	334.2	39.0	9.2	-4.1
2011:1	10.0	336.6	18.5	9.7	-5.5
2011:2	8.1	342.9	34.2	10.1	-1.1
2011:3	8.3	348.0	29.0	10.3	-7.2
2011:4	9.0	346.1	31.1	10.7	-4.2
2012:1	7.3	354.5	25.9	11.3	-5.5
2012:2	5.5	362.0	19.8	11.6	-0.9
2012:3	5.8	366.3	21.1	11.8	-7.2
2012:4	6.3	364.6	23.0	12.0	-4.2

1 GDP at market prices (Financial Year)

Recent indicators suggest that the global economic recovery has slowed down: the factors include monetary tightening in major economies such as China, India and Brazil, supply-chain disruptions from the Japanese earthquake, as well as high commodity prices and balance sheet corrections in many advanced economies. Although the Purchasing Managers' Index (PMI) for global all-industry output rose slightly to 52.6 in July from 52.3 in May, it is below the high of 57.3 in Q1 2011. Across sectors, the PMI for global manufacturing output fell to 51.0 in July from 52.6 in June, while the global output PMI for the service sector rose to 53.1 from 52.2 in June. However, the global PMIs are still above the threshold of 50, indicating that the global economy continues growing. Growth in global trade in goods rose 1% in the months to May from around 3% in Q1. Latest IMF forecasts suggest growth will slow to 4.5% from over 5% for the world economy as a whole.

In the OECD inflation is under control with a weak labour market and some spare capacity; long-term inflation expectations have also not risen. Annual headline CPI inflation in the OECD was 3.1% in June compared to 3.2% in the previous month. Excluding food and energy, annual inflation was 1.7% in June, unchanged from May. Input prices started to ease with the global slowdown causing a correction in some commodity prices. In emerging countries, rising capacity constraints continue to push inflation rates higher, to 6.4% in China and 6.7% n Brazil in June.

USA

The US economy continued to recover. Real GDP increased by 0.3% quarter-on-quarter in Q2, after a rise of 0.1% in Q1. This acceleration reflected strong investment growth and a positive contribution from federal government spending and trade. Growth was held back by a sharp deceleration in personal consumption. Real personal consumption was almost flat, growing at 0.025% quarter-on-quarter in Q2, after a rise of 0.52% in Q1. Investment continued making a positive contribution to GDP growth. It was driven by the rebound in non-residential fixed investment (1.6% after an increase of 0.53% in Q1) and the continuing expansion in residential investment (a 2% increase after 3.6% in Q1).

Net exports added 0.6 percentage points to quarterly growth, as exports grew strongly and imports growth decelerated. Real exports of goods and services rose 1.5% quarter-on-quarter in Q2 after increasing 1.98% in Q1. Imports increased 0.33% in Q2 after rising 2.1% in the previous quarter.

The labour market has shown some improvement from its previously lacklustre performance. Non-farm payroll employment rose 117,000 in July, compared with 53,000 in May and 46,000 in June. The unemployment rate decreased marginally to 9.1% from 9.2% in June, after increasing in the previous three months. The high level of unemployment continues to hold down wage growth. In July hourly wages rose 2.3% year-on-year after 2.0% in both May and June.

U.S.: Annual Growth Rates of Real GNP and Consumer Prices

USA

	2007	2008	2009	2010	2011	2012
Real GDP Growth (% p.a.)	1.9	0.0	−2.6	2.6	1.9	3.0
Inflation (% p.a.)	2.9	3.8	−0.3	1.8	2.9	2.0
Nominal Short Int. Rate	4.4	1.5	0.2	0.1	0.3	0.5
Real Short Int. Rate	0.6	1.8	−1.6	−1.8	−1.7	−1.5
Nominal Long Int. Rate	4.6	3.7	3.2	3.1	3.2	4.0
Real Long Int. Rate	2.8	2.2	1.3	1.1	1.2	2.0
Real Ex. Rate (1996=100)[1]	83.4	80.1	88.7	81.7	81.8	82.0
Nominal Ex. Rate[2]	89.38	81.72	81.61	82.12	83.97	83.94

[1]The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation of the real exchange rate.
[2] The series for the USA is a trade weighted index (1990=100)

Annual CPI inflation was 3.6% in June; excluding food and energy it was 2.0%, compared to 1.8% in May. Underlying inflation is consistent with the implicit target of 2%. In the light of the sharp deterioration of the economic environment that is related to weaker economic growth, the S &P downgrade of the US debt, the European sovereign debt crisis, and their effects on financial markets, at the August meeting, the Federal Open Market Committee (FOMC) indicated the intention of maintaining the federal funds rate at 0–0.25% at least through mid-2013. Other aspects of the monetary policy remain unchanged. The Federal Reserve continues to reinvest any repayments of its existing securities holdings. They did not announce a new round of quantitative easing, but discussed the range of policy tools that it was prepared to use if necessary in the future if market conditions do not improve. However the Fed is now well aware of the way its monetary looseness spreads rapidly to the emerging market economies and commodity prices and this knowledge seems to be counteracting its desire to produce a new monetary stimulus.

As regards to fiscal policy, the fiscal deal agreed at the beginning of August is based on a two-stage approach. The

first part includes government spending cuts of $0.9 trillion over the next decade. The second part forms the congressional 'super'-committee which will recommend measures to reduce the deficit by a further £1.5 trillion through spending cuts and tax increases over the next 10 years. These recommendations are to be reported before the end of the year, and if they are not approved, cuts to education, defence and medicare would be enacted automatically.

Japan

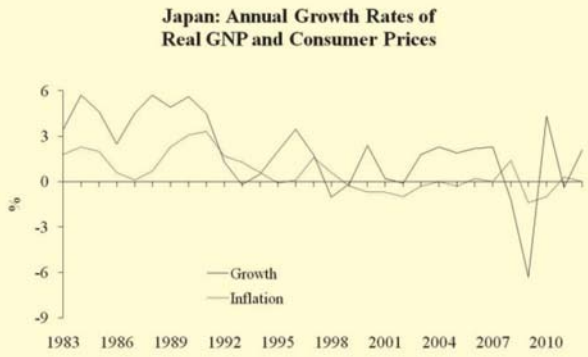
The Japanese economy is back to its recovery path after deceleration in Q4 2010 and the supply-side constraints from the earthquake and tsunami. Industrial production expanded by 3.9% in June after rising 6.2% in May. The recovery in manufacturing helped exports to pick up. Real exports of goods rose 8.6% in June, after increasing 4.6% in May. Core machinery orders rose 7.7% month-on-month in June, suggesting an improved investment outlook. The business climate improved according to the Economy Watchers Survey (52.6 in July compared to 49.6 in June) alongside the continuous rise in consumer sentiment (37.7 in July compared to 36.2 in June and 34.8 in May).

The economy continues to have very little price movement. Annual headline CPI inflation eased slightly in June to 0.2% from 0.3% in May. Annual inflation excluding food and energy was 0.1%, unchanged from May.

At the July meeting, the Bank of Japan decided to keep the overnight call rate unchanged at 0.0–0.1%. On the 4th August, the Japanese authorities intervened in the foreign exchange markets to weaken the yen to bring the exchange rate to 79.96 against the dollar from 77.06 on the previous day. The sovereign debt problem in the US and Europe made investors seek safe havens in the Japanese yen along with the Swiss franc and precious metals. Before the intervention the exchange against the US dollar reached 76.29, close to the post-World War II peak of 76.25. The intervention was considered to be a necessary step to ease the pressure on the exports sector that is the main driver of the Japanese economy and that has already suffered from the supply-chain disruptions and damage from the tsunami. Following the intervention, the Bank of Japan announced an increase of its asset purchase programme from 40 trillion yen to 50 trillion yen.

Germany

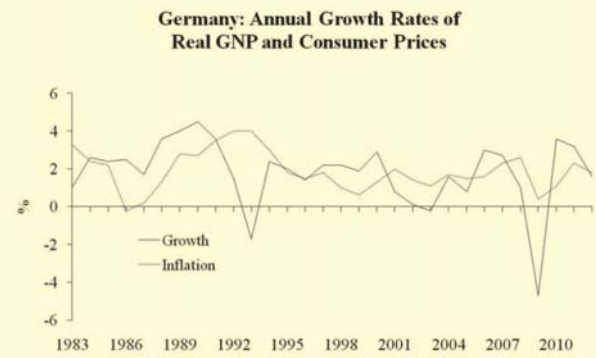
The economic recovery continues. Real GDP rose 1.5% in Q1 2011, after an increase of 0.4% in Q4 2010. Total investment rose sharply by 5.0% after declining 0.2% in the previous quarter. Growth was recorded in both private consumption (0.4% in Q1 after a rise of 0.6% in Q4 2010) and public consumption (1.3% after declining 0.2% in Q4 2010). Net exports contribution of 0.5 percentage points to GDP growth was unchanged from the previous quarter, as acceleration in imports outweighed the growth in exports.



Japan

	2007	2008	2009	2010	2011	2012
Real GDP Growth (% p.a.)	2.3	−1.2	−6.3	4.3	−0.4	2.1
Inflation (% p.a.)	0.0	1.4	−1.4	−1.0	0.3	0.0
Nominal Short Int. Rate	0.6	0.4	0.1	0.1	0.4	0.4
Real Short Int. Rate	−0.8	1.8	1.1	0.5	0.4	0.3
Nominal Long Int. Rate	1.7	1.5	1.3	1.1	1.2	1.5
Real Long Int. Rate	2.0	2.0	1.4	1.1	1.1	1.3
Real Ex. Rate (1996=100)[1]	81.2	87.9	89.0	80.2	79.8	79.7
Nominal Ex. Rate[2]	117.75	103.40	93.56	87.76	87.10	87.00

[1]The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation of the real exchange rate.



Germany

	2007	2008	2009	2010	2011	2012
Real GDP Growth (% p.a.)	2.7	1.0	−4.7	3.6	3.2	1.6
Inflation (% p.a.)	2.3	2.6	0.4	1.1	2.3	1.8
Nominal Short Int. Rate	3.9	3.9	0.7	0.4	1.5	2.5
Real Short Int. Rate	1.3	3.5	−0.4	−1.3	−0.3	0.5
Nominal Long Int. Rate	4.3	4.4	4.0	3.8	3.8	4.0
Real Long Int. Rate	2.8	3.0	2.3	1.9	1.8	2.0
Real Ex. Rate (1996=100)[1]	104.6	105.1	105.8	99.3	99.0	99.1
Nominal Ex. Rate[2]	0.73	0.68	0.72	0.75	0.78	0.78

[1]The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation of the real exchange rate.

Exports rose 2.3% after 1.8% in Q4 2010. Imports rose 1.5% compared to 0.8% in Q4 2010. Inventories continue to contribute negatively to the growth (−0.4 percentage points after −0.5 percentage points in Q4).

However, the recent data and survey indicators showed that the economy was on a weakening path into the second half. Industrial production declined 0.9% in June after rising 1.4% in May and 0.1% in April. Business sentiment was affected badly by the fiscal crisis in Europe and the US.

The IFO business climate index fell to 112.9 in July from 114.5 in June. The ZEW expectation index, measuring investor and analyst opinion on trends in future activity, decreased for the fifth consecutive month to −15.1 in July from −9.0 in June. This is the lowest level since January 2009, and far below the long-term average of 26.2.

The labour market worsened slightly in line with the economy. In July the unemployment rate rose for the first time since January 2011 to 7.0% from 6.9% in June. Employment fell in May by 1.3% and by a further marginal 0.03% in June.

France

The French economic recovery has stalled. After the strong acceleration to 0.9% growth in Q1, real GDP growth was flat in Q2. Private consumption fell 0.7% in Q2 after increasing 0.4% in the previous quarter. Total investment rose only by 0.9% in Q2, compared to a rise of 1.2% in Q1. Net exports contributed 0.3 percentage points to the GDP growth as imports fell more dramatically (−0.9% in Q2 from a rise of 3.1% in Q1) than exports (0.0% from 1.8% in Q1).

Production has weakened in line with GDP and survey data. In Q2 industrial output decreased 0.5%. Manufacturing output declined 0.4% in Q2 compared to a rise of 3.8% in the previous quarter. The composite business climate index deteriorated in July to 105 from 109 in June and 108 in May. This decline happened through almost all economic sectors. But the largest decline was in the manufacturing sector (the index dropped from 110 in June to 105 in July).

Annual CPI inflation decreased to 1.9%, after standing at 2.1% in June. The drop was driven by the decrease of prices of manufactured products (−0.8% year-on-year) and fresh products (−3.7% year-on-year), in combination with the summer sales. The core inflation rate was slowing down from 1.2% in June to 0.9% in July.

Italy

The economic recovery was weak. Real GDP rose 0.1% in Q1 2011 after a 0.1% rise in Q4 2010. The growth reflected small increases in both domestic and foreign demand. Private consumption rose 0.3%. Investment rose only 0.1% in Q1 after declining 0.8% in the previous quarter. Net exports added 0.2 percentage points to the Q1 GDP growth, with exports rising by 1.4% and imports by 0.7%. The recent June purchasing managers' survey and data indicate an economic contraction. Italy's composite PMI fell to 48.4, below the threshold of 50. Industrial production declined 0.6% month-on-month in May.

As the European debt crisis spread, Italy became a victim of investors' fear. Italy is the euro zone's third biggest economy and is the biggest borrower with a debt to GDP ratio of 120%. The absolute size of its debt is bigger than that of Greece, Portugal, Spain and Ireland combined. However, its economic growth is low. The fear of default pushed the interest rate on Italy's 10-year government bonds up to over 6%. As a condition for the ECB to buy its bonds to lower the borrowing cost, the government had to plan fiscal consolidation to lower the budget deficit below 3% by 2012 and to balance the budget by 2013. The plan on the 12th August will cut euro 20 billion from the deficit

France: Annual Growth Rates of Real GNP and Consumer Prices

France

	2007	2008	2009	2010	2011	2012
Real GDP Growth (% p.a.)	2.3	0.1	−2.5	1.5	1.8	1.6
Inflation (% p.a.)	1.5	2.8	0.1	1.5	2.0	1.8
Nominal Short Int. Rate	3.9	3.9	0.7	0.4	1.5	2.5
Real Short Int. Rate	1.1	3.8	−0.8	−1.4	−0.3	0.5
Nominal Long Int. Rate	4.3	4.4	4.0	3.8	3.8	4.0
Real Long Int. Rate	2.7	3.0	2.2	1.9	1.8	2.0
Real Ex. Rate (1996=100)[1]	104.9	106.4	104.3	101.7	102.0	102.0
Nominal Ex. Rate[2]	0.73	0.68	0.72	0.75	0.78	0.78

[1]The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation of the real exchange rate.

Italy: Annual Growth Rates of Real GNP and Consumer Prices

Italy

	2007	2008	2009	2010	2011	2012
Real GDP Growth (% p.a.)	1.4	−1.3	−5.1	0.9	0.8	1.0
Inflation (% p.a.)	1.8	3.4	0.8	1.5	2.6	1.9
Nominal Short Int. Rate	3.9	3.9	0.7	0.4	1.5	2.5
Real Short Int. Rate	0.5	3.1	-0.8	-1.4	-0.3	0.5
Nominal Long Int. Rate	4.3	4.4	4.0	3.8	3.8	4.0
Real Long Int. Rate	2.4	2.8	2.2	1.9	1.8	2.0
Real Ex. Rate (1996=100)[1]	105.0	106.6	105.4	100.5	100.8	101.0
Nominal Ex. Rate[2]	0.73	0.68	0.72	0.75	0.78	0.78

[1]The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation of the real exchange rate.

by 2012 and 25 billion by 2013. The measures include new taxes on high earners and further cuts to regional budgets.

Euro-Zone Monetary Development

The Harmonised Index of Consumer Prices (HICP) inflation rate was 2.5% in July, down from 2.7% in June. The high inflation rates reflected high energy and commodity prices. The Governing Council of the ECB expects short-term upward pressure on inflation due to the same factors mentioned above. However, as long as the rise in inflation does not affect price and wage-setting, inflation expectations over the medium term to longer term will be firmly anchored at an inflation rate around 2%. Since the last Quarterly Economic Bulletin, concerning with upside risk to the price stability, the Governing Council voted to raise the key policy twice in April to 1.25% and in July to 1.5%. However, in the line with recent economic deceleration and rising economic uncertainty, at the meeting on the 4th August, the Governing Council decided to keep the key policy rate unchanged at 1.5%. Besides the standard measures, to relieve the tensions in financial markets the Council decided to conduct a supplementary 6-

month Longer-term Refinancing Operation (LTRO) to smooth the functioning of the market. They will finance the full amount at a fixed rate equal to the average rate of the main refinancing operations (MROs) over the life of the

supplementary LTRO. The operation was announced on the 9th August, with allotment on the 10th August and settlement on the 11th August. It will mature on the 1st March 2012. Also, the sovereign debt crisis intensified, the ECB decided to re-intervene in the debt market by using the Securities and Market Program, under which it buys debt securities on the secondary market.

Broad money (M3) growth year-to-year decreased to 2.1% in June from 2.5% in May. A relatively steep yield curve caused outflows from monetary assets included in M3 into longer-term instruments outside M3. The annual growth rate of loans to the private sector also declined to 2.5% in June from 2.7% in May.

WORLD FORECAST DETAIL

Growth Of Real GNP

	2007	2008	2009	2010	2011	2012
U.S.A.	1.9	0.0	–2.6	2.6	1.9	3.0
U.K.	2.7	–0.1	–4.9	1.4	1.5	2.2
Japan	2.3	–1.2	–6.3	4.3	–0.4	2.1
Germany	2.7	1.0	–4.7	3.6	3.2	1.6
France	2.3	0.1	–2.5	1.5	1.8	1.6
Italy	1.4	–1.3	–5.1	0.9	0.8	1.0

Growth Of Consumer Prices

	2007	2008	2009	2010	2011	2012
U.S.A.	2.9	3.8	–0.3	1.8	2.9	2.0
U.K.	2.9	3.0	1.3	3.8	4.2	3.4
Japan	0.0	1.4	–1.4	–1.0	0.3	0.0
Germany	2.3	2.6	0.4	1.1	2.3	1.8
France	1.5	2.8	0.1	1.5	2.0	1.8
Italy	1.8	3.4	0.8	1.5	2.6	1.9

Real Short-Term Interest Rates

	2007	2008	2009	2010	2011	2012
U.S.A.	0.6	1.8	–1.6	–1.8	–1.7	–1.5
U.K.	2.9	3.8	–3.0	–3.6	–2.5	–0.8
Japan	–0.8	1.8	1.1	0.5	0.4	0.3
Germany	1.3	3.5	–0.4	–1.3	–0.3	0.5
France	1.1	3.8	–0.8	–1.4	–0.3	0.5
Italy	0.5	3.1	–0.8	–1.4	–0.3	0.5

Nominal Short-Term Interest Rates

	2007	2008	2009	2010	2011	2012
U.S.A.	4.4	1.5	0.2	0.1	0.3	0.5
U.K.	5.9	5.1	0.8	0.7	0.9	1.5
Japan	0.6	0.4	0.1	0.1	0.4	0.4
Germany	3.9	3.9	0.7	0.4	1.5	2.5
France	3.9	3.9	0.7	0.4	1.5	2.5
Italy	3.9	3.9	0.7	0.4	1.5	2.5

Real Long-Term Interest Rates

	2007	2008	2009	2010	2011	2012
U.S.A.	2.8	2.2	1.3	1.1	1.2	2.0
U.K.	2.3	1.2	–0.1	–0.5	0.1	0.8
Japan	2.0	2.0	1.4	1.1	1.1	1.3
Germany	2.8	3.0	2.3	1.9	1.8	2.0
France	2.7	3.0	2.2	1.9	1.8	2.0
Italy	2.4	2.8	2.2	1.9	1.8	2.0

Nominal Long-Term Interest Rates

	2007	2008	2009	2010	2011	2012
U.S.A.	4.6	3.7	3.2	3.1	3.2	4.0
U.K.	5.0	4.0	2.8	2.3	2.4	2.9
Japan	1.7	1.5	1.3	1.1	1.2	1.5
Germany	4.3	4.4	4.0	3.8	3.8	4.0
France	4.3	4.4	4.0	3.8	3.8	4.0
Italy	4.3	4.4	4.0	3.8	3.8	4.0

Index Of Real Exchange Rate(2000=100)[1]

	2007	2008	2009	2010	2011	2012
U.S.A.	83.4	80.1	88.7	81.7	81.8	82.0
U.K.	98.9	87.6	78.2	79.9	80.4	81.4
Japan	81.2	87.9	89.0	80.2	79.8	79.7
Germany	104.6	105.1	105.8	99.3	99.0	99.1
France	104.9	106.4	104.3	101.7	102.0	102.0
Italy	105.0	106.6	105.4	100.5	100.8	101.0

[1] The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation in the real exchange rate.

Nominal Exchange Rate (Number of Units of Local Currency To $1)

	2007	2008	2009	2010	2011	2012
U.S.A.[1]	89.38	81.72	81.61	82.12	83.97	83.94
U.K.	2.00	1.85	1.57	1.55	1.59	1.56
Japan	117.75	103.40	93.56	87.76	87.10	87.00
Eurozone	0.73	0.68	0.72	0.75	0.78	0.78

[1] The series for the USA is a trade weighted index (1990=100); the series for the UK is $ per £

* Forecasts based on the Liverpool World Model

JAPAN: WHAT WAS THE EFFECT OF THE DISASTER?

Francesco Perugini

Introduction: The immediate costs and measures

On 11 March, Japan was hit by one of the most violent earthquakes in its history. With an exceptional magnitude of 9 on the Richter scale, the earthquake was 50 times stronger than the one that destroyed Kobe in 1995. It caused a tsunami on the North East coast and damaged the Fukushima nuclear plant, with a considerable release of radiation. At the moment, the number of casualties is still unknown but it is expected to exceed 20,000. There was severe destruction of buildings and infrastructure. These events have hit the economy severely and will continue to have effects over the coming months.

The government estimate the damage at about ¥16.9 trillion over three years, or about 3% of GDP, double that of the Kobe quake. In terms of economic activity, as shown by previous experience, the economic impacts of these events are typically large for a quarter or two after the event, and are mostly concentrated in the region of the disaster. After about two quarters, however, growth is boosted by the reconstruction effort. For instance, the damage from the Kobe quake was put at ¥10 trillion, or 2.5% of Japanese GDP, but the recovery was reasonably quick and certainly faster than expected at the time. Manufacturing production, for example, fell by 2.7% in January 1995 before rising by 4.4% over the following three months, while GDP rose by 1.9% in that year and 2.6% in 1996, the strongest period of growth since the early 1990s recession — later studies on the Kobe economy showed that other key economic indicators for the region covering production, trade and retailing were back at or near pre-earthquake trends within 12–18 months.

This time, estimates of economists at Morgan Stanley and RGE for the likely loss of GDP this year range between 1 and 3%, with a worst case scenario, if the loss of the coastal economies cripple the rest of the country, of 6.2%. Both groups predict a higher impact in terms of GDP than Kobe and a longer time for the economy to recover. The area of Sendai, the largest city directly affected, is not as economically significant as Kobe (it accounts for about 1.7% of Japan's total, less than half that of Kobe). But many important industrial factories including automobiles, nuclear energy, petrochemical, and semiconductor fabricators are located in the area, so there are large spillovers to the rest of the region and the country. Indeed, the car industry, which accounts for a tenth of Japan's industrial output, has stalled, with the disaster knocking out plants that make vital micro-controllers; Toyota and Nissan have already announced the interruption of production in their domestic plants. There have been repercussions in worldwide manufacturing through shortages of key inputs sourced from Japan.

Moreover, economists agree that in the current situation the extent of the economic impact will largely depend on developments at the Fukushima nuclear plant. Right after the quake eleven nuclear power plants and six refineries have been shut down around the Fukushima area. Uncertainty about how the contamination might unfold is great. Should the intensity of the nuclear contamination be high, there will be economic repercussions to other regions as well, already experiencing rationing of electricity and damages to transport routes; then the negative effect on growth will be much larger — the earthquake and tsunami destroyed or disrupted about 20% of the country's nuclear capacity and about 7% of Japan's capacity in nonnuclear thermal, including crude oil, coal and liquid natural gas.

The earthquake comes at a tough time for Japan. Last year GDP grew at almost 4%, leading some to hope that the economy was beginning to emerge from another lost decade before the disaster struck. The BOJ reacted quickly. Soon after the quake, it made almost ¥22 trillion (around 4% of GDP) available to financial institutions and doubled the asset purchasing program that forms part of its comprehensive easing strategy from ¥5 trillion to ¥10 trillion or 2% of GDP; this is the largest liquidity injection in Japanese history. The objective of the BOJ was to provide enough liquidity to banks to avoid defaults in the short-term and to rebuild market confidence: the Nikkei 225 has fallen by over 12% since March 11 so far. In 1995, after the Kobe earthquake, the Nikkei 225 slumped by 8% immediately and fell 26% overall. So it appears that BOJ policy has had a stabilising effect.

Also fiscal policy appeared to be ready to support reconstruction despite the well-known budgetary pressures, with Japanese public gross debt at almost 200% of GDP. According to a statement by Prime Minister Naoto Kan a rescue package of about ¥1.3 trillion is available for emergency measures, but it is possible that the government will have to spend as much as ¥10 trillion or 2% of GDP over coming years for reconstruction, according to Toshihiro Nagahama, chief economist at Dai-Ichi Life Research Institute. As a result, it is clear that the reconstruction of public infrastructure will require supplementary measures. Currently, the opposition party seems ready to cooperate to get a supplementary budget accepted. Sadakazu Tanigaki, leader of the Liberal Democratic Party (LDP), the main opposition party, announced that he agreed with Naoto Kan on a possible temporary tax increase for funding the reconstruction. But this cooperation will not last long. Major credit-ratings agencies recently cut their views on Japan's ability to repay its massive debt, citing the political obstacles that have hindered Kan's attempts to get tax-reform legislation passed. Standard Poor's lowered its rating to AA– while Moody's assigned a negative outlook on its rating of Aa2.

Before the earthquake and tsunami devastated the north east region, the country was already facing a slowing economy, fiscal strain, and deflation, and decades of wasteful spending had saddled the country with a debt more than twice the size of the economy. Now, beyond the tragedy's human toll, the economic costs are still being counted. If rebuilding is handled skilfully, and it leads to some general deregulation of the economy, there is hope that a different kind of Japan will emerge.

The short term effects on GDP

Two months on from March 11 the disaster-hit regions have started to move steadily towards recovery, but recent data confirm that the Japanese economy is experiencing a sharp once-for-all downward shift and that the effects on business and consumer sentiment are larger than previously thought.

Indeed, in the first quarter GDP fell by 0.9% from the previous quarter on a seasonally adjusted basis, after a downwardly revised 0.7% decline in the fourth quarter. Most of the reduction came via weaker consumption, which was much softer than the Cabinet Office's monthly indicators had suggested, and a sharp decline in inventories, which reflected the supply-chain disruption.

According to the Ministry of Economy, Trade & Industry output at factories and mines across the whole economy fell 15.3% in March; in the nine quake-affected prefectures it fell 31.9%, the largest decline since the series began in February 1953. Particularly affected was the auto industry which registered half of that decrease, with a record fall of 46.4%. As a result ratings firm Standard Poor's cut its outlook on the three biggest quake-hit Japanese auto makers, i.e., Toyota Nissan and Honda. The car companies restarted all of their domestic plants in mid-April, but output will not be restored to normal for some time as some parts suppliers are still struggling to restore production. Economists at Credit Suisse estimate that Japanese auto makers' global production could drop 37% in the first half through September from a year earlier and 19% for the full fiscal year. In addition, the government has warned of a likely power shortage this summer in eastern Japan, where some auto factories and more than 500 parts makers are located.

Other figures showed that household spending dropped 8.5% from a year earlier, the worst since comparable data were made available in January 1964. Output of general machinery, chemical products, plastic goods, steel, electronic machinery, metal products, nonferrous metals, precision instruments and oil products all fell at double-digit rates in March, according to the data.

On the external front, in March exports collapsed both in nominal and real terms, by 7.7% and 8% respectively, from the previous month; prior to the disaster, export growth was actually picking up, mainly driven by strong demand from China and other southeast Asian countries.

Preliminary data for the second quarter of the year confirm a further fall economic activity, although by less than expected. GDP contracted for the third quarter in a row, falling by 0.3% over the previous quarter. The contraction was solely due to a supply-driven decline in exports, which fell by almost 5 percentage points over the previous quarter. On the other hand, domestic demand managed to expand 0.4% over the previous quarter as government ramped up reconstruction spending for the damaged areas in the northeast and companies continuing cut in inventories.

Analysts expect the economy to start rebounding at the latest in the October-December period but not as smoothly as the Bank of Japan (BOJ) has recently projected. The BOJ, never known for its transparency and candour, sees a strong rebound next year in its latest semi-annual outlook report. "The BOJ's economic view is too optimistic," said Susumu Kato, chief economist at Credit Agricole in Tokyo. "Consumer sentiment is deteriorating, in addition to the slump in production and exports. The downside risks to the economy could be bigger than the BOJ projects".

The recovery path next year and beyond

A full and sustained recovery of the economy will much depend on how fast companies are able to resume production. There is no consensus on this issue. For instance, economists at UBS said output could return to pre-disaster levels as early as September, while others at Dai-Ichi Life put it somewhere between October and December. Daiwa Institute of Research economist Hiroshi Watanabe, is even more pessimistic, saying it is "hardly likely that output levels will recover to those seen in February by the end of this year". More optimistic are economists at the Asian Development Bank, who see quick recovery and believe that Japanese factories whose shipments to Asia and beyond were disrupted by the earthquake disaster would resume normal operations by the end of the summer.

According to the government instead, the economy may soon recover: the "contraction may only be a temporary phenomenon and two straight quarters of shrinkage doesn't necessarily mean the economy's trajectory has changed" said Kaoru Yosano, the economy minister. "We look for a classic V-shaped recovery in the July-to-September period and after", said Kyohei Morita, chief economist at Barclays Capital in Tokyo. "A self-sustaining recovery in production, an increase in government consumption and reconstruction demand centred around public works will likely support the economy."

Turning to the data, we find evidence that demand may be improving earlier than expected after the quake. For instance, according to the latest status report from the Ministry of Economy, Trade and Industry, transport infrastructure has been largely restored. Also, machinery orders, an indicator of future capital spending, unexpectedly increased in March, while companies said

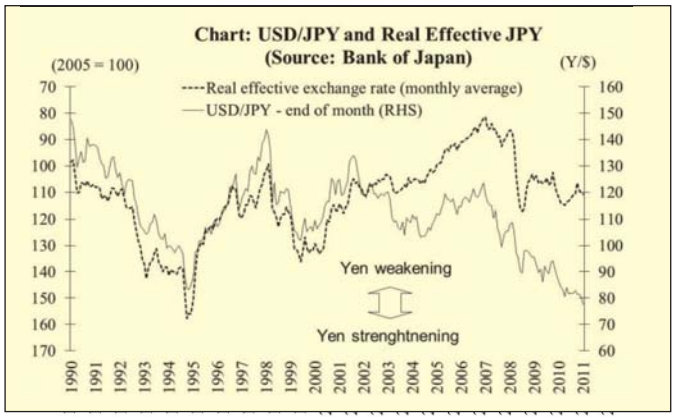
they plan to increase factory output in April and May — Honda said this week it will return to normal production before the end of the year as its production has recovered faster than it expected, while Toyota and Nissan have also said the recovery in production has been quicker than expected. In addition, the "Economy Watchers' Index", one of a number of business sentiment indices, shows that actual business bottomed out in April and that expectations jumped sharply, even in the affected region. Finally, the Ministry announced that industrial production had rebounded by a modest 1% in April after a steep fall by 15.5% in March, leaving production still 14% lower from a year earlier.

Recent indicators on the production side have risen sharply in the last couple of months, and many companies have reported that the restoration of production lines is progressing much quicker than initially assumed. The good progress is confirmed by the July Reuters Tankan survey, which emulates the Bank of Japan's quarterly Tankan on a monthly basis, showing improved sentiment among firms about business conditions for the first time after the quake.

Nevertheless, there are some concerns about the short term outlook for the economy. First, the current level of the yen is a matter of concern for Japanese manufactures and exporters. When measured on a real-effective-exchange-rates basis, the yen does not look too far from its long run value. However, the nominal bilateral exchange rate against the US dollar has recently been at all-time highs as investors have sought a safe haven from the escalating euro zone debt crisis and mounting doubts about the health of the US economy. This has significantly lowered profits for Japanese exporters (see Chart).

The Japanese authorities are getting worried about how much further the currency will strengthen but, though they have stepped up their warnings, markets see little chance of massive currency intervention. The Ministry of Finance last conducted solo intervention in September of last year, when it stepped into the market for the first time in six years. "Japan's economy is just emerging from a slump after the earthquake, so we need to closely watch its negative impact such as triggering declines in exports and on corporate revenues as well as worsening business sentiment", Bank of Japan (BOJ) Deputy Governor Hirohide Yamaguchi told a committee of parliament's lower house last week. Finance Minister Yoshihiko Noda also reiterated his verbal warning to the market against rises, saying "recent moves were one-sided and that he was closely watching exchange rate moves". The only intervention seen so far was on the 4th of August when Japanese authorities sold an undisclosed amount of yen. The Ministry of Finance will officially announce on August 31 how much it spent on currency market intervention in August, but traders estimate that Japan has spent just under ¥1 trillion, or about $13 billion.

The second concern is the power shortage, which is expected to be more severe during the summer months. For



the moment, the electricity companies have been able to cope with the increased demand — TEPCO, the Tokyo Electric Power Company, reported peak demand at 42.3 gigawatts compared with peak capacity at 51.1 gigawatts. But electricity shortages could spread beyond the quake affected regions. At the moment, 37 of Japan's 54 nuclear reactors are shut down, including 16 undergoing mandatory three-month inspections. As local authorities are reluctant to give permission for the restarting of idle reactors, it is possible that next year all nuclear reactors will be shut down. With nuclear energy providing close to 30% of the nation's electricity, shutting down all its nuclear reactors could reduce Japan's electricity supply significantly and constrain economic activity. The impact of such a shutdown would be particularly bad for industries like semi-conductors and pharmaceutics, because they need a constant electrical supply to function. Estimates of the negative impact on output vary widely from 0.2–2.5%. Japan could substitute nuclear energy with other sources, but this will push up energy costs substantially. The country is already turning more to alternative energy sources, such as thermal and renewable energy. However, this shift may take time, and by some estimates, could raise electricity costs by around 10% (or 0.3% of GDP). During the transition, higher energy costs and increased uncertainty over the power situation could undermine the recovery by constraining investment and possibly accelerating a shift of Japanese production overseas.

And this is another factor that has analysts and authorities worried. A survey of executives of 140 major companies published in the July 15 edition of the newspaper Nihon Keizai Shimbun, for example, revealed that 40% of firms were considering shifting facilities offshore. This is, of course, not a new phenomenon. Figures from the Cabinet Office show that over the last 25 years the proportion of Japanese manufacturing operations located offshore has risen from 5% in the late 1980s to 20% at present. The fear now is that this trend may accelerate, with the earthquake acting as the trigger for many companies to reconsider the location question.

Finally, the political situation and in particular the current lack of political leadership could hamper the reconstruction effort. Opposition parties and a part of the governing Democratic Party of Japan are actively calling for the

resignation of prime minister Naoto Kan, whose approval rating has plummeted to 17%, his lowest ever, according to a poll recently released by Kyodo News: 67% want Kan out of office by the end of the current session of parliament, which ends August. Last June, the prime minister survived a no-confidence vote, only by promising that he would soon quit. He also recently managed to get a second emergency budget of ¥2 trillion approved by the parliament; the money will help to fund temporary housing, health payments and other support projects for residents affected by the nuclear crisis. However, largely seen as a stopgap budget between the ¥4 trillion aid package passed in May and a third extra budget expected to be around ¥10 trillion, the bill has been criticized as "too little, too late" by most observers. In addition, parliament is divided: though the DPJ controls the powerful Lower House it has lost the two-thirds majority needed to override the Upper House if it rejects a bill. The political deadlock may further delay essential reconstruction efforts and necessary economic reforms.

Japan is drifting into a recovery from the disaster without any clear leadership. This lack of political consensus about what economic policies to pursue means that the prospects continue that after a typical rebound the economy will resume its lacklustre performance, with manufacturing continuing to 'hollow out' and weak productivity growth in other sectors where competition is inhibited by strong vested interests.

The Julian Hodge Institute of Applied Macroeconomics

The Julian Hodge Institute of Applied Macroeconomics was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and Julian Hodge Bank. The aim of the Institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. This research has been given added urgency by the ongoing discussions about the UK's adoption of the Euro in place of the Pound. The new Institute has aimed to develop research relevant to this important debate.

The Institute embraces the original Liverpool Research Group in Macroeconomics, which is now based at Cardiff Business School and is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. It is grateful for financial support to the Jane Hodge Foundation, the Economic and Social Research Council, Esmee Fairbairn Charitable Trust, the Wincott Foundation and Cardiff Business School.

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