The international environment

This article discusses developments[1] in the global economy since the November 1998 Quarterly Bulletin.

- *Japan's economic performance continued to be weak in the final quarter of 1998, and external forecasts for growth in 1999 were revised down. But additional policy measures to promote recovery were implemented.*
- *GDP growth in the United States was well above trend in 1998 Q3. But the headline growth figures masked an underlying slowdown in final domestic demand growth, and the manufacturing sector weakened markedly in Q3 and Q4.*
- *Growth in the euro area was relatively strong in 1998 Q3 and consumer confidence remained high, though the outlook in recent months has become more mixed as business sentiment has weakened.*
- *Forecasts for GDP growth in 1999 in the major overseas economies were generally revised down during 1998 Q4, largely reflecting the weaker economic outlook in Japan.*
- *Inflation in the major industrial economies remained subdued in Q4, partly reflecting continued falls in internationally traded goods prices. Continued recent declines in world commodity prices may dampen inflationary pressures further in the short term.*
- *The cuts in official interest rates in North America and Europe were followed by some strengthening of consumer confidence in those regions, and a rebound in equity prices. Corporate and emerging market sovereign bond spreads over US Treasuries also narrowed in the period since the previous* Quarterly Bulletin.
- *Financial markets remain volatile, and there are significant uncertainties about the outlook for some important emerging market economies in 1999, particularly Brazil.*

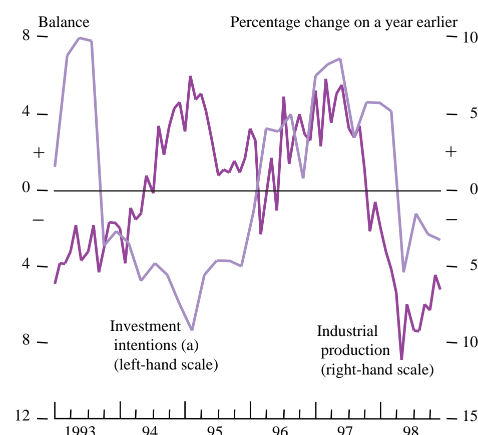
Japan remained in recession in 1998 Q3, and most macroeconomic indicators continued to be weak in Q4. External forecasts for Japanese growth in 1999 were revised down. Additional policy measures were implemented, although it is uncertain whether, and how quickly, these will promote a recovery.

Japanese GDP fell by 0.7% in the third quarter (3.6% lower than a year earlier), its fourth consecutive quarter of negative growth. The effect of the fiscal stimulus packages implemented earlier in 1998 began to be seen in public investment, which contributed 0.3 percentage points to GDP growth. Net exports also contributed positively to growth. However, this was more than outweighed by a sharp decline in corporate investment, and private consumption continued to contract. Revisions raised estimates of GDP growth in 1996 and 1997, but Japan remained in its deepest recession since 1955, when GDP data were first collected.

The December Tankan survey found that business sentiment had deteriorated since September. Firms also revised down their

(1) Based on data up to 29 January 1999.

Chart 1
Japanese industrial production and investment intentions



(a) From December's Tankan survey of business sentiment; series refer to investment for the current fiscal year at each point.

Chart 2
Japanese nominal retail sales and wages

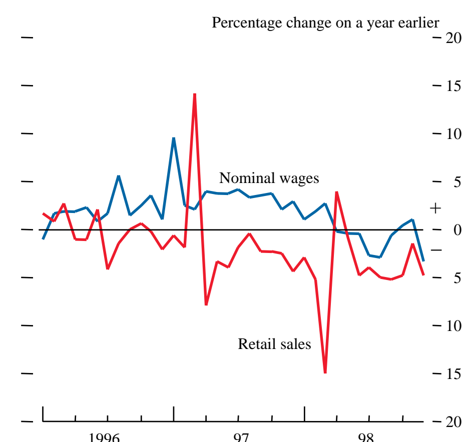
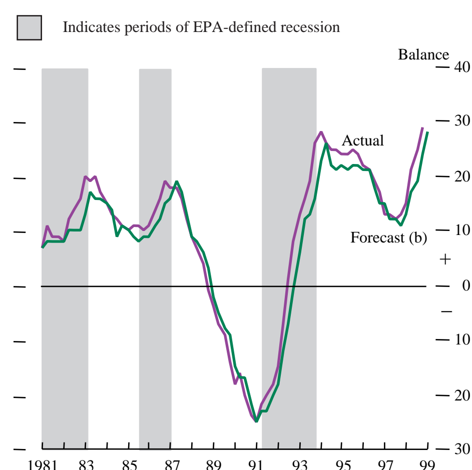


Chart 3
Japanese corporate employment views(a)



Source: December Tankan survey of business sentiment.

(a) Balance of firms reporting excess employees minus those reporting insufficient employees.
(b) Situation expected three months ahead.

forecasts for output in 1999 Q1. Industrial production remained weak; it fell by 6.6% in Q4 compared with a year earlier (see Chart 1). The rate of decline in production slowed as inventory adjustment proceeded, but the Tankan indicated that firms still had a large stock overhang in Q4 of both retail and wholesale goods. Investment was expected to fall by 2.6% in fiscal year 1998 (which ends in March 1999), 0.3 percentage points down from September's Tankan. The prospects for investment remain weak, constrained by falling profitability and restrictions on bank lending. *Consensus Forecasts* in January suggested that business investment is expected to decline by 10% in 1999.

Nominal retail sales fell by 4.3% in the year to Q4, though they rose by 7.4% in Q4 compared with Q3 (see Chart 2). Despite being bolstered by widespread price-discounting in the second half of November, this was a much smaller rise than the 28.4% increase in average nominal wages in Q4, which reflected the payment of year-end bonuses. This may have been because of continued falls in other types of irregular labour income, such as overtime payments, which account for up to 20% of total pay.

If Japanese consumers are attempting to smooth their profile of future consumption, a contraction in expected future earnings because of the weakness of the employment outlook might also help to explain the sluggishness of Japanese retail sales. The Japanese unemployment rate rose to a record high of 4.4% in November, though it fell back to 4.3% in December, and the job offers-to-seekers ratio fell to 0.48 in Q4 from 0.50 in Q3, significantly below its level of 0.69 a year earlier. In any case, the fact that employment cuts are expected to continue (see Chart 3) suggests that the outlook for consumption remains weak.

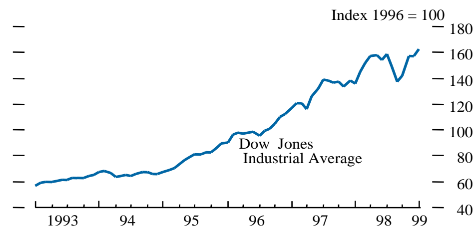
New government policy measures were announced in mid November to help to initiate a recovery. An economic package for the period between January 1999 and March 2000 included new fiscal stimulus measures totalling ¥24 trillion (4.8% of GDP), with ¥18 trillion of extra spending and ¥6 trillion in tax cuts. It was later augmented by a further ¥3 trillion in tax cuts. It remains unclear how far this government spending will offset the continuing decline in private domestic demand.

There were also renewed efforts by the Japanese government to promote financial sector reform. A second tranche of banking sector recapitalisation measures was announced in October, though this included some elements of the first tranche of measures agreed in March. Under the reforms, 15 out of 18 commercial banks in Japan applied for public injections of capital, worth around ¥6 trillion, and Nippon Credit Bank was nationalised in December, having been deemed insolvent by the Japanese Financial Standards Agency. The Bank of Japan also announced that it would provide short-term funding directly to the corporate sector in an expansion of its open market operations, and it established a new lending facility for refinancing bank lending to the corporate sector.

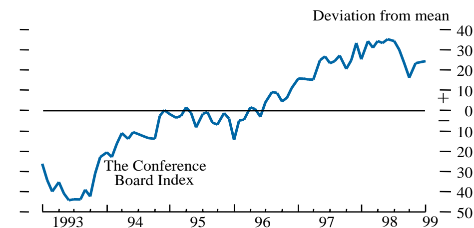
US GDP growth continued to be well above trend in 1998 Q3, though the headline growth figures masked an underlying slowdown in final domestic demand growth and the manufacturing sector weakened markedly in Q3 and Q4.

Chart 4
United States

(a) Equity prices



(b) Consumer confidence



Source: The Conference Board.

Chart 5
US personal sector

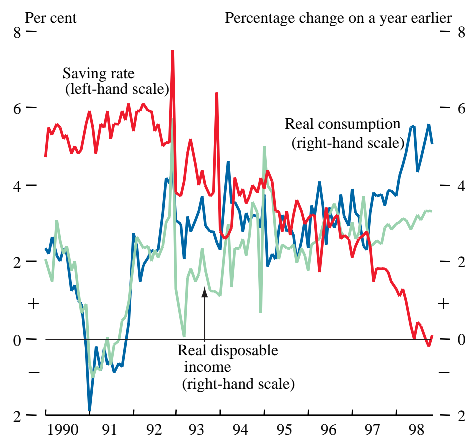
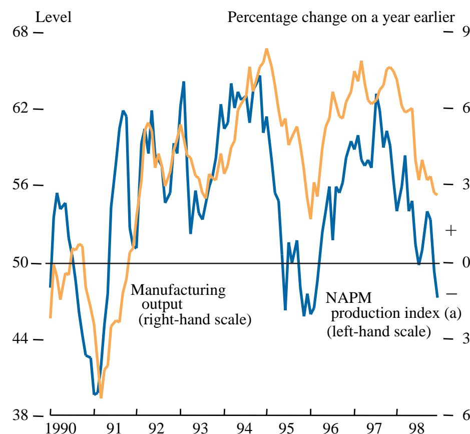


Chart 6
US manufacturing



(a) Source: National Association of Purchasing Managers.

In the United States, GDP rose by 0.9% (3.5% on a year earlier) in Q3. This reflected continued rapid growth in private sector consumption and investment, typical of the 1990s upswing in the United States. Final domestic demand growth slowed compared with previous quarters in 1998, particularly on the investment side, but it remained sufficiently robust to offset a negative contribution to growth from net trade. The strength of the US expansion in Q3 also partly reflected accumulation of stocks. Advance estimates suggest that GDP growth in Q4 was 1.5%, again supported by rapid domestic demand growth. Although these estimates are subject to revision, more disaggregated data also suggest that personal consumption growth remained strong in Q4.

This strong growth partly reflected labour market conditions. The unemployment rate in December fell to the bottom of the 4.3%–4.7% band within which it has fluctuated since the end of 1997, near historical lows. Growth in non-agricultural employment slowed slightly in Q4 to 2.3% on a year earlier, but remained faster than the average long-run rate of growth of the labour force, which is just over 1%. This supported continued strong personal income growth in late 1998. But buoyed by a recovery in equity prices and some rebound in consumer confidence in Q4 (see Charts 4a and 4b), annual growth in consumption over the quarter continued to be even more rapid than income growth. Reflecting similar imbalances in recent years, the US personal saving rate had already declined steadily during the 1990s, from around 5% in 1992 to 0.1% in 1998 Q3; in October, it turned negative, though it recovered to 0.1% in November (see Chart 5).

How long US consumers sustain this consumption growth will partly depend on whether the increase in household wealth associated with rising equity prices during the 1990s continues, and on whether mortgage refinancing continues to be supported by falls in long-term interest rates. It will also depend on households' income growth and their assessment of future income prospects, which Conference Board evidence suggests became more pessimistic in Q4. This increased pessimism is likely to have reflected uncertainty about whether robust employment growth will continue in 1999. Service sector employment growth remains strong, but it slowed slightly in Q4 to 2.8% on a year earlier, from 3.0% in Q3. Manufacturing sector employment was much weaker and slowed more sharply in Q4, to -0.9% on a year earlier, from -0.1% in Q3.

The continued fall in manufacturing employment was in line with the growing weakness in the sector (see Chart 6). Annual growth of total industrial production was even weaker, falling in Q4 to well below growth rates in the 1991 recession. The capacity utilisation rate in industry correspondingly declined in Q4, to below its long-run average. These weak data were corroborated by survey evidence from the Federal Reserve's 'Beige Book' summary of regional economic conditions and the National Association for Purchasing Managers (NAPM), whose reports suggested that weakness in export demand was a key factor in dampening US production.

The slowdown in domestic production against continuing strength in domestic demand was reflected in a further increase in the US

Chart 7
US external position

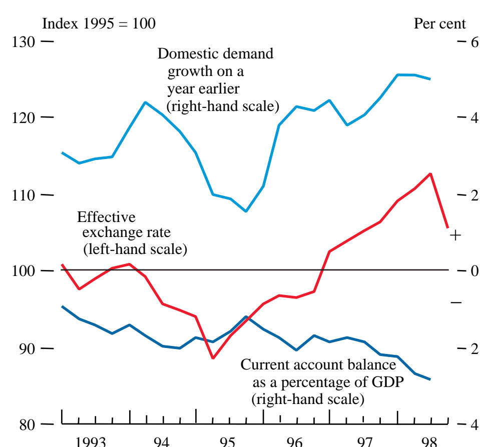
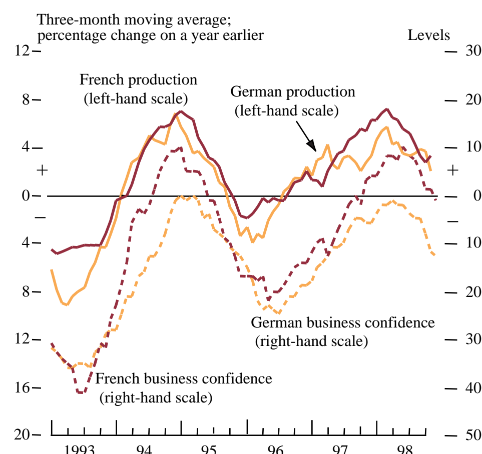


Chart 8
French and German industrial production



Source for confidence indicators: European Commission.

trade deficit in Q3 (see Chart 7). Alongside a fall in net investment income, this increased the US current account deficit to 2.9% of GDP, from 2.7% in Q2. The trend in Q4 was less clear: data between September and November suggested some stabilisation of the trade deficit. However, the balance was distorted during this period by sharp movements in some erratic components of merchandise exports. *Consensus Forecasts* suggested that there were widespread expectations that the US current account deficit would widen further in 1999.

Growth in Germany and France was fairly strong in 1998 Q3 and consumer confidence remained high. However, the outlook in recent months has become more mixed as business sentiment has weakened.

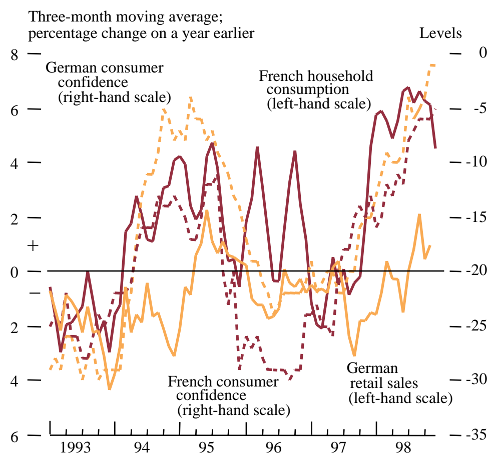
In the third quarter, GDP growth was at or above trend in Germany and France, which together account for more than half of euro-area GDP. German GDP grew particularly strongly, by 0.9% (2.7% on a year earlier), in contrast with zero growth in Q2. One factor accounting for the stronger outturn in Q3 was a rise in private consumption growth, which had been weak in the previous quarter. French GDP growth slowed slightly to 0.5% in Q3 (2.8% on a year earlier), mainly because of a run-down of stocks and a smaller positive contribution from household consumption. Net trade contributed positively to quarterly growth in both Germany and France.

Data from the fourth quarter suggested some slowdown in activity in Germany. Industrial production growth in the first two months of Q4 averaged 1.6% on a year earlier, much lower than in the first half of 1998, and forward-looking industrial indicators also deteriorated. After steadily slower growth throughout 1998, German manufacturing orders fell in October and November by an average of 1.8% compared with a year earlier. By contrast, French industrial production data from the early part of Q4 were stronger than in Q3, when industrial production was static compared with the previous quarter. However, as in Germany, French annual industrial production growth also appeared to be slowing from the rapid rates of expansion during the first half of 1998 (see Chart 8).

Reflecting these trends, French and German business sentiment deteriorated in Q4 (see Chart 8), owing to increased pessimism about both current conditions and forward-looking indicators such as assessments of new orders, production expectations and unwanted inventories. The IFO measure of German business expectations fell particularly sharply, reaching its lowest level since the middle of 1996. In both countries, the change in sentiment was driven by a steep fall in expected foreign demand.

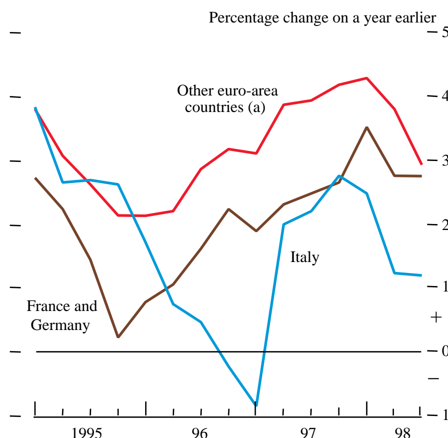
The weaker business outlook has not yet resulted in a slowdown in employment growth. French employment grew by 0.4% in Q3 (2.3% on a year earlier), with a fall of 0.2% in manufacturing employment offset by a rise of 0.9% in service sector employment. INSEE surveys suggest that French firms' hiring expectations in Q4 rose. German employment growth remained weaker than in France, rising by 0.3% in Q3 (0.3% on a year earlier), but it was the first quarter of positive annual employment growth since the pan-German series began in 1993. In October, employment rose by a further 0.1% (0.6% on a year earlier). However, the German

Chart 9
French and German consumption



Source for confidence indicators: European Commission.

Chart 10
Comparisons of euro-area GDP growth



(a) Includes Belgium, Finland, the Netherlands, Portugal and Spain, comprising 22.8% of euro-area GDP; Germany, France and Italy account for 73.2% of the rest.

employment outlook is subject to particular uncertainty, as it remains unclear whether the new government will prolong job creation schemes, which fuelled recent employment growth in eastern Germany.

The sharp falls in confidence in the industrial sector were not mirrored by consumer confidence (see Chart 9), perhaps reflecting the relative stability of employment. French consumer confidence in December was only two points below the all-time high recorded three months earlier, although growth in French household consumer spending began to weaken in Q4. German consumer confidence in Q4 was also significantly higher than a year earlier, though retail sales growth also weakened in Q4 and was lower than in France, possibly owing to greater perceived fragility of recent gains in employment growth.

How different are other euro-area economies from Germany and France?

Taken together, Germany and France grew by 2.7% on a year earlier in Q3. GDP growth in the third-largest euro economy, Italy, continued to be weaker than in Germany and France: GDP was 1.2% higher than a year earlier in Q3. By contrast, economic growth in the smaller countries in the euro area remained faster than in the three largest euro countries in Q3, at 2.9% on a year earlier. This left average euro-area GDP growth in Q3 at 2.4%. But the gap between the faster-growing countries and the slower-growing core of the euro area appeared to narrow in Q3 (see Chart 10).(1) This is consistent with a sharper fall in confidence indicators in the smaller euro-area countries than in the larger ones in late 1998.

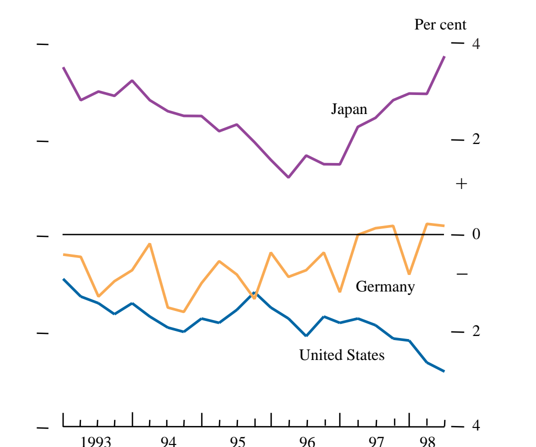
The scope for convergence in growth rates within the euro area will be affected by the different degrees of monetary easing throughout 1998 in countries other than France and Germany. Italian GDP growth may be boosted by the significant interest rate cuts in 1998 Q4, but there was also marked easing of the monetary stance in faster-growing countries. Any widening of the gap between the growth in smaller and larger economies might be reduced by some real exchange rate appreciation, resulting from higher rates of inflation in faster-growing countries within the single-currency area. But fiscal policy could act to maintain the existing differences in growth rates in the euro area. Stability programmes setting out most euro-area countries' fiscal plans for 1999–2001 have been submitted, generally calling for gradual continuing deficit reduction over this period. The relatively large deficits of Germany, France and Italy mean that the Stability and Growth Pact is likely to constrain their fiscal response to any downturn in 1999; this is less true in many of the faster-growing countries with smaller budget deficits.

As in the United States, a central question for the euro area is how much changing trade patterns could weaken the net trade outlook.

Following the increase in financial instability in East Asia in 1997, the IMF estimates that net capital flows to emerging markets fell from almost $150 billion in 1996/97, to around $70 billion in 1998.

(1) All euro-area aggregates are GDP-weighted. Q3 data for the euro area cover 96% of the region's total GDP (comprising Germany, France, Italy, Spain, the Netherlands, Belgium, Portugal and Finland).

Chart 11
G3 current account balances as a percentage of GDP



This led to sharp swings towards current account surplus in the affected emerging market countries, and the counterpart to this was a shift towards deficit in the current accounts of industrialised countries.[1] This occurred most notably in the United States, where the current account deficit reached 2.9% of GDP in Q3. By contrast, net trade made positive contributions to GDP growth in the largest euro countries in Q3. The French current account surplus rose to 3.5% of GDP in Q3, and Italy's surplus was 2.2% of GDP in Q3. The German current account surplus was smaller, at 0.2% of GDP in Q3. However, Chart 11 shows that Germany's current account position also diverged from that of the United States in 1997 and 1998.

The relative strength of current accounts in Germany, France and Italy partly reflected different cyclical positions in Europe *vis-à-vis* key trading partners such as the United States, which was further into an upswing in 1998. Euro-area currencies as a whole also depreciated in real effective terms between mid 1996 and the first quarter of 1998, in contrast with the US dollar; this may have helped to offset the effects of global financial crisis. The euro area's net trade outlook is central to short-term prospects for further growth in euro countries, and it will be affected by similar factors: the degree of any slowdown in the United States in 1999, the effects of recent appreciation of euro currencies, and the fragility of emerging markets. Concern about these issues is reflected in the business sentiment surveys in the main European economies, which suggested that export prospects worsened for European firms in Q4.

International economic growth forecasts have been revised down since the November Quarterly Bulletin.

Table A gives recent projections for GDP growth in 1998 and 1999 in major overseas industrialised economies. Growth in each country is widely forecast to slow in 1999, except in Japan and Italy, and most external forecasts for growth in each country were revised down in Q4.

Table A
Forecasts for GDP growth

Per cent

	IMF (a)		Consensus Economics (b)		*The Economist* poll of forecasters (c)	
	1998	1999	1998	1999	1998	1999
United States	3.6	1.8	3.7	2.3	3.6	2.1
Japan	-2.8	-0.5	-2.7	-0.6	-2.8	-0.7
Germany	2.7	2.0	2.7	2.0	2.8	1.8
France	3.0	2.6	3.0	2.2	3.0	2.2
Italy	1.5	2.0	1.6	2.0	1.5	1.8

(a) Interim *World Economic Outlook* (December 1998).
(b) *Consensus Forecasts* (December 1998).
(c) *The Economist* (30 January–5 February 1999).

The IMF's December forecast suggested that overall GDP growth in the six major overseas economies[2] is now expected to fall from 3.0% in 1997 to 2.2% in 1998 and 1.5% in 1999. Compared with the October forecast, this was an upward revision of 0.2 percentage points for 1998 but a downward revision of 0.4 percentage points to the 1999 projection. This revision for 1999 was the result of a sharper projected slowdown in Europe and the United States, and continued recession in Japan. Between October and December, the IMF revised down its forecast for 1998 GDP growth in Japan by 0.3 percentage points to -2.8%, and by 1 percentage point in 1999, from 0.5% to -0.5%.

Growth in world trade volumes is also widely forecast as slower in 1998 and 1999 than in recent years. The IMF estimates that between 1994 and 1997, world trade grew by an average of 8.9% each year, but its forecasts suggest a slowdown to 3.4% in 1998 and 4.4% in 1999. Particularly in 1998, the slower growth might reflect

(1) However, IMF estimates suggest that the residual on the global current account increased in 1998 compared with recent years. In the absence of any errors or inconsistencies in the data, the residual would equal zero; a growing residual suggests increasing unreliability of cross-country comparisons of current account changes. Hence there is a need for caution when discussing the relationship between current account movements in industrialised countries and emerging markets in 1998.
(2) The United States, Japan, Germany, France, Italy and Canada.

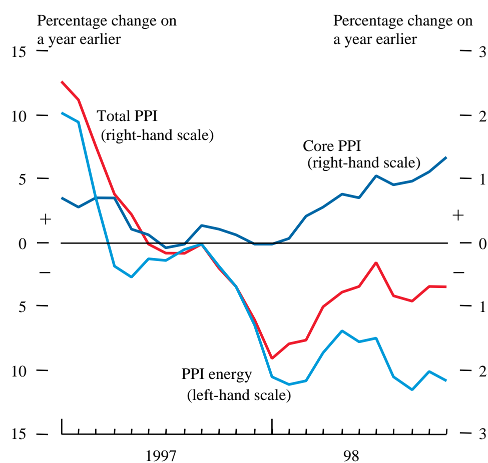
temporary factors such as recent turmoil in emerging markets. It is unclear whether the slowdown might also partly represent a return to a long-run trend. Annual world trade growth averaged 4.5% between 1980 and 1993, and the particularly rapid expansion in world trade in the mid 1990s may have been supported by the effects of trade liberalisation agreements.

Inflation in the major industrial economies remained subdued in the fourth quarter, partly reflecting continued falls in internationally traded goods prices. Further recent falls in world oil prices may continue to dampen inflationary pressures in the short term.

In dollar terms, crude oil spot prices fell by 37% in 1998, and non-oil commodity prices fell by 16%.[1] The fall in commodity prices appears to have reflected both supply and demand factors, and was one reason for a fall in internationally tradable goods prices in industrialised countries in 1998. In GDP-weighted terms, import prices in the three major overseas economies fell by 5.2% in the first ten months of 1998. This continued to be a common influence dampening inflation across industrialised countries in the fourth quarter.

Despite continued strong output and employment growth, US consumer price inflation remained low. It fell to 1.5% in Q4 from 1.6% in Q3, giving a 1998 average of 1.6%, compared with 2.3% in 1997. Core consumer price inflation (which excludes food and energy) was higher, and did not decline between 1997 and 1998, reflecting the importance of past falls in commodity prices in depressing consumer price inflation. But it remained around a historical low of 2.4% in Q4, and displayed no clear upward trend. This partly reflected revisions to the index introduced in 1998, which are estimated to have reduced consumer price inflation by around 0.15 percentage points.[2] The lagged effects of past exchange rate appreciation in the United States also contributed to lower inflation by lowering import prices. Unit labour cost growth also remained fairly stable. Annual growth of hourly labour compensation rose to 4.3% in the first three quarters of 1998 from 3.7% in 1997, but this was offset by gains in productivity.

Chart 12
US producer prices



There were few signs that goods price inflation would pick up markedly in the short term. In Q4, the NAPM index of manufacturing producer prices fell to a historic low. Even including a sharp increase in tobacco prices in December, largely reflecting the costs to tobacco manufacturers of legal settlements with US state governments, producer price inflation for finished goods was -0.5% in Q4. However, Chart 12 shows that growth in core producer prices (which exclude energy and food) rose in 1998; in the longer term, increased inflationary pressure may emerge from the continuing strength in employment growth and depreciation of the dollar since mid 1998.

Inflation in the euro area was low and falling in Q4. German consumer price inflation averaged 0.6%, compared with 0.8% in Q3. Inflation in France was lower still, at 0.3% in Q4, compared with 0.7% in Q3. Upward bias in the German national consumer

(1) Commodity prices quoted in this section refer to the Economist Intelligence Unit US dollar-denominated indices for crude oil and for non-oil general commodities (the 'World Commodity Forecasts' index).
(2) For a discussion of the effects of revisions to the CPI, see 'OECD Economics Surveys: United States 1997', OECD (1997).

Chart 13
Harmonised consumer price indices

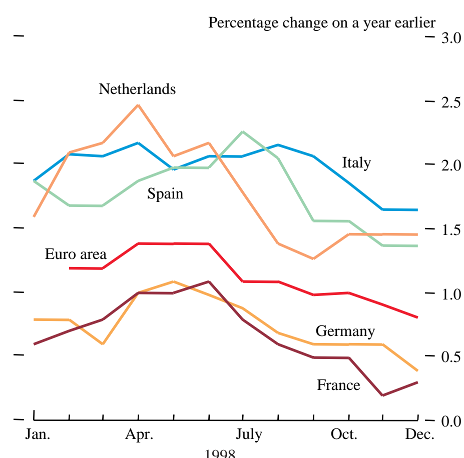


Chart 14
Japanese prices

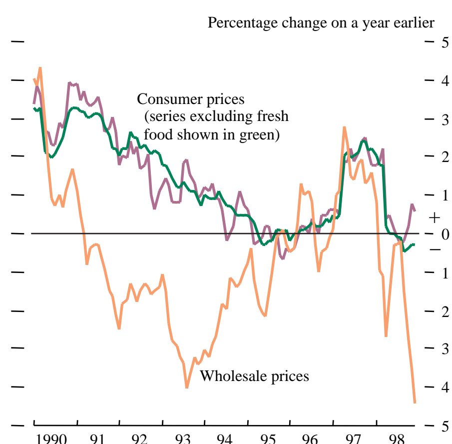


Table B
Real broad money growth

Percentage changes on a year earlier

		United States	EU3 (a)	Japan	M6 (b)
1990–95		-0.9	1.8	2.0	0.8
1996		1.9	0.8	3.1	1.9
1997		2.6	3.3	1.3	2.4
1998	H1	5.2	4.3	3.0	4.1
	Q3	5.8	4.1	3.9	4.6
	Oct.	6.9	4.3	3.7	5.1
	Nov.	7.1	4.1	3.6	

(a) GDP-weighted average for Germany, France and Italy (EU3).
(b) GDP-weighted average for the United States, Japan, Canada and the EU3.

price index—estimated to be around 0.75 percentage points—suggests that the core of the euro area may be close to absolute price stability.[1]

Chart 13 illustrates that other euro-area countries had higher inflation rates (except for Belgium and Luxembourg). Harmonised consumer price inflation across the euro area was 0.9% in Q4. But inflation rates typically fell in the second half of 1998 in all euro countries, reflecting the same commodity price dynamics as in other major industrialised countries. But if these inflation divergences within the euro area persist, they imply that some realignment of real exchange rates will occur within the euro area.

Japanese consumer price inflation rose to 0.5% in Q4 from -0.2% in Q3, owing to a rebound in food prices (see Chart 14). But excluding food, consumer price inflation dropped to -0.3% in Q4, from -0.2% in Q3. The rise in inflation earlier in 1997 was the result of the introduction of a sales tax, and no underlying inflationary pressures are evident. Wholesale price inflation fell to -3.9% in Q4 from -0.2% in Q3. Domestic wholesale price inflation was less negative, reflecting the recent appreciation of the yen and the importance of falling prices for imported commodities.

The decline in crude oil spot prices accelerated in 1998 Q4, when they fell by a further 36% on the previous quarter. Non-oil commodity prices also continued to fall sharply in 1998 Q4, though the rate of deflation slowed to 17% from 19% in Q3. This will dampen inflationary pressures further in the short term, but the longer-term outlook for inflation in the M6 is clearly affected by the prospects for commodity price stabilisation in 1999.

Real broad money growth in major overseas industrialised countries remained faster than earlier in the 1990s, though broad money velocity continued to fall in Q3.

For the six major overseas industrialised economies, real broad money growth was 4.6% in Q3, faster than in the first half of 1998. In October it rose further, to 5.1% (see Table B). However, broad money velocity continued to slow in Q3. The average annual increase in the M1 narrow money measure for the major six industrialised economies rose from 4.5% in August to 5.6% in October, broadly in line with growth rates during the first half of 1998.[2]

US broad money growth remained more rapid than in other large overseas industrialised countries, and it accelerated sharply in late 1998. This may have reflected a shift out of bond finance into bank finance by US corporate borrowers, as corporate bond yields remained higher than before the Russian shock to financial markets in August.

The announcement in October of the ECB's strategy for monetary policy made clear that broad money growth would be an important factor in determining euro-area monetary policy. On 1 December 1998, the reference point for assessing annual money growth was determined at 4.5% for the three-month moving average of

(1) Source: Hoffman, J (1998), 'Probleme der Inflationsmessung in Deutschland', *Diskussionspapier 1/98*, Volkswirtschaftliche Forschungsgruppe der Deutschen Bundesbank.
(2) Aggregates are GDP-weighted averages for the major six overseas industrialised economies. Broad money measures used in each country are M2 for the United States and Italy, M3 in France and Germany, M2+ in Canada and M2 + CDs in Japan. The measure of narrow money is M1. GDP deflators were used to obtain real money growth figures from nominal aggregates.

Chart 15
Official interest rates

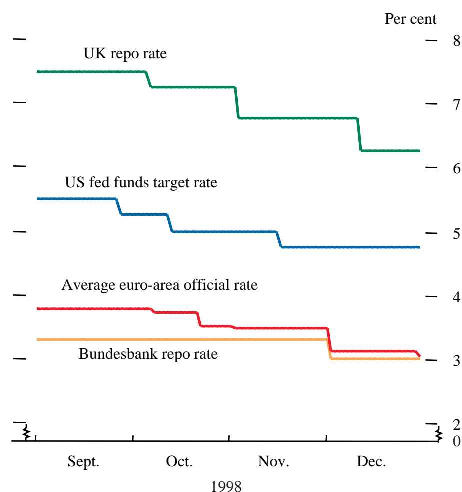
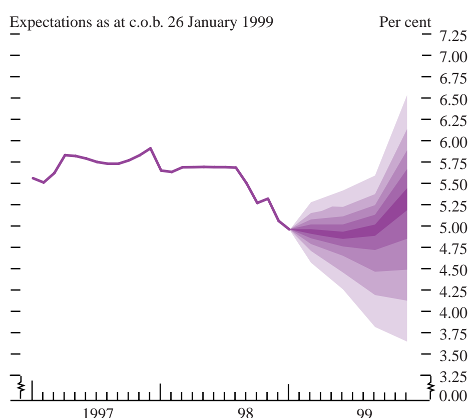


Chart 16
Implied distributions for three-month eurodollar interest rates



euro-area M3. This figure was derived on the basis of the ECB's measures of price stability, trend real GDP growth and the trend decline in the velocity of money;(1) it will be reviewed in December 1999. Annual real broad money growth in the euro area as a whole fell in the second half of 1998, and at 4.7% in the three months to November was close to the reference value.

The Japanese call rate was reduced by 25 basis points to an average of 0.25% in September, but the Japanese economy showed few signs of revival in 1998 Q4. With interest rates so close to zero, there is little scope for any further indirect monetary stimulus. As discussed in the minutes of the Bank of Japan's Monetary Policy Committee meeting on 13 November, future nominal stimuli may therefore have to come from direct increases in the money supply via open market operations.

The low-inflation outlook allowed further easing of interest rates in most industrial countries, in response to weakness in global economic and financial conditions.

On 17 November, the US Federal Reserve Bank reduced the federal funds target rate by 25 basis points for the third time since the financial market turmoil triggered by the Russian debt moratorium in August 1998 (see Chart 15). A statement issued by the Federal Open Market Committee at that meeting was widely interpreted by financial markets to suggest that no further cuts were imminent: 'With the 75 basis point decline in the federal funds rate since September, financial conditions can reasonably be expected to be consistent with fostering sustained economic expansion while keeping inflationary pressures subdued'. The policy action record for that meeting published on 23 December showed that the Committee had also voted to adopt a symmetric policy stance.

Since November, US official interest rates have been unchanged. Chart 16 shows the implied risk-neutral probability distribution of US short-term interest rate expectations, derived from options on 26 January. The mean expectation shown is higher at the end of 1999 than that shown in the implied distribution presented in the November *Quarterly Bulletin*.(2) However, it is relatively flat throughout most of 1999, suggesting that market participants do not expect any further interest rate changes in the United States in the near future.

Following earlier reductions in official interest rates throughout 1998, on 3 December all euro-participating countries except Italy simultaneously reduced their rates to 3.0% (see Chart 15). Italy reduced its interest rate on this date to 3.5%, and then to 3.0% on 24 December. Convergence of official interest rates was necessary ahead of the introduction of the euro on 1 January 1999, and took the form of a coordinated policy easing in response to perceptions of a deteriorating world economic outlook.(3)

Measures of the implied volatility of key European forward interest rates, derived from option prices, suggested that market uncertainty regarding the future monetary policy stance of the ECB increased

(1) Price stability is defined by the ECB to be 'a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of 2%'; its estimates of trend real GDP growth are between 2.0% and 2.5%, and estimates of the trend decline in the velocity of money are between 0.5% and 1.0%.
(2) The rise in interest rate expectations for late 1999, shown in Chart 16, has been interpreted by market commentators as a 'Millennium effect'.
(3) The chairman of the Bundesbank, Hans Tietmeyer, said that the coordinated rate cut 'could lead to a reduction in the current pessimism and a reduction in financial market turbulence'.

Chart 17
Ten-year US corporate bond spreads over US Treasuries

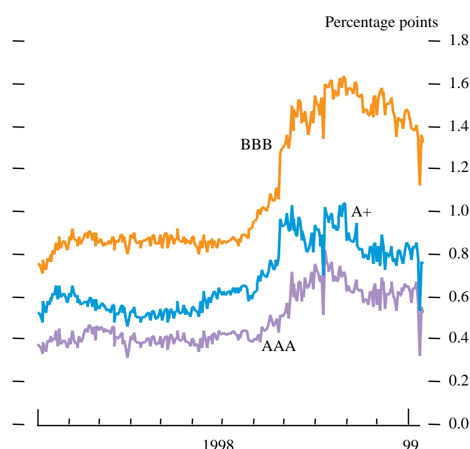
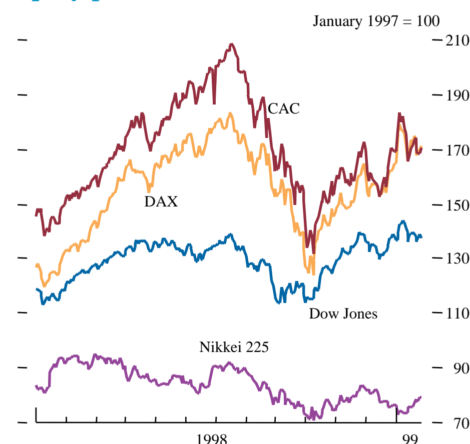
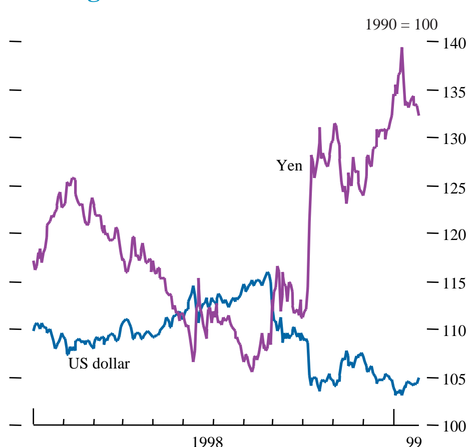


Chart 18
Equity prices(a)



(a) In local currency.

Chart 19
US dollar and yen nominal effective exchange rates



after the interest rate cuts in early December. However, a statement by the ECB Governing Council on 22 December said that it intended to maintain the same level of interest rates 'for the foreseeable future', a stance reiterated in the first issue of the ECB *Monthly Bulletin* in January 1999. In the same statement, the rates of the standing facilities of the European System of Central Banks were announced to be 2% for the deposit facility and 4.5% for the marginal lending facility. But the ECB also set a temporarily narrower corridor of 2.75%–3.75%, for use between 4 January and 21 January 1999, aimed at 'smoothing the adaptation of market participants to the integrated euro money market'.

The effect of this statement appeared to have been to raise expectations of euro interest rates marginally (by 5 basis points), though the variance of market expectations about future euro interest rate levels did not decrease, perhaps as a result of continued volatility in emerging markets.

Since early October, financial markets have become less volatile and risk-averse, but remain more unsettled than in the period before August.[1]

In the two months after the announcement of the Russian debt moratorium in mid August, participants in global financial markets became more risk-averse and increased their demand for liquidity. This resulted in significant volatility in asset prices, even in the most mature financial markets. The subsequent easing of monetary conditions in major industrial countries may have helped to stabilise financial market conditions. Corporate bond yield spreads fell back from their peaks in early October (see Chart 17). An increase in the growth of bank lending cushioned the reduced access to bond finance experienced by some firms in the United States. There was also a sharp global rebound in equity prices in Q4, with key US indices reaching all-time highs (see Chart 18).

However, implied volatility[2] for corporate bond yields and equity prices remained above levels before the shocks in August. Risk premia also remained higher: Chart 17 shows that US corporate bond spreads in Q4 were above their average in the first half of 1998, particularly for borrowers with lower credit ratings. A Federal Reserve survey in November, of senior bank loan officers, also showed that there had been a more widespread tightening of conditions on banks' corporate loans than was evident in the previous survey conducted in September. And the renewed turbulence in global financial markets in January 1999, following the devaluation of the Brazilian currency, illustrated that equity prices in particular remain fragile.

There were also marked movements in key foreign exchange rates in Q4 (see Chart 19). The depreciation in the US nominal effective exchange rate continued from its peak in August: in Q4, its average level was 6% below the average for the preceding quarter. The Japanese effective exchange rate strengthened sharply in Q4, especially in early October. The yen appreciated to a 28-month high of ¥108.6 against the dollar on 11 January, though it later fell back following intervention from the Japanese authorities.

(1) Movements in foreign exchange, equity and bond markets are discussed in more detail in 'Markets and operations' in this *Quarterly Bulletin*, pages 5–19.
(2) Implied volatility is the financial market's *ex ante* expectation of the volatility of an underlying asset's return over the remaining life of an option on that asset.

Chart 20
Change in government bond yields (from 1 October 1998)

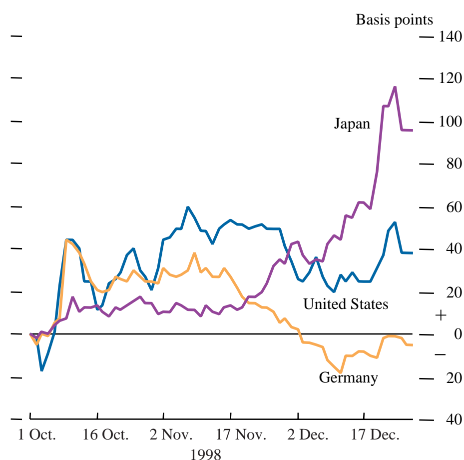


Chart 21
Japan: zero-coupon yields

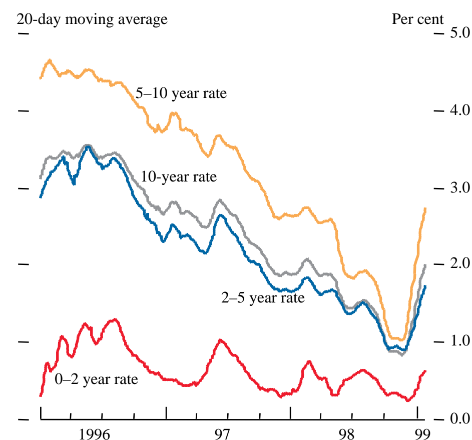
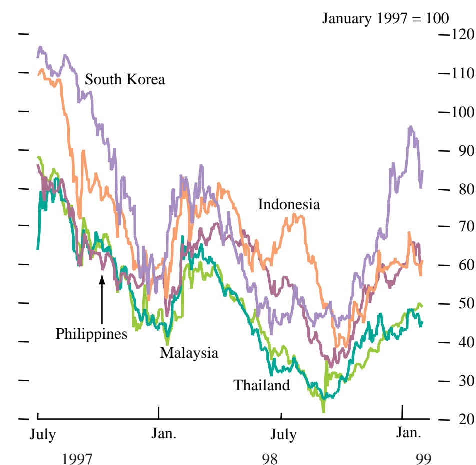


Chart 22
Asian equity markets[(a)]



(a) In local currency.

The depreciation of the US dollar may partly have reflected concerns about the size of the US current account deficit, which reached 2.9% of GDP in Q3. Slower growth and increasing financial instability in Latin America in Q4 may have also increased perceptions that the US current account deficit would widen further, and may have increased uncertainty about the robustness of US financial markets to potential external shocks from the region.

Japanese government bond (JGB) yields rose particularly sharply in Q4, in contrast with comparable bond yields in other M6 countries (see Chart 20). This may have reflected prospective changes in demand and supply in the JGB market. In particular, the Ministry of Finance announced in December that the single largest investor in JGBs, the publicly owned Trust Fund Bureau (TFB), would withdraw from purchasing JGBs in January 1999.

A decomposition of the rise in the ten-year JGB yield curve into zero-coupon bonds of different maturities (as shown in Chart 21) suggests that the rise in ten-year bond yields was mainly reflected in an increase in the five-year spot rate five years forward (labelled on the chart as '5–10 year rate').[(1)] This suggests that the government policies and banking reforms announced in Q4 may have raised expectations of inflation and economic recovery in the long term in Japan. The appreciation of the yen may also have been supported by some positive market reaction to these policy measures. However, to the extent that the rise in bond yields and appreciation of the yen persist, these market movements may not promote Japanese recovery prospects in the shorter term.

In East Asian emerging markets, there was some progress towards economic stabilisation.

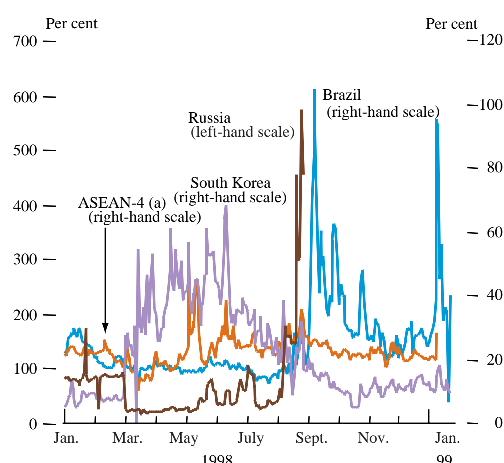
As noted earlier (on page 24), the fall in net capital flows to the five East Asian countries most affected by financial shocks in 1997 (South Korea, Thailand, the Philippines, Indonesia and Malaysia) resulted in significant shifts towards current account surplus in these countries in 1998. This was achieved primarily through import compression, as domestic demand growth slowed sharply. The aggregate current account position in the five countries is estimated by the IMF to have swung towards surplus by $118 billion between 1996 and 1998.

Financial market confidence in the region increased in 1998 Q4. Effective exchange rates continued to appreciate in nominal terms, aided by the weakening of the dollar in late 1998 against other major currencies, in particular against the Japanese yen. Regional equity prices also rose (see Chart 22), though they remained below their pre-crisis levels.

There were also further declines in interest rates in Thailand, Indonesia and the Philippines in Q4 (see Chart 23). The same was true in many other emerging markets, though not in Russia, reflecting its relatively poor prospects for financial stabilisation. All five Asian-crisis countries appear to have remained in recession in Q4, though there were significant differences within the group. Indonesia remains particularly weak; Korea and Thailand appear to have made most progress towards macroeconomic stabilisation.

(1) Similarly, the '2–5 year rate' in Chart 21 is derived from the two-year spot rate three years forward, and the '0–2 year rate' relates to the current spot rate two years forward.

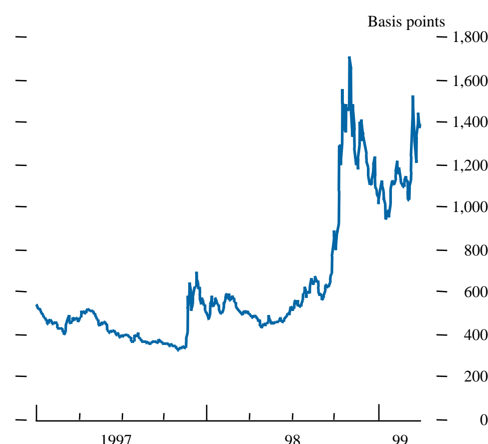
Chart 23
Money-market interest rates



Source: JP Morgan, Emerging Local Markets Index. Russia was suspended from the index from 1 September 1998.

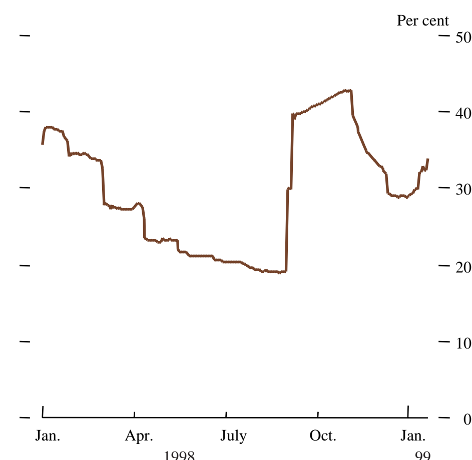
(a) Thailand, Malaysia, the Philippines and Indonesia.

Chart 24
Emerging market sovereign bond yield spreads over US Treasuries



Source: JP Morgan, Emerging Markets Bond Index.

Chart 25
Brazilian short-term interest rate(a)



Source: Bloomberg.

(a) Selic overnight rate.

Concern about emerging market economies remains. One source of particular uncertainty is Brazil, which adopted a floating exchange rate in mid January.

As growth slowed in the Asian emerging markets, significant weaknesses in their domestic banking systems became apparent. The authorities in several countries began to address these problems in 1998, but for economic recovery to become more broadly based and sustainable, the IMF has argued that further restructuring of domestic financial and corporate sectors remains necessary. There are also sources of uncertainty for these countries stemming from the possibility of further regional Asian shocks. Japan accounts for 14% of the five crisis-hit countries' exports, but the outlook for Japanese domestic demand remains weak, and the economy is expected to contract further in 1999. The prospects for China are also important for the region; official data suggest that GDP growth remained robust in 1998, but more disaggregated data are weaker and there are significant domestic financial fragilities.

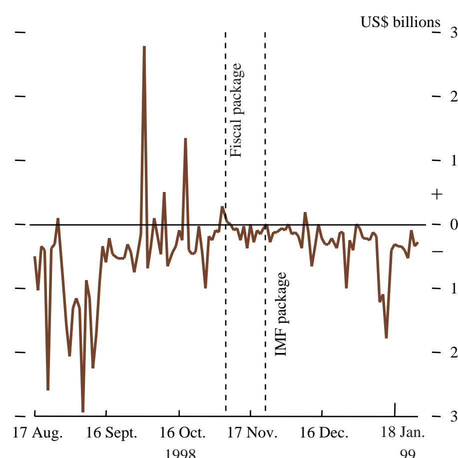
In emerging market economies in general, secondary market bond spreads over risk-free assets narrowed in the early part of 1998 Q4. However, they remained volatile, and wider than before the Russian turmoil of August (see Chart 24).

One particular source of market volatility in recent months was investor concern about the economic outlook for Brazil, the world's eighth-largest economy (in GDP terms). The economy was strongly affected by the large withdrawals in capital flows from emerging markets that occurred in the wake of the Russian debt moratorium in August, as private sector investors reappraised the risk involved in exposure to such markets. Investors' concerns focused on the size and funding requirements of the Brazilian budget and current account deficits, particularly given a slowdown in GDP growth from 3.7% in 1997 to -0.1% in 1998 Q3 in annual terms. The nominal fiscal deficit had risen from 6.1% of GDP in 1997 to 7.4% of GDP in the period January-October 1998. To support financial and economic stabilisation in Brazil, an IMF-led package totalling $41.5 billion was announced on 13 November, conditional on a programme of front-loaded fiscal adjustment by the Brazilian government. This aided a recovery in equity prices and a decline in interest rates in Q4 (see Chart 25).

But net capital outflows from Brazil continued, apparently reflecting uncertainty about whether the fiscal adjustment planned by the federal government would gain the necessary political approval for implementation. The outflows increased in December and early January to a level inconsistent with the IMF programme (see Chart 26), and interest rates began to rise again in January.

The continued drain on net reserves prompted a change in monetary policy, which was intended to allow a reduction in interest rates without significant net capital outflows. Prior to 13 January, the Brazilian authorities maintained a crawling exchange rate peg to the US dollar, which allowed the real to fluctuate within a narrow (1.2%) intervention band. On 13 January, the Brazilian authorities abandoned the narrow intervention band, replacing it with a wider (10.0%) band. At the same time, the centre of the band was shifted so that the ceiling was raised to 1.32 R/$, compared with 1.22 R/$ under the previous system. The real depreciated to its new ceiling

Chart 26
Brazilian daily net capital flows(a)



Source: Bloomberg.

(a) Negative values imply net capital outflows.

during trading on 13 January, and net capital outflows increased further. On 15 January, the Brazilian authorities did not defend the exchange rate ceiling, and on 18 January, the Brazilian central bank confirmed that they would permit the real to float. The exchange rate closed at 2.05 R/$ on 29 January.

There has been widespread concern about the potential repercussions on Latin America as a whole, which accounts for close to one fifth of total US exports. In the days following the first Brazilian policy change on 13 January, yield spreads on Latin American sovereign debt rose and equity prices fell. Subsequently, these changes in equity prices and spreads were largely reversed.

Sharp falls in commodity prices in Q4 further weakened prospects in other Latin American economies such as Mexico, Venezuela and Ecuador, as well as in Middle Eastern economies. Many commodity exporters are not well diversified, and commodity exports often contribute significantly to tax revenues. The potential fiscal shortfall that might result from falling commodity prices could further dampen growth in affected countries.

The New Arrangements to Borrow (NAB) were established at the IMF on 17 November, doubling the resources available under its predecessor, the General Agreements to Borrow. This is intended to improve the international financial community's ability 'to assist countries attempting to forestall or cope with an impairment of the international monetary system or to deal with an exceptional situation that poses a threat to the stability of that system'.[1] However, there is clearly potential for emerging markets to cause further uncertainty in the short-term economic prospects for industrialised countries, through financial market volatility and changes in world trade flows—the same channels that transmitted the Asian and Russian shocks to the rest of the world in 1997 and 1998.

(1) International Monetary Fund (1998) 'World Economic Outlook and International Capital Markets—Interim Assessment', December.