II. The global economy

Highlights

The turmoil in several major financial centres, triggered by a growing awareness of the exposure of major banks to poor-quality mortgages in the United States, has shaken consumer and investor confidence worldwide. As the US economy slowed and financing conditions tightened, demand in a number of other advanced industrial economies weakened (Graph II.1). At the same time, however, global inflation has risen, led by rapid increases in prices of energy and key food items.

Despite the turmoil, the consensus view is still that the global economy will avoid a sharp and synchronised downturn of the kind seen in 2001, although it will slow significantly in 2008. The baseline consensus scenario is that a US downturn will be accompanied by weaker growth in the euro area and Japan; growth in major emerging markets, while also slowing, will remain strong. Not only would such a scenario provide some welcome relief from inflation pressures, but the pattern of demand projected would imply a further decline in the US current account deficit.

Unfolding developments at the core of the global financial system have, however, also created great uncertainty about future economic prospects. In particular, the ultimate size of losses facing major banks still remains difficult to gauge. How the financial industry and its regulators respond will have far-reaching implications for the global economy. A generalised squeeze in the availability of credit in major advanced industrial economies remains a distinct possibility, with potentially more severe implications for demand than are reflected in the current consensus forecasts. In addition, the US downturn



could prove to be deeper and more protracted, given the high indebtedness of the household sector. How emerging markets would be affected also remains unclear: indeed, the abrupt weakening of equity prices in emerging markets in early 2008 suggests that a shift in sentiment might already have occurred. If inflation expectations remain well anchored, despite large oil and food price shocks, easier monetary conditions could help. Even so, questions remain about the effectiveness of easier monetary policy if, at the same time, banks were to ration credit and economic agents were to curb spending in an attempt to repair balance sheets.

Overview of developments

Last year was marked by two distinct phases of development in the global economy. During the first half of the year, demand in the major advanced industrial economies was sustained by easy financing conditions, steady income growth and robust business confidence. Most economies enjoyed strong growth during this period. In the United States, residential investment fell but other components of demand, notably private consumption and business investment, held up. The dynamics changed in the second half of 2007 as the US housing and labour markets deteriorated sharply and the financial crisis deepened.

A shift in global growth momentum ...

Contributions to global demand, consumption and investment ¹							
In per cent and percentage points							
	1995	2000	2005	2006	2007		
Real GDP							
Global ²	3.8	4.8	4.2	4.7	4.5		
United States	0.6	0.9	0.8	0.7	0.5		
Euro area	0.6	0.8	0.3	0.5	0.5		
Other advanced industrial ³	0.4	0.6	0.4	0.5	0.5		
Emerging economies ⁴	2.2	2.5	2.7	3.0	3.0		
Real consumption⁵							
Global ²	3.5	4.7	4.3	4.5	4.7		
United States	0.7	1.2	0.8	0.8	0.7		
Euro area	0.5	0.6	0.3	0.4	0.3		
Other advanced industrial ³	0.4	0.4	0.4	0.4	0.5		
Emerging economies ⁴	1.9	2.5	2.8	2.9	3.2		
Real investment ⁶							
Global ²	4.6	6.4	7.7	7.1	5.7		
United States	1.4	1.5	1.5	0.6	-0.5		
Euro area	0.5	1.0	0.6	1.0	0.8		
Other advanced industrial ³	0.3	0.4	0.8	0.8	0.5		
Emerging economies ⁴	2.4	3.5	4.8	4.7	4.9		
1 Changes over one vegr - 2 Growth in the economics listed in per cent: weighted by 2005 GDP and PDP							

¹ Changes over one year. ² Growth in the economies listed, in per cent; weighted by 2005 GDP and PPP exchange rates. ³ Australia, Canada, Denmark, Japan, New Zealand, Norway, Sweden, Switzerland and the United Kingdom. ⁴ Argentina, Brazil, Chile, China, Colombia, the Czech Republic, Hong Kong SAR, Hungary, India, Indonesia, Korea, Malaysia, Mexico, the Philippines, Poland, Russia, Saudi Arabia, Singapore, South Africa, Taiwan (China), Thailand, Turkey and Venezuela. ⁵ Private final consumption expenditure. ⁶ Gross fixed capital formation.
Sources: IMF; Datastream; national data.

... with slower growth in major advanced industrial economies ...

... but relatively robust activity in emerging markets

The current downturn has deepened further in 2008 ...

... accompanied by mounting inflation

While global output still grew at a healthy pace of $4\frac{1}{2}$ % in 2007, output growth in the G3 economies decelerated from close to 3% in 2006 to less than $2\frac{1}{2}$ % in 2007. The slowdown also spread to several other advanced industrial economies. As a result, import volumes of the advanced industrial economies, which had been growing at 6–9% since 2004, slowed to a rate of just above 3% in 2007. Yet the impact of this on emerging market economies has so far been limited. Strong domestic demand in Brazil, China and India, among others, raised aggregate output growth in emerging market economies to over $7\frac{1}{2}$ % in 2007 (see Chapter III).

This pattern of growth was associated with several key changes in the global economy. First, the contribution of emerging economies to global growth rose in 2007, continuing the trend seen in the past few years (Table II.1). Second, the downturn in residential investment in advanced industrial economies contributed to a slowdown in global investment demand, even though capital spending in emerging economies strengthened. In contrast, global consumption growth remained fairly steady, supported by robust household spending in both advanced industrial and emerging economies. Third, these changes in growth and demand patterns led to a welcome reduction in global current account imbalances. The US current account deficit fell from \$811 billion in 2006 to an annual rate of \$692 billion by the fourth quarter of 2007, or from 6.2% to 4.9% of GDP. The main counterparts of this adjustment were an increase in deficits in Australia, the United Kingdom and central and eastern Europe as well as somewhat smaller surpluses in Russia and Latin America. In contrast, the aggregate surplus of Asian economies rose sharply, with China's surplus, in particular, reaching a record high of \$372 billion in 2007.

Several negative shocks have further weakened the global economy in 2008. First, the downturn in the US housing sector has intensified, with sharply falling house prices. By early 2008, the US economy appeared to be heading towards very slow growth. Second, the turmoil in mortgage and related markets has led to a marked increase in risk aversion more generally. Despite central banks' concerted efforts to stabilise interbank markets, credit and interest rate spreads have risen since July 2007. With banks in several advanced industrial economies tightening lending standards, concerns about a credit crunch have become commonplace. Third, there has been a further sharp rise in commodity prices. Over the year to April 2008, the aggregate price index for major food products increased by 30%, and oil prices (Brent) rose by more than 60%. The latest upsurge in commodity prices follows several years of rising prices (see Chapter III).

Largely because of higher food and energy prices, headline inflation has risen markedly in both advanced industrial and emerging economies (Graph II.2). Even measures that exclude food and energy items from the consumer price index have edged up in many countries. In addition, long-term inflation expectations, using measures derived from bond prices, have moved up in the United States and, to a lesser extent, in the euro area since the second half of 2007. Survey-based consumer inflation expectations have also risen in several countries. In part, this may be because sharp increases in the prices of frequently purchased items, such as food and petrol, have raised perceptions of past inflation and inflation expectations in turn.



Global demand developments

The cyclical downturn in major advanced industrial economies

The continued decline in the housing market (Graph II.3) has weighed heavily on US growth since the second half of 2006. One major feature that distinguishes the recent housing sector difficulties from those of the past is that the latest upswing in construction in the United States resulted in much greater excess supply than before, as increases in new dwellings far exceeded population growth. Since late 2006, over 2½% of the owner-occupied housing stock – double the average of the past five decades – has been vacant and for sale. In the run-up to the recessions of the early 1980s and 1990s, for instance, the vacancy rate had remained well below 2%. Even though housing starts have fallen by about 60% since 2006, to reach levels last seen in the early 1990s trough, this supply overhang is likely to weigh on both construction and house prices for some time to come.

In particular, speculative factors have played a more significant role in the construction of single-family homes than in the past. Many of the new houses seem to have been bought for resale or rent, ahead of the underlying demographic demand for them. As a result, investment in single-family residential structures rose to a record $3\frac{1}{2}$ % of GDP in 2006 from $2\frac{1}{2}$ % in the early 2000s.

The US housing downturn began to affect other sectors of the economy in early 2007. Residential investment directly subtracted 1 percentage point from GDP growth in 2007; in addition, declines in house and equity prices hurt household wealth (Graph II.3). Coupled with a broadly based decline in employment and higher energy prices, these developments weakened consumer spending. As a result, the contribution of personal consumption to growth fell from 2 percentage points in 2007 to 0.7 percentage points in the first quarter of 2008. Spending on durable goods, which is most sensitive to changes in wealth and credit market conditions, contracted sharply (at an annual rate of 6% in the first quarter of 2008). The US slowdown is distinguished by a large overhang of excess housing supply ...

... and speculative construction

The US housing downturn spilled over to consumption ...



... with a risk of further sharp adjustment

Downside risks are also rising for investment ...

... but strong exports may contain the damage The current US downturn presents similarities as well as differences with past cycles. In line with typical pre-recession behaviour, private consumption grew steadily in the run-up to the recent cyclical peak, despite employment growth being weaker than average (Graph II.4). With the household saving ratio currently unusually low, and debt levels unusually high, consumption might be expected to be much weaker in the current cycle than during previous ones. Residential investment has already fallen more sharply this time than during the run-up to previous downturns and, as noted above, could well fall further.

A crucial factor will be the behaviour of US non-residential construction. Having risen rapidly in previous quarters, investment in non-residential structures slowed sharply in the first quarter of 2008. As discussed below, the risk of further weakening remains large in the context of tighter credit conditions and negative feedback effects from the residential sector. During the early 1990s recession, the share of construction (both residential and non-residential) in GDP fell from a high of 11% in 1985 to just over 8% in 1992. In the current cycle, the construction share reached a similar high in 2006, but so far has fallen by a little more than 1½ percentage points.

Among other components of demand, business equipment spending has contracted, although the extent of future correction remains uncertain. The manufacturing sectors most exposed to construction are likely to see large cuts in investment, and a further weakening of consumption could aggravate this adjustment by dampening demand and profit expectations. Yet, in contrast to the 2001 downturn, the absence of earlier overinvestment should ensure a smoother downward adjustment in equipment spending this time. Moreover, a brighter spot for the US economy has been strong net exports, whose contribution to GDP growth reversed from negative to positive in 2007 (1/2 percentage point). This could prove important in raising investment in the tradables sector, which had suffered during the period of dollar appreciation.



Of the other major advanced industrial economies, the United Kingdom shared some features with the United States. The UK economy appeared to have slowed towards the end of 2007, as consumption was dampened by tighter credit conditions and weakening confidence. Falling property prices also raised the spectre of a downturn in the construction sector. Similarly, in Canada, although aggregate demand continued to exceed domestic productive potential until last year, the economy began to weaken as exports fell. In addition, tighter credit conditions started to affect demand.

Developments in the euro area and Japan have been mixed. Despite some deceleration, growth in the euro area proved strong up to the first quarter of 2008. In particular, investment grew at a solid pace in 2007. Although Ifo business confidence indicators fell in April 2008, they still remained above the average for the past five years. However, private consumption decelerated significantly towards the end of 2007 as confidence slid. Moreover, exports have slowed in recent months. The Japanese economy also continued to expand up to the first quarter of 2008, thanks largely to strong exports. Consumption remained relatively robust, with employment rising into early 2008. But a rapid contraction in residential investment from the second half of 2007, led by changes in construction regulation, reduced the tempo of domestic demand. In addition, business sentiment indicators have deteriorated in recent months, and profit expectations have fallen.

International linkages and economic prospects

While in past cycles a US slowdown was often associated with slower growth elsewhere, there are grounds for believing that such effects might remain more muted in the current cycle. Indeed, there have been some developments consistent with this view over the past few years. While the annual growth rate of domestic demand in the United States fell from 4.1% in 2004 to 1.5% in 2007, it declined from 2% to 1% in Japan and even strengthened slightly in the euro area, from 1.7% to 2.2%. Moreover, in even sharper contrast to the United States, domestic demand in the large emerging economies (particularly Brazil,

Signs of slowdown also emerged in other economies

Growth in the euro area and Japan has been somewhat less affected so far ...

... leading to some divergence in demand cycles ...



Russia, India and China) continued to grow rapidly throughout the period (Graph II.5).

Diverging demand patterns have led some observers to believe that the rest of the world could offset some of the negative demand shocks originating in the United States. One argument in support of this hypothesis notes that the imbalances in the rest of the world are arguably less severe than in the United States. This contrasts with the early 2001 slowdown, which was caused by the bursting of a global IT investment boom. The fact that the share of exports destined for the United States has declined significantly in a large number of economies has been cited as a further reason why the US slowdown may have a limited impact on the global economy.

Leaving aside the United States, the prospects for domestic demand in other major economies seem favourable on balance, but also show significant variability. In the euro area, domestic demand has been sustained by a broadly based rebound in business investment. In addition, the recent fall in the euro area unemployment rate could help to support consumption. At 7.1% in the first quarter of 2008, the unemployment rate reached its lowest level since the early 1980s. This is particularly evident in Germany, where structural reforms have led to increased labour flexibility and a higher participation rate. Real wages have also started to pick up in Germany, although they remain depressed and are still increasing more slowly than the rate of growth in labour productivity.

Domestic demand cycles have already diverged within the euro area, partly reflecting different housing market dynamics. Nominal house prices in the euro area as a whole have risen more gradually over the past decade than, for instance, in the United States and the United Kingdom (Graph II.6). This has, to some extent, reflected the trend in Germany, where house prices either remained stable or declined moderately during 2000–07. In France, Ireland

... for a variety of reasons

Demand in the euro area could prove more resilient this time ...

... although divergence within the euro area is large



and Spain, however, they rose strongly in the early 2000s before starting to decelerate in 2004–06. Growth in dwellings has also outpaced population growth in some countries, particularly Spain, although not to the extent seen in North America. During the upswing, value added in construction reached 11% and 9% of GDP in Spain and Ireland, respectively, much higher than the euro area average of 6%. Higher house prices also appear to have supported consumption, particularly in France and Spain. With the house price cycle turning and credit conditions tightening, demand is likely to weaken more in these countries than elsewhere in the euro area.

Domestic demand in Japan has been sustained by very easy financing conditions, which have led to a large gap between the rate of return on investment by large manufacturing firms and their borrowing costs. In contrast, smaller firms, which traditionally have narrower profit margins and low pricing power, have proved more vulnerable to cost pressures. Moreover, consumption has so far been driven by employment. Although nominal wages rose in early 2008, following several quarters of negative growth, real wages remained weak. Several structural factors may continue to limit future wage growth. These include the retirement of baby boomers and their replacement by lower-paid employees, and a striking increase in the share of part-time work since the early 2000s. Consumption therefore remains vulnerable to a squeeze of household income from weak real wages, particularly in the context of higher energy prices.

As discussed in Chapter III, domestic demand in emerging market economies seems to have become more robust than in past cycles, due to improved macroeconomic fundamentals and stronger balance sheets. The steady increase in capital inflows to many emerging market economies has also boosted prospects for investment. But higher food and oil prices have hurt consumer sentiment in recent months, particularly in commodity-importing countries in Asia. While prospects for domestic demand seem weaker in Japan ...

... they have improved in emerging economies Yet the United States is still a major trading partner There are also reasons for thinking that the full global impact of the US slowdown might be still to come. The United States remains a major trading partner for several countries, including Canada, China, Japan and Mexico. Imports in the US high-tech sector have remained strong, limiting the adverse impact on Asian intraregional trade, but the situation could change if the US downturn deepens. A prolonged US slowdown could undermine consumer and business confidence worldwide: the sharp decline in stock markets around the world in January 2008 underlined such a risk. In addition, many firms in China and Japan are dependent on exports to the United States to sustain investment and employment, implying that capital spending might not be as autonomous in these countries as is often assumed. Similarly, exports remain a major source of demand in Germany. This exposes the euro area to a potential slowdown in other economies, including the United States, not only through direct effects on the German economy but also through indirect effects on intraregional trade and investment.

Global demand is also likely to be depressed by several other shocks that have coincided with the US slowdown. First, the negative demand shock could be compounded by a generalised squeeze in credit supply in advanced industrial economies; this issue is examined below. Second, substantial increases in commodity prices, especially oil, over the past several months have led to large terms-of-trade losses for oil-importing countries. Analysis by the International Energy Agency following the early 2000s oil price hike suggested that a \$10 per barrel increase in average oil import prices in OECD countries could reduce growth by 0.4 percentage points and raise inflation by 0.5 percentage points within one year. In fact, average oil import costs in major OECD countries have already increased by \$35 per barrel over the year to January 2008.

The actual impact on growth has been limited so far partly because firms have been reluctant, or unable, to pass on the full extent of the increase in oil prices to consumers. In addition, rising wealth from increased house and equity prices as well as the easy availability of bank credit up to mid-2007 sustained consumption. However, a substantial deterioration in employment and wealth prospects could reinforce the effect of higher oil and food prices on household spending, particularly in countries where consumption has relied significantly on debt accumulation.

Policies and other factors affecting future demand

Policies to counter global demand weaknesses could help, provided that inflationary pressures remain well contained. Massive liquidity operations by major central banks might have limited the potential impact of the recent financial turmoil on banks' funding costs. In addition, the stance of monetary policy has been eased in several advanced industrial economies since August last year. Yet the impact of these measures on demand depends crucially on several factors. One is the assessment of credit risks. In the United States, for instance, where monetary easing has gone the furthest, less risky household lending rates have fallen, but rates on riskier jumbo mortgages and subinvestment grade bonds have risen because of higher risk premia. A second

Several common shocks could also weaken global demand

Prompt central bank actions and lower policy rates could stimulate demand ... factor is that banks might cut credit supply through non-price mechanisms, reducing the impact of lower policy rates. A third factor is the large overhang of household debt that could lead households to save rather than spend (discussed below). Aside from the aggregate demand impact of lower policy rates, a key risk is that the future flexibility of monetary policy could be constrained by the recent rise in inflation and inflation expectations.

An easier fiscal policy could also support demand in some countries. Automatic stabilisers will help to cushion demand, especially in the euro area (Graph II.7), in the case of a slowdown. Moreover, the structural budget deficit in the euro area has been declining over the past few years, in accordance with the requirements of the Stability and Growth Pact. Reflecting this additional room for manoeuvre, budget plans for 2008 envisage a slight increase in the structural deficit to 0.9% of GDP. In Japan, the structural deficit is expected to decline in 2008. In the United States, the budgetary position, on balance, has remained supportive of demand in the short run. The recent fiscal stimulus, involving personal and corporate tax rebates to the tune of 1% of 2007 GDP, is expected to temporarily boost demand this year.

One major question is whether there is scope for using discretionary fiscal policy to stimulate demand still further. In the United States, the debt/GDP ratio is already around 60%, and would be much higher if unfunded liabilities from long-term health care and pension costs were taken into account. In the euro area, low deficits or continued surpluses in Austria, Germany and Spain, as well as the projected fall in debt ratios, could imply greater scope for the authorities in these countries to use fiscal policy to sustain demand. But in Greece and Italy, public debt ratios were around 100% at the end of 2007 and are projected to remain high in the future. In almost all euro area countries, unfunded liabilities due to future health care and pension expenditures remain large in the context of rapidly ageing populations. In Japan, gross public debt already exceeds 180% of GDP, and implicit public sector liabilities are also large. While the overall tax rate is low and could eventually be raised, the reality of an already declining population is a further complication.



... as could expansionary fiscal policy

However, the scope for fiscal stimulus varies across countries and there is uncertainty about its effectiveness

Dollar depreciation could support US growth ...

... but puts strong competitive pressures on the euro area economies Another question relates to the effectiveness of fiscal policy. Fiscal multipliers appear to have become weaker in advanced industrial countries over the past decades, with the increased openness of their economies as well as financial liberalisation reducing the number of liquidity-constrained individuals. Even so, adequately targeted stimulus programmes could still prove useful, especially if they reduced spending constraints for those who have lost their access to credit. A temporary stimulus would also limit future deficits and consequently the impact of any perceived rise in future tax burdens. Recent estimates in the case of the United States suggest that the marginal propensity to consume out of temporary tax rebates could be significant (about 0.4), and the impact could materialise rapidly. However, the phase-out of the effects of such rebates would be likely to drag down growth in later periods.

One factor with implications for the distribution of global demand has been the changing pattern of exchange rates. The real effective value of the US dollar had, by April 2008, fallen 25% from its February 2002 peak. Even when compared to the long-run average over 1980–2007, the depreciation of the dollar has been substantial (Graph II.8). A weaker dollar will continue to support US growth, by raising both exports and demand for goods produced by domestic import-competing sectors. In addition, a weaker dollar enhances the domestic currency value of US earnings on foreign assets, reinforcing the positive trade impact. At the same time, however, an abrupt fall in the dollar could lead to higher inflation expectations, and make it harder to control inflation.

By contrast, the effective value of the euro has appreciated sharply over the past two years. This has reduced the effect of higher dollar oil prices, but it also dampens the demand for euro area tradables. Exports from the euro area have nonetheless continued to grow around the long-run rate, thanks to strong demand in emerging markets. Improved productivity growth in the German manufacturing sector has offset some of the negative competitiveness effects of a stronger currency. In other euro area countries (eg Italy and Spain),



however, competitiveness has deteriorated. For its part, the real effective value of the yen has depreciated substantially over the past few years, helping to stimulate exports from Japan.

Inflation developments in advanced industrial economies

Rising inflation risks

A sharp rise in commodity prices since early 2007 has led to a major increase in headline inflation in advanced industrial economies. The year-on-year CPI inflation rate in April 2008 was around 4% in the United States and above 3% in the euro area; and in Japan it finally exceeded 1% by March (Graph II.9). In the United States, domestic energy prices increased by over 15% in the year to April 2008 while food and beverage price inflation reached an almost twodecade high of about 5%. In the euro area, energy price inflation exceeded 10½%, and food prices rose by 6%. Energy prices accounted for about one third of headline inflation in the United States and the euro area. In addition, core inflation (based on national definitions), which had been relatively subdued until 2006, picked up in the euro area and Japan. In the United States, the core CPI inflation rate remained relatively stable up to April 2008.

A key issue is whether food and oil prices will remain high. If the expansion in long-run demand continues to outpace the supply of key commodities, a sustained increase in food and energy prices remains a distinct possibility. Consumer food price inflation in many advanced industrial economies is likely to remain high for some time as higher producer prices feed through to the retail level and as cost pressures squeeze firms' margins beyond sustainable levels.

In the past, headline inflation tended to follow core inflation, largely because food and oil price volatility reflected short-lived supply disturbances. This encouraged central banks to focus their attention on core inflation as a measure of underlying price pressure. But the prolonged rise in commodity



Higher inflation led by commodity prices ...

... raises the question of inflation persistence ...

... and is also a challenge to monetary authorities in assessing inflation pressures

Inflation forecast performance ¹							
	Forecast period: Jan 2001–Apr 2003		Forecas May 2003	t period: –Sep 2005	Forecast period: Oct 2005–Mar 2008		
	Headline	Core ²	Headline	Core ²	Headline	Core ²	
US CPI	0.88	0.86	0.67	0.79	1.05	1.14	
Euro area HICP	0.51	0.48	0.79	0.90	0.87	0.98	
Japan CPI	0.93	0.70	0.40	0.28	0.54	0.50	

¹ Root mean squared error (RMSE) from out-of-sample twelve-month-ahead inflation forecast obtained by regressing annual headline inflation on either headline or core inflation (estimation period: January 1991–December 2000). The shaded areas indicate a smaller RMSE within each forecast period. ² For the United States, excluding food and energy; for the euro area, excluding unprocessed food and energy; for Japan, excluding fresh food.

Sources: National data; BIS estimates.

Table II.2

prices in recent years has weakened this relationship (Table II.2). In the euro area, for instance, headline inflation has been a much better predictor of oneyear-ahead inflation than core inflation during the past three years. In the United States, headline inflation has also yielded somewhat better inflation forecasts than core inflation since mid-2003, when the prices of energy began to trend upwards. Japan's experience has been somewhat different: the nationally defined core inflation measure is still a better predictor of future headline inflation, although this could be largely because the former includes oil prices.

Factors driving core inflation

In view of the underlying forces at this juncture, does it seem more likely that core inflation will rise towards headline inflation, or the reverse? Output in many advanced industrial economies appears to have remained around potential, and may even fall below that in the future (Graph II.10). Measures of the unemployment gap suggest rising economic slack in the United States. In other advanced industrial economies, although unemployment rates are still low, softer demand conditions could reduce employment in the future. On balance, demand pressures on core inflation should therefore continue to be muted.

Likewise, recent developments in unit labour costs in the G3 economies have been benign. In the United States, the year-on-year growth rate in unit labour costs fell back to 0.2% in the first quarter of 2008, a break from the upward trend which had taken it above 4% in the first half of 2007. In the euro area, although the growth in unit labour costs has been subdued and stable at close to 1½% in recent years, it rose to about 2% in the fourth quarter of 2007. In Japan, unit labour costs have fallen in the past several years, partly reflecting falling or only slowly growing nominal wages.

Future movements in unit labour costs will depend significantly on the behaviour of wages. Several advanced industrial economies have experienced a reduction in the share of wages in total value added since the 1980s, with a corresponding rise in the share of profits. However, there has recently been demand for higher wages, especially in Europe. In Germany, for instance,

Economic slack in major advanced industrial economies is expected to rise ...

... and unit labour costs are unlikely to pose a major threat ...



following a long period of weak or falling real wages, unions have demanded larger wage increases this year. A one-time adjustment in wages, after a period of significant productivity growth, need not prove to be inflationary, being potentially offset by a fall in profit margins to earlier levels. But a sustained rise in wages could create significant inflation risks by encouraging firms to revise their prices upwards.

Another question regarding the evolution of inflation is how far downward inflation pressures from globalisation might be decreasing or even reversing. One factor has been the recent sustained demand for commodities, led by strong growth in emerging market economies. At the global level, this seems to be heightening resource constraints, raising prices of key raw materials and food articles.

A second factor is that real wages have been rising rapidly in some countries with low-cost production structures such as China, partly reflecting a shortage of skilled labour and increased minimum wages (see Chapter III). This has tended to push up the prices of manufactured goods imported from emerging economies. These recent developments suggest that the "catchingup" of emerging market economies is likely to involve sustained upward pressures on import prices. A country-specific factor that may have exacerbated some of these price effects, especially in the United States and the United Kingdom, is the substantial depreciation of the real exchange rate in recent months.

There is as yet no solid evidence to indicate that the substantial decline in the pass-through of changes in commodity prices and exchange rates to import and consumer prices observed during the 1990s and early 2000s has reversed in more recent years (Table II.3; see also Table II.2 in the *75th Annual Report*). The degree of pass-through continues to be lower than that seen during the 1970s and 1980s. This is partly because foreign exporters have been able to keep prices unchanged in importers' local currencies, either by adjusting their profit margins and those of local distributors, or by finding ways to increase

... but disinflationary pressures from globalisation are decreasing

Cost pass-through still appears to be low ...

Inflation pass-through								
	From commodity prices to import prices ¹		From exch to impo	ange rates rt prices¹	From import prices to core CPI ²			
	1971–89	1990–2007	1971–89	1990–2007	1971–89	1990–2007		
United States	0.29 **	0.22 **	0.47 **	0.16 *	0.33 **	0.14		
Japan	0.35 **	0.27 **	0.74 **	0.40 **	0.23 **	0.02		
Germany	0.22 **	0.17 **	0.37 **	0.23 **	0.17 **	-0.07		
France	0.19 **	0.10 **	0.77 **	0.03	0.27 **	-0.08		
United Kingdom	0.20 **	0.12 **	0.68 **	0.46 **	0.25 *	0.14		
Italy	0.31 **	0.25 **	0.66 **	0.41 **	0.32 **	0.49		

** and * indicate that the figures are significantly different from zero at the 99% and 95% confidence levels respectively.

¹ Changes, in per cent, in import prices in response to a 1% increase in commodity prices (measured in domestic currency), or in response to a 1% depreciation in the nominal effective exchange rate. ² Changes, in per cent, in core consumer prices in response to a 1% increase in import prices.

Sources: BIS estimates based on data from OECD, Hamburg Institute of International Economics (HWWI) and national agencies. Table II.3

productivity commensurately. It would also seem to imply that long-term inflation expectations have remained anchored.

Nevertheless, the degree of pass-through could increase. Outside the United States, margins built up by exporters during the period of dollar appreciation have now been run down significantly, and productivity gains could prove increasingly difficult to obtain. Moreover, large and persistent rises in commodity prices or exchange rate depreciation might eventually cause inflation expectations to shift upwards. This could trigger larger adjustments in core consumer prices going forward.

Inflation expectations in this context are likely to play a major role. Following a decline over much of 2006, long-term market-based measures of inflation expectations (starting five years hence) moved up in major advanced industrial economies in 2007 (Graph II.11), though they fell back somewhat in early 2008. The increase was particularly marked in the United States, where higher inflation levels have also been associated with increased dispersion of inflation expectations among professional forecasters. Yet the extent to which bond prices provide an accurate picture of inflation expectations in current circumstances remains unclear. For instance, sizeable liquidity effects seen in government bond markets during the recent episodes of market stress might have played a role in the volatility of measured inflation expectations. A rise in inflation risk premia (rather than expectations of future inflation) may have been an additional contributing factor, although this appears more probable for the euro area than for the United States (see Chapter VI). The possibility that inflation expectations have begun to move up is also supported by other evidence. Although short-term inflation expectations, as measured by household surveys, have generally remained below 1980s levels, they have trended up over the past year in the major advanced industrial economies.

An important question for monetary policy is how well anchored inflation expectations are likely to be in the face of adverse shocks to inflation. On the

... but could rise in future

Long-term inflation expectations have risen recently ...

... and could become less well anchored



one hand, it could be that inflation expectations are forward-looking and have become better anchored over the past decade due to greater monetary policy credibility. On the other hand, it could be that expectations are primarily backward-looking, for example, based on learning by private agents. In this case, expectations could have been contained by the earlier favourable trend in inflation, not least as an increase in the effective labour supply globally held down the prices of manufactured goods. The simple fact that long-term inflation expectations have apparently remained well anchored over the past few years does not provide a decisive indication of whether, and how strongly, these expectations might be reversed, nor what could trigger such a reversal.

To the extent that inflation expectations are backward-looking, the recent trend increase in food and energy prices could well have particularly adverse consequences for inflation expectations. There is some anecdotal evidence that large price changes in a few "visible" items purchased more widely and frequently (eg bread, meat, milk and petrol) are more likely to lift public perceptions of inflation than price changes in items bought more intermittently. In the euro area, surveys indicate that "perceived" inflation increased in late 2007, coinciding with a rise in food prices. In the United Kingdom, there is also evidence that consumers' inflation perceptions tend to be more highly correlated with the inflation rates for items bought at least quarterly.

A rise in prices of frequently purchased goods highlights this risk

Balance sheet vulnerabilities, credit tightening and headwinds

Prospects for the advanced industrial economies depend heavily on how recent financial shocks interact with the balance sheet positions of households and

Tighter credit conditions in major economies ... firms and their associated spending decisions. The turmoil has already led to a tightening of credit conditions through a rise in spreads on bank lending (Graph II.12). Admittedly, in the case of the United States (and to a lesser extent Canada and the United Kingdom), lower policy rates have, to various degrees, offset wider credit spreads. Nevertheless, in all of these countries, credit conditions have tightened as banks have raised non-price lending standards for their borrowers. In the United States, the net proportion of banks reporting tightening lending standards for most types of loans was as high by the first quarter of 2008 as during the recessions of the early 1990s and early 2000s. Australia, Canada and the United Kingdom have also seen a tightening of credit standards in some or most sectors. In the euro area, credit standards have been tightened sharply for business credit, nearing the levels seen during the credit market downturn of the early 2000s, and significantly for households.

The recent tightening of credit markets has taken place against the backdrop of very large increases in debt, particularly of US households. If past episodes of credit market crises are any guide, the macroeconomic impact of this tightening is likely to be considerable. The 1989–92 US credit crunch was, for instance, seen to have aggravated the recession in 1990. That credit crisis occurred in the aftermath of the savings and loan crisis in the 1980s, a period when banks greatly increased their exposure to the commercial real estate sector. Following the pre-crisis peak, real bank credit to the US private sector contracted for a lengthy period (Graph II.13). The credit downturn was milder and the recovery was quicker in other countries, such as the United Kingdom, that were experiencing difficulties in the banking sector around the same period. There are other cases, however, such as the Nordic banking crises of the early 1990s, where the cutback in credit was more severe. In Sweden, for instance, the result was a sharp decline in household spending, and the



... have historically had a major macroeconomic impact ...



share of residential investment in GNP fell from a peak of $6\frac{1}{2}\%$ in 1991 to $1\frac{1}{2}\%$ in 1995.

In each of these crises, the ultimate impact was aggravated by the interaction of an adverse economic cycle with large declines in asset prices, and a sharp deterioration in the creditworthiness of borrowers. In particular, as discussed in Chapter VII, the credit cycle was associated with a property price cycle, which had a large impact on the value of collateral and aggregate spending, both in the upswing and in the downswing. In the current credit cycle, significant balance sheet exposures in several countries pose risks to the macroeconomic outlook.

Vulnerability of households

The impact of a given change in credit standards might be expected to be largest for the United States, where household financial problems are arguably most severe. A rapid increase in household debt since 2002 had made it possible for households to maintain consumption and residential investment at higher levels than would have been feasible based on their income alone (Table II.4). This increase in debt was enabled largely by strongly rising house prices, which reduced collateral constraints for households that would otherwise have been unable to borrow as much, or at all. Households in the United States were also able to use proceeds from home sales, cash-out refinancing and home equity loans to extract their rising home equity: some private estimates suggest that home equity extraction financed on average about 3% of personal consumption (including repayment of non-mortgage debts) from 2001 to 2005.

One source of vulnerability is the combination of low savings and high household debt. While the ratio of US household saving to disposable income started declining from about 7½% in 1992, it fell particularly sharply during the early 2000s to almost zero by 2005. A significant rise in debt service payments during this period, to over 14% of disposable income by 2007, made households more exposed to income and interest rate shocks. Household

... when combined with an adverse business and asset price cycle

US households seem most exposed ...

... because of high debt levels ...

Non-financial sector funding, outlays and balance sheet ratios

As a percentage of GDP unless otherwise stated

	United States		Euro area		United Kingdom			
	1998–2002	2003–07	1999–2002	2003-07	1998–2002	2003-07		
Non-financial corporate sector								
Investment	8.2	7.1	11.2	11.0	10.5	9.2		
Internal funds	7.6	7.6	8.2	7.7	10.7	10.1		
Net borrowing from intermediaries	0.6	1.1	2.6	3.7	6.9	10.2		
Net debt securities issuance	2.2	1.3	0.9	0.4	3.1	1.1		
Net equity issuance	-1.1	-3.0	4.8	2.7	8.6	1.4		
Debt outstanding	45.5	43.7	76.3	85.3	83.6	108.7		
Household sector						l		
Disposable income	73.5	73.7	66.3	65.8	68.9	67.0		
Final consumption expenditure	68.7	70.1	57.5	57.1	62.5	61.5		
Residential investment	3.9	4.7	5.4	5.7	3.0	3.9		
Mortgage debt outstanding	50.7	70.4	28.3	35.4	56.9	76.5		
Total debt outstanding	76.7	97.6	48.5	56.6	72.0	94.3		
Financial assets	330.6	320.2	186.5	191.7	305.2	280.8		
Memo: Housing equity ¹	57.0	51.6	84.9 ²	<i>87.7</i> ^{2, 3}	72.0	7 <i>2.2</i> ³		
¹ Excess of housing assets over housing debt as a percentage of total housing assets. ² France only; household non-financial assets are used as a proxy of housing assets. ³ 2003–06.								

Sources: OECD; Eurostat; Datastream; national data.

spending now seems likely to weaken, in response to high debt and debt service burdens, falling employment and the general tightening of credit conditions.

... and lower house prices ...

A second source of vulnerability stems from large actual and expected declines in housing prices and wealth, reducing households' prospective net worth and hence their capacity to borrow to sustain current spending. US households' equity in the overall housing stock – the difference between their total housing assets and housing debt – has in fact already declined noticeably of late. Indeed, some estimates indicate that the share of US households with negative equity is already larger than the peak seen during the UK housing downturn in the early 1990s.

... as well as risky borrowing A third source of vulnerability arises from the fact that subprime, statedincome and other risky non-standard mortgage products accounted for much larger shares of US mortgage lending during the upswing than was the case in other advanced industrial economies. As housing prices fall and credit conditions tighten, such loans are more likely to default because the borrowers have few alternative financial resources with which to cushion an income fall or to delay foreclosure proceedings, leading to even tighter lending conditions and more restraints on spending. In addition, very lax underwriting processes meant that many borrowers were able to take on loans they could not afford even in the short term, perhaps on the assumption that they could refinance as housing prices rose. This might explain why delinquency rates in the United States on this occasion started rising long before unemployment; in earlier episodes in both the United States and the United Kingdom, delinquency and unemployment rates moved more or less in tandem (Graph II.14).

Table II.4



Household indebtedness has also increased sharply in the United Kingdom. But less of the debt accumulation has been used to finance consumption, which has actually fallen as a percentage of GDP (Table II.4). Housing equity relative to assets has stopped rising with slowing or falling house prices. While current estimates suggest that very few households have negative equity, much will depend on how far house prices fall in the future. First-time home buyers, generally highly leveraged and with a significantly higher debt service burden, could be more exposed than others. Although mortgage lending standards did not become quite as relaxed in the United Kingdom as in the United States, they still eased considerably, with high initial loan-to-value ratios becoming more common until recently (Graph II.6).

In the euro area, by contrast, the aggregate household balance sheet position remains strong, thanks to a steady rise in measured wealth and only a modest increase in debt. The absence of a generalised housing boom, a relatively large concentration of household financial assets in fixed income instruments and greater use of fixed rate mortgages appear to have contained household financial vulnerability during the current market turmoil. Moreover, at around 3%, the average interest payment burden on euro area households remains significantly below that in other major advanced industrial economies.

Even so, there has been considerable divergence within the euro area. In several countries, household debt has risen well above the euro area average of about 60% of GDP. Debt ratios stood at more than 120% of GDP in the Netherlands and between 80 and 90% in Portugal and Spain at the end of 2006. Credit standards also appear to have been eased in several cases during the housing market upswing, with the typical loan-to-value ratio in Spain, for instance, exceeding that in Canada and the United Kingdom. Given the high concentration of their wealth in housing assets, households in some countries

Vulnerabilities appear more contained in the United Kingdom ...

... and even more so in the euro area

appear more vulnerable to tighter credit market conditions, especially if these lead to large declines in house prices.

Possible impact on non-financial firms

The impact of tighter credit standards on the business sector will depend on how far firms rely on external financing rather than internally generated resources. In fact, non-financial businesses across the major advanced industrial economies have improved their balance sheet positions since the beginning of the decade. Their ability to fund investment from internal resources remains high. In the United States, retained earnings have in recent years been sufficient to cover gross investment spending; in one sense, firms have only needed to borrow to fund equity buybacks. Similarly, internal funds have broadly covered gross investment in the United Kingdom. Whether this implies that firms are well placed to cushion the impact of tightening credit conditions on the economy will depend on how much profits weaken as the economy turns down, whether firms can reduce dividend payments to sustain large internally generated surpluses, and the nature of the external credit available.

One feature of the current episode of credit market tightening is that leveraged loans, which had expanded sharply before the turmoil, dried up more than on-balance sheet lending (see Chapter VII). Since leveraged loans were primarily used to fund mergers and acquisitions, it should be expected that this activity will be more affected than investment in physical capital. Nevertheless, the previous boom in the leveraged loan market also boosted stock prices, implying that firms are now less likely to have access to cheaper equity financing as merger and acquisition activity slows.

Borrowing from intermediaries represents a relatively large share of the funding for investment in the euro area across the whole non-financial corporate sector. Investment is thus likely to be more sensitive to a contraction in intermediated credit supply in these economies than in the United States. Smaller firms would be affected most, because of their limited access to alternative financing. How far large firms might be able to cushion the effects of a contraction in credit supply through capital markets remains uncertain. Such firms in the United States would be more constrained by disruptions in corporate debt markets than in the euro area.

Within the business sector, tighter credit conditions are more likely to be binding for commercial real estate firms than for others. Compared with other kinds of commercial lending, leverage against collateral is generally higher for this type of borrower, and lending conditions had eased much more than for other firms. The tightening in credit conditions reported by US banks has been particularly sharp in this sector, and growth in business mortgage debt is already slowing.

In addition, the decline in land prices implied by falling house prices has also affected the value of non-residential property in the United States (see Chapter VII), and therefore collateral values in turn. The demand for commercial building related to residential construction (eg shopping centres) is likely to fall. Such dynamics are also likely to affect the commercial real estate sector in other countries.

Effects on the business sector depend on: the need for external funding;

the reliance on specific sources of funding;

and the kind of borrowing, with commercial real estate especially vulnerable ...

... because of its sensitivity to collateral values In sum, the current combination of sizeable shocks – the difficulties of major banks, credit market tightening, asset price declines and the unexpected strength of commodity prices – has created much uncertainty about the central forecast of continued, albeit more moderate, global growth in 2008. The extent to which households with overstretched balance sheets, in the United States and some other advanced industrial economies, will have to retrench in the face of such shocks is hard to predict. While a substantial rise in US household saving could bring about a further sizeable reduction in the US current account deficit, it would do so at the price of weakening demand in the rest of the world. At the same time, inflation risks are greater than they have been for many years. If inflation risks do not quickly subside as growth weakens, the stance of monetary and fiscal policy will need to be reviewed.

To conclude, global economic prospects are highly uncertain at present