II. Developments in the advanced industrial countries

Highlights

Annual growth in most of the advanced industrial countries rose in 1998, despite an increasingly adverse influence from the widening economic and financial crisis in Asian and other emerging market economies. However, there were major differences across countries in the extent to which domestic demand was able to offset the drag from net exports. Contrary to widespread predictions of a slowdown in economic activity, GDP growth in the United States matched its 1997 pace and even increased towards the end of the year. In contrast, growth in the euro zone lost considerable momentum in the course of 1998, and the recession deepened further in Japan despite expansionary fiscal and monetary policies.

Against a background of accommodating policies, low inflation, favourable borrowing conditions, booming equity markets and relatively strong employment growth, household spending was the main source of domestic demand expansion in those countries that coped most successfully with external shocks last year. Indeed, in some cases, household saving rates have fallen to historical lows. Favourable financial market conditions and marked improvements in profit shares and rates of return have also stimulated business fixed investment in these countries. A continued decline in the relative price of capital goods and growing international pressures to reduce costs and improve efficiency have provided an additional boost, notably to equipment investment. By contrast, in countries where output growth lost momentum in the course of 1998, household spending was typically weak and firms tended to invest profits in financial rather than real assets.

With actual output growth above potential in a majority of countries, unemployment rates generally decreased in 1998. Nonetheless, inflation continued to trend lower, reflecting nominal wage restraint, falling commodity prices and excess capacity in global goods markets. The large and widening output gap in Japan has raised concern about the risk of widespread price declines. Thus far, however, there is little evidence of a deflationary spiral, as both the rate of disinflation and expectations of future inflation in Japan have remained stable.

Last year also saw major changes in foreign trade and current account positions. Despite reduced exports to other Asian countries, Japan's current account surplus rose markedly. In contrast, strong domestic demand growth and an appreciating dollar have meant that the United States has absorbed one-half of the rise in current account surpluses in Asia since 1996. Due to falling oil revenues, the oil-exporting countries have also seen a substantial

deterioration in their current account positions, whereas the combined surplus of the euro zone countries has been stable.

Adjustments and policy responses to external shocks

The recession in emerging market economies …

As 1998 unfolded, the recession and financial turbulence in emerging market economies increasingly affected developments in the advanced industrial countries. However, the extent of the impact and the channels through which it was felt differed substantially across both countries and sectors, depending on the nature of the exposure, the stage of the domestic business cycle, exchange rate movements and, not least, the policy response.

… transmitted via several channels

Overall, the advanced industrial countries saw an improvement in their terms of trade last year. But net exports declined, as the growth of real exports fell and lower import prices kept import volumes high. Moreover, even when changes in net exports and the terms of trade were neutral with respect to overall income and economic activity, there were large shifts between sectors that complicated policy decisions. In particular, sectors exposed to global competition were confronted with both downward pressures on prices and weaker demand. Conversely, lower import prices benefited households and enterprises selling in the generally less competitive domestic markets. These divergences were also reflected in confidence indicators. Consumer confidence strengthened in virtually all countries while business confidence declined. This was particularly noticeable during the second half of 1998, when the weakening of export demand and competition from low-cost imports were most pronounced.

Against this background, GDP growth in individual countries depended importantly on the extent to which domestic demand growth was sufficiently strong to compensate for the drag from net exports. Overall, the shift of global financial flows in favour of the advanced industrial countries, accommodating or neutral monetary and fiscal policies and generally favourable financial conditions were conducive to higher demand growth. However, given the aforementioned sectoral shifts, the positive response of households to these developments was a crucial supporting factor. This was evident in the *United States*, where household spending was particularly strong, fuelled by robust gains in employment and wages, low interest rates and the sizable net additions to household wealth associated with the significant run-up in US equity prices. Indeed, including residential investment, household spending rose by more than 5% and, for the second year, GDP grew by almost 4% (Table II.1).

Major role of household spending …

… and policy responses

With raw materials accounting for a large share of their exports, the other English-speaking countries shown in the table were exposed to adverse relative price movements as well as trade shocks. Yet, primarily because of different policy responses, developments in the three countries differed significantly. *Australia* was most prepared to let a depreciating exchange rate cushion the impact of the terms-of-trade loss and also lowered interest rates. As a result, domestic demand growth more than offset the drag from net exports and GDP growth increased to almost 5%. *Canada* also allowed the exchange rate to cushion the impact of terms-of-trade losses. However, when

Contributions to GDP growth in selected countries

	1997	1998	1998 Q4	1997	1998	1998 Q4	1997	1998	1998 Q4
	annual percentage changes								
	United States			Japan			Euro zone		
Domestic demand	4.3	5.3	5.6	0.0	−3.5	−3.1	1.9	3.3	3.0
Consumption	2.3	3.3	3.6	0.6	−0.6	0.0	0.9	1.8	2.1
Net exports	−0.4	−1.4	−1.4	1.4	0.6	0.1	0.7	−0.2	−0.6
GDP	3.9	3.9	4.3	1.4	−2.9	−3.0	2.5	3.0	2.4
	Canada			Australia			New Zealand		
Domestic demand	5.3	2.3	0.9	3.5	6.3	5.2	3.4	−0.1	0.0
Consumption	2.4	1.6	1.2	2.0	2.6	2.4	1.8	1.0	0.6
Net exports	−1.5	0.7	1.8	0.2	−1.3	−0.5	−0.4	−0.6	−0.8
GDP	3.8	3.0	2.8	3.7	4.9	4.7	3.0	−0.8	−0.8

Sources: European Central Bank; national data. Table II.1

the depreciation went beyond the fall in relative export prices and seemed to affect confidence, monetary policy was tightened, slowing both domestic demand and GDP growth. Concerned about the potentially inflationary impact of the terms-of-trade-induced depreciation of its currency, *New Zealand* initially attempted to keep monetary conditions constant by increasing interest rates. Partly as a result, GDP fell and only started to recover when monetary policy was subsequently eased in response to lower inflation and a widening output gap.

Divergences within the euro zone …

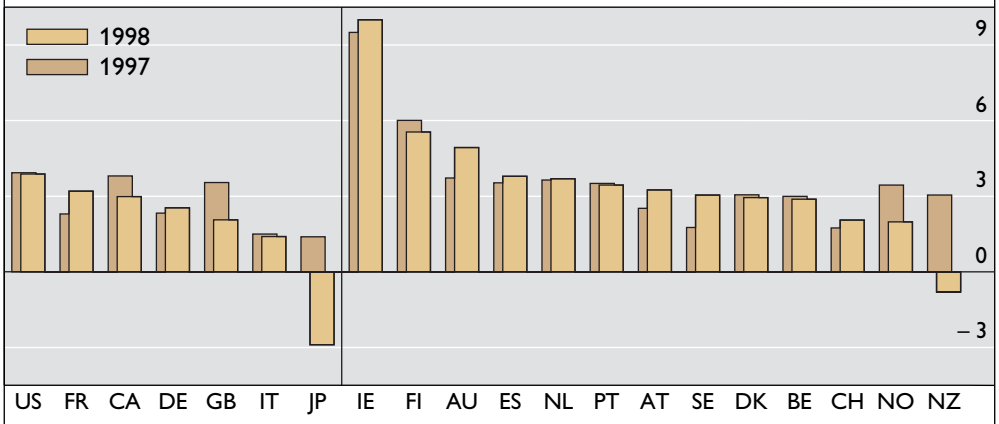
In the *euro zone*, the drag from weaker export growth increased over the year, as slower growth in several eastern European countries aggravated the effects of lower import demand in Asia. Nonetheless, helped by favourable financial conditions and a slight easing of fiscal policy in some countries, household spending picked up and average year-on-year GDP growth rose to 3%. There were, however, marked differences across countries (Graph II.1). *Germany*, faced with lower export demand, an associated weakening of equipment investment and relatively sluggish household spending, experienced negative output growth towards the end of 1998. Output growth also lost momentum in *Italy*, as exports fell and lower interest rates failed to stimulate domestic demand, in part because lower interest rates tend to reduce household income. In contrast, a buoyant household sector and strong employment increases kept output growth close to potential in *France* and *Spain*. Conditions were even more buoyant in other euro zone countries and, in *Ireland* and the *Netherlands*, imbalances and inflationary pressures started to appear.

… and lower growth in other European countries

In other European countries, most of which were ahead of the business cycle in the euro zone, average growth dropped back in 1998. The slowdown was most pronounced in the *United Kingdom* and *Norway*, where high exposure to trade and foreign price shocks, together with tighter monetary policies, progressively affected domestic demand and output growth. *Denmark* also experienced slower growth last year, whereas household spending and capital

Real GDP growth in 1997 and 1998 *

In percentages



AT = Austria; AU = Australia; BE = Belgium; CA = Canada; CH = Switzerland; DE = Germany; DK = Denmark; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; IE = Ireland; IT = Italy; JP = Japan; NL = Netherlands; NO = Norway; NZ = New Zealand; PT = Portugal; SE = Sweden; US = United States.

* Annual averages; national definitions. The standard deviations (across all countries) for GDP growth in 1997 and 1998 are 1.80 and 2.47 respectively.

Source: National data. Graph II.1

formation were sufficiently strong to overcome lower export demand in *Switzerland* and *Sweden*.

Deepening recession in Japan

Developments in *Japan* followed an entirely different pattern. Being more exposed than the United States and Europe, Japan was among the first countries to feel the adverse trade impact from the crisis in emerging Asian economies. Moreover, with private demand responding only little to expansionary fiscal and monetary policies, the recession, which had started in early 1997, deepened. In fact, even though exports to emerging Asian economies declined by almost 20%, the contribution from net exports to GDP was actually positive as the contraction in domestic demand depressed imports by more than the fall in exports.

Foreign trade and current account positions

World trade slows and prices fall

The crisis in Asian and other emerging market economies also left a significant impact on world trade and balance-of-payments positions last year. Reflecting the slowdown in global economic activity, the growth of world trade fell to only 3½%, the lowest rate since 1991 (Table II.2). Moreover, due to the weakening of demand and growing excess capacities, world trade prices decreased by some 3% in SDR terms, with marked declines for commodities. Measured relative to output prices in the industrial countries, commodity prices are well below levels recorded in the early 1960s.

Current account improvements in Asia …

The recession both in some emerging Asian economies and in Japan has also led to major shifts in current account positions. Since 1996, the combined surpluses of emerging Asia and Japan have increased by nearly $200 billion, about twice the rise in the surpluses of oil-exporting countries during the 1978–80 oil price increase (Table II.3). Compared with that earlier episode,

World trade and prices

	1990–95	1996	1997	1998
	annual percentage changes			
World output	2.9	4.3	4.2	2.5
World trade, volume	6.2	6.9	9.9	3.3
Ratio: trade/output	*2.2*	*1.6*	*2.4*	*1.3*
Net exports, goods				
Advanced economies	0.3	–0.2	0.2	– 1.1
Emerging economies	0.7	0.7	3.3	4.6
Trade prices (in SDRs)	–0.4	3.2	–1.3	– 2.9
Manufactures	0.5	1.3	–2.8	– 0.1
Oil	–2.7	23.7	–0.2	–31.2
Non-oil primary commodities	–0.9	3.3	2.0	–13.5
Terms of trade				
Advanced economies	0.5	–0.3	–0.3	1.3
Emerging economies	–1.1	2.2	–0.7	– 6.4

Source: IMF, *World Economic Outlook*. Table II.2

the advanced industrial countries (excluding Japan) absorbed broadly the same share of the rise in global surpluses and Latin America somewhat more. However, because oil revenues have declined over the last two years, higher current account deficits in oil-exporting countries have provided the counterpart to about one-third of the rise in Asian surpluses.

In addition, the distribution of the higher deficit within the group of industrial countries differed substantially from that of the 1978–80 period. Generally, changes in current account positions since 1996 have been driven by

Changes in current account positions[1]

	1978–80		1996–98
Oil exporters	99	Emerging Asia	136
Advanced industrial		Japan	54
countries	–75	Other advanced industrial	
United States	17	countries	–133
Japan	–29	United States	– 99
Euro zone	–66	Euro zone	1
Germany	–22	Germany	2
France	–11	France	19
Italy	–16	Italy	– 15
Spain	– 8	Spain	– 2
United Kingdom	5	United Kingdom	3
Others[2]	4	Others[2]	– 31
Non-oil emerging economies	–33	Oil exporters	– 66
Emerging Asia	–11	Non-oil emerging economies[3]	– 27
Africa	– 1	Africa	– 3
Latin America	–14	Latin America	– 27

[1] In billions of US dollars. [2] Australia, Canada, New Zealand and Norway. [3] Excluding Asia.

Sources: IMF, *International Financial Statistics*, *World Economic Outlook*; national data. Table II.3

… are mostly absorbed by the United States …

differences in domestic demand growth (Graph II.2) and by movements in exchange rates. Reflecting the strong growth of domestic demand and the strengthening of the dollar, the United States absorbed about one-half of the overall rise in the Asian surpluses, in marked contrast to the earlier episode, when a weakening dollar and relatively slow growth of domestic demand led to a strengthening of the US current account. Rapid demand growth, together with adverse relative price changes, has also played a major role in the deteriorations observed for Canada, Australia and Norway, countries in which exports of commodities account for a sizable share of total exports. Conversely, the rise in the current account surplus of Japan can mostly be attributed to the fall in domestic demand and the depreciation of the yen. The aggregate current account surplus of the euro zone countries has changed very little since 1996, as improvements in France and Germany, largely due to stronger competitive positions, more than offset deteriorations elsewhere, notably in Italy.

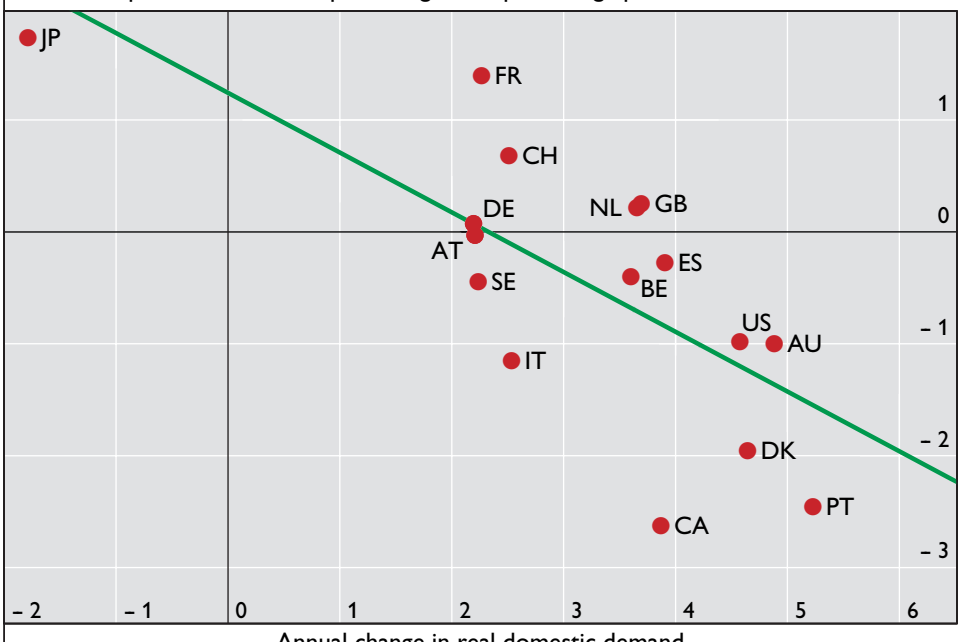
… and commodity exporting countries

Developments in net exports and the terms of trade

Because of the marked changes in relative trade prices and differences in cyclical positions, movements in current account positions give only a partial picture of the ways in which different countries and different sectors within individual countries were affected by the recession in Asia and the slower growth of world trade. In the United States, for instance, the sharp drop in the growth of exports, notably to Asia, combined with continued high growth of imports, led to a decline in net exports equivalent to 1¾% of GDP over the last two years. However, terms-of-trade improvements limited the deterioration in the current account to about 1% of nominal GDP. Similarly, in the United Kingdom, the drag from net exports has far exceeded the

Changes in domestic demand and the current account balance

Over the period 1996–98, in percentages and percentage points



Note: For an explanation of the country codes, see Graph II.1.

Source: National data.

Graph II.2

decline in the current account position, owing to the strengthening of the pound, which helped improve the terms of trade despite the fall in oil prices, and a temporary improvement in the service balance. In contrast, Canada, New Zealand and Norway have all seen a substantial deterioration in their current account positions as worsening terms of trade aggravated the negative effect of net exports. In most of the euro zone, the growth of net exports lost momentum in the course of 1998, but the impact on the current account was mitigated by terms-of-trade improvements despite the depreciation of European currencies against the US dollar. In Japan, on the other hand, the contribution of net export growth exceeded the current account improvement due to a deterioration in the terms of trade.

Fiscal policy

Substantial fiscal stimulus in Japan

The most noteworthy development in fiscal policy last year was the suspension of the Fiscal Structural Reform Law in Japan and the subsequent (in April and November) adoption of tax, expenditure and credit measures to boost domestic demand. In addition, the authorities introduced a comprehensive package aimed at recapitalising banks, easing credit constraints and restoring the health of the financial sector. While the recapitalisation package will only be implemented this year, the effects of the expenditure and credit measures were already being felt towards the end of 1998. Government investment has prevented output from falling even further and public loan guarantees have helped ease credit constraints on small and medium-sized firms and slow the rise in bankruptcies. However, the impact of central government spending has been hampered by the rapidly deteriorating financial position of the local governments and their inability to finance their share of the public investment programme. Moreover, the stimuli do not seem to have revived the private economy, so that the deepening recession combined with the discretionary measures to raise the general government deficit to 6% of GDP in 1998 (Graph II.3).

Budget surpluses in several countries …

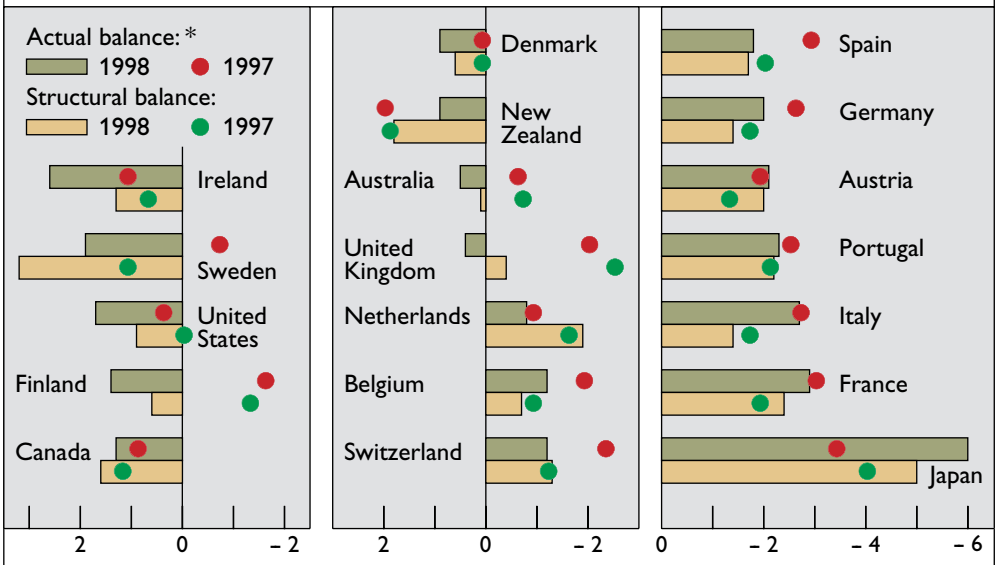
In contrast, both discretionary measures and cyclical effects helped improve fiscal balances in the countries most advanced in the business cycle. The United States recorded a surplus of 1¾% of GDP last year, compared with a deficit of 4½% in 1992. The United Kingdom, Canada, Australia, Finland, Sweden and Ireland have also seen large improvements and, relative to GDP, Canada's structural surplus is now the highest among the G7 countries. Many other countries, having achieved their short-term fiscal consolidation targets, moved towards a more neutral policy stance last year or even eased slightly. In several cases, only part of the additional net revenue generated by the cyclical improvement was used to strengthen structural balances. Other countries eased even more. For instance, New Zealand recorded a smaller surplus than in 1997, as the effect of automatic stabilisers reinforced a small increase in discretionary spending. In France, the Netherlands and Austria, the stimuli were somewhat greater and structural deficits widened despite higher growth.

… and lower debt/GDP ratios …

Many countries have also made progress towards reducing government debt/GDP ratios. Except for Japan, primary balances have been in surplus for

Actual and structural general government balances

As a percentage of GDP



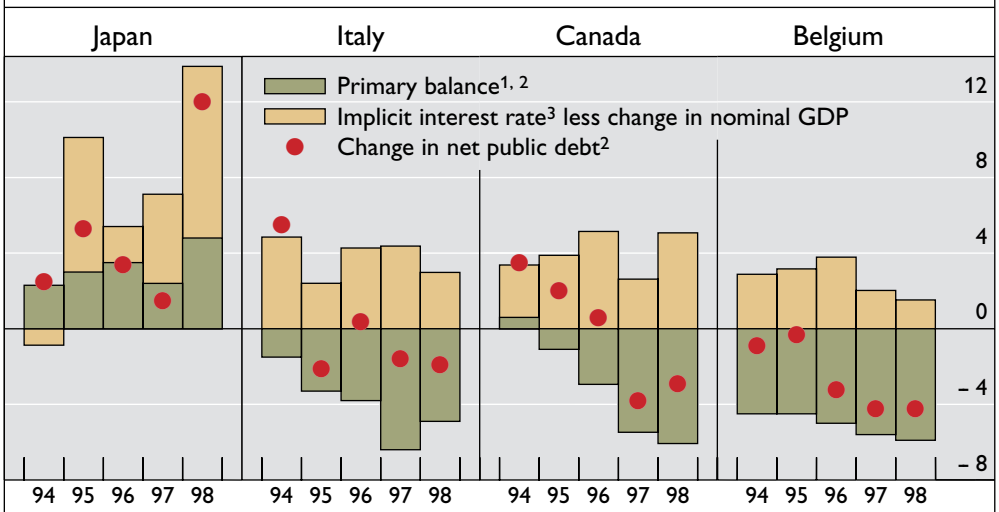
* Net financial balance, including one-time revenue gains from privatisation.

Sources: OECD, *Economic Outlook*; national data; BIS estimates. Graph II.3

the last two years and net debt interest payments have fallen. However, progress has been slowed by the fact that, with lower inflation and public debt interest payments adjusting only slowly to changes in long-term market rates, primary balances need to be larger in order to generate a fall in debt/GDP ratios. This has been evident in countries such as Italy, Canada and Belgium, which started the process of consolidation from relatively high debt levels. In Belgium, for instance, the primary balance has been in surplus since the mid-1980s but the net debt/GDP ratio started to fall only in 1994 (Graph II.4). Italy

Primary balances and changes in the public debt

In percentages and percentage points



[1] Where a deficit is expressed as a positive number. [2] As a percentage of nominal GDP. [3] Defined as the ratio of net interest payments to the net debt at the end of the previous year.

Sources: OECD, *Economic Outlook*; national data. Graph II.4

recorded its first primary surplus in 1992 but an ongoing decline in the debt ratio was only obtained five years later. In Canada, the debt/GDP ratio has also been falling over the last two years, following a marked tightening of fiscal policy in the mid-1990s. Japan, by contrast, seems to have entered a phase of very rapid debt build-up, as the massive rise in the primary deficit brought the net debt/GDP ratio to over 30% and the gross debt ratio to 100% by the end of 1998, compared with ratios of 4% and 60% respectively only six years earlier.

… except in Japan

Other components of demand

In retrospect, 1998 will probably be remembered for the financial and external shocks occurring during the second half. However, it also bears noting that in those countries which weathered the shocks particularly well, private consumption was the most important source of growth. Moreover, in countries where GDP either declined or slowed substantially, the resilience of household spending prevented an even steeper weakening. There were, however, exceptions to this trend. Being concerned about future taxes and employment prospects, Japanese consumers responded to tax cuts by increasing precautionary saving. Similarly, in Germany and Italy, weak employment growth seems to have held back household spending. Indeed, one general feature last year, but particularly evident in France and Spain, was that job creation tended to strengthen household confidence and spending.

Household spending generally strong …

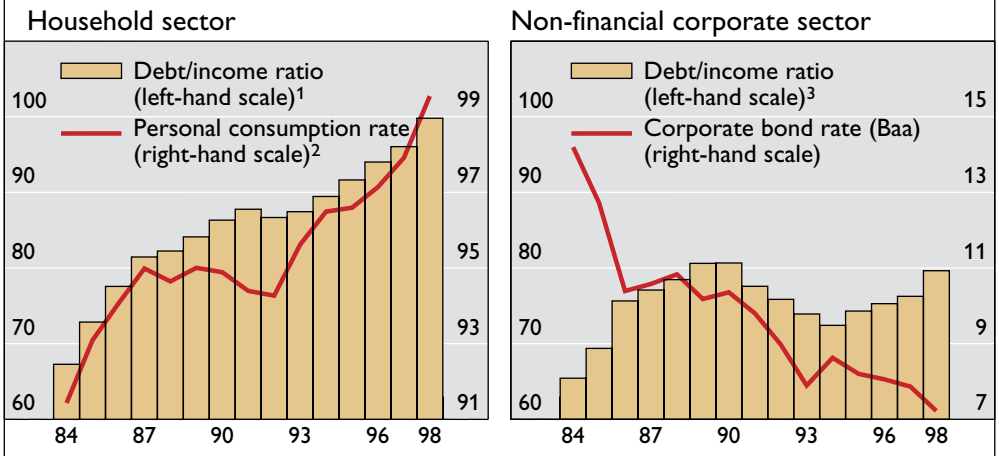
Rising wealth also lifted consumer confidence last year, inducing households to take on more debt and/or realise capital gains and boost spending beyond the rise in disposable income. In the United States, both households and businesses have increasingly relied on credit markets to support the current elevated levels of spending, raising concerns about their sustainability. Household indebtedness increased to an all-time peak and corporate indebtedness to its highest level since 1990 (Graph II.5). Thus far, low interest rates and longer maturities have kept the costs of servicing this debt manageable. Moreover, the rise in household debt should be seen against the background of an even stronger rise in wealth. Nonetheless, personal bankruptcies have reached a new high. With the saving rate around zero and corporate firms having used part of the additional debt to buy back equity, households and businesses may also be more vulnerable to higher interest rates, even if a large share of net borrowing last year was at fixed rates.

… reflecting employment and equity gains …

The realisation of wealth gains also boosted household spending in several other countries last year and, in some cases, inflationary pressures and imbalances are starting to appear. In Ireland, five years of annual growth rates exceeding 7%, allied with lower mortgage rates and high credit growth, have led to excess demand pressure in the housing market. Average house prices in Dublin have risen by some 80% over the last two years and higher house prices appear to have intensified upward pressures on nominal wages. Excess demand pressure may also be building in the Netherlands, where the realisation of wealth gains on houses and equities has fuelled private consumption and output now seems to be above potential. Household spending was also buoyant in Denmark and Finland, partly reflecting wealth gains associated with

… as well as higher housing wealth

Private sector indebtedness in the United States



[1] Gross debt as a percentage of personal disposable income. [2] Personal outlays as a percentage of personal disposable income. [3] Gross debt as a percentage of GDP in the corporate sector.

Sources: Board of Governors of the Federal Reserve System; US Department of Commerce.

Graph II.5

higher house prices. While fears of potential inflationary pressures prompted the Danish authorities to introduce measures to increase household saving and curb the rise in house prices, there were few signs of overheating or imbalances in Finland even though the output gap, which had reached 11% in 1993, has now been closed. One exception to this trend was the United Kingdom, where growing uncertainty about the future course of the economy made households reluctant to spend sizable wealth gains.

Household saving and fiscal consolidation

The strength of household spending and resulting lower saving rates might also be associated with fiscal consolidation and higher government saving. For

Developments in domestic saving in selected countries

	as a percentage of GDP									
	United States		Japan		Germany		France		Italy	
	1992*	1998	1991*	1998	1991*	1998	1993*	1998	1991*	1998
National saving	15.2	16.3	32.7	27.2	22.5	21.7	18.2	20.0	18.5	20.4
Public saving	–1.1	4.4	9.4	1.5	1.3	0.7	–2.5	–0.2	–5.7	0.5
Private saving	16.3	11.9	23.3	25.7	21.2	21.0	20.7	20.2	24.2	19.9
Households	4.2	0.3	8.4	9.5	9.2	7.7	10.0	10.1	12.8	8.0
Business	12.1	11.6	14.9	16.2	12.0	13.3	10.7	10.1	11.4	11.9
	United Kingdom		Canada		Australia		Sweden		Switzerland	
	1993*	1998	1992*	1998	1992*	1998	1993*	1998	1993*	1998
National saving	14.3	18.1	14.3	18.0	17.2	19.8	11.2	16.6	28.8	30.2
Public saving	–4.8	1.4	–4.8	3.7	–3.4	2.7	–7.6	4.4	–0.9	1.9
Private saving	19.1	16.7	19.1	14.3	20.6	17.1	18.8	12.2	29.7	28.3
Households	7.9	5.0	7.6	0.7	3.5	1.5	5.0	0.6	7.2	5.8
Business	11.2	11.7	11.5	13.6	17.1	15.6	13.8	11.6	22.5	22.5

* Year of peak general government deficit after 1990; for Japan, year of peak surplus; for Germany, year following reunification.

Sources: OECD, *Economic Outlook*; national data; BIS estimates.

Table II.4

instance, in the United States, the fall in household saving since 1992 has "offset" three-quarters of the rise in public saving (Table II.4). In Canada, the decline in household saving has been even larger, even though both consumption and residential investment spending decelerated during the second half of 1998. Given an already low saving rate and a high debt/income ratio, Canadian households seem to have become increasingly reluctant to take on more debt. In Italy, a major part of the rise in government saving has also been accompanied by lower household saving, as consumers have financed spending in excess of low income growth by reducing their stock of financial assets. In other countries, the response to fiscal consolidation has been more muted, so that the influence of higher government saving on national saving has been more pronounced.

Growth of business investment …

Another feature of the current cycle has been the strong growth of business fixed investment, notably in those countries most advanced in the business cycle. Although the direct contribution to demand growth is smaller than that of consumption, the fact that strong capital spending reduces the risk of capacity constraints and resulting inflationary pressures has helped prolong the current cycle. Indeed, even though the US cycle is now one of the longest in the postwar period, the rate of capacity utilisation in manufacturing was still

Recent developments in business fixed investment and potential determinants

	Investment[1]	GDP[2]	IOCR[3]	Return[4]	Pk/W[5]
Ireland	43.1	30.7	6.8	15.4	90.4
Norway	40.6	13.4	1.4	7.5	95.5
United States	35.3	10.0	2.3	18.7	85.2
United Kingdom	33.4	9.2	2.1	11.6	83.4
Finland	32.9	15.3	3.8	10.3	82.3
Canada	31.8	7.8	1.9	14.3	80.8
Australia	26.4	11.8	2.5	13.5	81.6
Denmark	25.9	9.7	1.4	11.4	80.0
Netherlands	24.1	9.3	2.2	18.6	89.5
Spain	20.8	8.9	1.7	18.3	84.6
Sweden	15.8	7.1	1.8	12.3	79.0
Belgium	14.2	6.8	1.8	13.8	88.1
Switzerland	12.0	2.3	0.6	12.3	76.7
France	8.7	6.0	1.7	15.7	85.7
Italy	8.4	5.2	1.5	15.4	93.0
Germany	6.9	5.0	1.3	13.6	83.8
Japan	5.6	8.1	0.5	13.6	86.1
Memorandum item[6]		*0.72*	*0.63*	*–0.17*	*0.18*

Note: Data refer to the business sector except for GDP (whole economy).

[1] Cumulative percentage change in real fixed investment between 1995 and 1998. [2] Cumulative percentage change in real GDP between 1994 and 1997. [3] Incremental output/capital ratio, calculated as the rate of change of real value added divided by the ratio of investment to value added (in constant prices); average for the period 1994–98. [4] Pre-tax return to capital in 1996. [5] Ratio of capital goods prices to wages in 1996; index 1990 = 100. [6] Bilateral correlation between investment and, respectively, GDP, IOCR, return and Pk/W.

Sources: OECD, *Economic Outlook*, *Business Sector Data Base*; national data; BIS estimates. Table II.5

well below earlier peaks by the end of last year. In contrast, in many of the euro zone countries, investment spending has been rather sluggish and, despite the slowdown in growth towards the end of 1998, rates of capacity utilisation have remained relatively high.

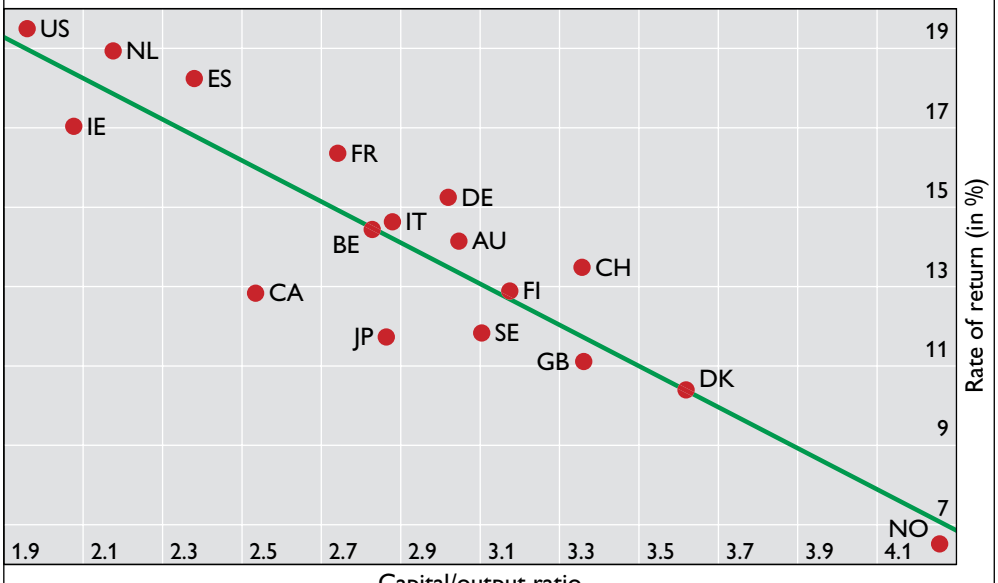
… and its contribution to overall growth …

Favourable borrowing conditions, high and rising equity prices and a marked increase in profit shares have been major factors stimulating investment. As noted, the US investment boom has been accompanied by a sharp rise in corporate debt, but favourable borrowing conditions and high profits also boosted capital spending in several other countries. In Sweden, the pick-up in business investment last year offset a negative swing in net exports equivalent to 2% of GDP. Business investment was also a principal source of growth in Finland and Spain, mostly reflecting higher profits and, in the case of Spain, easier borrowing conditions following its qualification for entry into EMU. In contrast, negative profits as well as credit constraints and uncertainties about future growth prospects led Japanese enterprises to cut back capital spending by more than 11%. Even so, capital stocks continued to grow, reinforcing the demand-induced widening of the output gap.

… reflect divergent expectations …

Probably the most important element influencing specific patterns of investment spending in recent years has been divergences in firms' expectations about future growth, which tend to reflect differences in past growth rates and in recent developments in output per unit of capital invested (Table II.5). In addition, countries with relatively low capital/output ratios, such as the United States, the Netherlands, Ireland and Spain, seem to have achieved higher rates of return and, as a result, have boosted investment spending (Graph II.6). Conversely, in Japan and Norway, high capital/output ratios and associated low

Capital/output ratio and the rate of return in the business sector in 1998



Note: For an explanation of the country codes, see Graph II.1.

Sources: OECD, *Economic Outlook*, *Business Sector Data Base*; BIS estimates. Graph II.6

rates of return may be indicative of past overinvestment and excess capacity, discouraging further capital spending. A fall in the relative price of capital goods, notably equipment, together with growing pressures to cut costs per unit of output, has also played a role by inducing firms to substitute capital for labour to boost labour productivity. Such pressures seem to have been among the driving forces behind recent investment trends in Germany and Switzerland. Moreover, in the light of the modest rise in wages, investment in the United States has been unexpectedly high relative to output growth, suggesting that firms have increased equipment spending in anticipation of potential future labour constraints and wage pressures. This pre-emptive behaviour seems to explain part of the fall in capacity utilisation noted above.

… as well as prospective rates of return

Developments in labour markets

Unemployment

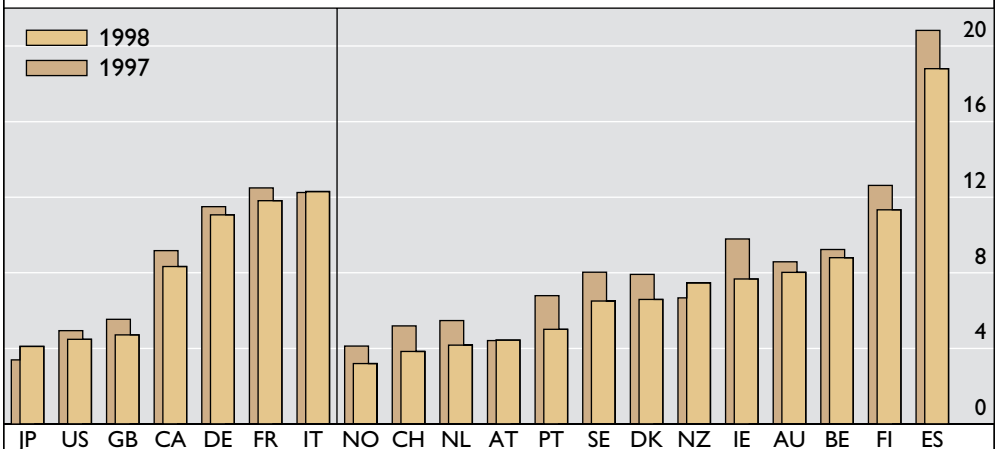
Labour market conditions generally improved last year (Graph II.7). In the United States, the United Kingdom and the Netherlands, unemployment rates fell from already low levels. Despite this, there were only scattered reports of labour shortages and only modest upward pressures on wages. Unemployment rates also moved significantly lower in many of the smaller European countries and in Canada and Australia. In contrast, labour market conditions deteriorated in Japan and New Zealand. Indeed, for the first time in the postwar period, the official unemployment rate in Japan now exceeds that of the United States.

Cyclical declines in unemployment …

These differential developments reflect, to an important degree, variations in cyclical conditions. Nearly every country with economic growth above its trend rate last year also saw a decline in unemployment, and those with faster rates of growth generally experienced larger declines. Similarly, the rise in

Unemployment rates in 1997 and 1998 *

In percentages



Note: For an explanation of the country codes, see Graph II.1.

* Annual averages; national definitions (for Portugal, break in series at end-1997).

Source: National data. Graph II.7

unemployment in Japan and New Zealand mainly reflects the cyclical downturn in production.

… as well as structural improvements in some countries …

Some of the divergences, however, appear to stem from differences in the extent to which countries have made progress in reducing structural unemployment. Such progress has been particularly noteworthy in Ireland, Denmark, the Netherlands and the United Kingdom, countries that have implemented substantial labour market reforms in recent years. Spain has also carried out some important reforms, particularly in the areas of employment protection and unemployment benefits. Nonetheless, estimates of the structural unemployment rate in Spain, while down from several years ago, are still above 15%.

… but not in others

In other countries, structural unemployment has remained stubbornly high, or even risen. In Germany and France, for example, estimates typically exceed 10%, and actual unemployment rates are above their 1995 levels despite a similar-sized – or, in the case of France, a smaller – output gap. Although the robust employment gains last year in France reflect to some degree the impact of structural reforms aimed at increasing job opportunities for women and young people, especially in the service sector, these reforms have also tended to raise labour force participation rates, reducing the effect on measured unemployment. Germany has also taken steps towards improving labour market flexibility. However, to date these seem to have stimulated labour productivity growth rather than encouraged job creation. In this context, the more aggressive bargaining stance of unions in Germany could potentially raise both actual and structural unemployment.

Labour productivity

Divergences in productivity growth …

Labour productivity is another area in which there were considerable differences in performance last year. In Australia and Germany, productivity growth in the business sector exceeded 2½%, and it was only slightly below that in the United States, Finland and France (Table II.6). Productivity rose only slightly in many other countries and fell sharply in Japan.

… reflecting cyclical developments …

As with unemployment, labour productivity is influenced by both cyclical and structural factors. In the longer term, productivity growth is mainly determined by supply-side developments, including changes in the amount of physical capital available per worker, the skills embodied in a country's workforce, and the invention of new technologies and their diffusion into the workplace. In the short run, however, productivity moves with the business cycle, reflecting a tendency by employers to adjust employment only sluggishly to changes in production levels. This cyclical influence explains much of the sharp drop in productivity that accompanied the deepening recession in Japan last year. Most other countries were in the midst of relatively mature expansions, when cyclical factors tend to be of little importance.

… and longer-run trends

As a result, longer-term trends were the principal factors behind the variation in productivity performance. In Germany, for example, trend productivity growth is currently estimated at more than 3%, up from around 2% in the 1980s. Much of this rise reflects a significant increase in the capital/labour ratio, induced by firms substituting capital for labour in response to increases

Sources of productivity growth in the business sector

	GDP per employee				Capital stock/ employment ratio	
	Actual in 1998	Attributable to:[1]				
		Cycle	Trend[2]	Residual	1980s	1990s
	annual percentage changes					
Australia	3.3	0.5	1.8 (1.1)	1.0	2.1	1.5
Germany	2.8	0.2	3.1 (1.8)	−0.5	2.2	3.6
United States	2.3	0.3	1.1 (1.3)	0.9	1.2	1.9
Finland	2.1	0.0	3.7 (3.8)	−1.6	3.6	1.8
France	2.0	0.3	1.9 (2.5)	−0.2	2.6	2.5
Ireland	1.8	−0.3	3.2 (4.1)	−1.1	3.4	−0.4
Sweden	1.6	0.1	2.6 (1.7)	−1.1	2.4	3.7
Belgium	1.5	0.1	1.8 (1.6)	−0.4	2.8	2.7
Italy	1.4	−0.2	2.3 (2.4)	−0.7	2.2	3.1
Switzerland	0.9	0.1	0.6 (0.3)	0.2	0.9	2.8
Denmark	0.7	0.4	2.3 (1.7)	−2.0	2.7	2.1
Netherlands	0.7	0.3	1.4 (1.4)	−1.0	1.1	1.2
United Kingdom	0.6	−1.1	1.0 (2.1)	0.7	1.6	1.3
Norway	0.5	−0.1	2.0 (1.4)	−1.4	2.9	0.7
Canada	0.1	−0.5	0.7 (1.6)	−0.1	5.5	3.6
Japan	−2.4	−4.3	2.2 (2.6)	−0.3	4.4	3.7

[1] The decomposition of productivity growth into these three components is derived from a dynamic labour demand model estimated over the period 1980–98. The model relates productivity growth to the growth in GDP and an error correction term defined as the previous year's level of productivity less its long-run trend level. The trend level is estimated as a spline function with a break point in 1990. [2] The estimated trend rate of productivity growth for the 1980s is shown in parentheses.

Sources: OECD, *Economic Outlook*; national data; BIS estimates. Table II.6

in the relative price of labour and more intense competitive pressures. The trend also appears to have risen in Australia, Denmark, Norway and Sweden and has remained strong in Finland and Ireland despite slower rates of capital deepening.

Influence of capital deepening …

In contrast, trend productivity growth seems to have declined in Canada, reflecting a slower, albeit still relatively rapid, pace of capital accumulation. The estimated trend also fell in the United Kingdom and remained quite low in Switzerland. In the United States, the estimated trend over the 1990s as a whole is similar to that in the 1980s. However, there has been a recent pick-up in the pace of US productivity growth that is not clearly attributable to either cyclical influences or longer-run trends. Although some of this strength is an artefact of changes in the way that inflation is measured, the recent increases may also be evidence of more fundamental shifts. For example, the rapid pace of investment in the United States has boosted capital deepening in spite of continued strong employment gains. In addition, it is sometimes argued that the effects of recent high-tech investments may be especially large because they embody significant technological advances. However, while computers have been a major component of recent investment spending, they still account for only 2% of the net non-residential capital stock. Thus, even if the returns on investment in computers are higher than for other types of equipment, their

… and high-tech investments

effect on aggregate productivity growth has been relatively modest until now. Nonetheless, the effect is increasing and computers may become an important source of productivity advances in coming years.

Recent developments in wage and price inflation

Inflation slows further, reflecting moderate wage growth …

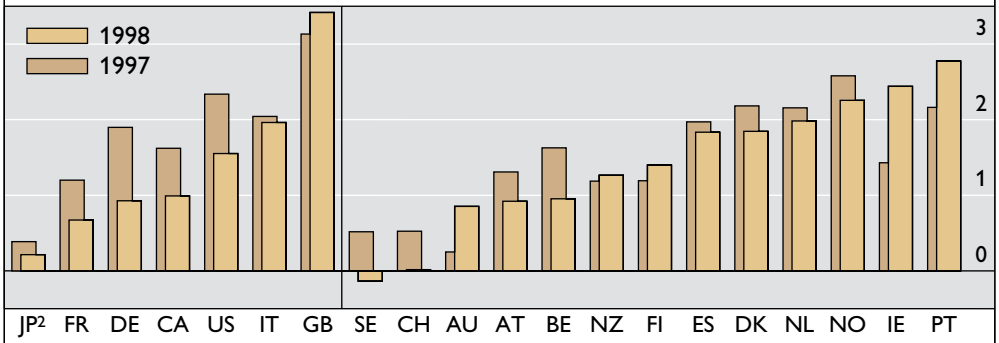
Real-side developments in 1998 were accompanied by a continuation of the disinflation seen in recent years (Graph II.8). In part, this disinflation reflected a further moderation in unit labour costs. Nominal wage increases continued to slow in the euro zone as a whole, while in the United States the modest upward pressures on wages that did emerge were matched by strong productivity gains. In addition, despite shrinking negative or growing positive output gaps in most countries, the mark-up of prices over unit labour costs generally fell, reflecting both declines in costs of internationally traded non-labour inputs and increased competition and rising excess capacity in global goods markets (Graph II.9).

… declining commodity prices …

One major factor depressing non-labour costs was declining commodity prices (Graph II.10). The drop was most pronounced in the price of crude oil, which by the end of 1998 was more than 60% below its 1996 peak in inflation-adjusted terms. The recession in emerging Asian economies, which had accounted for about two-thirds of the rise in oil consumption during the previous four years, explains much of this weakness. However, oil prices were also depressed by the unusually warm weather last year, excess inventories and increases in the global supply of oil. Following an agreement among major oil exporters to cut supply this year, prices have risen nearly 50% since the trough. Given pressures for additional revenues in many oil-exporting countries to counteract growing budget deficits, there may be some doubts as to whether the agreement will hold. However, market observers currently expect the price increase to be more than temporary.

Consumer price inflation in 1997 and 1998[1]

In percentages

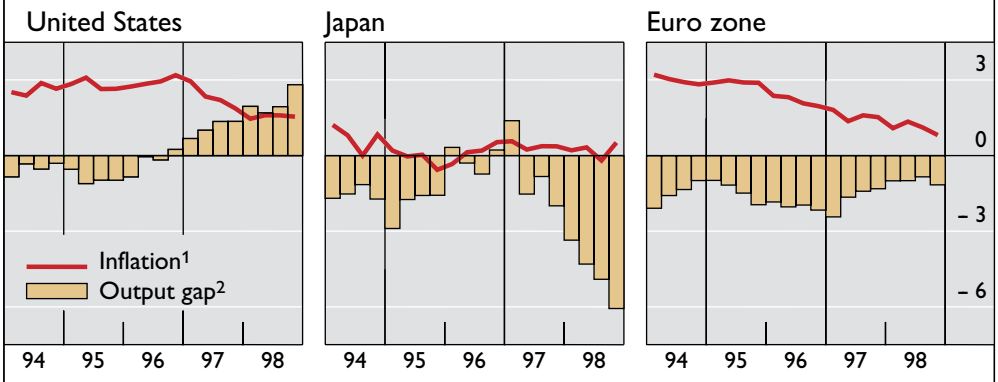


Note: For an explanation of the country codes, see Graph II.1.

[1] Annual averages; national definitions. The standard deviations (across all countries) for inflation in 1997 and 1998 are 0.78 and 0.92 respectively. [2] Excluding the effect of a consumption tax increase in April 1997.

Source: National data. Graph II.8

Inflation and output gaps



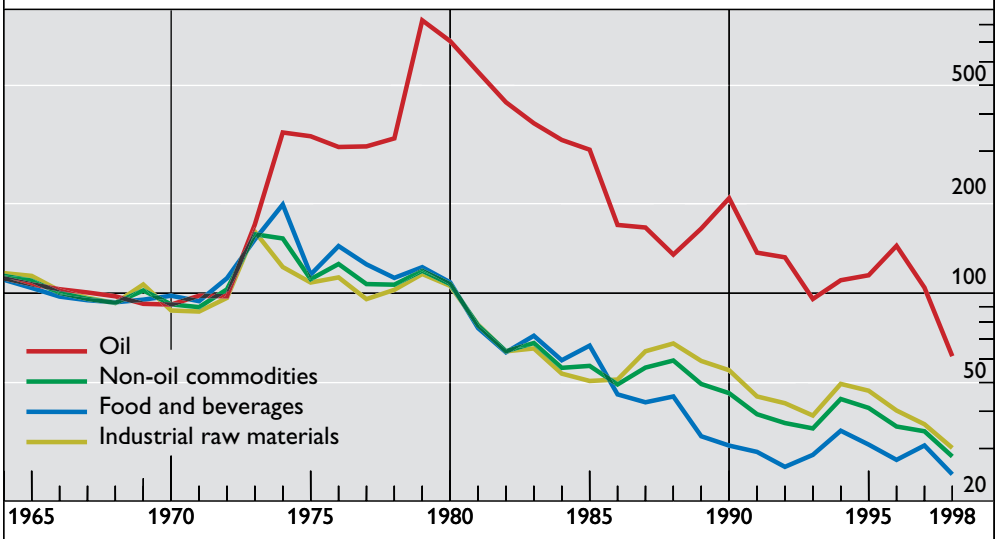
[1] Percentage changes in consumer prices over four quarters; for Japan, excluding the effect of a consumption tax increase in April 1997. [2] As a percentage of potential GDP; positive figures indicate excess demand.

Sources: OECD, *Economic Outlook*; national data; BIS estimates. Graph II.9

Weak global demand and rising supply have also led to substantial price declines for a wide range of other commodities. Food prices have been on a long-term downward path that steepened last year due to weather-induced supply increases. In addition, the retreat of prices for agricultural raw materials from their 1995 highs was further encouraged by the recession in Asia and supply increases induced by technical progress, increased privatisation of production and the higher prices earlier this decade. The same factors have also depressed prices of industrial raw materials, although the steepness of the price decline during 1998, particularly for base metals, was probably exacerbated by attempts on the part of producers to compensate for revenue losses by

Commodity prices in real terms *

1964–72 = 100 (semi-logarithmic scale)



* Using the OECD GDP deflator.

Sources: HWWA-Institut für Wirtschaftsforschung; OECD. Graph II.10

expanding production and cutting margins, in some cases to the point where prices no longer covered costs. More generally, since most commodities are priced in US dollars, the strengthening of the dollar since 1995 has tended to reinforce the downward pressure on prices.

… and excess global capacity

The weakness in global demand also resulted in substantial excess capacity for many intermediate and finished goods. This demand/supply imbalance contributed to the disinflationary trend in the industrial countries, both by reducing the prices of imported goods and by increasing competitive pressures on domestically produced goods. Indeed, industrial output prices in the G10 countries fell about 2% relative to a year earlier, and consumer goods prices were down in many countries as well. In addition, prices for services decelerated over the year, reflecting the above-mentioned moderation in nominal wage growth and, in several countries, deregulation and privatisation of services formerly provided by the public sector.

Disinflationary forces in the United States …

In the United States, where consumer price increases slowed to around 1½% last year despite a further rise in output relative to estimates of potential, the disinflationary effects of lower costs of non-labour inputs and excess global capacity were reinforced by two other factors. First, the foreign exchange value of the dollar remained at a relatively high level for most of 1998, helping to restrain price increases for both imported goods and domestic goods that are close substitutes for imports. Second, the high level of US business investment in recent years is now manifest in below average rates of capacity utilisation, compounding the effects of increased international competition on US domestic prices and leading to a significant squeezing of profit margins.

… and a variety of outcomes in Europe

Although the broad developments mentioned earlier have brought lower inflation in Europe as a whole, there were some important differences across countries. For example, inflation moved up in Ireland and Portugal last year, owing to the rapid pace of output growth and, in Ireland, an acceleration in unit labour costs. And although inflation continued to edge down in the Netherlands, the rate of unemployment has fallen to only 3.8% (among the lowest in the euro zone) and labour cost pressures are intensifying. In contrast, nominal wage restraint and strong productivity gains enabled French and German enterprises to limit the rise in unit labour costs and maintain their international competitiveness despite appreciations in their nominal effective exchange rates. In Spain, Finland and Belgium as well, continued nominal wage restraint helped to dampen price pressures despite relatively strong employment growth. And in Sweden and Switzerland, consumer prices fell or were roughly constant.

Downward price pressures in Japan

In Japan, the deepening recession and growing output gap led some observers to expect the onset of severe downward price pressures. Thus far, however, there seems to be little evidence of the beginnings of a deflationary spiral in which spending falls in response to expectations of falling prices. Viewed in isolation, the marked rise in the saving rate could be interpreted as indicating such a process. However, while nominal wages and wholesale prices for manufactured goods fell last year, unit labour costs increased and consumer prices were about flat. More importantly, there is evidence of a high degree

of inflation inertia in Japan. According to household and business surveys, a majority of respondents are expecting higher future prices even though actual prices are flat or falling. In addition, despite the steep rise in the output gap, the rate of CPI inflation has changed only a little, whereas the historical pattern would have implied a sharp and continued deceleration of inflation.

Evidence of nominal rigidities

Low inflation may increase nominal rigidities …

The economic environment of recent years has prompted questions about whether the nature of the inflation process might now differ from that experienced in previous decades. One concern is that nominal wages might be rigid downwards because employees view nominal wage reductions as unfair even though they might readily accept a similar-sized cut in real wages caused by inflation. If such resistance to nominal wage cuts is prevalent, firms might find it more difficult to adjust real wages downwards at low rates of inflation and thus be forced to make greater use of job cuts in response to weaker demand or adverse productivity shocks. While this might raise the risk that unemployment levels could be somewhat higher when inflation is low, the recent declines in unemployment and a lack of convincing empirical evidence on the importance of such rigidities suggest that this concern should not be overemphasised.

… owing to less frequent price adjustments …

Another, and perhaps more serious, source of concern is that nominal rigidities in labour and product markets might cause the general inertia in wage and price inflation to be more pronounced at low rates of inflation. If this is so, policy-induced and other changes in nominal income would have a greater impact on real output than in periods of higher inflation. Such nominal rigidities are often presumed to arise from a reluctance by firms to make changes to nominal wages or prices because there are costs associated with negotiating new contracts or adjusting price lists. And, with inflation and inflation expectations declining, these costs would increasingly outweigh the benefits of adjusting prices more frequently.

… and longer contracts

Some recent developments in labour and product markets accord well with these hypotheses. In the United States, for example, new collective bargaining agreements have tended to be of longer duration, stretching out to as much as six years in some cases. In addition, the prevalence of automatic cost-of-living adjustments in private sector union contracts has declined markedly, while indexation of wages has virtually disappeared in Europe. In product markets, an increasing number of manufacturers have demanded and received long-lasting price guarantees from their suppliers, which may limit the ability of those suppliers to pass on higher production costs. Conversely, the diffusion of some new technologies, such as price scanners, internet catalogues and more advanced payroll processing software, might work in the other direction, facilitating even small adjustments to wages and prices. Moreover, institutions and expectations, as well as notions of fairness, may adjust in a low-inflation environment, especially given credible commitments on the part of the monetary authorities.

Evidence of increased rigidity …

Nominal rigidities are difficult to measure directly. However, it is possible to assess their importance from the way in which changes in nominal demand

are "split" into output changes and shifts in the rate of inflation. Although, in the long run, real output depends on supply-side factors, changes in nominal demand may influence output over shorter periods because prices adjust only gradually to their appropriate underlying levels. Thus, one implication of increased nominal rigidities is that changes in nominal demand will take longer to influence prices and therefore will have a larger short-run impact on real activity. Empirical estimates based on this insight indicate that the degree of nominal rigidity has increased in many industrial countries, not only in Japan, where inflation has been especially low in recent years, but also in some of the countries that have adopted explicit inflation targets (Table II.7). In contrast, nominal rigidities do not appear to have increased in the United States, Sweden or Switzerland. Rather, such rigidities have always been an important component of the inflation process in these countries.

… is advanced in support of arguments for expansionary macroeconomic policies …

This evidence of increased nominal rigidity at low rates of inflation has recently been linked to the argument that expansionary macroeconomic policies might be used to reduce unemployment. That is, if there is a high degree of inertia in the inflation process, imbalances in labour and product markets would take a while to influence inflation so that policy errors, if they are recognised promptly, could be reversed in sufficient time. Thus, the inflationary risks in attempting to reduce unemployment in this manner would be small, and there might be additional benefits if structural unemployment is also reduced. The recent economic performance of the United States is sometimes cited as an example in this regard, reflecting a presumption that the ability to keep the unemployment rate so low for a significant period of time has increased the human capital of lower-skilled segments of the population and thus contributed to a decline in structural unemployment.

Estimates of nominal rigidity

	Prices*		Average inflation	
	1970–85	1986–98	1970–85	1986–98
United States	0.86	0.86	6.4	2.8
Switzerland	0.74	0.59	4.8	2.4
Sweden	0.74	0.57	9.0	4.1
Germany	0.63	0.78	4.7	2.5
France	0.56	0.93	9.4	2.4
Canada	0.55	0.73	7.6	2.3
Denmark	0.54	0.64	9.0	2.7
Australia	0.48	0.62	9.7	3.6
United Kingdom	0.46	0.83	11.3	4.2
Belgium	0.41	0.80	6.6	2.7
Italy	0.37	0.58	14.2	5.4
Spain	0.36	0.53	13.4	5.5
Japan	0.31	0.85	6.1	0.8

* The degree of nominal rigidity in prices is estimated as 1 less the coefficient on nominal income growth in a regression of inflation (GDP prices) on nominal income growth, the lagged GDP gap, lagged inflation and the lagged change in the relative price of imports. Thus, a coefficient of 1 indicates complete rigidity while a coefficient of 0 indicates complete flexibility.

Sources: OECD, *Economic Outlook*; national data; BIS estimates. Table II.7

However, policies based on these arguments harbour major risks. It should be remembered that the lower unemployment in the United States was accompanied by and benefited from an unusual degree of external downward pressures on prices, not only as a result of falling commodity prices but also due to the high exchange value of the dollar in recent years. The above argument also presumes that the inertia in wages and prices is of a similar magnitude in both directions. But if the rise in nominal rigidities in some countries primarily reflects a bias against nominal reductions in wages and prices rather than a more general stickiness of inflation, attempts to lower the unemployment rate without structural reforms might be quickly reflected in a higher inflation rate. Finally, and most importantly, if attempts to reduce unemployment through macroeconomic policies turn out to have unintended and unexpected inflationary consequences, the rise in nominal rigidities also implies that it will be more costly to reverse the effects of these policy errors.

… but there are dangers in this approach