

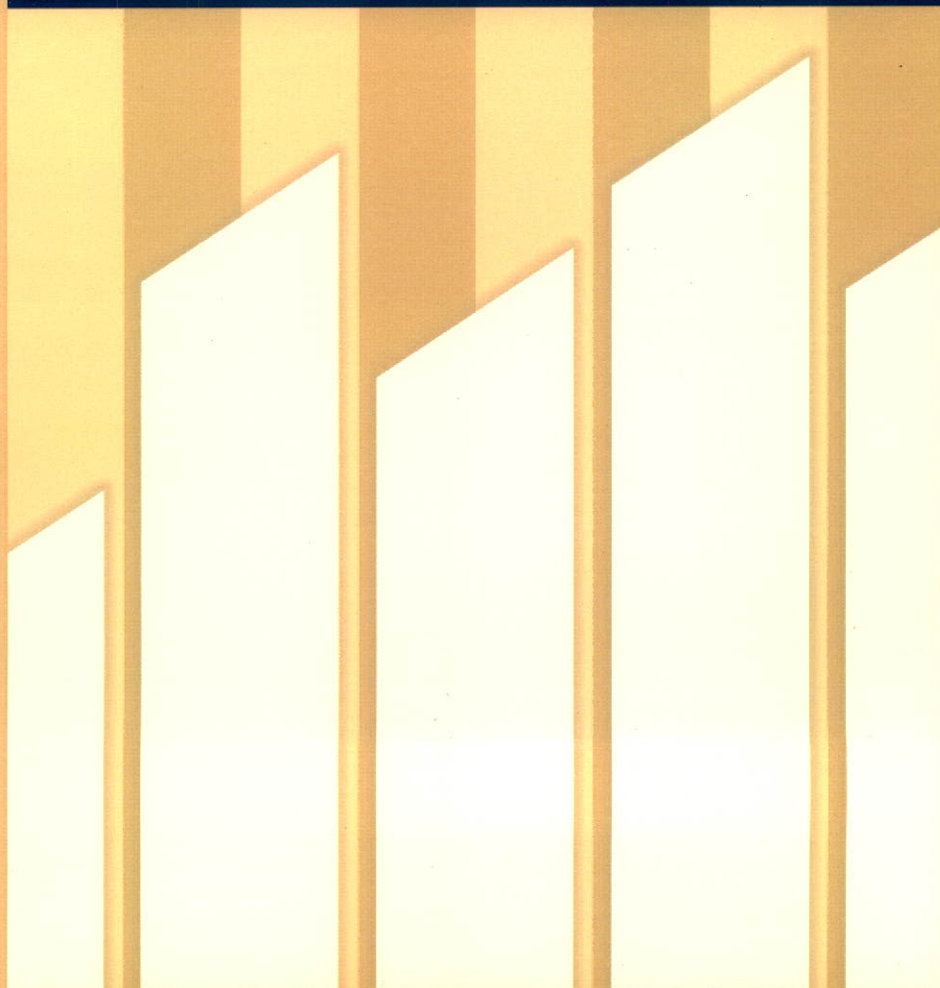
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BANK OF GREECE

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MONETARY POLICY

2002 - 2003



MARCH 2003

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BANK OF GREECE

REPORT ON
MONETARY
POLICY

2002-2003



MARCH 2003

To the Greek Parliament and the Council of Ministers

The present Report on Monetary Policy is submitted to the Greek Parliament and the Council of Ministers in accordance with the Statute of the Bank of Greece. The Report examines and analyses monetary developments and the course of the Greek economy in 2002, the second year since Greece entered the third and final stage of EMU and adopted the euro and the single monetary policy on 1 January 2001. It also presents estimates about the prospects of the Greek economy in 2003, in the light of the high degree of uncertainty that prevails at the current juncture, mainly owing to the possibility of military conflict in Iraq.

The Report is summarised in Chapter I. Chapter II examines the international economic environment of the euro area in 2002 and the economic outlook for 2003. Global economic recovery is expected to continue this year. However, growth rate forecasts have been recently revised downwards, owing to the increased uncertainty mentioned earlier.

Chapter III discusses the macroeconomic developments and prospects in the euro area, monetary developments and the single monetary policy. According to the latest estimates, GDP growth in the euro area slowed down from 1.5% in 2001 to 0.7% in 2002, while it is forecast to stand at 1.3% in 2003. Euro area average annual inflation fell slightly, but remained above 2% in 2002 (2.2%). In 2003, euro area inflation is expected to be 1.3-2.3%. There is also a special focus on euro area fiscal developments and on the European Commission's recent proposals for a more effective implementation of the Stability and Growth Pact. Chapter III also discusses in detail recent developments in money and credit markets, bond and other debt security issuance and the evolution of equity prices in the euro area.

Chapters IV and V of the Report, which concern the Greek economy, examine developments and prospects of inflation, economic activity and employment, on the basis of the latest estimates and forecasts. Given the unfavourable global economic conditions, the general conclusion on the course of the Greek economy in 2002 is positive. Chapter VI analyses developments in the money, credit and capital markets in Greece and its special annex presents a survey on household borrowing and indebtedness, commissioned by the Bank of Greece. The results of the survey confirm the assessment that household indebtedness is generally low in Greece.

In 2002, GDP grew by 4.0% and was little influenced by the severe economic slowdown in the euro area as a whole. At the same time, the unemployment rate fell for the third consecutive year, albeit rather slowly.

Average annual inflation rose slightly, from 3.4% in 2001 to 3.6% in 2002 as a whole, while core inflation was virtually unchanged in 2002. However, inflation in Greece remained above inflation for the euro area as a whole. Given the high growth rate and the ongoing process of real economic convergence, this differential is, to some extent, to be expected, but is also attributable to unit labour costs increasing faster than in the euro area as a whole for many years, as well as to insufficient competition in some sectors of the economy.

For 2003, increased uncertainty about the future path of oil prices and about the impact of the recent long spell of bad weather on the prices of fresh fruit and vegetables makes it very difficult to give a reliable estimate of average CPI inflation

in 2003 as a whole. A simple extrapolation of current data and trends leads to the conclusion that the average annual CPI will rise faster than in 2002. The forecast about core inflation is more reliable. Thus, the average annual rate of change in the CPI, excluding fuel and fresh fruit and vegetables, is expected to be almost the same in 2003 as in 2002 (3.6%).

Regarding economic activity, the Bank of Greece estimates that GDP growth will remain strong in 2003 (at 3.7%, i.e. slightly lower than in 2002). However, this forecast does not take into account

the impact of a possible sharp and severe deterioration in external – geopolitical and economic – conditions.

This impact is discussed in Chapter VII of the Report. Specifically, in the event of a war in Iraq, the magnitude of the impact will eventually depend on the nature, extent and duration of the conflict. It is estimated that the effect on the Greek economy, compared with the other euro area countries, may be greater as regards inflation but rather smaller as far as the GDP growth rate is concerned.

Athens, March 2003

Nicholas C. Garganas
Governor

Monetary Policy Council of the Bank of Greece

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I. Summary

The primary objective of the Eurosystem's single monetary policy, implemented in Greece since 2001, is to maintain price stability in the euro area over the medium term. During most of 2002, this policy was pursued amid heightened uncertainty and mixed signals about inflation prospects. Thus, until early December 2002, the European Central Bank (ECB) kept its key interest rates unchanged, as set on 8 November 2001.¹

More specifically, in the first few months of 2002, the Governing Council of the ECB considered that the persistence of relatively high inflation was due to exceptional factors. The Governing Council also judged that the high annual growth rate of M3 reflected the impact of high uncertainty since the autumn of 2001, and consequently should not be seen as signalling upward risks to price stability. This assessment was supported by the slow-down in credit expansion to the private sector. After May, in spite of a decline in inflation, concerns about inflation prospects intensified, owing to the increases in oil and services prices and because there was significantly more liquidity available in the euro area than may have been needed to finance sustainable, non-inflationary economic growth. From August onwards, however, the Governing Council was of the view that the upward risks to price stability were offset by the effect of subdued economic growth and by the stabilisation of the annual growth rate of loans to the private sector at around 5%. Finally, at its meeting on 5 December 2002, the Governing Council assessed that inflationary pressures would ease, as economic expansion remained sluggish and the exchange rate of the euro had appreciated. It therefore decided to lower its key

¹ At that time, the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility were 3.25%, 4.25% and 2.25% respectively.

interest rates by 50 basis points,² to levels that remained unchanged until its meeting on 6 February 2003.

During most of 2002, short-term money market rates and short-term retail bank rates remained roughly unchanged in the euro area, reflecting the stability of the ECB's key interest rates. In contrast, longer-term interest rates followed an upward trend in the first five months of 2002, as a result of market expectations of an increase in interest rates and economic recovery in the months to come. However, this upward trend was reversed after euro area growth projections were revised downward in May, causing interest rates to fall below their December 2001 levels. Government bond yields followed a similar pattern and were additionally affected by stock market conditions and geopolitical tensions.

Euro area M3 growth gradually slowed from the beginning of 2002, but still remained high, reflecting portfolio shifts to more liquid assets. These shifts were due to the decline in stock prices and to heightened uncertainty in the stock markets, and were additionally driven by the low opportunity cost of holding money (because of low interest rates). Within M3, the annual growth rate of credit to the private sector registered a continuous slowdown from the beginning of 2002 onwards, coming to roughly 5% in the second half of the year (at first slightly above and then slightly below that level).

The annual rate of increase in the Greek contribution to the euro area monetary aggregate M3 slowed significantly in 2002 (fourth quarter 2002: 2.1%, fourth quarter 2001: 4.4%) and turned negative in December (−0.2%). Throughout the year, M3 growth was appreciably weaker in Greece than in the euro area, with Greek M3 growth amounting to roughly one third of the euro area figure. This

decline in the Greek M3 growth rate is associated with a slowdown in total credit expansion brought about by the contraction in credit expansion to enterprises and households. It is also associated with shifts from repos (as soon as their yields were once again subject to taxation from January 2002 onwards) to longer-term deposits (not included in M3) and government securities (holdings of which by the non-MFI private sector increased in 2002, after having dropped considerably in 2001).

The rate of increase in total debt financing of the economy by the MFIs (i.e. banks and money market funds) decelerated slightly to 8.5%, in 2002 (2001: 9.3%), reflecting a slowdown in bank financing to enterprises and households. Moreover, the debt financing of general government by the MFIs declined further in 2002, albeit at a slower pace than in 2001 (2002: −1.3%, 2001: −4.6%). In any event, it should be noted that general government borrowing requirements were slightly lower in 2002 (€5,542 million), down from €5,715 million in 2001. Credit expansion to enterprises and households fell from 24.8% in 2001 to 16.9% in 2002, mainly on account of the limited increase in credit to enterprises, while credit expansion to households, particularly consumer loans, also weakened. The growth rate of consumer loans, in spite of the gradual market saturation indicated by their substantial deceleration from 42.5% in 2001 to 24.2% in 2002, remains high. This high growth rate is in part associated with the fact that the outstanding loans-to-GDP ratio is still relatively low, with the substantial decrease in interest rates and with keen competition between banks in the field of consumer credit. The overall low level of Greek

2 The minimum bid rate on the main refinancing operations was lowered to 2.75%, while the interest rates on the marginal lending facility and the deposit facility were lowered to 3.75% and 1.75% respectively.

household indebtedness was also confirmed by a survey recently conducted by the Bank of Greece (see Annex to Chapter VI).

Most retail bank rates in Greece followed a downward trend in 2002, influenced both by competition between credit institutions and, towards the end of the year, by the ECB's key interest rate cuts of 5 December, which affected retail bank rates throughout the euro area. With lending rates adjusting faster than deposit rates in the course of 2002, the spread between the weighted average lending rate and the respective deposit rate narrowed further. This spread has been declining over the last few years and was reduced by slightly more than 3 percentage points from end-1998 to end-2002. As far as interest rate developments are concerned, it is worth stating the obvious that banks in Greece now operate in a deregulated market and are at liberty to set and change their interest rates, based solely on cost, risk and supply and demand considerations.

Developments in the Greek government securities market in 2002 were similar to those in the euro area and US markets. More specifically, transactions in the secondary market for government securities registered an impressive upswing, underpinned by increased demand from domestic and foreign investors alike. Yields on government paper declined across the entire maturity spectrum from mid-May to end-December, except for a small recovery in October. This decline in yields reflects a shift in investor preference towards government bonds, on account of the increased uncertainty about global economic recovery prospects, adverse conditions on the international stock markets and rising tension on the issue of Iraq in the last months of the year. Funds raised through the primary market increased and the issuance of securities shifted significantly, mainly from 7-year to 3- and 5-year bonds.

Equity prices on the Greek stock market continued to fall in 2002 for the third consecutive year, and more markedly so from September through December. Meanwhile, stock market transactions and the amount of funds raised dropped to very low levels. Strong stock price decreases, with sharp fluctuations, were also registered on euro area and US markets. These developments in the international markets are attributed to increased uncertainty about global economic recovery prospects, the fall in corporate profits, corporate governance and accounting scandals in the US and, more recently, tension on the issue of Iraq. The domestic stock market was also negatively affected by the decline in profits of several listed corporations, mainly in the financial sector. The fall in equity prices on the Greek stock market in 2002 largely accounted for the continued loss of asset value of all mutual funds, especially equity funds.

* * *

Global economic recovery in 2002 was weaker than expected. In spite of the increased uncertainty in the international environment, initial forecasts for 2003 anticipated a significant pick-up in world GDP growth. However, more recent forecasts are less optimistic. The strength of the recovery in 2003 will depend on the duration of the current uncertainty, which has heightened primarily on account of the prospects of a war in Iraq. The same holds for the euro area, with latest GDP growth forecasts for 2003 ranging between 1.3% and 1.4% (compared with an estimated 0.7% for 2002 and 1.5% in 2001). Annual HICP inflation in the euro area eased only somewhat to 2.2% in 2002 (from 2.5% in 2001), reflecting persistently high core inflation, in particular the high prices of services, as well as rising oil prices and unit labour costs. In the meantime, however, the continued appreciation of the euro's nominal

effective exchange rate, coupled with subdued demand, has dampened inflationary pressures. The rate of inflation in the euro area is thus expected to decelerate to 1.3-2.3% in 2003 (according to the Eurosystem staff macroeconomic projections of December 2002).

In spite of the significant economic slowdown in the euro area as a whole, Greece's GDP growth was only slightly affected and remained strong in 2002. However, the increase in employment was small and progress in reducing the unemployment rate continued to be relatively slow. Furthermore, inflation remained higher than in the rest of the euro area. Higher inflation and faster GDP growth, compared with the euro area, have contributed to the widening of the current account deficit as a percentage of GDP. In addition, the public debt-to-GDP ratio is still high, in spite of its reduction in 2002, and the decrease in the general government deficit-to-GDP ratio over the 2000-2002 period was limited.

In particular, Greece's average annual rate of inflation (measured by the Consumer Price Index – CPI) rose to 3.6% in 2002, from 3.4% in 2001, and the inflation differential between Greece and the euro area (based on the Harmonised Index of Consumer Prices – HICP) increased. Core inflation, however, remained virtually unchanged in 2002, and the corresponding differential with the euro area decreased. This differential in core inflation is to be expected to the extent that it stems from the Greek economy's strong growth and ongoing process of real convergence. However, it also stems from the rise in Greek unit labour costs,³ which – for a number of years now – has been higher than the euro area average, and from inadequate competition in certain sectors of the economy. The widening of the HICP inflation differential is attributed to country-specific factors, such as the greater vulnerability of the Greek

economy to oil price increases, and to the harsher impact – in comparison with other euro area countries – of adverse weather conditions on the prices of fresh fruit and vegetables in December 2001 and January 2002.

Apart from the increases in world oil prices in 2002 and the temporarily very high prices of fresh fruit and vegetables mentioned above, the upward rounding or adjustment of prices on the occasion of or under the pretext of the euro cash changeover was another factor that contributed to the small increase in Greece's average annual rate of inflation in 2002. All three of these factors were therefore either extraordinary or exogenous. An upward pressure on inflation was, however, also exerted by widening profit margins in certain sectors of economic activity which particularly affect consumer prices, by the insufficiency of competitive conditions in certain services markets and, perhaps, in some instances, by excess demand. The inflationary impact of these factors in 2002 slightly outweighed the dampening effect caused by (i) the evolution of international import prices and the appreciation of the euro, and (ii) to a lesser extent, the reduction in telecommunication services prices, as a result of intensified competition in this deregulated market.

As for unit labour costs, their rate of increase was slightly lower in 2002 than in 2001 in the economy as a whole, but markedly lower in the business sector. In the economy as a whole, unit labour cost growth remains (i) higher than the maximum rate compatible with price stability (i.e. 2%), and (ii) slightly above the corresponding euro area rate. It therefore remains a definite contributing factor to Greece's persistently high rate of inflation, to its upward deviation from the euro

3 As estimated by the Bank of Greece. See also Box 2, Chapter IV.

area average and to the deterioration of the Greek economy's competitiveness.

In spite of a deceleration in inflation in January 2003 and the anticipated quasi-elimination by March 2003 of the euro-changeover effects on the annual CPI inflation recorded in the first quarter of 2002, inflation in the months to come (from February 2003 onwards) could exceed 3.5% and might even come close to 4%. The main reason for this more pessimistic forecast is that the inflation expectations of businesses and consumers, which have recently been on the rise, may become more firmly anchored and ultimately prove to be self-fulfilling. These inflation expectations in part reflect the rise in world oil prices and the growing uncertainty about the prospects of a war in Iraq. Meanwhile, they may build up even further as a result of the considerable increase in fresh fruit and vegetable prices in February.

Over 2003 as a whole, upward or downward effects on inflation should –depending on the case– be exerted by (i) the anticipated increase in the average annual level of crude oil prices in US dollars; (ii) the continued appreciation of the euro against the US dollar (which would significantly dampen the inflationary impact of an oil price increase in US dollars); (iii) the projected moderation of inflation in the euro area, which would cause the already low rate of increase in import prices of goods and services from euro area countries to decline even further; and (iv) the projected increase in unit labour costs, at a slightly higher rate than in 2002 in the economy as a whole and at an appreciably higher rate in the business sector. It is particularly difficult to accurately predict the average rate of CPI inflation for 2003 as a whole, owing to the unusually high degree of uncertainty surrounding oil price developments and the impact of this year's weather conditions on the prices of fresh fruit and vegeta-

bles. Based on a simple extrapolation of current data and trends, the average annual rate of CPI inflation in 2003 would exceed the rate of 3.6% recorded in 2002. A more reliable forecast can, however, be made for core inflation: the average annual rate of change in the CPI excluding fuel and fresh fruit and vegetables is expected to be roughly the same as in 2002, i.e. 3.6%.

Greece's GDP growth rate came to 4.0% in 2002, compared with 4.1% in 2001, second only to Ireland in the EU. The main factors that underpinned this sustained and relatively strong GDP growth were buoyant private consumer demand, private residential investment and investment by both public and private enterprises, especially in the construction and services sectors in the run-up to the 2004 Olympic Games. The consolidation of an environment of macroeconomic stability since Greece joined the euro area and the implementation of certain structural reforms have also indirectly boosted GDP growth. On the other hand, though, the adverse external economic environment and the deterioration of competitiveness already made themselves felt in 2002, as reflected in the very small increase in both manufacturing output and the number of employees, the lower exports of goods and tourism services, and the decline in investment by private manufacturing enterprises.

Private consumption and total investment are expected to increase in 2003 almost as much as they did in 2002. More specifically, private consumption growth should be underpinned by an increase in the real disposable income of households, while a noticeable further increase in private residential investment is expected. Both public and business investment connected with the 2004 Athens Olympic Games should also rise significantly. Thus, the contribution of domestic demand to GDP growth should remain steady. In

contrast, the negative contribution of the real external balance (i.e. net exports of goods and services) is expected to be much higher in 2003 than in 2002 since: (i) the rate of economic recovery of our main trading partners and in the countries of origin of incoming tourists will be relatively slow; (ii) the price competitiveness of Greek goods and services will decrease further (so long as the inflation differential between Greece and the euro area or the EU persists, especially considering that the euro has been appreciating against major currencies) and (iii) ongoing uncertainty related to geopolitical tension in the Middle East has already caused a drop in this year's hotel reservations. Based on these indications and assumptions, the Bank of Greece estimates that the growth of economic activity in Greece will remain strong this year, at 3.7%, i.e. slightly less than in 2002.

This forecast incorporates the negative impact that global uncertainty has already begun to have on domestic economic magnitudes. In the event of a sharp deterioration in external –geopolitical and economic– parameters and taking into consideration the particular factors that could amplify or moderate the negative impact on the Greek economy of a war in Iraq, it is possible to draw the following conclusions: (i) the size of the impact will ultimately depend on the nature, scale and duration of the war; (ii) the negative impact on the Greek economy –compared with the rest of the euro area– will possibly be greater in the

areas of inflation and tourism, but probably smaller as far as the overall evolution of domestic demand and GDP growth are concerned.

The negative impact could be lessened provided that the government takes appropriate measures to monitor the fuel markets and prevent the speculation that could be prompted by an oil price shock. The social partners must also strive for an immediate improvement of competitiveness in sectors where pricing policies had caused it to diminish in 2002 and, more generally, work closely together and with the government to ensure that firms' pricing policies are moderate and that wage increases do not lead to a spillover of inflationary pressures.

On a more general note, in spite of the significant elements of uncertainty discussed above, economic growth can remain satisfactory in 2003, so long as GDP growth continues to be supported by favourable endogenous factors. As mentioned, however, the social partners must make concerted efforts to improve the competitiveness of the Greek economy. Furthermore, persistence in the goals of fiscal consolidation, and the strict observance of the Stability and Growth Programme will obviously dampen inflationary pressures and enhance the climate of confidence. Finally, the implementation of further structural reforms can also have the immediate effect of boosting confidence.

II. The international economic environment of the euro area

1. Developments and prospects in the world economy

In 2002, the recovery of the world economy was slower than expected. World GDP growth was initially forecast to accelerate to 3.7% in 2003, from 2.8% in 2002,¹ despite heightened uncertainty in the international environment. However, according to more recent estimates, world GDP will grow in 2003 at a rate only slightly over 3%.² Growth rates are expected to be higher in most economic regions, as world economic recovery takes hold and international trade expands. Developing countries, which were hit less than advanced economies by the world economic slowdown during 2001-2002, are expected to achieve growth rates of more than 5%, while advanced economies are projected to grow by more than 2% in 2003.

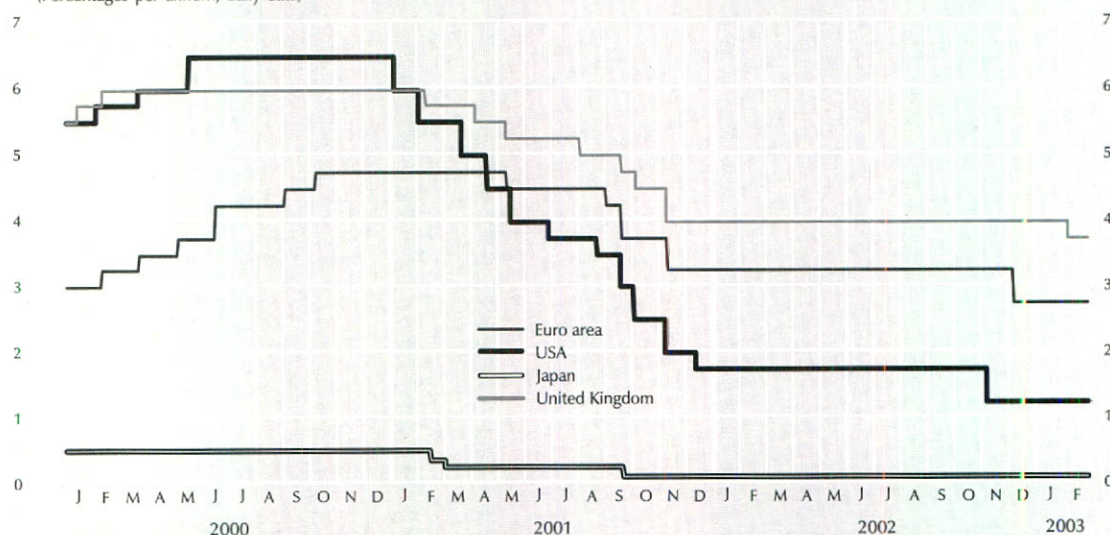
The pace of recovery expected during 2003 will depend on the duration of uncertainty in world markets, which increased during 2002, mainly because of geopolitical tensions, notably the threat of military conflict in Iraq, and concerns about the possible consequences of a further rise in oil prices. This uncertainty has had a substantial impact on financial markets, where stock prices have fallen and corporate bond spreads have widened. In turn, the decline in prices in global stock markets has contributed to a fall in consumer and business confidence.

World economic recovery in 2002 was disappointing. Despite the significant easing of mone-

¹ The reported estimates and forecasts for 2002-2003 are based on information available in February 2003. Where more recent information is not available, data are drawn from the IMF *World Economic Outlook* (September 2002) and the OECD *Economic Outlook* (December 2002).

² See e.g. *Consensus Forecasts*, February 2003, and statements by the IMF Director to the German press, 15 February 2003.

Chart 1
Central bank key interest rates
(1 January 2000 - 28 February 2003)
(Percentages per annum, daily data)



Sources: For the euro area: European Central Bank (ECB), minimum bid rate on main refinancing operations. For the USA: Federal Reserve, intended federal funds rate. For Japan: Bank of Japan, official discount rate. For the United Kingdom: Bank of England, repo rate.

tary policy in 2001 (see Chart 1) and the expansionary fiscal policies followed in several major advanced economies, world output growth accelerated considerably only in the first quarter of 2002, losing momentum thereafter. Advanced economies were characterised by declining corporate profitability and investment, further corrections of stock markets and a high degree of uncertainty in financial markets more generally.

2. Developments in the major economies and the main economic regions

In the USA, economic recovery was slower than expected in 2002, but GDP growth, estimated at 2.4%³ (compared with 0.3% in 2001), was considerably stronger than in the euro area and in Japan. In 2003, the US economy is expected to expand at a rate somewhat lower than the 2.6% forecast last autumn and closer to the growth rate recorded in 2002, owing to persisting external and internal imbalances and increased geopolitical uncer-

tainty. On the other hand, if the recent US dollar depreciation continues, it should help improve US export performance and contain the sizeable current account deficit.

Real GDP rose at an annualised rate of 1.4% in the fourth quarter of 2002 (compared with 4.0% in the third quarter). Recent short-term indicators give mixed signals, but the overall tone is rather negative. Retail sales dropped in January 2003 and consumer confidence weakened in January and February. By contrast, industrial production increased in January 2003, following a decrease (notably in the production of motor vehicles) in December 2002.

Sluggish demand and declining unit labour costs contributed to the fall of CPI inflation to 1.6% in 2002, from 2.8% in 2001. The fall in total employment raised the unemployment rate to 5.8% in 2002, from 4.8% in 2001.

³ US Bureau of Economic Analysis, Press Release (provisional estimates) 28 February 2003.

The current account deficit widened in 2002, despite the weaker US dollar, and is estimated to have reached around 5% of GDP, compared with 3.9% in 2001. This partly reflects the economic recovery and, possibly, lagged effects of the large cumulative loss of international price competitiveness of the USA, due to the appreciation of the dollar in previous years.

GDP growth in 2003 is expected to be driven mainly by investment. After two years of negative growth rates, gross fixed capital formation should grow by 2-3% in 2003. However, its positive effect on domestic demand should be partly offset by the slowdown in private and public consumption (not counting in possible effects from the proposed fiscal package – see below). Stock-building is expected to decelerate in 2003 in comparison with 2002, although its contribution to real GDP growth will remain positive, while the foreign balance should have a smaller negative effect on GDP growth than in 2002.

Economic recovery in 2002 was supported by the fiscal and monetary policies pursued during 2001. On 7 January 2003 the Federal Government proposed a new fiscal package amounting to \$674 billion over ten years. The expansionary effect of the new package is expected to be relatively small in 2003 and more significant in subsequent years. The fiscal deficit is estimated to have increased to 3.1-3.2% of GDP in 2002, from 0.5% in 2001, and is expected to rise further in 2003. Monetary conditions will most probably remain supportive of economic recovery. The US Federal Reserve, having reduced its federal funds target rate repeatedly during 2001 (by 475 basis points cumulatively), reduced it further by an additional 50 basis points, to 1.25%, on 6 November 2002.⁴

In Japan, the economy has shown occasional signs of recovery, as GDP grew by 0.3% in 2002.

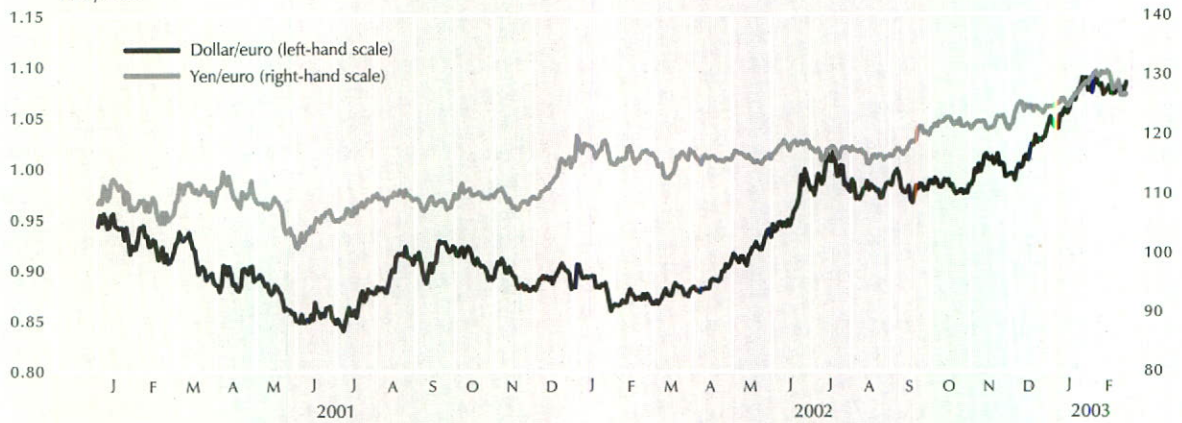
Sustained recovery in the Japanese economy is unlikely in 2003, as the problems of the financial sector are still present and deflationary trends are expected to continue to have a negative effect on domestic demand in 2003. This view seems plausible, considering the very limited scope for further macroeconomic management (nearly zero nominal interest rates and very high fiscal deficits and government debt) and the fragility of the financial system. Annual GDP growth may accelerate somewhat in 2003, as in 2002. The unemployment rate rose to 5.5% in 2002 (from 5.0% in 2001) and is expected to change very little this year.

Japan's fiscal deficit remained high in 2002 (at an estimated 7.2% of GDP), mainly owing to a deterioration in the primary balance. Interest payments kept rising as a percentage of GDP, in spite of very low yen interest rates, as the government-debt-to-GDP ratio is high and rising. Gross government debt is estimated at around 155% of GDP in 2002, up from 145% in 2001. It should be noted, however, that about 95% of government debt is domestically held (and that the net government debt, although also growing rapidly, is considerably lower than the gross debt). Since November 2000, the Japanese yen has been depreciating against the euro. On 14 February 2003, the exchange rate of the yen vis-à-vis the euro was 4.3% lower than at end-December 2002 and 9.2% below its 2002 average (see Chart 2). Developments in effective exchange rates showed a 5% depreciation of the yen in 2002 (average annual level). Japan's current account surplus is estimated to have increased to 3.0% of GDP in 2002, from 2.1% in 2001.

⁴ Among the central banks of major advanced economies, only the Bank of Canada raised interest rates during 2002. The overnight target rate (key policy rate) increased 3 times by 25 basis points on each occasion, on 16 April, 4 June and 16 July. It now stands at 2.75%.

Chart 2

Exchange rate of the euro against the US dollar and the Japanese yen
(January 2001 - February 2003)
(Daily data)



Sources: ECB and Bank of Greece.

In the *United Kingdom*, quarter-on-quarter GDP growth slowed down to 0.4% in the fourth quarter of 2002, from 0.9% in the third and 0.6% in the second quarter; for the whole year 2002, the GDP growth rate was 1.7%, according to initial estimates. An acceleration of GDP growth is forecast for 2003, mainly depending on the pace of recovery of business investment, which fell by 10% in 2002. HICP inflation is expected to rise somewhat in 2003, after stabilising at 1.3% in 2002. The unemployment rate, which remained unchanged at 5% in 2002, is expected to record a small drop in 2003. As regards public finances, the decrease in the primary surplus led to a government budget deficit, for the first time in the last five years. On 14 February 2003, the exchange rate of the pound sterling vis-à-vis the euro was 5.8% lower than its average for 2002 (see Chart 3). On 6 February 2003, the Bank of England reduced its repo rate by 0.25% to 3.75%.

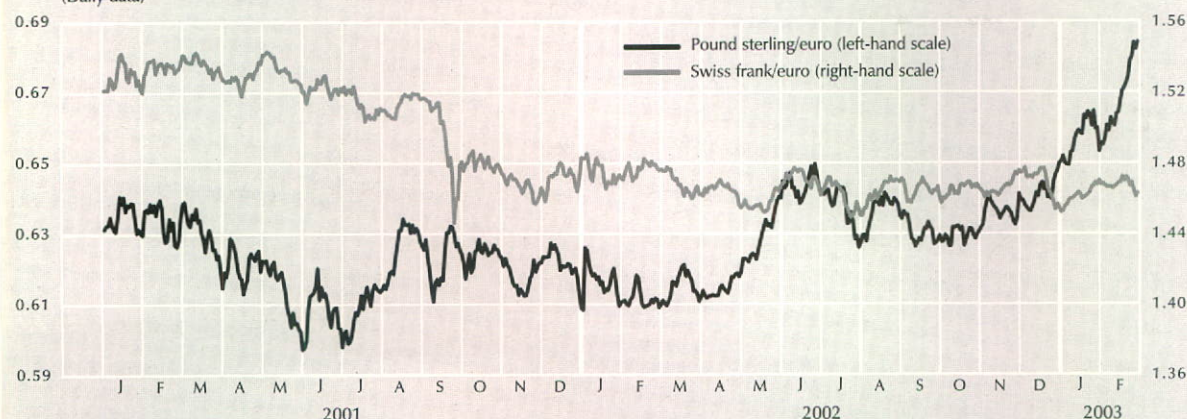
In the *emerging economies in Asia*,⁵ conditions continued to improve after the 1997-98 crisis, helped by buoyant domestic demand. These economies did not appear to be affected significantly by the crisis in Latin America and the continuing weakness of economic activity in Japan. In 2002,

they recorded the highest regional growth rate in the world (5.9%, against 5% in 2001). Meanwhile, their inflation remained low (at 2%), though this average rate was partly due to negative inflation rates in China and Hong Kong. Despite the satisfactory performance of exports, the current account surplus fell in 2002 to 2.6% of GDP, down from 3% in 2001, mainly reflecting strong domestic demand in the region. In China, in particular, GDP growth has continued to exceed expectations, as the economy is estimated to have grown by 7.5% in 2002, underpinned by a sharp increase in public investment and exports. In India, GDP growth accelerated to 5.0% in 2002, from 4.1% in 2001. Assuming that world economic recovery and improvement in the IT sector will continue, the emerging Asian economies are expected to keep growing at a high rate (6.0%) in 2003. China is expected to show the highest growth rate (7.0%) and the Indian economy is projected to grow by 5.7%.

⁵ According to the IMF classification, emerging Asian economies include Developing Asia (25 countries), the Newly Industrialised Asian Economies (4 countries) and Mongolia. This group, including nearly all Asian countries (except Japan and the CIS), accounts for 25.5% of world GDP.

Chart 3

Exchange rate of the euro against the pound sterling and the Swiss franc
(January 2001 - February 2003)
(Daily data)



Sources: ECB and Bank of Greece.

Latin America was the worst performer among the world's main economic regions in 2002. Economic activity was adversely affected by the continuing economic crisis in Argentina, as well as by economic developments and political uncertainty in Brazil and Venezuela. Economic activity contracted by 16% in Argentina, 11% in Uruguay and 6% in Venezuela. Brazil's GDP is estimated to have grown by 1.5%, unchanged from 2001. On the basis of a projected continuation of relatively better performance of the two largest economies in the area (Mexico and Brazil), GDP growth of about 3% is expected for the whole of Latin America in 2003, compared with -0.6% in 2002.

The GDP of the ten *acceding countries*,⁶ i.e. those whose accession was decided by the European Council at Copenhagen (12-13 December 2002), is estimated to have grown at a rate marginally lower than in 2001 (2.7%, compared with 3.0%). This was due to a decline in investors' interest and in exports. In these countries, inflation continued to fall in 2002 (6.2%, down from 9.8% in 2001). The current account deficit stood at almost the same level (4.5% of GDP, compared with 4.3% in 2001). The prospects for economic growth

remain favourable. The average GDP growth rate is projected at around 3.7% in 2003, but is expected to exceed 4.5% in the Baltic countries and Malta. Estimates are less optimistic for the path of inflation, which is not expected to decrease considerably against a background of price and market deregulation and high growth rates. The current account deficit is expected to stand at the same level (4.4% of GDP). These countries are steadily improving their productive and financial infrastructure, developing their markets and trying to attract more foreign capital. Specifically in Cyprus, the GDP growth rate slowed down to 2.3% in 2002 (from 4.0% in 2001), mainly owing to the decline in tourism, which also led to an increase in the current account deficit (to 5.5% of GDP, from 4.3% in 2001). In 2003, however, GDP is expected to grow by 3.5%, while the current account deficit will drop to 4.3% of GDP (the same as in 2001). Inflation rose from 2.0% in 2001 to 2.8% in 2002 and is expected to reach 4.5% in 2003, mainly owing to the adjustment of indirect taxation. Finally, the general government

⁶ Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

deficit is around 3% of GDP, while the general government debt stood at 56.6% of GDP in 2002.⁷

Candidate countries (Bulgaria, Romania and Turkey)⁸ recorded high GDP growth rates in 2002 (between 4% and 6%). The outlook for growth in 2003 is more favourable (5% to 7%). Inflation in 2002 remained high in Romania (24.2%) and Turkey (31.1%), but in 2003 it is expected to decelerate, to 15% and 18% respectively.

The performance of the *other Balkan economies*⁹ (excluding Bulgaria, Romania and Turkey) remained virtually unchanged in 2002 and GDP growth averaged 3.8%. Inflation dropped marginally, to between 2.3% and 6.4%. The current account deficit ranged from 5.0% in Albania to 20% in Bosnia-Herzegovina (owing to special circumstances). For 2003, average GDP growth rates in these countries are expected to accelerate significantly to nearly 5%, while inflation should drop considerably, to between 1% and 4%. The current account deficit is expected to show little change.

In the *Commonwealth of Independent States* (CIS),¹⁰ the GDP growth rate averaged 4.6% in 2002 and average inflation fell to 14%. Specifically, the Russian economy continues to grow by around 5% per annum, favoured by high oil prices. Inflation decelerated to 15% in 2002 and is expected to drop to almost 10% in 2003.

3. International trade

The volume of world trade is estimated to have increased by 2.5% in 2002, after contracting by 0.1% in 2001. The rate of increase in trade volume accelerated in developing countries, but lost momentum in transition economies owing to weak demand from EU countries. Indeed, the pronounced economic slowdown resulted in an

estimated 0.3% decrease in the volume of goods imports into EU countries in 2002. World trade volume is expected to increase by 6% in 2003, reflecting the projected acceleration of economic activity in the industrial economies, which account for more than 70% of world imports.

Increased geopolitical tensions contributed to a sharp increase in oil prices during 2002. Oil prices picked up during the first quarter of 2002 because world economic activity grew faster than expected. Subsequently, oil prices kept rising as the likelihood of armed conflict in Iraq increased. After falling to \$18.6 per barrel in December 2001 (the lowest level of the year), Brent crude oil prices gradually rose to \$25.1 and \$26.9 in the second and the third quarter of 2002, respectively. After a temporary decline in October and November, crude oil prices rose again, as strikes in Venezuela (the world's fifth largest oil exporter, accounting for 3.4% of world oil output) reduced oil supplies. Although OPEC raised official production quotas by 6.5% in mid-January 2003, the oil market continued to be tight. The average price of crude oil exceeded \$33 per barrel after mid-February 2003 and is expected to remain at high levels so long as the uncertainty associated with geopolitical tensions weighs on the world economy. In the light of current prices in the futures market, the average annual price of crude oil is expected to stand at \$28 per barrel in 2003. The dollar prices of non-fuel commodities, after falling in 2001 to their lowest level since 1986, increased by 4% in 2002 and are expected to continue rising (by nearly 6%) in 2003. The price of gold rose gradually during 2002, as a sharp drop in stock prices, together with

⁷ See IMF, *Public Information Notice No. 03/13*, 14 February 2003.

⁸ Bulgaria and Romania have not been given an accession date yet, while a date for the commencement of accession negotiations with Turkey has not been decided yet.

⁹ Albania, Bosnia-Herzegovina, Former Yugoslav Republic of Macedonia and Serbia-Montenegro.

¹⁰ The 12 former USSR countries and Mongolia

heightened volatility and uncertainty in world financial markets, boosted safe-haven demand. The price of gold increased from \$278 per ounce in the fourth quarter of 2001 to \$313 in the second quarter of 2002 and to \$343 by the end of the year. In early February 2003, the price of gold exceeded \$370 per ounce (the highest since 1997), but dropped to \$350 by the end of the month.

4. Financial markets

Against a background of heightened global uncertainty, world financial markets experienced a turbulent year in 2002. Amidst considerable volatility, stock markets weakened markedly during 2002. Their decline was especially pronounced during the period from end-March to early-October 2002, reflecting an erosion in investor confidence and increased risk aversion. Unexpected falls in corporate profitability and disclosures of fraud as well as accounting and auditing abuses in several big US corporations increased volatility and sharpened the correction path of stock market indices. As a result, there was a portfolio shift from equities to bonds and gold, as well as to euro-denominated assets.

In 2002, world stock markets recorded their third consecutive year of annual losses. Stock prices in the high-technology sector continued their adjustment process for the third year in a row and returned to their levels in early 1997. Euro area stocks underwent a large decline during 2002, while stock indices in Europe and the USA experienced the sharpest drop of the past decade. The broad Dow Jones EURO STOXX index fell by 34.5% between end-2001 and end-2002, while the FTSE 100 and Standard & Poor's 500 indices decreased by 24.5% and 23.4% respectively. Japan's Nikkei

225 index recorded losses of 18.6%. Between end-December 2002 and 14 February 2003, stock prices declined further in Europe and the USA, where the broad Dow Jones EURO STOXX index dropped by 7% and the Standard & Poor's 500 index by 5%, whereas the Nikkei index rose by 2%.

Reflecting expectations of weaker economic growth and low inflation, long-term interest rates fell in 2002 to low levels in both the USA and the euro area. Between end-December 2002 and 14 February 2003, ten-year government bond yields increased by 10 basis points in the USA and declined by 20 basis points in the euro area, to stand at around 3.9% and 4.1% respectively. On 14 February 2003 there was a negative differential of 10 basis points between ten-year government bond yields in the USA and the euro area.

A notable feature of financial market developments has been a greater differentiation in credit markets, reflected in, *inter alia*, a widening of bank credit spreads. However, market adjustments remained orderly and have not threatened global financial stability.

The euro rose from a year-low of \$0.86 at the end of January 2002 to above parity in July (see Chart 2). It remained at around parity until mid-December, when it started to appreciate again, reflecting the weakening of the US dollar. In December 2002 and February 2003 the euro continued to appreciate against most major currencies. In nominal effective terms, on 14 February 2003 the euro was 2.6% higher than at end-December and 8.2% above its average level for 2002. The appreciation of the euro was particularly pronounced vis-à-vis the US dollar. On 14 February 2003 the exchange rate of the euro against the US dollar was about 14.1% higher than its 2002 average.

III. Macroeconomic developments and prospects in the euro area, monetary developments and the single monetary policy¹

1. Macroeconomic developments and prospects in the euro area

The economy of the euro area posted a slight recovery in the first quarter of 2002, which, however, failed to gain momentum in subsequent quarters. Real GDP grew by 0.4% in the first and the second quarter of 2002 (compared, in each case, with the immediately preceding quarter) and 0.3% in the third quarter. For the whole year, GDP growth is expected to be 0.7%.² Owing to the slow recovery and high uncertainty, due to geopolitical tensions, the more recent forecasts about GDP growth in the euro area in 2003 range between 1.3% and 1.4% (compared with 1.8% forecast by the European Commission in November).³ The economy's prospects will mainly depend on the duration of the prevailing uncertainty, which is related to the possibility of a war in Iraq (see also Chapter VII). A separate reason for concern is the serious weakening of the German economy, which is directly affected by international economic developments and, because of its size, weighs heavily on the economic outlook of the whole euro area.

In the third quarter of 2002, household consumer expenditure, helped by the decline in inflation, recovered, rising by 0.5% (compared with a 0.3% increase in the second quarter and a 0.1% decline in the first quarter, relative – each time – to the immediately preceding quarter). Net exports also rose, while investment activity stabilised, after a continuous decline in the previous six quarters.

¹ References to economic prospects for 2003 are based on projections by Eurosystem staff and the latest European Commission *Autumn Forecasts*; more recent information has also been taken into account.

² According to provisional data, Germany's GDP grew by only 0.2% in 2002, Italy's by 0.4% and France's by 1.2%.

³ Therefore, the macroeconomic Eurosystem staff projections for a GDP growth between 1.1% and 2.1% are still valid. See ECB, *Monthly Bulletin*, December 2002.

For the fourth quarter of 2002, the European Commission estimates, according to a macroeconomic model based on short-term indicators, that the GDP growth rate ranged between 0.1% and 0.4% (compared with the immediately preceding quarter). According to the same model, the GDP growth rate is expected to range from -0.1% to +0.3% in the first quarter of 2003 (compared with the last quarter of 2002). The industrial confidence indicator, compiled by the European Commission, showed a small improvement in December 2002 and a slight deterioration in January and February 2003. Moreover, between September 2002 and January 2003 the Purchasing Managers' Index for manufacturing remained below the value of 50, i.e. the border between business expansion and contraction, rising to 50.1 in February. Consumer confidence, an important factor affecting GDP growth during most of 2002, declined significantly in the fourth quarter of 2002 and the first two months of 2003, reflecting increased uncertainty over economic growth and employment prospects.

Despite the low growth rate, new jobs will possibly be created this year as well, albeit at a slow pace. The 2003 unemployment rate forecast for the euro area (8.3%) is only marginally higher than that for 2002. In some euro area countries, such as the Netherlands and Portugal, a significant increase in the unemployment rate is forecast for 2003, although from a very low starting base.

The annual rate of HICP inflation accelerated to 2.3% in December 2002, from 2.2% in November. In January 2003, inflation was 2.2%, while in February, according to flash estimates by Eurostat, it was 2.3%. Core inflation started decelerating in October and fell to 2.3% in December 2002, while the annual growth rate of the producer price index continuously accelerated from October

through December. The appreciation of the euro exerted a downward pressure on prices. For 2002 as a whole, HICP inflation showed a modest deceleration to 2.2%, from 2.5% in 2001. The maintenance of inflation at these levels was mainly due to the persistently high core inflation, reflected especially in rising services prices, as well as to the increase in oil prices and unit labour costs. For 2003, HICP inflation is expected to slow down to between 1.3% and 2.3%, according to the macroeconomic Eurosystem staff projections published in December 2002.

The general government deficit in the euro area is estimated to have risen to 2.3% of GDP in 2002, from 1.5% in 2001, thus reaching a level more than double that forecast in the euro area countries' budgets. The primary surplus fell to 1.5% of GDP, from 2.5% in 2001, while interest payments (as a percentage of GDP) remained virtually unchanged. This development was mainly due to unfavourable cyclical factors, given that the euro area deficit, cyclically adjusted, is estimated to have marginally increased in 2002, to 2%, from 1.9% in 2001.

The process of fiscal consolidation came to a halt in 2002, since all euro area countries, with the exception of Finland and Spain, recorded deficits that significantly exceeded fiscal targets. Some of the bigger economies appeared to be lagging behind most of the smaller economies in their efforts towards fiscal adjustment. The largest deficits in the euro area for 2002, according to the latest provisional data announced by the countries themselves, were recorded by Germany (3.75% of GDP), Portugal (2.8%) and France (2.8%),⁴

4 In the Commission's *Autumn Forecasts* (November 2002) it was estimated that Germany's deficit would reach 3.8% of GDP, Portugal's 3.4% and France's 2.7%. On 25 February 2003, the French Prime Minister announced that the deficit likely exceeded 3% of GDP in 2002.

approaching or exceeding the 3% limit set by the Treaty. At the end of November 2002, the European Commission made proposals aimed at strengthening fiscal policy co-ordination in the EU (see Box 1). These proposals, if adopted, are expected to contribute to a more efficient application of the Stability and Growth Pact.⁵

The gross public debt of the euro area is esti-

mated to have risen slightly in 2002, to 69.6% of GDP, reversing the downward trend prevalent in recent years. Specifically, the ratio increased in

5 As stated in the Editorial of the ECB *Monthly Bulletin* (December 2002), "The recent European Commission communication is a good starting point for strengthening confidence in the budgetary framework. The Governing Council, ..., fully supports the Commission's main objective, namely to improve the implementation of the Pact within the existing framework of rules".

BOX 1

European Commission proposals to strengthen the co-ordination of budgetary policies in the European Union¹

Recent fiscal developments in the European Union

Fiscal developments in 2002 indicated that most euro area Member States missed the fiscal targets in their respective national budgets and stability programmes.

The most significant deviations from budget targets have been witnessed in large economies, such as Germany and France. As a result, the general government deficit deteriorated considerably in the euro area as a whole, to 2.3% of GDP (provisional estimate), compared with a targeted 1.1%.

Although these deviations reflect, to a large extent, the weak economic environment, they are also attributable to the considerable deterioration of the cyclically adjusted budget balances, mainly as a result of insufficient control of primary expenditure and unfunded tax cuts.

Against this background, the European Commission, within the framework of the Treaty establishing the European Community (the "Treaty") and of the Stability and Growth Pact ("SGP"), took a number of initiatives with a view to ensuring the adoption of measures to tackle fiscal problems in some Member States, as well as to enhancing fiscal stability and the credibility of SGP. In this context, and also in the light of experience gained from its four years of implementation, an overall evaluation of the SGP and the elaboration of

proposals for improving its implementation became possible.

Activation of the "excessive deficit procedure" and dispatch of an "early warning"²

During 2002, the European Commission activated the excessive deficit procedure in two instances, against Portugal and Germany for exceeding the reference value of 3% (for the general government deficit to GDP ratio) in 2001 and 2002, respectively. The Council, following a Commission recommendation, adopted, in accordance with Article 104 of the Treaty, a Decision on the existence of an excessive deficit position and recommended to these two Member States to take the necessary measures to eliminate it. Also, in November 2002, the Commission recommended to the Council to give France an early warning so as to prevent the occurrence of an excessive deficit, taking into account the large deviations from the general government deficit targets and the likelihood of an excessive deficit occurring in the course of 2003. The Council decided to give this warning to France in January 2003. →

1 The issues analysed here concern all EU Member States. However, the strengthening of budgetary policy co-ordination is particularly relevant for the euro area, as a necessary complement of the single monetary policy.

2 The excessive deficit procedure (EDP) and early warning (EW) are procedures established by (i) Article 104 of the Treaty and Council Regulation (EC) No. 1467/97, and (ii) Council Regulation (EC) No. 1466/97, respectively.

→ *Commission proposals to enhance the effectiveness of the Stability and Growth Pact*

In a Communication issued on 27 November 2002,³ the Commission presented proposals for the improvement of the implementation of the Stability and Growth Pact in a way that would take greater account of underlying economic conditions and strengthen the system's main features, in order to ensure its greater flexibility and effectiveness.

It is worth noting that these proposals can be achieved within the current legal framework and would not require a revision of Treaty provisions or SGP Regulations. Rather, they should be seen as an interpretation of the existing provisions of the SGP in order to ensure effective implementation.

The proposals of the Commission are summarised below:

- Greater importance must be attached to the underlying⁴ budgetary positions over the economic cycle. This approach allows account to be taken of the economic cycle in setting fiscal objectives at the euro area or EU level and in the surveillance of fiscal policies and developments across Member States.⁵ However, the Treaty's reference value of 3% for the general-government-deficit-to-GDP ratio remains valid. This was made clear when the Commission applied the excessive deficit procedure in the cases of Germany and Portugal and also when it recommended to the Council to give France an early warning in order to prevent the occurrence of an excessive deficit.
- Establishing transitional arrangements for countries with underlying deficits exceeding the "close to balance or in surplus" requirement. The Commission proposes that a general principle be established requiring countries with such underlying deficits to achieve an annual improvement in the underlying budget position of at least 0.5% of GDP each year until the "close to balance or in surplus" requirement has been reached. This rate of improvement should be higher in countries with high deficits or debt.
- Avoiding pro-cyclical budget policies in good times. To avoid a pro-cyclical loosening of fiscal policies in good times, the automatic stabilisers should operate symmetrically over the cycle. As a general rule, expansionary fiscal policy for stabilisation purposes should be confined to Member States that have already created enough budgetary room to do so. In the recent past, expansive fiscal policies during economic upturns have been responsible for the slow reductions in fiscal deficits in certain Member States.
- Temporary deviations from the "close to balance or in surplus" rule could be envisaged only if the Member State concerned has already made substantial progress towards this basic goal of the SGP and if general government debt is below the 60% of GDP reference value. Such temporary –and limited– deviations may be acceptable when associated with large structural reforms (such as productive investment or tax reforms) that raise potential growth or employment in line with the Lisbon strategy on growth and employment.
- In pursuing the sustainability of public finances, greater weight should be attached to general government debt (also taking into account the need to meet the challenge posed by ageing populations). Countries with debt levels above 60% of GDP should outline a detailed strategy to reduce their debt level to below the reference value in their stability or, in the case of non-euro area countries, their convergence programmes. Individual strategies should involve a satisfactory pace of annual debt reduction as a percentage of GDP. On the basis of a defined 'satisfactory pace' and in accordance with the Treaty, the failure to achieve the established pace of debt →

³ Communication from the Commission to the Council and the European Parliament "Strengthening the co-ordination of budgetary policies", COM (2002) 668 final, 27 November 2002.

⁴ In other words, the SGP requirement for a budget position "close to balance or in surplus" should be defined in terms of the underlying balance –as opposed to the nominal budgetary balance– net of the effects of cyclical fluctuations and other transitory effects on budget.

⁵ Following a Commission proposal endorsed by the Council, a common methodology for measuring the cyclically adjusted budget balances has been adopted, which facilitates data comparability.

→ reduction should lead the Commission to activate the excessive deficit procedure.

A four-point programme to improve the implementation of the Stability and Growth Pact

To ensure effective implementation of the above proposals and better co-ordination of budgetary policies, the Commission proposes the following:

- Member States should reaffirm their firm commitment to the goals of the SGP in a "Resolution to reinforce the co-ordination of budgetary policies".
- Upgrading the analysis of economic and budgetary policies. This will involve improvements in the quality and timeliness of government finance through the endorsement of a "Code of best practices on the reporting of budgetary data", with more emphasis on the analysis of the quality of public finances, focusing on countries which experience difficulties in meeting the requirements of the SGP.
- A more effective monitoring of the compliance with the Pact. This will involve defining specific criteria both for activating the "early warning" mechanism in order to prevent the occurrence of an excessive deficit and for activating the Treaty mechanisms designed to avoid an expansionary fiscal policy in good times, as well as clarifying the interpretation of the debt criterion of the excessive deficit procedure. Regarding general government debt, important elements are the definition of a "satisfactory pace" of debt reduction towards the 60% of GDP reference value, as well as the analysis of the driving factors behind debt changes.
- Better communication and greater transparency regarding the timely and reliable provision of information on the budgetary commitments of Member States and on how the SGP is being implemented. In this respect, the Commission already publishes an annual report on "Public finances in EMU" and also provides in press releases some details of its assessment of stability and convergence programmes. However, the Commission intends to make public its detailed assessment. This will be a subject for further discussion with the Member States.

Improving budgetary statistics

At a time when efforts towards a better co-ordination of budgetary policies have intensified, there is also need to improve the quality of budgetary statistics. Considerable progress has been achieved by Member States in the compilation and reporting of budgetary data, and by the Commission itself in harmonising and clarifying statistical standards. In spite of such progress, the system can be improved, as experience has revealed some major weaknesses in terms of reliability, transparency and timeliness of budgetary statistics.

In a Communication⁶ also issued on 27 November 2002, the Commission proposed procedures and methods for improving budgetary statistics in the context of the strengthening of budgetary surveillance and of the excessive deficit procedure. Specifically, the Commission proposed a "code of best practice" aimed at increasing the reliability of budgetary statistics and containing clarifications and improvements on the procedures followed both by the Member States and by the Commission.

Prospects

The above proposals of the Commission set a framework and general principles on the strengthening of budgetary policy co-ordination. To promote their application, the Commission proposed the following actions: (a) endorsement by the Spring 2003 European Council of a Resolution expressing Member States' commitment to the Stability and Growth Pact and the solemn political commitment of the Commission, Member States and the Council to implement it in accordance to the proposals laid down in this Communication; (b) revision of the "Code of conduct on the content and presentation of stability and convergence programmes" in force from July 2001, in order to incorporate the above-mentioned proposals, as amended following a debate in the Council. Concerning budgetary statistics, the Commission called on the Council →

⁶ Communication from the Commission to the European Parliament and the Council on: "The need and the means to upgrade the quality of budgetary statistics", COM (2002) 670 final, 27 November 2002.

→ to endorse the Code of best practices on the compilation and reporting of budgetary data (annexed to the Communication) ahead of the next reporting of budgetary data to the Commission on 1 March 2003.

On 18 February 2003, the (ECOFIN) Council reconfirmed the terms of the Pact and decided that any technical modification to the way the Pact is implemented could, if necessary, be put into action later in the year through revisions to the "Code of conduct on the content and presentation of stability and convergence pro-

grammes". The Council welcomed the Commission proposals as a valuable contribution to the strengthening of budgetary policy co-ordination. However, Member States expressed different views on the Commission proposal regarding the possibility of small deviations, in certain cases, from the "close to balance or in surplus" rule. Following a debate, the Council decided to present its conclusions on the issue at its meeting of 7 March. These conclusions would then be forwarded to the European Council to be held in Brussels on 21 March.

some Member States, e.g. in Germany, where it reached a level marginally higher than the reference ratio (60%), in France and in Italy. Moreover, in Italy, Greece and Belgium public debt continues to be in excess of 105% of GDP. Among the other euro area countries, the highest public debt/GDP ratio is observed in Austria (63.2%). According to the European Commission's *Autumn Forecasts* (November 2002), the average debt/GDP ratio for the euro area is expected to drop to 69.1% in 2003.

2. Monetary developments

2.1 *The monetary policy decisions of the Eurosystem*

The European Central Bank (ECB) key interest rates remained unchanged for over one year, from 8 November 2001 to 5 December 2002, as the Governing Council of the ECB considered that their level was compatible with ensuring medium-term price stability in the euro area, that is, with the Eurosystem's primary goal. At the meetings of the ECB Governing Council during the first months of 2002, the high growth rate of M3⁶ was attributed to extraordinary factors and was not considered to signal risks to price stability, given the deceleration of credit expansion to the private

sector. From May 2002 onwards, despite the decline in inflation, the outlook was deemed less favourable. It was estimated that there was significantly more liquidity than would be needed to finance non-inflationary economic growth. However, from August onwards, risks to price stability owing to excess liquidity were considered to have been balanced out by the fact that credit expansion to the private sector had stabilised around 5% and economic growth remained subdued.

At the Governing Council's 5 December 2002 meeting, it was decided to reduce the ECB key interest rates by 50 basis points. Specifically, the minimum bid rate on main refinancing operations was reduced to 2.75% (see Chart 4 and Table I), the marginal lending facility rate to 3.75% and the deposit facility rate to 1.75%. The Governing Council judged that inflationary pressures had eased, especially because of the low economic growth rate and the possibility of its further weakening. Moreover, it was estimated that prospects for inflation to fall below 2% in 2003 and for the maintenance of price stability in the medium term were enhanced. It was deemed that the decision to reduce ECB key rates should contribute to improving economic prospects and strengthening

⁶ Definitions of monetary aggregates are provided in the Glossary.

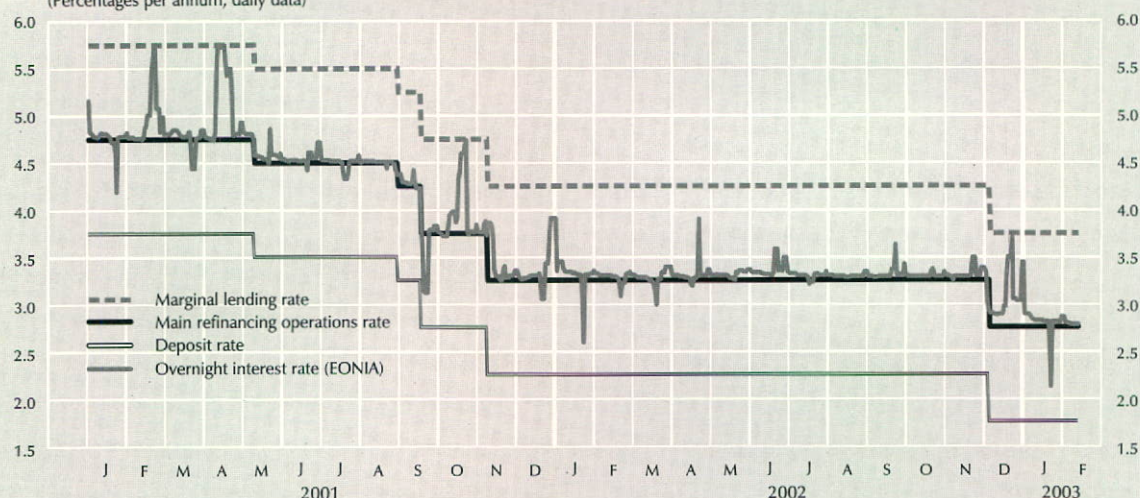
Table 1
Adjustment of key ECB interest rates
(Percentages per annum)

With effect from ¹	Deposit facility	Main refinancing operations	Marginal lending facility
11 May 2001	3.50	4.50	5.50
31 August 2001	3.25	4.25	5.25
18 September 2001	2.75	3.75	4.75
9 November 2001	2.25	3.25	4.25
6 December 2002	1.75	2.75	3.75

¹ The date refers to the deposit and marginal lending facilities. For main refinancing operations, changes in the rate are effective from the first operation following the date indicated. The change on 18 September 2001 was effective on that same day.

Source: ECB.

Chart 4
ECB interest rates and money market overnight rate (EONIA)
(1 January 2001 - 13 February 2003)
(Percentages per annum, daily data)



Source: ECB.

confidence in the euro area. Finally, the Governing Council reviewed the reference value for the annual growth rate of M3 and decided to leave it unchanged at 4.5% for 2003.

As regards monetary developments, it was confirmed that the high annual growth rate of M3⁷ was due to the investors' shift to more liquid assets, owing to the uncertainty prevailing in financial markets and the economy in general, but also to the very low opportunity costs of money

holding. Although it was judged that there was still excess liquidity in the euro area, it was considered unlikely that this would translate into inflationary pressures, given the weak economic activity and the deceleration of credit expansion to the private sector.

⁷ The annual rate of change in a monetary aggregate is defined as the percentage change in the balance of this aggregate during the twelve-month period up to a specific month. The ECB monitors the average annual rate of change for three consecutive months.

At its meeting of 5 December 2002, the Governing Council of the ECB, analysing the main economic indicators under the second pillar⁸ of the Eurosystem's strategy, pointed out that quarter-on-quarter GDP growth in the euro area had retreated slightly to 0.3% in the third quarter (compared with 0.4% in both the first and the second quarter). According to the latest available data, a small improvement in business confidence was ascertained, but consumer confidence declined further. The Governing Council estimated that GDP growth would remain subdued in the last months of 2002; it also considered that the medium-term outlook for the GDP growth rate might be adversely affected by uncertainty in financial markets, the consequences of geopolitical tensions for oil prices, the sluggish growth rate of world GDP and the persistence of global imbalances (out of the euro area).

At its above meeting, the ECB Governing Council also took into consideration the fact that inflation remained over 2% during most months of 2002 (2.3% in October), reflecting the effect of previous rises in oil and food prices, a rather limited impact from the euro cash changeover, services price increases, as well as wage rises which, despite sluggish economic activity, remained high owing to structural rigidities. Moreover, because of the rise in some indirect taxes and administered prices, it was estimated that inflation would remain over 2% at the beginning of 2003. Nonetheless, it was considered that weak economic activity and the appreciation of the euro compared with the beginning of 2002 would ease inflationary pressures, as the effect of the above-mentioned temporary factors further unwinds. It was estimated that economic growth would gradually recover during 2003 towards rates more in line with the potential GDP growth rate, as the rise in real disposable income, due to the fall in inflation, and the reduction in the current gap between per-

ceived and actual inflation should underpin consumption. It was also considered that the strengthening of foreign demand and euro area exports, together with the low level of interest rates, should benefit investment.

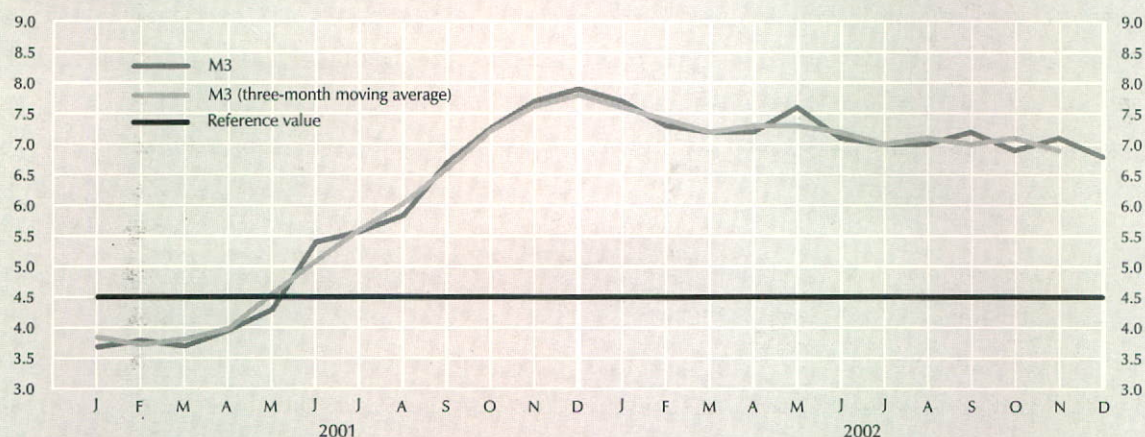
At the ECB Governing Council meetings of 9 January and 6 February 2003, it was judged that the prevailing monetary policy stance remained appropriate to preserve price stability in the medium term and that therefore ECB key rates ought to remain unchanged. It was pointed out that the M3 growth rate continues to be high, without, however, threatening price stability. This strong rise is due to a temporary increase in preference for liquidity, which is related to uncertainty in financial markets and to geopolitical tensions and fed by the low level of interest rates. GDP growth is expected to accelerate in 2003, provided uncertainty gradually diminishes and stability once again prevails in financial markets, as during the period between mid-October and early December 2002. Moreover, the low level of interest rates can help limit risks to economic growth, while the anticipated global economic recovery is expected to offset the impact of the appreciation of the euro on export growth. Also, the medium-term price competitiveness of companies active in the euro area remains favourable. According to the Governing Council's estimates, the base effects related to increases in unprocessed food and services prices in early 2002, along with the appreciation of the euro and slow economic growth, will contribute to a fall in inflation and its stabilisation below 2% during 2003, provided that moderate wage developments prevail.

⁸ The Eurosystem's assessment of the risks of deviation from the price stability objective rests on two pillars. The first pillar concerns the analysis of monetary and credit developments, in particular money stock (M3). Under the second pillar, the inflation outlook is assessed on the basis of a wide range of economic indicators, such as economic activity, wages, the bond yield curve, the exchange rate etc.

Chart 5

M3 in the euro area

(January 2001 - December 2002)

(Percentage change¹ over same period of previous year)

1 Derived from seasonally adjusted data.

Source: ECB.

Table II

Main components of M3 in the euro area

(Annual percentage changes,¹ seasonally adjusted data, unless otherwise indicated; quarterly averages²)

	2001	2002				
	Q4	Q1	Q2	Q3	Q4	December
M1	5.5	6.2	6.6	7.6	8.8	9.8
Currency in circulation, M0	-18.6	-28.0	-19.9	-7.7	12.9	42.7
Overnight deposits	10.4	13.0	11.7	10.3	8.2	5.8
Other short-term deposits (= M2-M1)	5.9	6.7	6.4	5.5	4.9	3.5
Deposits with an agreed maturity of up to two years ³	7.3	3.6	2.9	1.4	1.4	-0.3
Deposits redeemable at notice of up to three months ³	5.0	9.1	9.4	8.9	7.7	6.6
M2	5.7	6.5	6.5	6.5	6.7	6.5
Marketable instruments (= M3-M2)	18.5	14.1	12.5	10.4	8.5	8.5
Repurchase agreements ³	19.5	4.6	2.3	2.9	2.3	4.2
Money market fund shares/units ³	25.6	29.6	25.2	22.4	18.6	17.5
Money market paper and debt securities issued with a maturity of up to two years ³	1.5	-6.2	-3.0	-9.3	-8.5	-9.6
M3	7.4	7.5	7.3	7.0	7.0	6.8

1 Annual rates of change in the corresponding index, which is compiled on the basis of the balance of the corresponding monetary aggregate in December 1998 and the accumulated monthly flows, adjusted for exchange rate variations, reclassifications etc.

2 The quarterly average is derived from the arithmetic annual averages for each month (calculated as the average of the rates at the end of the reference month and the end of the previous month) and is not the average of the rates at the end of each of the quarter's months (see the "Technical Notes" in the ECB Monthly Bulletin).

3 Not seasonally adjusted.

Source: ECB.

2.2 Recent developments

The evolution of M3 and its components

The growth rate of M3 fluctuated slightly during 2002 and finally decelerated to 7% in the fourth

quarter of the year, from 7.4% in the last quarter of 2001 (see Chart 5 and Table II), remaining, however, much higher than the reference value (4.5%). The high growth rate of M3 cannot be attributed to increased demand for money for transaction purposes, since the growth rate of real

M3 is higher than that of real GDP. It can be partly accounted for by the low opportunity costs of holding money (as measured by the difference between the three-month EURIBOR rate and the own rate of return on M3), though it is largely due to the investors' shift to more liquid assets, owing to the decline in equity prices and increased volatility in stock markets.

The annual growth rate of M1 accelerated significantly to 8.8% in the fourth quarter of 2002, from 5.5% in the last quarter of 2001 (see Table II). This development reflects the low opportunity costs of money holding and the prevailing uncertainty in financial markets, but also the fact that both euro area and non-euro-area residents rebuilt their currency holdings after the cash changeover was completed. More specifically, the negative rate of change in currency in circulation, first observed in December 2000, was significantly reduced in the period from January to September 2002 and a positive growth rate was recorded for the first time in October 2002. By contrast, the annual growth rate of overnight deposits (in the retail bank market), which had accelerated in line with the reduction in national currency holdings before the introduction of euro banknotes and coins, gradually declined throughout last year. The annual rate of increase in the other short-term deposits (i.e. the difference between M2 and M1), which make up the bulk of M3, decelerated in 2002 (from 5.9% in the fourth quarter of 2001 to 4.9% in the same quarter of 2002).

The annual growth rate of marketable instruments⁹ decelerated to 8.5% in the fourth quarter of 2002 from 18.5% a year earlier, owing to a base effect from 2001. However, it remained high, especially because of the attractiveness of money market fund units to investors in periods of financial market uncertainty.

Counterparts of M3

Regarding the counterparts of M3, credit expansion to the private sector continued to decelerate almost throughout 2002, so that its annual rate in the fourth quarter of 2002 reached 4.8%, compared with 6.9% in the fourth quarter of 2001 (see Table III). In greater detail, the annual growth rate of loans to non-financial corporations fell to 3.5% in the fourth quarter of 2002, compared with 6.2% a year earlier. This deceleration reflects (i) the low rate of investment in the euro area due to weak economic activity, (ii) enterprises' efforts to improve their financial position, and (iii) a more cautious lending attitude of banks, given the reduction in corporate profits and the market value of shares held by enterprises. By contrast, the annual growth rate of loans to households accelerated to 5.8% in the fourth quarter of 2002, compared with 5.2% in the fourth quarter of 2001, reflecting mainly the fast increase in housing loans, due to the especially low interest rates and the significant increase of dwelling prices in some euro area countries.

Annual credit expansion to general government in the euro area accelerated to 1.9% in the fourth quarter of 2002, compared with -0.7% in the fourth quarter of 2001, due to the increased borrowing requirements of general government, which are met through higher government paper holdings by Monetary Financial Institutions (MFIs).

The annual growth rate of longer-term MFI liabilities¹⁰ in the euro area accelerated to 4.9% in the third quarter of 2002 (compared with 3.2% in the

⁹ This category comprises repurchase agreements, money market fund shares/units, money market paper and debt securities with a maturity of up to two years.

¹⁰ These liabilities include deposits with an agreed maturity of over two years, deposits redeemable at notice of over three months, debt securities with a maturity of over two years, as well as the MFIs' capital and reserves.

Table III

Main counterparts of M3 in the euro area

(Annual percentage changes,¹ not seasonally adjusted, quarterly averages²)

	2001	2002				
	Q4	Q1	Q2	Q3	Q4	December
Longer-term financial liabilities	3.2	4.7	4.7	4.9	4.8	4.3
Deposits with an agreed maturity of over two years	-0.2	0.2	0.9	1.9	2.6	3.3
Deposits redeemable at notice of over three months	-5.7	-11.5	-13.2	-11.1	-9.0	-8.7
Debt securities issued with a maturity of over two years	5.9	6.5	7.7	8.5	7.7	7.0
Capital and reserves	4.3	9.8	7.0	4.8	4.3	2.5
Credit to euro area residents	5.2	5.1	4.5	4.2	4.1	4.0
Credit to general government	-0.7	1.7	1.8	1.1	1.9	1.7
Debt securities other than shares	-0.7	3.5	3.8	2.5	4.0	3.8
Loans	-0.8	-0.8	-0.9	-0.9	-1.2	-1.2
Credit to other euro area residents	6.9	6.1	5.2	5.0	4.8	4.7
Debt securities other than shares	23.8	22.3	14.8	7.5	6.9	9.2
Shares and other equity	3.2	2.1	-3.5	1.0	3.4	2.1
Loans	6.5	5.7	5.6	5.3	4.8	4.7

1 Annual rates of change in the corresponding index, which is compiled on the basis of the balance of the corresponding monetary aggregate in December 1998 and the accumulated monthly flows, adjusted for exchange rate variations, reclassifications etc.

2 The quarterly average is derived from the arithmetic annual averages for each month (calculated as the average of the rates at the end of the reference month and the end of the previous month) and is not the average of the rates at the end of each of the quarter's months (see the "Technical Notes" in the ECB *Monthly Bulletin*).

Source: ECB.

fourth quarter of 2001). This outcome reflects mainly the investors' shift to long-term securities, due to the rise in long-term interest rates from the end of 2001 to May 2002 and the uncertainty prevailing in financial markets. However, during the fourth quarter of 2002, the growth rate of the above liabilities fell to 4.8%, because the decline in long-term interest rates limited the effects of uncertainty in financial markets.

Finally, the MFIs' net external asset position, following a continuous decrease in the first five months of 2002, increased from May to December, except for July. This development reflects a growth of capital inflows for direct and portfolio investment in the euro area by non-residents and a decline in capital outflows for investment in non-euro-area equities by euro area residents.

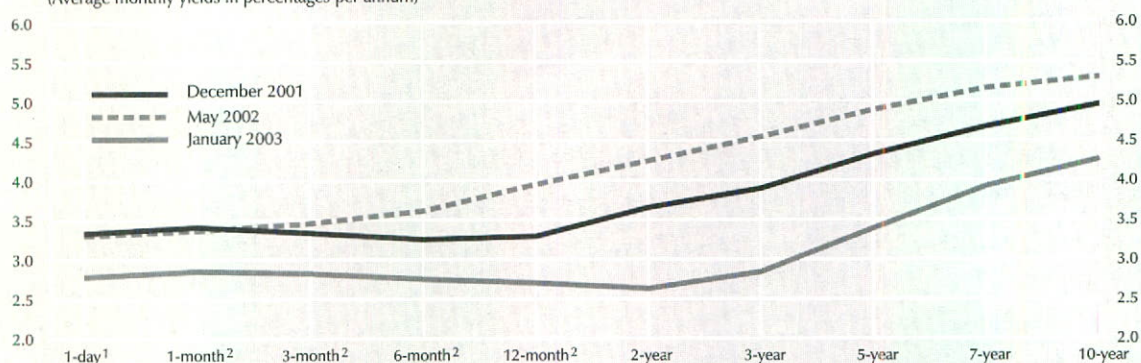
Money market rates, bank rates and yields on long-term securities

Short-term interest rates¹¹ (up to one month) in the single money market of the euro area remained relatively stable during 2002, showing a steeper decline towards the end of the year. In December, this fall reflected the cut in the minimum bid rate on the main refinancing operations of the Eurosystem. The longer-term (3-, 6- and 12-month) money market rates generally increased up to mid-May 2002; subsequently, however, this course was reversed, mainly as a result of the downward revision of expectations about the rate of economic growth. Hence, the slope of the money market yield curve, as measured by the difference between the 12-month and the one-month EURIBOR, became less steep after May, turning

¹¹ Data on interest rates are monthly averages.

Chart 6

Money- and bond-market yield curves in the euro area (Average monthly yields in percentages per annum)



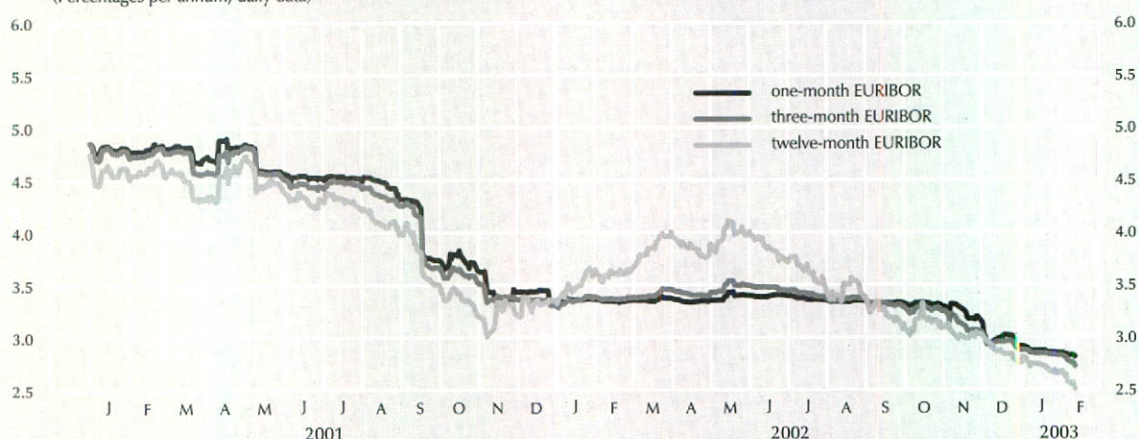
1 Euro area overnight deposit rate (EONIA).

2 One-, three-, six- and twelve-month rates are interbank offered rates (EURIBOR).

Source: ECB.

Chart 7

Short-term interest rates in the euro area (1 January 2001 - 13 February 2003) (Percentages per annum, daily data)



Source: ECB.

negative in early September due to expectations of a decrease in short-term interest rates.

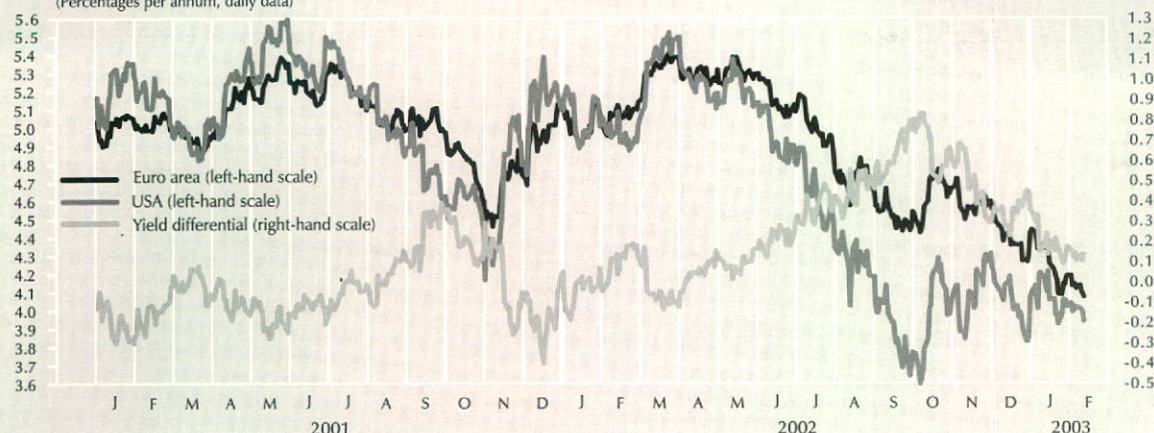
The interbank overnight rate, as measured by the EONIA (see the Glossary), remained throughout the period under review slightly above the minimum bid rate on the Eurosystem's main refinancing operations, as set by the ECB (see Chart 4). In early January 2003, the EONIA moved at relatively high levels; but later and until mid-February it stabilised at a level slightly above the new minimum bid rate for the main refinancing operations (2.75%).

After rising through the first four months of 2002, the 3-, 6-, and 12-month EURIBOR rates declined significantly from mid-May onwards, especially at the longer maturities. More specifically, the 3-month EURIBOR (see Chart 7), considered representative of short-term money market rates, fell by 52 basis points to 2.94% between May and December 2002, while the 12-month EURIBOR decreased during the same period by 108 basis points to 2.87%. During the first two months of 2003, all EURIBOR rates declined further.

Chart 8

Ten-year bond yields in the euro area and the United States (1 January 2001 - 13 February 2003)

(Percentages per annum, daily data)



While in the first five months of 2002 forward rates in the euro area money market implied expectations of a gradual increase in interest rates, they subsequently declined, reflecting a downward revision of these expectations, which was linked to the less favourable outlook for economic recovery. Forward rate volatility, having returned at the beginning of the year to the rather lower level prevailing before the events of 11 September 2001, remained broadly unchanged during the first half of 2002. However, in the second half of the year, with the exception of October and November, and up to January 2003 volatility increased significantly, owing to greater uncertainty in financial markets, which was fuelled by geopolitical tensions and expectations of slower economic recovery.

Short-term retail bank rates decreased marginally since the beginning of 2002. Both the overnight deposit rate (in the retail bank market) and the rate on deposits redeemable at notice of up to three months remained almost unchanged throughout the year, although they decreased more steeply in December, to 0.68% and 2.06% respectively. The rate on short-term loans to enterprises showed a rather larger decline in 2002, falling by 29 basis

points to 5.97% in December. However, this decline is small, compared with the 40-basis-point decrease of the 3-month EURIBOR during the same period. Throughout the year, the spread between the short-term interest rate on loans to enterprises in the retail bank market and the 3-month EURIBOR was subject to fluctuations, but in December 2002 it was slightly higher than at the beginning of the year.

The decline of long-term retail bank rates, after a rise during the first five months of 2002, was more pronounced. Between May and December, the rate on housing loans to households fell over 70 basis points, while the interest rate on loans to enterprises with a maturity of over one year declined by 64 basis points. Nevertheless, the rather limited decline of long-term retail bank rates, compared with the decrease in the yield on medium-term government bonds (especially on five-year bonds) most likely reflects the usual time lag with which money market rates affect retail bank rates, but also negative developments in the credit rating of some enterprises.

During the first five months of 2002, government bond yields in the euro area (see Chart 8)

increased, reflecting expectations of economic recovery in the euro area and of a rise in short-term interest rates. After May, however, this course was reversed because of stock market developments and geopolitical tensions, which induced investors to shift towards safer assets, thus increasing demand for government securities. Bond yields were also affected by the downward revision of expectations about economic growth in the euro area. In October 2002, longer-term government bond yields in the euro area increased temporarily because of the recovery in stock markets, which led to a restructuring of investors' portfolios in favour of equities. In November and especially in December, however, long-term yields resumed their downward course. The decline continued in January 2003, owing to concerns over a likelihood of a war in Iraq, but also because of the appreciation of the euro. The slope of the yield curve, measured as the yield differential between the 10-year bond and the 3-month EURIBOR, fluctuated during 2002 (see Chart 6), reflecting mainly the course of government bond yields.

Issuance of bonds and other debt securities

The annual growth rate of euro-denominated debt securities issued by banks and other MFIs in the euro area subsided to 5.1% in the fourth quarter of 2002, from 6% in the corresponding quarter of 2001, reflecting the adequacy of their financing resources because of the high growth rate of short-term deposits and the containment in the demand for loans. Besides, the annual rate of increase in debt securities issued by private non-financial corporations slowed down considerably, to 4% in the fourth quarter of 2002, from 20% in the fourth quarter of 2001. This development was due to the reduction in corporations' financing needs as a result of weakened economic activity and of uncertainty, both factors limiting invest-

ment, as well as to the drop in the credit rating of some corporations.

On the other hand, the annual growth rate of debt securities issued by general government in the euro area subsided to 4.8% in the first quarter of 2002, from 6.1% in the fourth quarter of 2001, but accelerated from the following quarter, reaching 5.6% in the fourth quarter of 2002, owing to the deterioration in the fiscal position in some countries.

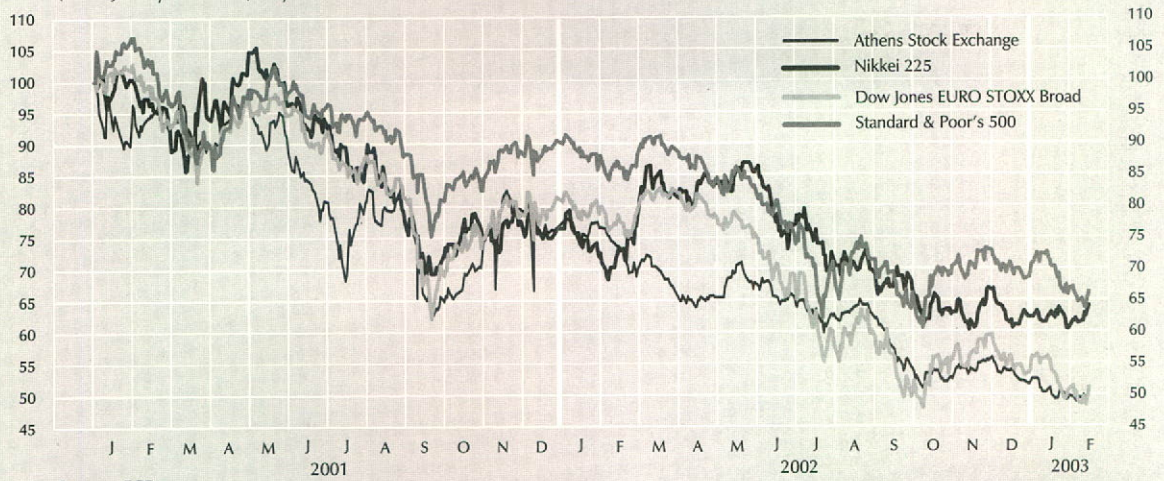
Stock market developments

The broad Dow Jones EURO STOXX index, compiled on the basis of a large number of stock prices from euro area countries, showed a continuous decline throughout 2002, which became more pronounced after April (see Chart 9). On 9 October 2002, the broad Dow Jones EURO STOXX reached its lowest level since April 1997. From 9 October until early December 2002 the declining trend was reversed, but from then on stock prices declined again and on 13 February 2003 they were almost at 9 October 2002 levels. At the end of December 2002, the Dow Jones EURO STOXX index was 34.5% lower than at end-December 2001, while between 30 December 2002 and 14 February 2003 it fell further by 7.1%. Stock market volatility was low in the first half of 2002; from June onwards, however, it was higher than average volatility in 2000 and 2001. The decline and the higher volatility of euro area stock prices are due to the downward revision of expectations about the rate of economic recovery in the euro area and about corporations' financial results, as well as to geopolitical tensions. They are also related to the decline in stock prices in the US, where, in addition, the reliability of corporate earnings figures and corporate accounting practices was questioned and there were some instances of corporate mismanagement. The great-

Chart 9

Stock market indices (1 January 2001 - 14 February 2003)

(Index: January 2001=100, daily data)



est decline was recorded in the technology sector, with stock prices falling by 51.8% between Decem-

ber 2001 and December 2002 and also showing the greatest volatility during the year.

IV. Inflation in Greece – developments and prospects

1. Price developments in 2002

The average annual rate of CPI inflation in 2002 finally came to 3.6%, registering a slight increase compared with 2001 (3.4%) – see Chart 10. Furthermore, on the basis of the Harmonised Index of Consumer Prices (HICP), the average annual rate of inflation in Greece rose to 3.9% in 2002 (from 3.7% in 2001). Thus, its differential over the average annual inflation in the euro area (which was 2.2% in 2002 compared with 2.5% in 2001) widened to 1.7 percentage points (from 1.2 percentage points in 2001 – see Chart 11). However, the differential of the annual rate of inflation on the basis of the HICP narrowed to 1.2 percentage points in December 2002 and to 1.1 percentage points in January 2003.

Core inflation remained practically unchanged in 2002.¹ Nevertheless, it is noted that the differential of core inflation over the corresponding figure in the euro area fell to 1.4 percentage points in 2002, from 1.8 percentage points in 2001 (see Chart 12).²

The annual rate of inflation (on the basis of the CPI) decelerated slightly in the last two months of 2002 (to 3.4% in December from 3.7% in October). This was largely due to the favourable evolution of the annual rate of change in the prices of fresh fruit and vegetables during that period (from

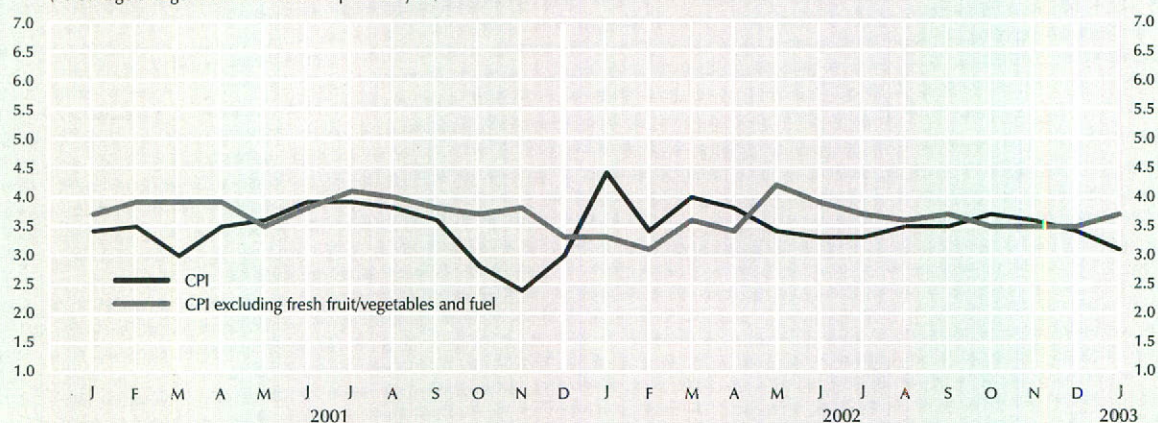
¹ If core inflation is measured by the annual rate of change in the CPI excluding fuel and fresh fruit and vegetables, then its average annual level declined slightly, to 3.6% in 2002 from 3.8% in 2001. But if – to facilitate comparison with the euro area – core inflation is measured by the annual rate of change in the Harmonised Index of Consumer Prices (HICP) excluding energy and unprocessed food, then its average annual level increased slightly to 3.9% in 2002, from 3.8% in 2001. These dissimilar developments reflect differences in coverage and weights between the two indices.

² Core inflation, on the basis of the HICP excluding energy and unprocessed food, was 2.5% in the euro area in 2002, compared with 2.0% in 2001.

Chart 10

Consumer Price Index and core inflation in Greece (January 2001 - January 2003)

(Percentage change over same month of previous year)

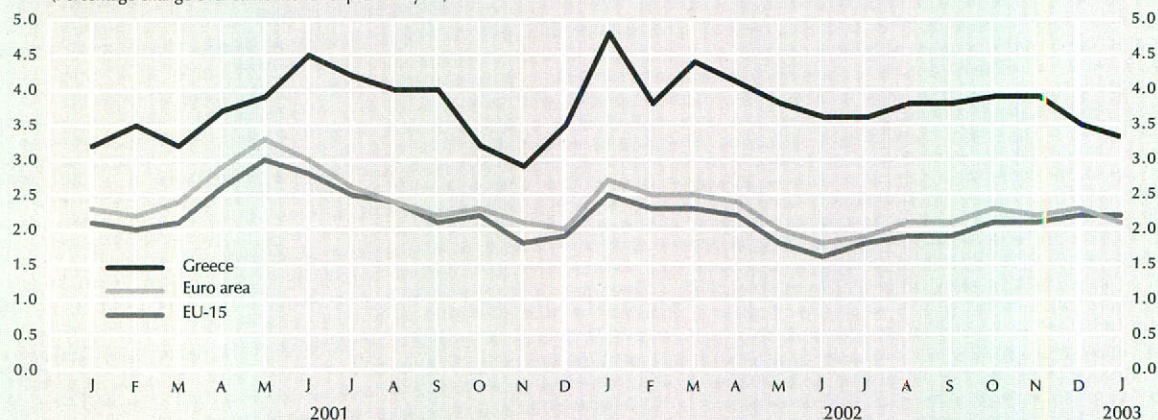


Source: Calculations based on National Statistical Service of Greece (NSSG) data.

Chart 11

Harmonised index of consumer prices in Greece, the euro area and the European Union (January 2001 - January 2003)

(Percentage change over same month of previous year)



Sources: NSSG and Eurostat.

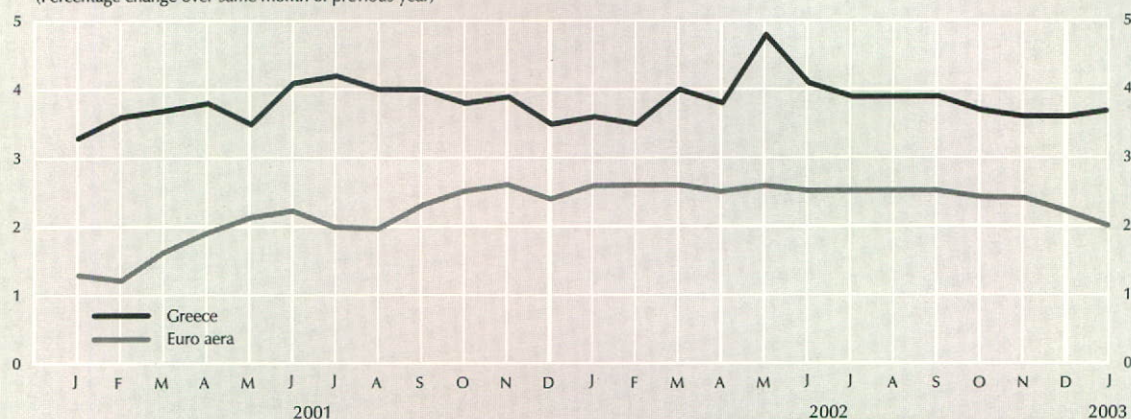
+8.1% in October to -9.1% in December³), which more than offset the acceleration observed in the annual rate of increase in fuel prices (from 4.3% in October to 12.1% in December). Core inflation (measured by the CPI excluding fuel and fresh fruit and vegetables) remained unchanged at 3.5% during the last three months of 2002 (see Chart 10). Among the items included in core inflation, in December 2002 the highest annual rate of increase was observed in the prices of services (4.3%), par-

ticularly of insurance fees (6.8%), hotels-café-restaurants (6.4%), medical services other than those provided in hospitals (6.3%), rents (5.4%), transport services (5.1%) and hospital care (4.9%). Among goods other than fuel and fresh fruit and vegetables, a relatively high annual rate of increase (3.8%) was recorded in December in the prices of

³ The levels of fruit and vegetable prices had been exceptionally high in December 2001.

Chart 12

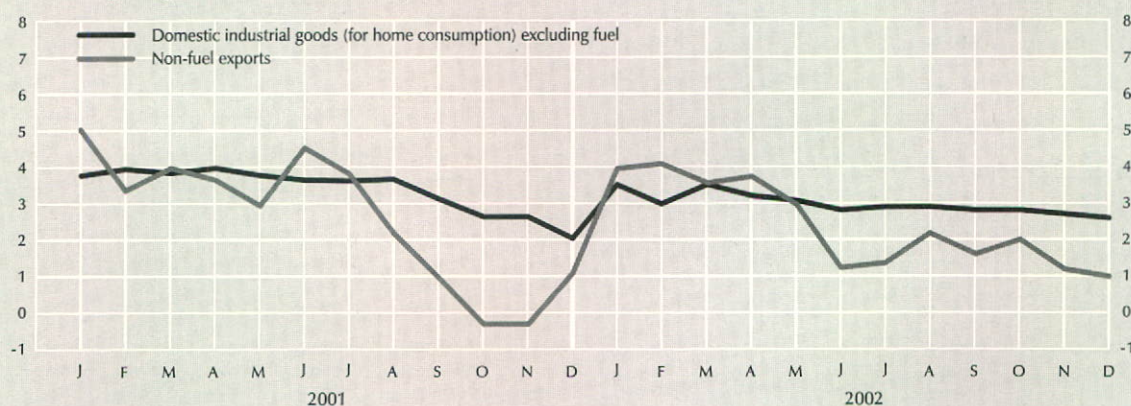
Core inflation in Greece and the euro area on the basis of the HICP excluding energy and unprocessed food
(January 2001 - January 2003)
(Percentage change over same month of previous year)



Sources: NSSG and Eurostat.

Chart 13

Wholesale price index in Greece (January 2001 - December 2002)
(Percentage change over same month of previous year)



Source: Calculations based on NSSG data.

processed food, which includes non-alcoholic beverages. (This rate was even higher during most of the year, at 4.3% on average).

Finally, at the wholesale price level, in 2002 the average annual rate of increase in prices of "domestic industrial goods for home consumption and imported goods (excluding fuel)" was markedly lower than in 2001 (1.8% against 2.8% – see Charts 13 and 14). Moreover, by December 2002, the annual rate of increase in this

index had declined to 1.6%. As a rule, current developments in wholesale prices provide useful indications about future developments in consumer prices.

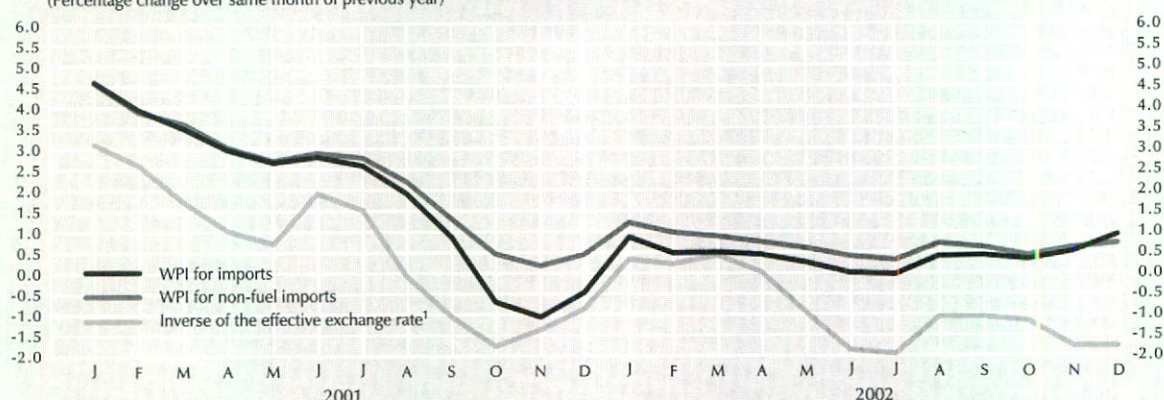
2. Determinants of inflation in 2002

The slight acceleration of the average annual inflation in 2002 is attributable, *inter alia*, to some extraordinary or exogenous factors. Specifically,

Chart 14

Import price index and the inverse of the effective exchange rate of the euro, weighted on the basis of Greece's external trade (January 2001 - December 2002)

(Percentage change over same month of previous year)



1 See note in Chart 17.

Sources: NSSG and Bank of Greece.

owing to the rise in world oil prices during 2002,⁴ the average annual level of oil prices in the domestic retail market showed only a small decrease in 2002 (-1.7% against -4.8% in 2001), while their annual rate of change stood at 12.1% in December 2002 (compared with -18.3% in December 2001 – see Charts 15 and 16). In addition, as a result of the exceptionally high prices of fresh fruit and vegetables in December 2001 and January 2002, because of bad weather conditions, their average annual rate of increase rose to 13.8% in 2002 (from 9.2% in 2001). Furthermore, the upward rounding or the raising of prices effected on account, or under the pretext, of the euro cash changeover, particularly in the first few months of 2002, are estimated to have added another half percentage point to the annual rate of increase in the CPI.⁵

An upward pressure on inflation was also exerted by the widening of profit margins in some branches of economic activity that particularly affect consumer prices.⁶ Additionally, increases in consumer prices have been stronger than the corresponding wholesale prices for (broadly) the same groups of goods,⁷ which may imply insufficient competitive conditions in the retail trade sector. Finally, the rel-

atively high rates of increase in the prices of services provided by the private sector also suggest insufficient competitive conditions in the respective markets⁸ and, possibly, excess demand.

4 Between December 2001 and December 2002, Brent blend (for one-month forward delivery) rose by 43.9% in US dollars, but only by 26.0% in euro, while in 2002 the average annual level of the forward price increased by 0.6% in US dollars, but decreased by 4.7% in euro. See ECB, *Monthly Bulletin*, February 2003, Tables 4.2 and 10, pp. 51* and 76*.

5 According to the initial estimates of Eurostat, the corresponding effect on the euro area inflation was only 0.2%. However, according to more recent estimates, this effect is not much smaller than that calculated for Greece.

6 This refers mostly to the branches of food, tobacco, oil products, chemicals and pharmaceuticals, but also minerals and ores and construction materials, as suggested by the annual financial results of companies listed on the ASE for 2002. For the total of listed companies, pre-tax profits declined by about 17%. Excluding banks, insurance and leasing companies, pre-tax profits of listed companies grew slightly, whereas turnover increased considerably, thus resulting in a narrowing of profit margins. No firm conclusion can be reached on the basis of these data as regards the profit margins for the total of enterprises operating in Greece (irrespective of legal form).

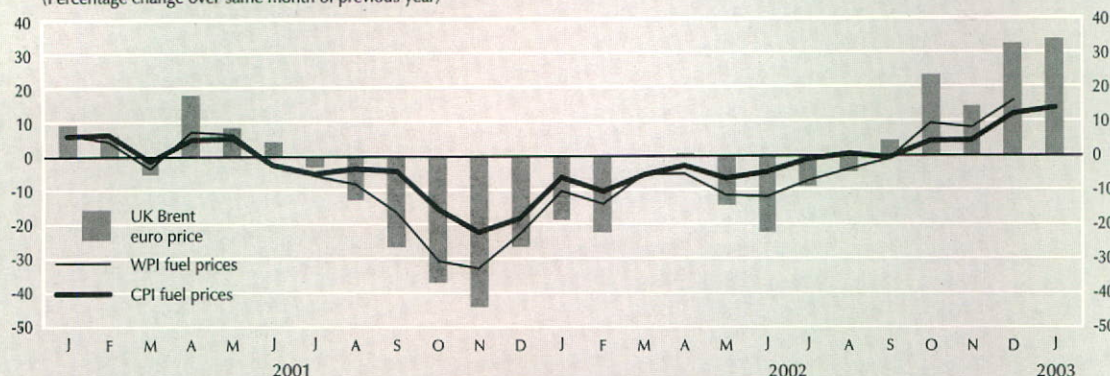
7 Specifically, the average annual increase in retail prices of goods excluding fuel and fresh fruit and vegetables (which are included in the CPI) was 3.0% in 2002, while, as already mentioned, the average annual increase in wholesale prices of "domestic industrial goods for home consumption and imported goods (excluding fuel)" was 1.8%. The corresponding figures for 2001 were 3.9% and 2.8% (i.e. the differential between the two rates widened slightly in 2002).

8 These conditions may also explain the price increases that some enterprises managed to impose under the pretext of the euro cash changeover, as already mentioned.

Chart 15

Evolution of CPI/WPI fuel prices and of the euro price of Brent crude oil
(January 2001 - January 2003)

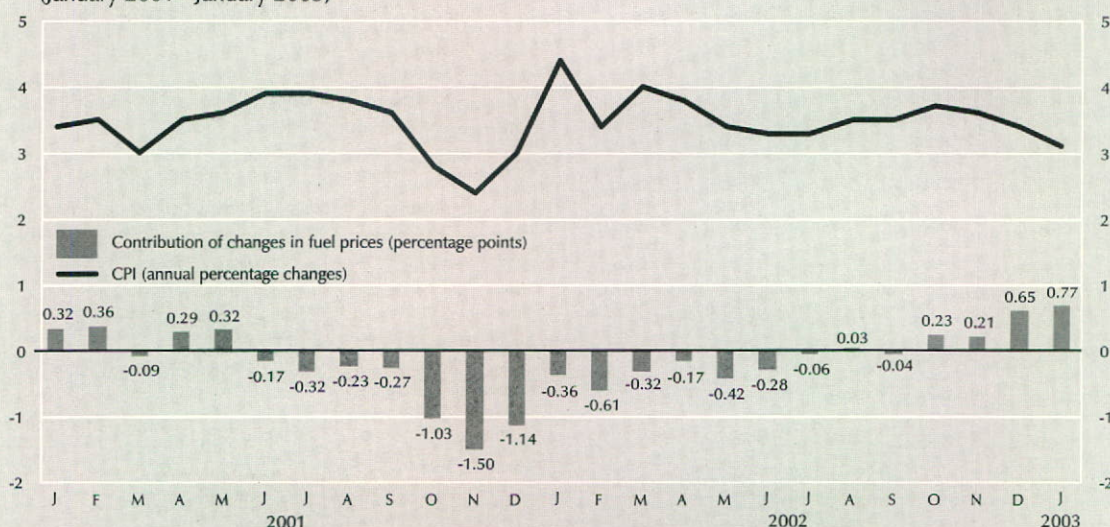
(Percentage change over same month of previous year)



Source: Calculations based on NSSG data and US Department of Energy data on crude oil prices (UK Brent).

Chart 16

Changes in fuel prices: their contribution to inflation
(January 2001 - January 2003)



Source: Calculations based on NSSG data.

The adverse effect of such determinants on the course of inflation in 2002 more than offset (by a slight margin) the favourable effect, on the one hand, of developments in the international prices of imports and the appreciation of the euro (see Charts 14 and 17)⁹ and, on the other hand (to a lesser extent), of the decline in the prices of telecommunication services, owing to stiff competition in this recently deregulated market.¹⁰ As regards the prices of the other public utility ser-

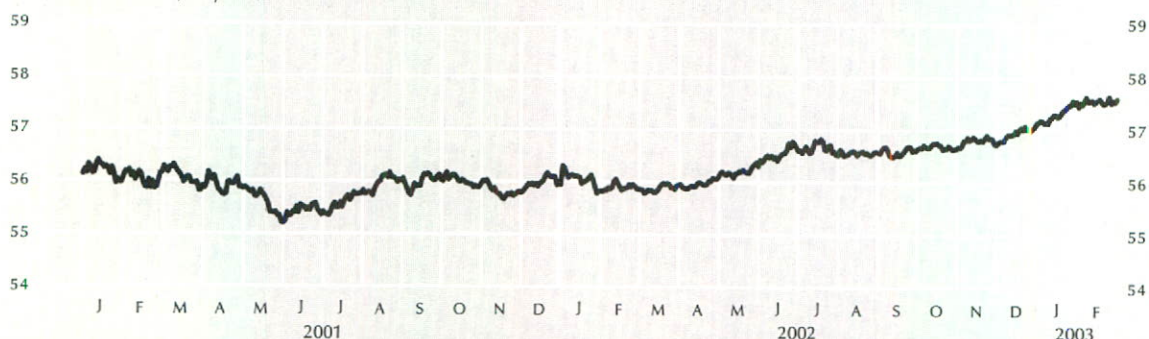
vices (apart from telecommunication services) that are provided by both public and private enter-

⁹ Domestic wholesale prices of imports increased at an average annual rate of only 0.4% in 2002 (non-fuel imports: 0.7%), while the average annual level of the exchange rate of the euro, weighted on the basis of Greece's external trade, rose by 0.9% in 2002 (between December 2001 and December 2002 this increase was 1.8%).

¹⁰ In the course of 2002, telephone rates were reduced by 7.2% (compared with a reduction of 1.9% in 2001). Had they remained unchanged instead of decreasing, the annual rate of inflation would have been 3.6% in December (instead of 3.4%).

Chart 17

Effective exchange rate index, weighted on the basis of Greece's external trade
(January 2001 - February 2003)
(Index: 1990=100, daily data)



Note: As of January 2001, changes in this index are relatively limited, since Greece's trade with the other euro area countries (which account for a substantial part of the whole) is carried out in euro.

Source: Bank of Greece.

prises, and certain administered rates,¹¹ it is estimated that these were increasing in December at an average annual rate of 3.9%, i.e. slightly faster than the rate of increase in the general CPI.

Particular attention should be paid to the contribution of unit labour cost developments to the course of inflation. According to revised estimates of the Bank of Greece,¹² the rate of increase in unit labour costs for the whole economy was slightly lower in 2002 compared with 2001 (2.7% against 2.8%),¹³ while in the business sector¹⁴ it decelerated considerably (to 1.8% in 2002, from 3.2% in 2001).¹⁵ In the whole economy, the slight weakening of unit labour costs (see Table IV) mainly reflects the fact that the faster increase in average nominal earnings (6.6%, compared with 5.2% in 2001)¹⁶ was more than offset by the quicker growth of labour productivity, measured by GDP per employee. If non-wage labour costs had not been reduced through the abolition of stamp duties,¹⁷ the rate of increase in labour costs would have been higher.¹⁸ In the whole economy, the rate of increase in unit labour costs remained, firstly, above the upper limit deemed consistent with price stability (i.e. 2%) and, secondly, slightly over the corresponding rate for the euro area.¹⁹ In this sense, it continued to contribute to the per-

sistent high levels of Greek inflation, to the widening of its differential over the euro area average

11 These include the rates of the Public Power Corporation (DEH), the Hellenic Post Office (ELTA), the Hellenic Railways Organisation (OSE), the Athens-Piraeus Water Supply and Sewerage Company (EYDAP) and other water supply companies, the fares of Olympic Airways (OA) and private airlines, the fares of urban public transport companies, the rates of public and private hospitals, the contributions to the Hellenic Radio and Television (ERT), municipal rates, road tolls and road duties.

12 This downward revision (compared with the *Monetary Policy, Interim Report* of November 2002) mainly reflects the growth of GDP in 2002 which, according to the initial —flash— estimates of the NSSG (13 February 2003) increased by 4.0%, and not by 3.4% as it had previously been assumed.

13 These rates differ from those calculated by the NSSG and Eurostat (see Box 2).

14 Comprising public and private enterprises, and banks.

15 Nevertheless, the rate of increase in labour costs in manufacturing is estimated to have accelerated slightly to 3.1% in 2002, from 2.9% in 2001.

16 Compensation per employee, which comprises employers' (social security and other) contributions, rose by 6.0% in 2002, compared with 5.3% in 2001. This difference is due to the effect of the abolition of stamp duties on the earnings of employees in the business sector (see the next footnote).

17 The measure applied to employees under private labour contracts. Until 31 December 2001 such duties were calculated on the compensation of employees — at a rate of 0.6% — and paid by employers in the business sector. Their abolition led to a moderation of the rate of increase in unit labour costs by 0.5 percentage point in the business sector and by 0.3 percentage point in the whole economy.

18 Specifically: 3.0% in the whole economy, 2.3% in the business sector and 3.6% in manufacturing.

19 According to the *Autumn Forecasts* of the European Commission, the average annual rate of increase in unit labour costs in the euro area was expected to stand at 2.5%, that is to say at approximately the same levels as in 2001 (2.7%, i.e. almost as high as in Greece). In the first quarter of 2002 the annual rate of increase of unit labour costs in the euro area was unusually high (3.1%), but in the following two quarters it decelerated to 2.4% and 2.3% respectively.

Table IV

Employees' earnings, productivity and labour costs (2000-2003)

(Annual percentage changes)

	2000	2001	2002 (estimate)	2003 (forecast)
Average gross earnings (nominal):				
– whole economy	6.5	5.2	6.6	5.5
– central government ¹	7.1	5.5	5.4	5.7
– public enterprises	13.7	8.2	11.3	6.5
– banks	6.8 ⁴	6.3	3.5 ⁶	6.5
– non-bank private sector	5.0	5.3	6.5	5.8
Minimum earnings	4.2	3.5	5.4	5.1
Net² income of an employee with average earnings				
(nominal)	8.5 ⁵	3.8	6.1 ⁷	...
(real)	5.1 ⁵	0.4	2.4 ⁸	...
Total compensation of employees (including employers' social security contributions)	7.3	7.1	6.8⁸	6.8
Compensation per employee	6.3	5.3	6.0⁸	5.4
GDP	4.2	4.1	4.0	3.7
Output per person-hour in manufacturing	3.2	2.5	2.8	2.0
Unit labour costs:				
– whole economy	3.0	2.8	2.7 ⁸	3.0
– business sector ³	2.4	3.2	1.8 ⁸	3.5
– manufacturing	2.2	2.9	3.1 ⁸	3.7

1 Compensation per employee.

2 Gross earnings less employees' social security contributions less income tax.

3 The business sector comprises private and public enterprises and banks.

4 Excluding a major bank, where average earnings decreased by around 7.5% owing to the retirement of a large number of high-salaried employees (originating from a merged smaller bank), average earnings of bank employees rose by about 10%.

5 Including the refunding (in January 2000) of wage earners (other than civil servants) with a difference from tax withheld; also including the reduction (as from 1 September 2000) in social security contributions of minimum wage earners.

6 The relatively low rate of increase in average earnings of bank employees reflects mainly changes in the composition of personnel.

7 Including the abolition (as from 1 January 2002) of stamp duties (0.6% of gross earnings) paid by business sector employees.

8 Including the abolition (as from 1 January 2002) of stamp duties (0.6% of earnings) paid by business sector employers.

Sources: NSSG (provisional data for 2000-2002 GDP, December 2002 and February 2003), Bank of Greece estimates (for GDP in 2003 and for the other annual aggregates in 2000-2003).

BOX 2

Problems in the calculation of unit labour costs

The notion of "unit labour costs" refers to the costs of dependent labour and is defined as the ratio of average labour compensation (i.e. total dependent labour expenditure per employee or per hour worked) to productivity (i.e. output per employed person or per hour worked). The calculation of unit labour costs on the basis of this general definition is relatively simple at the level of an enterprise, but more complex at the level of an economy where not all workers are employees. The rates of change included in the present Report with respect to unit labour costs in the whole of the Greek economy

(e.g. 2.7% in 2002, compared with 2.8% in 2001) refer to the change in the ratio of total compensation of employees including employers' social security contributions (at current prices) to GDP (at constant prices), or – equivalently expressed in mathematical terms – to the change in the ratio of "total compensation per employee (including employers' contributions)" to "GDP per employee". However, given that the standard definition used by the NSSG and Eurostat is different (change in the ratio of "total compensation of employees – including employers' social security →

→ contributions – per employee” to “GDP per employed person in general”¹), different rates are calculated (e.g. 2.6% in 2002 compared with only 0.9% in 2001, according to the Updated Stability and Growth Programme of December 2002).

The two definitions are equivalent in the case of a business firm or branch of activity where all employed persons are employees, but produce different results for an economy such as the Greek one, where employees represent only 60.2% of total employment, compared with 84.3% in the EU as a whole (according to data for 2001). Moreover, in the last few years (except 2002) the rates of change in total employment have been, as a rule, lower than those in waged employment (e.g. –0.8% compared with +2.2% in 2001 according to the labour force survey, or –0.3% compared with +1.7% in the same year on a national accounts basis), mainly because the former incorporate the declining trend in the number of (mainly self-employed) workers in the agricultural sector. As a result, the calculation of changes in productivity on the basis of the change in the ratio of GDP to total employment (as applied by the NSSG and Eurostat) leads, depending on the case, to an *overestimation* – or (more rarely) *underestimation* – of productivity growth, and thus, to an *underestimation* – or (more rarely) *overestimation* – of the increase in unit labour costs. For this reason, in the present Report, as in all its previous reports, the Bank of Greece opts

for calculating changes in productivity on the basis of the change in GDP per employee, since this is considered to be a better approximation. However, even this method is no more than an approximation, since it is not possible to isolate (statistically or conceptually) *that part of GDP which is produced by employees*.

It should also be noted that in 2002, on the basis of the definition used herein, the rate of increase in unit labour costs in the whole economy *decelerated* slightly, whereas on the basis of the definition used by the NSSG and Eurostat it *accelerated* noticeably. This differentiation is due to the fact that in the former case the faster increase in nominal earnings was more than offset by the faster growth of GDP per employee, while in the latter case it coincided with a slower increase in GDP per employed person in general. Indeed, if measured by GDP per employed person, productivity is estimated to have increased in 2002 less than in 2001 (by about 3.5% against 4.4%), given that, according to the Labour Force Survey, total employment increased in 2002, whereas it had decreased in 2001. By contrast, the increase in productivity measured by GDP per employee accelerated in 2002, as the number of employees increased considerably less than in 2001.

1 That is to say, GDP is divided by the total number of employed persons, i.e. both employees and other.

and, hence, to the deterioration of the Greek economy’s competitiveness.

As regards inflationary pressures from the demand side,²⁰ in 2002 the growth rate of private consumption remained in the region of 3%, while a considerable increase was recorded in private investment in dwellings. Such developments are connected to the fact that real interest rates declined considerably during 2001 and 2002 to levels lower than in the euro area as a whole,²¹ thus helping maintain strong rates of credit expansion to households. In evaluating the effects of demand, it is also useful to take into consideration the evolution of the output gap.²² The latest esti-

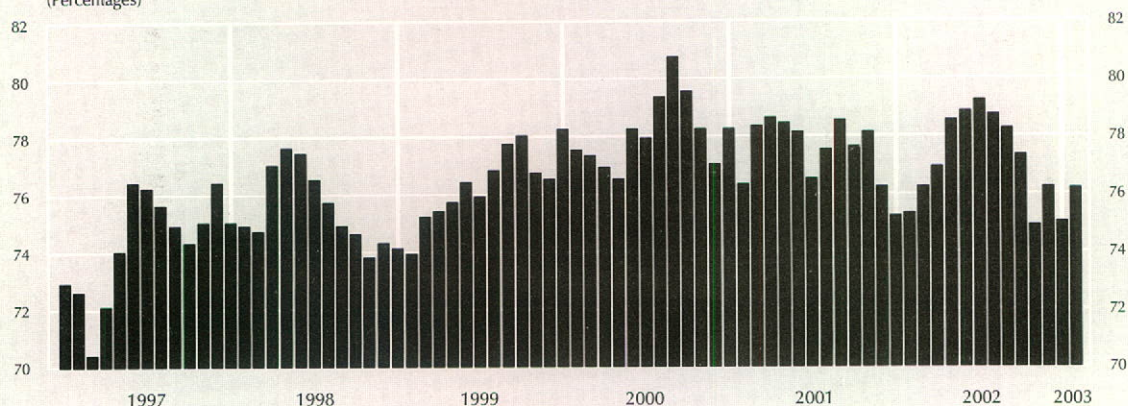
mates of the European Commission, the OECD and the International Monetary Fund suggest, *prima facie*, that the output gap of the Greek economy was positive in 2001 and 2002. Therefore, excess demand contributed to some extent to the rise in Greek inflation in this period (compared with early 2000) and, if maintained, signals future

20 For developments in demand, see more details in Chapter V.

21 Although nominal interest rates converged, Greek inflation remained higher than that in the euro area.

22 The “output gap” is defined as the difference between the level of current output (GDP) and the country’s productive capacity (level of potential GDP), as a percentage of potential GDP. This figure is not readily measurable, but is estimated by various alternative methods. This should be taken into consideration when assessing the results of the relevant analyses.

Chart 18
Industrial capacity utilisation rate (manufacturing)
(January 1997 - February 2003)
(Percentages)



Source: Foundation for Economic and Industrial Research (IOBE).

Table V
Harmonised index of consumer prices: Greece and the EU (2001-2003)
(Annual percentage changes)

Country	Dec. 2001	2001 average	Dec. 2002	2002 average	Jan. 2003
Belgium	2.0	2.4	1.3	1.6	1.2
Denmark	2.1	2.3	2.6	2.4	2.6
Germany	1.5	2.4	1.1	1.3	1.0
Greece	3.5	3.7	3.5	3.9	3.3
Spain	2.5	2.8	4.0	3.6	3.8
France	1.4	1.8	2.2	1.9	1.9
Ireland	4.4	4.0	4.6	4.7	4.7
Italy	2.2	2.3	3.0	2.6	2.9
Luxembourg	0.9	2.4	2.8	2.1	3.3
Netherlands	5.1	5.1	3.5	3.9	2.9
Austria	1.8	2.3	1.7	1.7	1.7
Portugal	3.9	4.4	4.0	3.7	4.0
Finland	2.3	2.7	1.7	2.0	1.4
Sweden	3.2	2.7	1.7	2.0	2.6
United Kingdom	1.0	1.2	1.7	1.3	1.4
European Union	1.9	2.3	2.2	2.1	2.1
Euro area	2.0	2.5	2.3	2.2	2.2

Source: Eurostat.

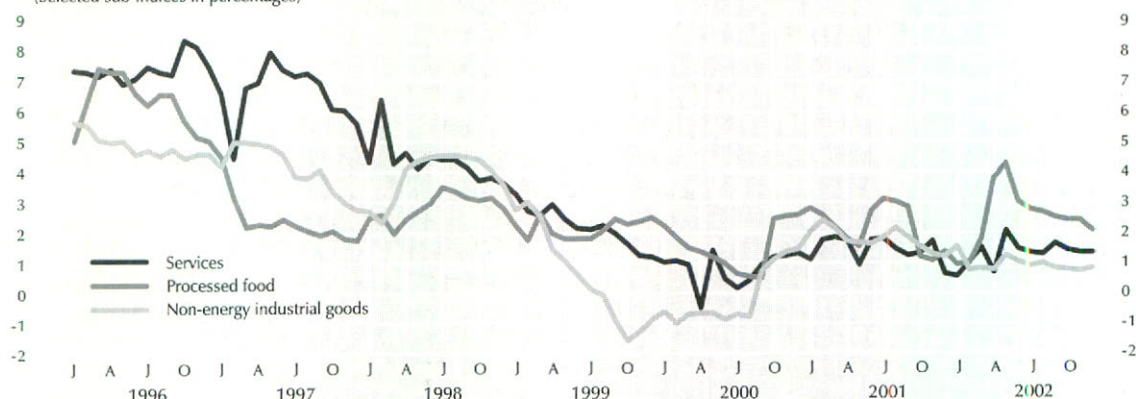
inflationary pressures. The analysis of developments in prices and profit margins supports the already mentioned hypothesis that excess demand was observed in certain branches of activity.

On the other hand, it should be noted that the sizeable growth of public investment in infrastruc-

ture and private business investment in recent years, along with the expansion of the labour force due to the considerable influx of immigrants, are estimated to have increased the economy's productive capacity, and thus also the rates of potential GDP growth, so that a gradual narrowing of the differential between current output levels and

Chart 19

Annual inflation differentials between Greece and the euro area (by groups of goods and services)
(January 1996 - December 2002)
(Selected sub-indices in percentages)



Source: Eurostat.

potential GDP, and therefore of the economy's positive output gap, is feasible in the next few years. However, certain data suggest that there is room for a more intense utilisation of capacity in some sectors of the economy, given that (i) capacity utilisation in industry (according to IOBE data) stood at 77.1% in 2002 (2001: 77.7% – see Chart 18), and (ii) the rate of unemployment, despite its declining trend, remains high (see Chart 21).

The key issue arising from the analysis of inflation developments in Greece is that an upward deviation can still be observed, compared with inflation in the euro area as a whole. It is encouraging that in 2002 this differential, on an average annual level, widened *only* on the basis of the general HICP, exclusively on account of special factors, such as the greater exposure of the Greek economy to fluctuations in oil prices (combined with their rise in the course of the year)²³ and the stronger effects – compared with other euro area countries – that the adverse weather conditions prevailing in the December 2001-January 2002 period had on the prices of fresh food.²⁴ (The differential narrowed considerably in December 2002 and in January of the current year – see Table V – but is estimated to have widened again

in February). More importantly, the differential between core inflation in Greece and the corresponding figure for the euro area as a whole decreased in 2002, albeit only slightly. The existence of such a deviation mainly reflects the positive difference witnessed over a number of years between Greece and the euro area as regards the rates of increase in unit labour costs, although this difference decreased noticeably in 2002, thus contributing to a narrowing of the core inflation differential. It also reflects the lagging behind of the Greek economy, compared with the European one, as regards the functioning of goods and services markets. The fact that competition is insufficient in crucial domestic markets, such as those of fuel and fresh fruit and vegetables, results at times in magnifying the effects of exogenous or endogenous shocks (e.g. bad weather, increases in world crude oil prices, or in any other cost components). Moreover, as has already been noted in previous Reports, to a certain extent it is to be expected that the Greek economy, which exhibits relatively

²³ Energy consumption per GDP unit is higher in Greece than in the EU.

²⁴ As already mentioned, according to more recent estimates, the inflationary impact of the euro cash changeover was only slightly stronger in Greece than in the euro area as a whole.

high rates of growth and is in a process of economic convergence, will have a higher rate of inflation than the more advanced economies of the euro area, particularly in the sector of non-tradeable goods and services. Therefore, in terms of competitiveness, it is of great importance to eliminate the inflation differential as regards tradeable goods. In this respect it is noteworthy that, on the basis of the harmonised indices, the positive difference between Greece and the euro area with respect to average annual rates of increase in the prices of non-energy industrial goods (which are an important component of tradeable goods) decreased considerably in 2002 – to 1.1 percentage points from 2.0 points in 2001.²⁵ By contrast, in the sector of services (which for the most part are not tradeable, except for those related to tourism) the positive difference increased slightly, to 1.4 percentage points in 2002 from 1.2 points in 2001. Finally, the positive inflation differential also increased slightly in the sector of processed food (yet another important component of tradeable goods), to 2.4 percentage points in 2002 from 2.3 points in 2001 (see Chart 19).²⁶

3. Inflation prospects

CPI inflation decelerated further in January of the current year and stood at 3.1%, mainly reflecting the fall of 19.6% in the prices of fresh fruit and vegetables, down from their exceptionally high levels in January 2002. The same month saw the elimination of the effect (0.2 percentage points) on the annual rate of increase in the CPI that was attributed to the upward rounding and/or raising of prices in January 2002 on account, or under the pretext, of the euro cash changeover. Nevertheless, the favourable effect of this development on core inflation was more than offset by new – higher than usual – price adjustments, particularly in the services sector. Thus, core inflation

finally accelerated to 3.7%, from 3.5% in December 2002.

As regards the short-term outlook for inflation, it should be noted that according to the latest conjunctural surveys of the IOBE (conducted in December 2002 and in January and February of the current year) the balance of enterprises in the manufacturing and services (excluding retail trade and banks) sectors that expect price increases for their products or services in the next 3-4 months increased, while the balance of construction firms that expect an increase in their prices remained relatively unchanged.²⁷ A considerable increase was also observed in the balance of consumers that expect a rise in inflation over the next twelve months (as this is recorded by a survey conducted on behalf of the European Commission – see Chart 20). Such inflationary expectations have been formed despite the fact that in the first few months of 2003 (in essence until March) the impact on the annual inflation of the price increases effected in the corresponding months of last year on account of the cash changeover will have been almost totally eliminated, while, at the same time, the increasing familiarisation of consumers with the new scale of prices in euro can be expected to contribute, to some extent, to a deceleration of inflation. Obviously, the inflationary expectations of enterprises and consumers partly reflect the recent increase in international oil prices and the growing uncertainty as regards the possibility of a war in Iraq. Furthermore, consumers' inflationary expectations may build up as a result of the con-

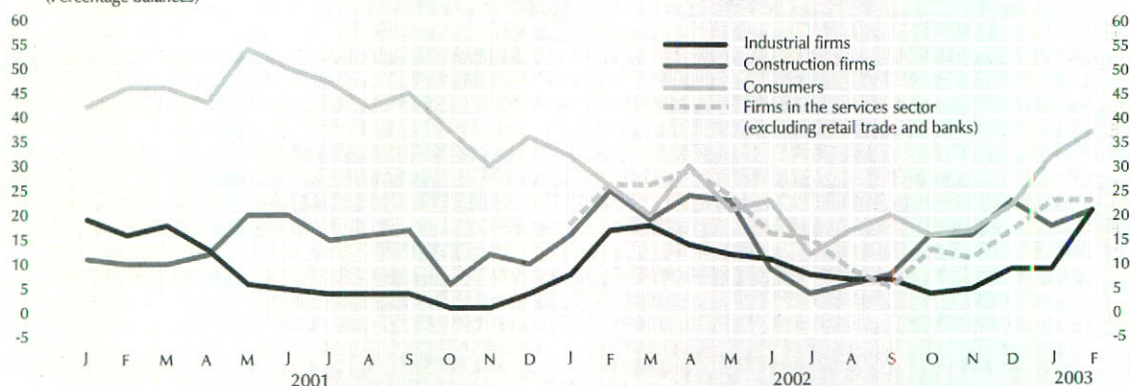
²⁵ The rates of increase were 2.5% in Greece and 1.4% in the euro area in 2002, compared with 2.9% and 0.9%, respectively, in 2001.

²⁶ These three groups (non-energy industrial goods, processed food and services) constitute the "basket" in relation to which core inflation is calculated on a harmonised basis.

²⁷ To be precise, the positive balance between the percentages of enterprises expecting increases and those expecting decreases rose, or remained unchanged.

Chart 20

Inflationary expectations¹ of consumers and business firms (January 2001 - February 2003)
(Percentage balances)



¹ The responses of business firms concern the prospects, in the next 3-4 months, of price increases for the goods they produce, while consumers' responses concern the prospects of a faster increase in consumer prices in the next 12 months. The data for consumers are seasonally adjusted.

Sources: IOBE and European Commission (*European Economy, Supplement B*).

siderable increase in fruit and vegetable prices during February 2003, which was in turn caused by a long spell of bad weather. To the extent that such expectations become established, it is possible that they will be self-fulfilling in the end. An acceleration of inflation after January is therefore deemed likely.

As to the effects of the more permanent determinants of inflation in 2003, the following should be taken into consideration:

- First, on the basis of the latest information on crude oil prices in the futures market, it is assumed that in 2003 world oil prices will record an average annual increase of about 13% (and their average annual level will reach US \$28 per barrel). However, there is a high degree of uncertainty concerning the final outcome (see Chapter VII). A rise is also expected in the prices, in US dollars, of (non-oil) commodities in the world market. Still, it is estimated that the inflationary effect of these factors is considerably moderated, owing to the continuing appreciation of the euro vis-à-vis the US dollar. Indicatively, it is noted that on the basis of the technical assumption that the exchange rate of the euro vis-à-vis the US dollar

and other major currencies will remain throughout 2003 at the levels recorded in the first half of February, the average annual appreciation of the euro against the US dollar will come to 14%,²⁸ while the average annual effective exchange rate of the euro, weighted on the basis of Greece's external trade, will increase by 2%.

- Second, the expected deceleration of euro area inflation (see Chapter III) entails a further slowdown of the already low rate of increase in the prices of imports from euro area countries.

- Third, it is estimated that unit labour costs in the whole economy will increase this year slightly faster than in 2002 (3.0% compared with 2.7%),²⁹ on the basis of the projected GDP growth of 3.7% in 2003 (see Chapter V.3), as well as of the assumption that the number of employees will increase more than in 2002. It is noted that for the

²⁸ If the technical assumption regarding the exchange rate of the euro vis-à-vis the US dollar is fulfilled, then the (projected on the basis of current data) average annual increase in crude oil prices of 13% in US dollars will be equivalent to an average annual decrease of 0.9% in euro.

²⁹ Based on the definition used by the NSSG and Eurostat, an increase of 2.3% is forecast in the Updated Stability and Growth Programme.

private sector, in most cases, the rises in the contractual wages of employees in 2003 have already been determined by the two-year (2002-2003) collective labour agreements signed in 2002 and, thus, uncertainty as regards wage developments is quite limited. According to such agreements, the corrective increase granted as of 1 January 2003 was small,³⁰ a fact that contributes to a slight deceleration (to 5.0% from 5.7% in 2002) of the average annual rate of increase in private sector contractual wages (at branch level) in 2003.³¹ At the same time however, from the beginning of 2003 the favourable effect (of around half a percentage point) on the rate of change in unit labour costs due to the abolition, as of 1 January 2002, of stamp duties incurred by employers was eliminated. This contributes to a noticeable pickup in this year's annual rate of increase in unit labour costs in the business sector. In central government, however, it is expected (on the basis of budget projections) that the wage bill (excluding pensions) will increase in 2003 considerably less than in 2002, i.e. by 5.9% against 9.6%.³² In the whole economy, average pre-tax earnings are expected to rise by 5.5%, compared with 6.6% in 2002 (see Table IV).³³

The *net* result of all the above, favourable and unfavourable, effects is that, according to estimates, after the deceleration recorded in January,

inflation in the next few months will stand above 3.5% and closer to 4%. However, on account of the unusually high uncertainty about future developments in oil prices and the effects of bad weather on the prices of fresh fruit and vegetables, it becomes particularly hard to form a reliable forecast of average CPI inflation in 2003. A *simple extrapolation of current developments and trends* would indicate that the average annual rate of increase in the CPI will be higher than in 2002 (when it stood at 3.6%). Nevertheless, the forecast of *core inflation* is more reliable: it is estimated that in 2003 the average annual rate of change in the CPI excluding fuel and fresh fruit/vegetables will remain approximately the same as in 2002, i.e. 3.6%.

³⁰ Given that average annual inflation in 2002 stood at 3.6%, the corrective increase granted on minimum wages as of 1 January 2003 was 0.3%. However, as regards contractual wages at branch level, which in 2002 increased slightly more than minimum wages, the average corrective increase was smaller (in the region of only 0.1% as of 1 January 2003).

³¹ The average annual increase in minimum wages will be 5.1%, compared with 5.4% in 2002.

³² Government outlays for salaries and pensions will increase by 5.6%, compared with 8.7% in 2002. According to Ministry of Economy and Finance announcements, as of 1 January 2003 the pre-tax regular earnings of public sector employees will increase by 3.1%-3.3% on average (taking into account the "additional allowance" of €176). Moreover, the new payroll scale for civil servants will be introduced next year, i.e. as of 1 January 2004.

³³ Compensation per employee, which comprises employers' (social security and other) contributions, is estimated to rise by 5.4%, compared with 6.0% in 2002.

V. Economic activity and employment in Greece – developments and prospects

1. Developments in economic activity and employment in 2002

In 2002 GDP grew by 4.0% (2001: 4.1%) according to NSSG flash estimates (13 February 2003 – see Table VI), i.e. at one of the highest rates in the EU (second to Ireland's only). This suggests that the Greek economy was affected only to a limited extent by the substantial economic slowdown, especially in the other EU countries, which are Greece's major trading partners.

Underlying the relatively high GDP growth rate were the following factors:

— First, private consumer demand (see Tables VII and VIII) is estimated to have grown almost as strongly as in 2001 (when it rose by 3.2%, compared with an average annual rate of 3.1% for the period 1998-2001¹). This reflects an increase in wage-earners' average real pre-tax earnings (see Table IV) and in total employment² and a decrease in the tax burden on household income.³ At the same time, the continuing decline in the market value of households' equity holdings was more than offset by the sustained increase in the prices and the volume of dwellings, which form a large part of Greek household assets,⁴ and by the rise in

1 The value of retail sales (other than sales of cars) increased, according to the NSSG, at an average annual rate of 9.3% in the period from January to November 2002, implying that retail sales volume grew by more than 5%. This rise more than offsets the 4.2% fall in the number of new passenger car registrations, *a fortiori* if one takes into account that the value of car imports increased, reflecting both higher prices and higher average horsepower.

2 According to the NSSG labour force survey, total employment rose at an average annual rate of 0.4% in the January-September 2002 period, after declining by 0.8% in 2001 as a whole. The unemployment rate continued to fall for the third consecutive year and stood at 9.5% in the third quarter of 2002 (see Chart 21).

3 This includes personal income tax cuts for all taxpayers and – particularly for wage-earners in the business sector – the abolition of the stamp duty withheld from earnings.

4 According to Bank of Greece calculations, dwelling prices rose in major cities (other than Athens) at an average annual rate of 9.8% in 2002, while in broader Athens they grew by 17.4% in the period from January to August 2002. See also *Monetary Policy, Interim Report 2002*, November 2002, Annex to Chapter IV.

Table VI
Demand and gross domestic product (2000-2002)
(at constant market prices of year 1995)
(Annual percentage changes)

	2000	2001 (estimate)	2002 (estimate)
Final consumption	2.6	2.7	3.1
– Private consumption	2.7	3.2	...
– Public consumption	2.3	0.5	...
Gross fixed capital formation and change in stocks	9.3	6.9	7.4
Gross fixed capital formation:	8.0	5.9	...
By institutional sector			
– General government	8.8	5.1	...
– Other sectors ¹	7.9	6.1	...
By type			
– Dwellings	-4.3	4.4	...
– Other constructions	7.7	8.8	...
– Equipment	17.6	3.7	...
– Other investment	-0.2	8.6	...
Change in stocks and statistical discrepancy (percentage of GDP)	(0.0)	(0.1)	(...)
Domestic final demand	4.0	3.5	...
Exports of goods and services	19.7	-1.3	-0.5
Exports of goods	11.3	-4.6	...
Exports of services	25.9	0.8	...
Imports of goods and services	14.5	-1.9	0.5
Imports of goods	14.8	-2.7	...
Imports of services	13.1	1.3	...
Gross domestic product at market prices	4.2	4.1	4.0

¹ Including investment of public and private firms, as well as of households (mainly residential investment).

Sources: For 2000 and 2001, *Updated Stability and Growth Programme* (December 2002). For 2002, NSSG flash estimates (13 February 2003). For Bank of Greece estimates for 2002, see text.

Table VII
Indicators of consumer demand (2001-2003)
(Annual percentage changes)

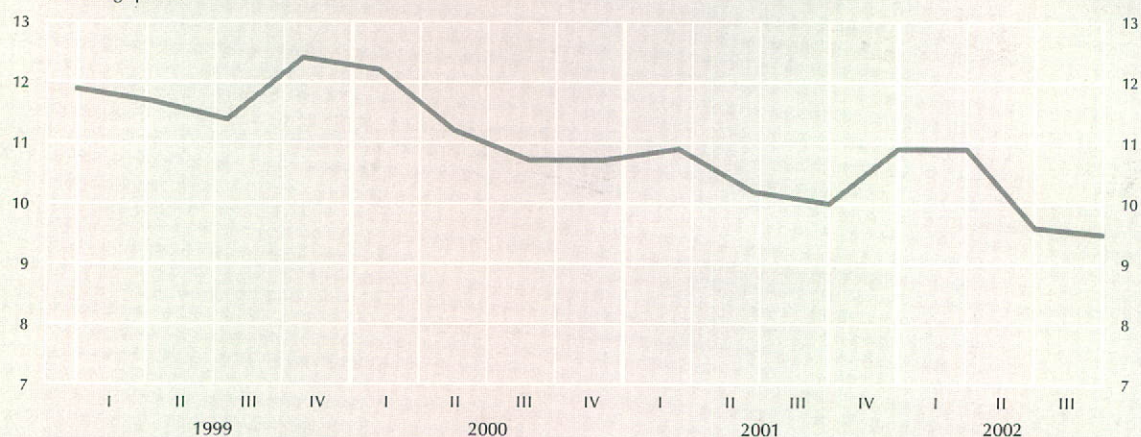
	2001	2002 (available period)	2003 (available period)
Volume of retail sales ¹	4.4	5.3 (Jan.-Feb.)	
Food	2.4	0.4 (" ")	
Clothing-footwear	3.5	8.8 (" ")	
Furniture-household appliances	4.7	12.8 (" ")	
Books-newspapers-office equipment	5.9	11.6 (" ")	
Retail trade business expectations indicator	-8.0	1.2 (Jan.-Dec.)	3.0 (Jan.-Feb.)
New passenger car registrations	-4.4	-4.6 (Jan.-Dec.)	14.1 (Jan.)
Olympic Airways passengers (passenger-kms)	-5.0	-10.4 (Jan.-Dec.)	
Piraeus Port Authority (OLP) passengers	7.9	7.2 (Jan.-Oct.)	
Tax revenue from mobile telephony fixed fees	48.2	27.5 (Jan.-Dec.)	24.6 (Jan.)
Travel receipts at constant prices	3.1	... ²	
Outstanding balance of total consumer credit extended by banks	42.5 (Dec.)	24.2 (Dec.)	

¹ Data on volume of retail sales are not available for the months after February 2002, because they are being revised by Eurostat. The value of retail sales rose at an annual average rate of 9.3% in the period from January to November 2002.

² The data are not comparable, owing to the change in the compilation methodology.

Sources: Calculations based on NSSG-Eurostat data (retail sales), NSSG (cars), IOBE (business expectations indicator), Bank of Greece (consumer credit and travel receipts), Ministry of Economy and Finance (mobile telephony fees), Olympic Airways and OLP.

Chart 21
Total unemployment rate (1999 - 2002)
(Percentage points)



Source: NSSG, Labour Force Survey.

Table VIII
Retail sales value index (2002)
(Percentage changes over same period of previous year)

Categories	2002 (Jan.-Nov.)
1 Big food stores	12.1
2 Department stores	10.0
3 Food-beverages-tobacco	6.3
4 Pharmaceuticals-cosmetics	8.5
5 Clothing-footwear	7.3
6 Furniture-electrical appliances-household equipment	5.2
7 Books-stationery-other goods	9.2
8 Retail sales not in stores	2.6
General index	9.3

Source: NSSG.

bond prices (see Chapter VI.4). It is estimated that the rise in household wealth had a positive effect on private consumption, because, *inter alia*, it contributed indirectly to the growth of consumer credit (see Chapter VI.2-3).⁵

— Second, public consumption grew faster than in 2001, albeit slower than GDP (by about 2% for 2002, compared with 0.5% in 2001).

— Third, private residential investment (see

Table IX) is estimated to have increased sharply. Indeed, the year-on-year growth rate of the volume of new buildings on the basis of permits issued (which is a leading indicator – see Chart 22) was 6.9% in the period from January to October 2002, following a substantial increase in 2001 (12.1%).⁶ This is associated with the rise in households' real disposable income and the ongoing fast expansion of housing credit (see also Chapter VI.2).

— Fourth, investment by both public and private enterprises is also estimated to have grown strongly. This is associated with the implementation of investment projects, particularly in the areas of construction and services, in preparation for the 2004 Olympic Games. By contrast, private industrial firms cut down their initial investment programmes during 2002 and, as a result, their investment expenditure eventually dropped in

⁵ The growth of wealth strengthens households' expectations about their future economic conditions and, therefore, encourages them to resort to borrowing.

⁶ The 2.3% fall in cement production in 2002 is attributed to a drop in cement imports, while cement sales volume in the domestic market is estimated to have grown significantly.

Table IX
Indicators of investment demand (2001-2003)
(Annual percentage changes)¹

	2001	2002 (available period)	2003 (available period)
Capital goods output	5.1	-8.1 (Jan.-Dec.)	
Investment expenditure (at current prices) of private industrial firms ²	-15.2 ³	-22.7 ⁴	10.1 ⁴
Capacity utilisation rate in the capital goods industry	(81.4)	(79.4) (Jan.-Dec.)	(79.7) (Jan.-Feb.)
Disbursements out of the public investment budget	7.3	-9.4 (Jan.-Dec.)	
Volume of private construction activity (on the basis of permits issued)	12.1	6.9 (Jan.-Oct.)	
Cement production	4.6	-2.3 (Jan.-Dec.)	
Construction business expectations indicator	-5.6	0.1 (Jan.-Dec.)	-0.5 (Jan.-Feb.)
Outstanding balance of total bank credit to housing	38.9 (Dec.)	35.6 (Dec.)	

1 Excluding capacity utilisation.

2 Estimates of firms participating in the IOBE investment survey.

3 Estimate of the March-April 2002 survey.

4 Estimate or forecast of the October-November 2002 survey.

Sources: NSSG (capital goods output, cement production, volume of private construction activity), IOBE (capacity utilisation rate, investment survey, business expectations indicator), Bank of Greece (disbursements out of the public investment budget, housing loans).

2002 (see Table IX).⁷ Furthermore, according to data on a cash basis, general government investment is estimated to have declined, despite considerable increases in individual categories of investment expenditure.⁸

Besides, the high growth of economic activity in 2002 is also indirectly due to the stronger environment of macroeconomic stability following euro area entry, as well as to the implementation of certain structural reforms.⁹

On the other hand, the unfavourable influence of the external economic environment and of the decline in competitiveness (see Section 2 of this chapter) was reflected in 2002 in a marginal increase in manufacturing output (see Charts 23, 24 and 25)¹⁰ and in the number of employ-

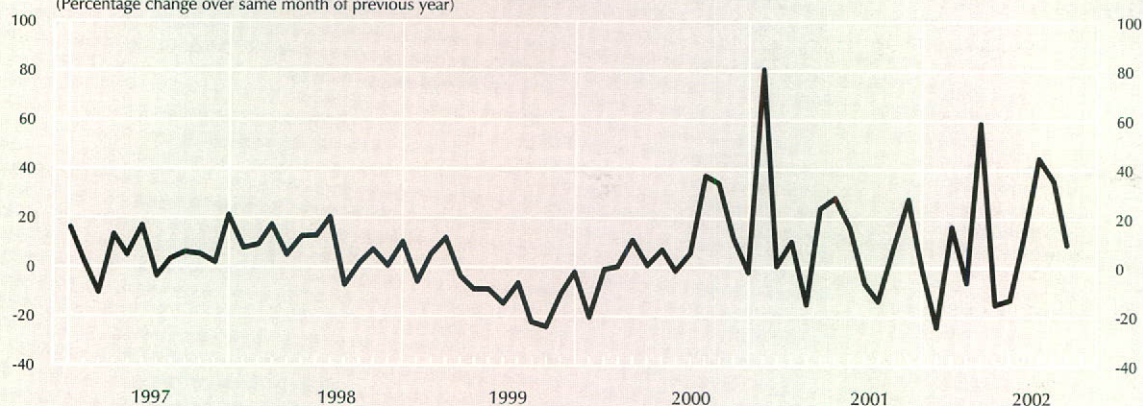
7 According to the industrial investment survey conducted by the IOBE in October-November 2002, private industrial firms estimate that their investment expenditure declined by 22.7% in 2002, while public industrial enterprises estimate that it increased by 9.3% (implying a total decrease of 21.7% in both sectors). It should be stressed that one year earlier (October-November 2001), private firms forecast a 38.3% rise for 2002, while in March-April 2002 they forecast a mere 10.1% increase. See European Commission, *Business and Consumer Survey Results – January 2003*, 31 January 2003, and IOBE, *The Greek Economy 4/02, Quarterly Report*, February 2003.

8 Indeed, although, according to the Introductory Report on the 2003 Budget (Table 2.8), expenditure on Olympic Games projects rose by a factor of six in 2002 and expenditure on major infrastructure projects increased appreciably, disbursements out of the Public Investment Programme (PIP) dropped by 9.4% (Bank of Greece data). This reflects (a) the deferment of some PIP expenditure from 2002 to 2003, (b) the shortfall observed in transfers from the EU and (c) the fact that a part of investment activity that used to be classified under general government may have come under "other sectors", because of the change in the legal status of the entities concerned.

9 See *Interim Report 2002*, November 2002, pp. 103-11.

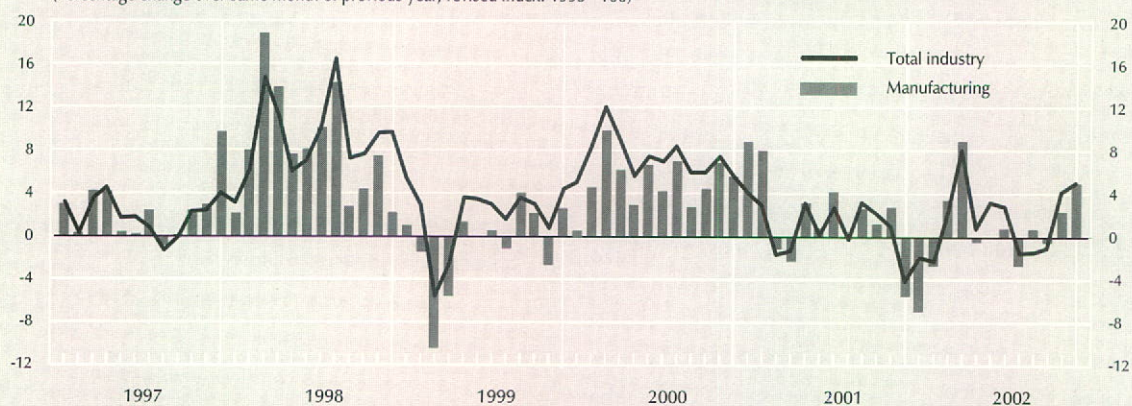
10 Manufacturing output grew by 0.7% in 2002, compared with 1.8% in 2001. However, the Purchasing Managers' Index (PMI) for manufacturing stayed above 50 in 2002, which implies an increase in manufacturing output. The fact that the PMI stood higher than in 2001 suggests a higher rise in output than in 2001. Furthermore, total industrial output (including mining and quarrying, electricity, natural gas and water) grew more strongly in 2002 than in 2001 (1.5% and 1.0% respectively).

Chart 22
Volume of new buildings and extensions (private construction activity) on the basis of permits issued
(January 1997 - October 2002)
(Percentage change over same month of previous year)



Source: NSSG.

Chart 23
Industrial production (January 1997 - December 2002)
(Percentage change over same month of previous year, revised index: 1995=100)



Source: NSSG.

BOX 3

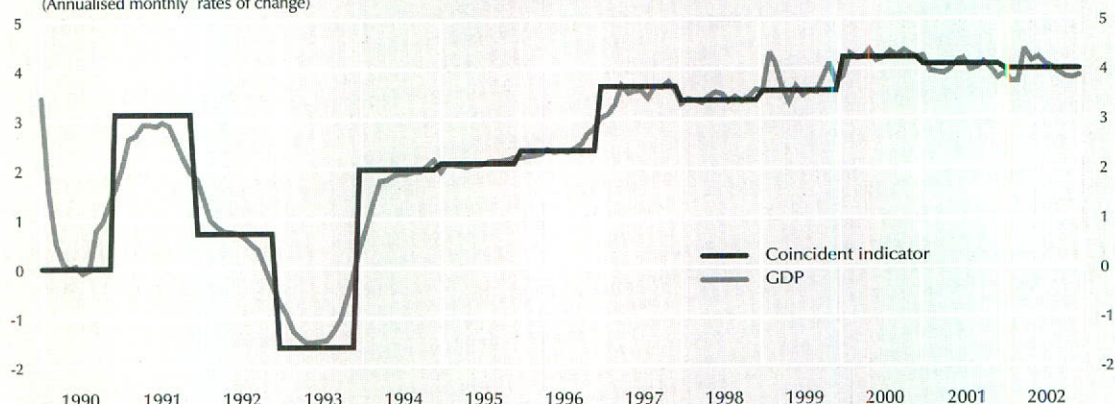
The coincident indicator of economic activity compiled by the Bank of Greece

The conduct of an effective economic policy requires timely information. However, high-frequency data, e.g. monthly data, which are very useful in assessing the current condition of the economy, are highly volatile. In a given month, some indicators may rise, while others may fall, even in related sectors of activity. This makes it difficult to measure and assess the overall conjunc-

tural situation of the economy. The purpose of the underlying economic activity index is to help summarise the information which exists in a range of monthly series and to aid the decision-making process.

The Bank of Greece has constructed and compiles such an activity indicator, based on the methodology that →

The coincident indicator of economic activity compiled by the Bank of Greece
(Annualised monthly rates of change)



Source: Bank of Greece (for the coincident indicator) and NSSG (for GDP).

→ was developed by Stock and Watson (1991)¹ for monitoring economic activity in the United States and was later applied to the United Kingdom by Garrat and Hall.²

The compilation of the indicator is conceptually quite simple. In a set of sectoral short-term indicators that reflect current activity, naturally any single indicator is not enough for an evaluation of overall economic activity, as it is affected by sector-specific or extraordinary factors. For example, while one would expect developments in the volume of new buildings and extensions, as measured by the permits issued, to reflect changes in economic activity, this index is highly volatile, as it is influenced by a number of factors specific to the construction industry. The same holds true for other time series, such as the retail sales volume index or the industrial output index. Although these indices contain important information, they are highly volatile. The compilation of a coincident indicator is based on the assumption that all the time series of the short-term indicators that make up the coincident indicator are influenced by overall economic activity and also by some idiosyncratic components. Subsequently, by applying a technique that is typically used to estimate "unobserved variables", the coincident indicator is derived as the "common component" of all the short-term indicators used. This indicator is considered to provide a satisfactory summary estimate of overall economic activity.

In the specific application presented here, the following short-term indicators have been used:

- the industrial output index (NSSG);
- the retail sales volume index (NSSG);
- the volume of new buildings on the basis of permits issued, with a four-month time-lag (NSSG);
- cement output (NSSG);
- non-oil exports (at constant prices, after deflating the value figures from the Bank of Greece balance of payments statistics with the relevant sub-index of the NSSG Wholesale Price Index);
- travel receipts – i.e. receipts from foreign visitors (at constant prices, after deflating the value figures from the Bank of Greece balance of payments statistics with the NSSG Consumer Price Index); and
- loans to the private sector (at constant prices, after deflating the Bank of Greece data with the NSSG Consumer Price Index).

¹ Stock, J.H. and M.W. Watson (1991), "A Probability Model of Coincident Economic Indicators", in K. Lahiri and G.H. Moore (eds.), *Leading Economic Indicators: New Approaches and Forecasting Records*, Cambridge University Press, New York, pp. 63-85.

² Garratt, A. and S.G. Hall (1996), "Measuring Underlying Economic Activity", *Journal of Applied Econometrics*, Volume 11, pp. 135-51.

→ All series are expressed in monthly rates of change of the corresponding seasonally adjusted series and cover the period from February 1990 to December 2002. Furthermore, an implicitly calculated monthly GDP change rate has been added to the short-term indicators. This monthly rate, which is constant during each calendar year, is calculated as the twelfth root of the corresponding annual GDP rate.³ In other words, if the implied monthly GDP growth rate is successively applied to the level of last year's GDP, it gives a sequence of monthly GDP flows which are cumulatively equal to the GDP flow of the current year. Moreover, in order to eliminate any break and discontinuity observed in the transition from one calendar year to another (as annual GDP rates differ from year to year), the series has been smoothed by using a moving seven-month average.

The monthly GDP rate plays a key role in the compilation of the indicator, as it is a reference variable that can be used to evaluate the relative weight of all the other highly volatile indicators in the determination of the economic activity indicator. GDP was chosen as a reference variable because (i) it is the best proxy of overall economic activity and (ii) the variance and mean of the GDP growth rates over the sample period are relatively smaller in comparison with the corresponding summary statistics of the short-term indicators. The measure of overall economic activity should, being a summary measure, exhibit low volatility. Excess volatility of short-term indicators is usually due to sector-specific idiosyncratic factors. Thus, if in a given month building permits rise sharply, this should not be attributed to a growth of overall economic activity, but to some idiosyncratic factor, possibly of an institutional nature,

which has affected the sector concerned. Technically, these effects are taken into account (and addressed) in the compilation of the indicator by imposing restrictions, i.e. by an appropriate weighting of the relevant matrices of the estimation system. These restrictions derive from the relationship between the short-term indicators' mean rate of change over the sample period and the corresponding mean monthly GDP growth rate. Similar restrictions are also imposed on the basis of the relevant variances of the growth rate of variables in relation to the fluctuation of the GDP rate over the sample period. The imposition of these restrictions (weights) reduces the effect of sharp changes in the short-term indicators on the indicator, which, on the basis of historical experience concerning changes in short-term indicators and in GDP, are not reflected in changes in overall economic activity.

The advantage of the indicator is that it utilises the key, "systematic" information contained in the monthly activity indicators, excluding any occasional effects that cause an excessive rise in short-term indicators and make it very hard to interpret each of these indicators alone.

The chart shows the monthly (annualised) rates of change in the coincident economic activity indicator during 1990-2002. To ensure comparability, the annual GDP change rate is also shown. It is evident that the coincident indicator reflects quite closely the developments in economic activity, as measured by GDP, in that period.

3 For the year 2002, GDP growth estimates take into account the flash estimate of the NSSG (4.0%).

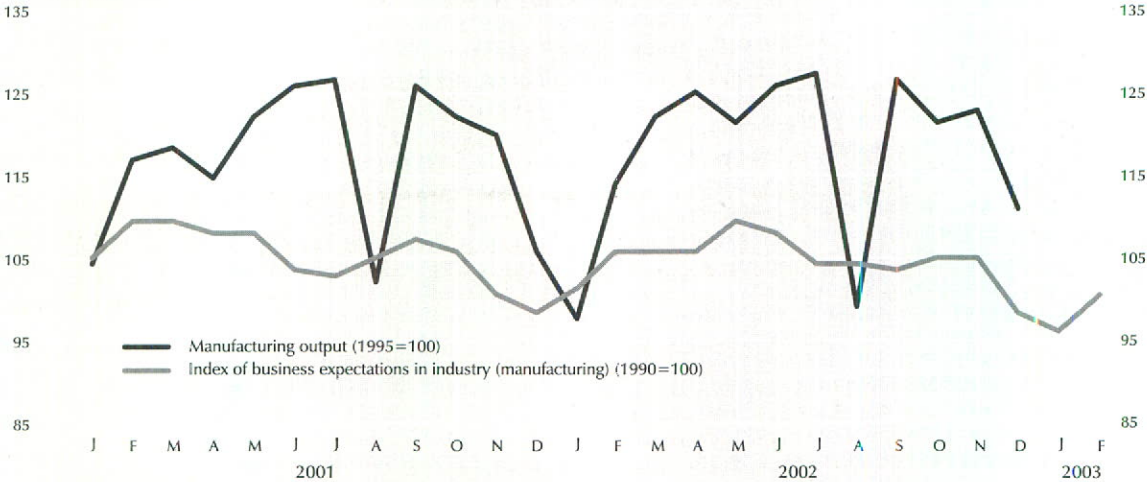
ees,¹¹ a decline in goods and tourist services exports (see Section 2 of this chapter), as well as a decrease in investment by private manufacturing firms.¹²

According to a *coincident indicator of economic activity compiled by the Bank of Greece* (see Box 3), the growth of overall economic activity in Greece accelerated in early 2002, to reach a peak in April

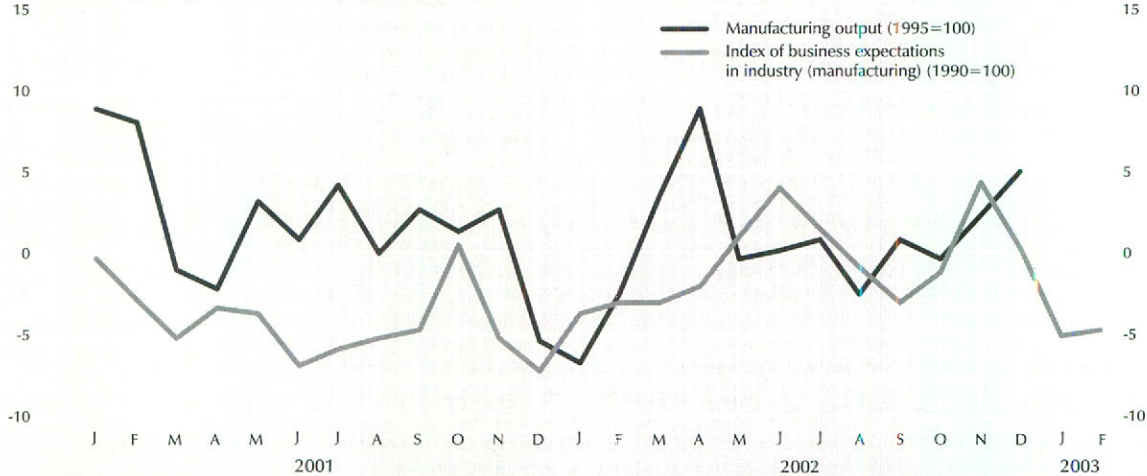
11 According to the NSSG labour force survey, the number of employees in the economy as a whole rose at an average annual rate of 0.1% in the January-September 2002 period, after increasing by 2.2% in 2001. In manufacturing, the number of employees declined at an average annual rate of 3.0% in the January-September 2002 period, after rising by 2.1% in 2001. It should be pointed out that the fluctuations of economic activity, notably of exports, affect the number of employees more directly than total employment.

12 In addition to the results of the IOBE investment survey, it should be stressed that the production of capital goods declined by 8.1% in 2002, while capital goods import volume also decreased by 3% in 2002 (see Table XI).

Chart 24
Output and business expectations in manufacturing (January 2001 - February 2003)
A. Indices

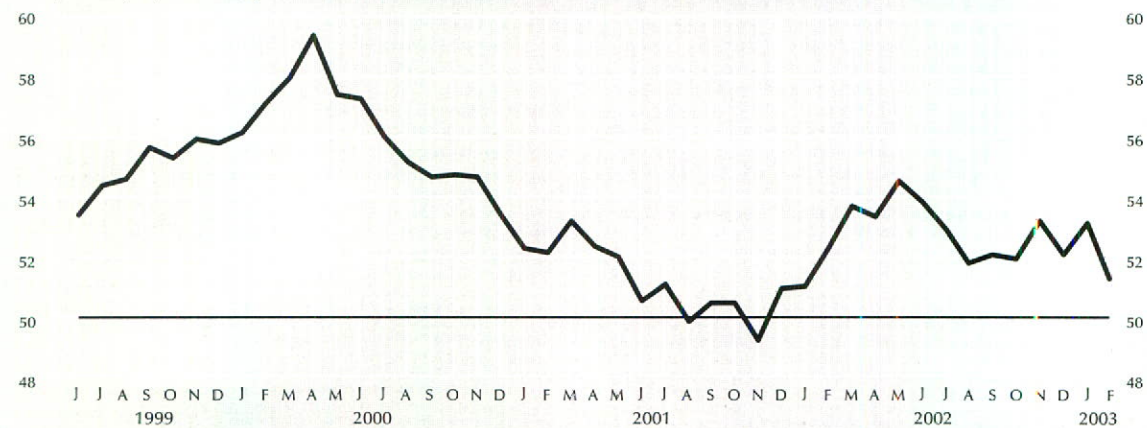


B. Percentage change over same month of previous year



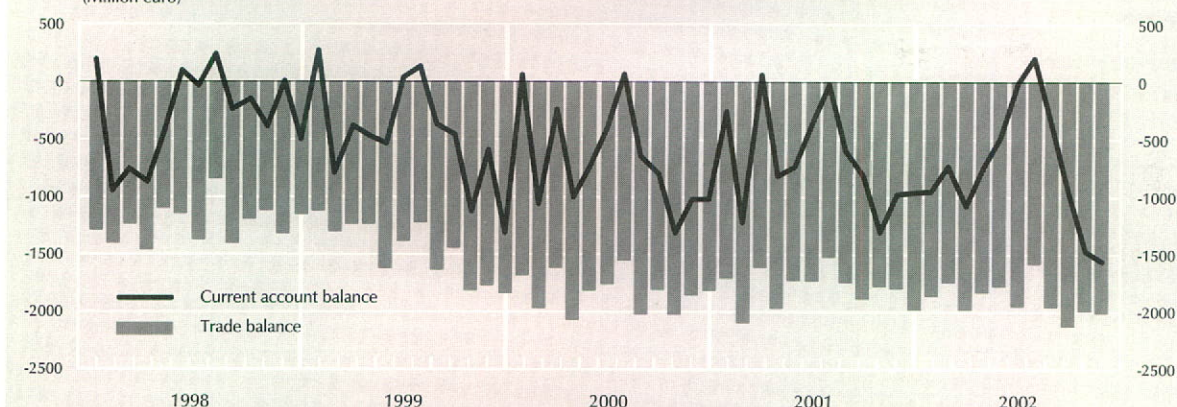
Source: NSSG (output) and IOBE (business expectations). The index of business expectations is calculated on the basis of business firms' estimates on aggregate demand and stocks, and of output forecasts for the next 3-4 months.

Chart 25
Purchasing Managers' Index (PMI) for manufacturing (June 1999 - February 2003)
(Seasonally adjusted index, positive deviations from the value of 50 indicate an expansion of economic activity)



Sources: NTC Research and Hellenic Purchasing Institute.

Chart 26

Trade balance and current account balance (January 1998 - December 2002)
(Million euro)

Source: Bank of Greece.

(4.3% – annualised monthly rate), mainly reflecting a significant rise in the industrial output index. Thereafter, according to the coincident indicator, economic activity gradually weakened and stood at 3.8% in October and November and 3.9% in December 2002.¹³

2. Balance of payments developments in 2002

2.1 Current account balance

In 2002, the current account deficit grew by €951 million, reaching €9,120 million (see Chart 26). This mainly reflects a decrease in the transfers surplus and a widening of the trade deficit, which is associated both with a rise in the non-oil trade deficit and an increase in the net oil import bill. A small rise was also observed in the income account deficit. These developments were only partly offset by the apparent considerable growth of the services surplus. Overall, the current account balance was influenced in 2002 by the weakening of foreign demand, as well as by the deterioration of competitiveness, stemming from the adverse change in relative prices and the euro's appreciation against non-euro-area curren-

cies. Furthermore, receipts from goods and services exports or under the income and transfers accounts showed a decline in euro terms in those cases where transactions were carried out in US dollars or other currencies that dropped against the euro.

The non-oil trade deficit grew by €589 million owing to a considerable decline in export receipts (of €584 million or 5.9%) and despite the fact that the import bill was unchanged.¹⁴ At the same time, the net oil import bill rose by €508 million. Once

¹³ It should also be noted that the economic sentiment index (compiled by the European Commission) developed clearly more favourably in Greece than in the EU or in the euro area as a whole, with the Greek index standing in 2002 at the same level as in 2001 on average, while in the EU and in the euro area as a whole the index fell. During 2002, the highest level of the index for Greece (102.2) was recorded in June and November. However, in December 2002 the index fell to 101.7 and in January 2003 to 101.3, while in February it rose slightly, to 101.4.

¹⁴ Non-oil export receipts had declined by 14% and the non-oil import bill had risen by 3.2% in 2001. Of course, it should be noted that, in recent years (up to and including 2001), the relatively high growth rate of Greek exports, as measured on the basis of balance-of-payments statistics compiled by the Bank of Greece, partly reflected the gradual improvement in the recording of actual transactions. It should be stressed, however, that the commodity trade statistics compiled by the NSSG also show a 2.6% decrease in non-oil export receipts (in euro) for the period from January to November 2002, over the corresponding period of 2001. According to NSSG data, the non-oil import bill shows a 1.3% increase.

Table X

Export price index and effective exchange rate weighted on the basis of Greece's external trade (2001-2002)

(Percentage change over same month of previous year)

	Effective exchange rate of domestic currency	Wholesale prices of exported products			
		Total		Excluding oil	
		In domestic currency	In foreign currency	In domestic currency	In foreign currency
2001 Jan.	-3.1	5.3	2.1	5.0	1.8
Feb.	-2.5	3.3	0.7	3.4	0.8
March	-1.7	2.6	0.9	4.0	2.2
Apr.	-1.0	4.2	3.1	3.7	2.6
May	-0.7	3.1	2.4	2.9	2.2
June	-1.9	3.0	1.0	4.5	2.6
July	-1.5	2.1	0.6	3.8	2.3
Aug.	0.1	0.4	0.5	2.2	2.3
Sept.	1.1	-2.4	-1.3	0.9	2.1
Oct.	1.8	-5.2	-3.5	-0.3	1.5
Nov.	1.4	-5.1	-3.7	-0.3	1.1
Dec.	0.9	-1.7	-0.8	1.1	2.0
2002 Jan.	-0.3	2.4	2.1	3.9	3.7
Feb.	-0.2	1.9	1.7	4.1	3.8
March	-0.4	2.8	2.4	3.6	3.2
Apr.	0.0	2.8	2.8	3.7	3.8
May	1.0	1.2	2.2	3.0	4.0
June	1.9	-0.3	1.6	1.2	3.2
July	2.0	0.5	2.5	1.4	3.3
Aug.	1.1	1.6	2.7	2.2	3.3
Sept.	1.1	1.7	2.8	1.6	2.7
Oct.	1.2	3.2	4.5	2.0	3.2
Nov.	1.8	2.2	4.1	1.2	3.0
Dec.	1.8	2.7	4.5	1.0	2.8

Source: Calculations based on NSSG and Bank of Greece data.

the change in prices (on the basis of the respective wholesale price indices compiled by the NSSG – see Table X for export prices) is also taken into account, it is estimated that the volume of non-oil exports has declined by about 8%, while the volume of non-oil imports has shrunk by less than 1%. The drop in Greek exports is mainly associated with the weakening of external demand and with the fact that the price competitiveness of Greek products, after improving significantly in 2000 (by 3-5%, mainly due to the fall in the effective exchange rate of the drachma) and remaining almost unchanged in 2001, deteriorated in 2002 (by 2-3.5%, depending on the index used).¹⁵

On the basis of available Bank of Greece data on

the breakdown of non-oil exports by product category (see Table XI), the share of exports of consumer non-durables (pharmaceuticals, apparel, plastics and other – mainly traditional – products) in total exports has increased visibly relative to 2001. By contrast, exports of consumer durables decreased substantially, after increasing appreciably in 2001. Exports of raw materials and semi-manufactured products also fell. As regards the geographical breakdown of exports (again according to available Bank of Greece data – see

¹⁵ To measure price competitiveness, account is taken, on the one hand, of the effective exchange rate of the currency and, on the other hand, of either unit labour costs in manufacturing, or consumer prices or wholesale prices in Greece, compared with 15 competitor countries.

Table XI

Breakdown of Greece's external trade by product category (excluding oil)

A. Export receipts	Percentage share of each product category in total export receipts			Percentage changes	
	2000	2001	2002*	2001/2000	2002/2001
Food, beverages, tobacco	27.7	29.3	30.0	15.2	6.2
Consumer non-durables	35.5	34.5	37.9	5.8	13.8
Consumer durables	5.2	8.0	6.9	67.4	-10.4
Raw materials (excluding oil) and semi-manufactured products	27.8	25.4	21.7	-0.7	-11.3
Capital goods	3.4	2.6	3.3	-15.4	32.3
Other goods	0.5	0.2	0.2	-42.8	-31.3
Total ¹	100.0	100.0	100.0		

B. Import bill	Percentage share of each product category in the total import bill			Percentage changes	
	2000	2001	2002*	2001/2000	2002/2001
Food, beverages, tobacco	15.1	14.8	15.0	6.3	3.8
Consumer non-durables	27.8	29.6	30.6	15.7	5.8
Consumer durables	8.4	8.5	8.3	10.4	-0.3
Raw materials (excluding oil) and semi-manufactured products	14.0	13.7	13.7	6.4	2.1
Capital goods	15.1	14.5	13.8	4.8	-2.9
Computers and accessories	3.0	3.2	2.8	14.0	-9.4
Fixed and mobile telephony	3.0	2.5	2.5	-8.9	4.9
Passenger cars	12.9	12.0	12.3	1.3	4.3
Other goods	0.6	1.1	0.8	87.3	-22.4
Total ¹	100.0	100.0	100.0		

¹ Detailed data by product and country do not cover total export receipts and the total import bill, as the product or country code number is not always included in the information compiled by banks. As a result, data evaluation should be based rather on percentage shares and changes than on absolute figures.

* Provisional data.

Source: Bank of Greece.

Table XII), an increase is recorded in the share of exports directed to the euro area and the EU in general, but also to the Middle East, Mediterranean and Balkan countries and the 10 accession countries.¹⁶ However, the share of exports that appear to be directed to the United States has dropped significantly.¹⁷

Despite strong GDP growth in 2002, the volume of non-oil imports shows a small decline, as mentioned earlier. However, it should be stressed that (according to disaggregated Bank of Greece data – see Table XI) consumer goods imports grew, while capital goods imports fell slightly (by around 3% in value terms). The increase in con-

sumer goods imports is broadly in line with the considerable rise in the real disposable income of households and the fast expansion of consumer credit. The decrease in capital goods imports is, *prima facie*, not compatible with the strong increase in gross fixed capital formation and may be associated with the fact that the most notable rise in investment was observed in construction, where the import content is lower.

¹⁶ It should be pointed out that the biggest share of Greek exports to accession countries is directed to Cyprus.

¹⁷ This development – which reflects not only the geographical breakdown of trade, but also, partly, the breakdown by currency in which exports are denominated – may be attributable to the US dollar's depreciation against the euro.

Table XII

Breakdown of Greece's external trade by geographical area (2000-2002)

A. Percentage share of each area in total export receipts	2000	2001	2002*
European Union (15)	51.5	49.1	53.3
Euro area	37.2	34.9	38.2
Accession countries (10)	3.9	4.9	6.5
USA	26.2	27.3	16.3
Other OECD countries ¹	8.5	6.0	6.4
Balkan countries ²	3.3	5.2	7.4
Commonwealth of Independent States	0.8	1.2	1.0
Northern Africa & Middle East countries ³	3.3	3.7	4.0
Other countries	2.5	2.6	4.5
Total ⁴	100.0	100.0	100.0
B. Percentage share of each area in the total import bill	2000	2001	2002*
European Union (15)	58.2	61.8	62.2
Euro area	47.4	51.4	51.9
Accession countries (10)	1.5	1.9	1.9
USA	18.8	13.9	12.5
Other OECD countries ¹	8.4	7.5	7.7
Balkan countries ²	1.2	1.4	1.7
Commonwealth of Independent States	2.9	4.3	4.8
Northern Africa & Middle East countries ³	3.1	2.8	2.3
Other countries	5.9	6.3	6.9
Total ⁴	100.0	100.0	100.0

¹ The OECD Member States not included in any other category (except for Mexico and South Korea).² Albania, Bulgaria, Romania and former Yugoslavia countries (Bosnia, Croatia, FYROM and New Yugoslavia).³ The major trading partners of Greece in Northern Africa and the Middle East.⁴ See footnote 1 to Table XI.

* Provisional data.

Source: Bank of Greece..

The services surplus grew in 2002, as the fall in net transport receipts¹⁸ was more than offset by the apparent considerable increase in net travel receipts, as well as by the small fall in net payments for other services. *However, the rise in net travel receipts is partly attributable to the change in the method of travel balance data compilation.*

It should be recalled that, as from May 2002, travel receipts and payments are no longer recorded on the basis of the data announced by commercial banks, but on the basis of a sample "border survey".¹⁹ Moreover, in the compilation

of the December 2002 balance, the travel services data initially announced for earlier months of 2002 were revised. Specifically, the January-April 2002 data were all revised downwards so that monthly data for the entire 2002 would be mutu-

¹⁸ This fall is partly attributable to the drop in global freight rates.

¹⁹ For example, the big drop observed in November 2002 (over November 2001) both in recorded receipts and in the corresponding payments is largely accounted for by the fact that they concern expenditure incurred by travellers in the month concerned, while in 2001, according to the method then applied, the relevant cash flows recorded through the banking system for the reference month may have included travellers' expenditure incurred in previous months.

ally comparable and consistent with the seasonal pattern derived from the border survey. This revision took into account the *per capita* expenditure of travellers and the seasonality of arrivals-departures, as estimated on the basis of the said survey. Furthermore, receipts and payments data were revised also for the period from May to October 2002. Specifically, for that period the figures were adjusted for residents' and non-residents' expenditure, which, on the basis of the border survey, had initially been recorded in the reference month, while on the basis of travellers' days of stay it turns out that these figures partly concern also the preceding month. *Despite the adjustments and revisions of the 2002 data effected so far, these data are not comparable with those of 2001, owing to the change in the compilation methodology. Therefore, it is not possible to draw conclusions on the change in travel receipts and payments in 2002 in comparison with 2001.* However, according to other sources (data on the number of arrivals and overnight stays in the major tourist areas of Greece, estimates of the Greek National Tourism Organisation (EOT) and of business associations of the tourism sector), tourist activity showed a small decline in 2002.

The income account deficit widened slightly, owing to a fall in net receipts from wages and salaries and, to a lesser extent, to a small rise in net payments for interest, dividends and profits.

Finally, the narrowing of the transfers surplus was accounted for by a decrease in net receipts of the other (non-general government) sectors (including emigrants' remittances) and a decline in transfers from the EU.²⁰ It should be recalled that, as from September 2002, general government receipts from, and payments to, the EU are recorded separately – rather than on a net basis, as in the past. At the same time, the past data were adjusted accordingly, to ensure comparabil-

ity with the new data. General government net receipts (mainly the net balance between transfers from the EU and payments to the EU) came to €3,790 million in 2002, i.e. they fell by €265 million in comparison with 2001.

2.2 Financial account

Financial investment, i.e. the sum of direct investment, portfolio investment and "other investment", recorded a net inflow of €12,293 million in 2002, which stemmed almost entirely from portfolio investment and, to a very small extent, other investment and more than offset the current account deficit. Specifically, under direct investment, a net outflow of €643 million was observed, which was accounted for by residents' investment abroad. At the same time, under portfolio investment, a substantial net inflow of €10,938 million was recorded, associated with non-residents' purchases of Greek government bonds (€11.9 billion, compared with around €8.0 billion in 2001)²¹ and, to a lesser extent, equity securities. There was also a notable portfolio investment outflow by residents, mainly for the purchase of foreign bonds. Foreign and Greek investors continued to shift to the bond market as a result of prevailing equity risk aversion. Finally, under other investment, an inflow of €1,999 million was recorded. This is associated with a sizeable growth of liabilities,

²⁰ Approximately 50% of gross receipts in the period under review originates from the Guarantees Section of the European Agricultural Guidance and Guarantees Fund (EAGGF) and pertains to the implementation of Common Agricultural Policy (CAP), while the remainder originates from the Structural Funds and the Cohesion Fund and concerns primarily the implementation of programmes under CSF III and, secondarily, payments under CSF II. Any discrepancies between the data compiled by the Ministry of Economy and Finance and those compiled by the Bank of Greece, as the latter are depicted in the balance of payments statistics, are due to the fact that the former data are expressed on an accrual basis, whereas the latter are on a cash basis.

²¹ Since Greek bonds do not differ any more from the corresponding euro area bonds as far as foreign exchange risk is concerned, the small rate differential in favour of Greek securities is enough to attract substantial foreign funds.

which, however, was largely offset by an almost equal rise in assets. Specifically, both non-residents and residents increased visibly their holdings in bank deposits and repos (the former abroad and the latter in Greece). Furthermore, as regards liabilities, it should be stressed that repayments of general government loans were substantial (€4,510 million).

During 2002, Greece's reserve assets increased by €1,983 million in comparison with end-2001 and stood at €9.0 billion at end-2002.²²

3. Prospects for economic activity in 2003

The assessment of the prospects for economic activity in Greece in 2003 is based on forecasts or reasonable assumptions about the external economic environment, as well as on the evaluation of current trends in the Greek economy. The effects of current economic policy are also taken into account.

According to the latest estimates and forecasts published by the IMF (September 2002 – see Chapter II.1), world GDP growth is expected to accelerate to 3.7% in 2003, from 2.8% in 2002, and the volume of world trade in goods and services is expected to grow faster in 2003 (by 6.1%, compared with 2.1% in 2002). However, according to the most recent forecasts,²³ the growth rate of world GDP will be only slightly above 3%. In the euro area, whose other countries are the major trading partners of Greece, the GDP growth rate was expected (according to the Eurosystem's staff macroeconomic projections published in December 2002 – see Chapter III.1) to accelerate to 1.1-2.1% in 2003. The latest forecasts²⁴ converge towards the low end of this range, reporting a growth rate between 1.3% and 1.4%. Besides, Brent crude oil prices exceeded \$33 per barrel

after mid-February 2003, while, on the basis of current prices in the futures market, they should drop gradually by the end of 2003 to an average annual level of \$28 per barrel (\$24.8 in 2001). Given the current global conditions, forecasts about economic activity and oil prices in 2003 are subject to very high uncertainty, for the reasons explained in Chapter VII. Finally, as already mentioned in Chapter IV, the inflation differential between Greece and the other euro area or EU countries will persist in 2003; furthermore, the euro has appreciated against the other major currencies. Even if the euro stabilises vis-à-vis the other currencies at the level observed in the first half of February 2003, the average annual effective exchange rate of the euro, weighted on the basis of Greece's foreign trade, will rise by 2.0% in 2003, after increasing by 0.9% in 2002 and falling by 0.6% in 2001. For these two reasons, the price competitiveness of Greek goods and services will deteriorate further in 2003.

As already mentioned in the *Interim Report* (November 2002), current economic policy favours a rise in economic activity in 2003. According to the 2003 Budget,²⁵ the tax cuts²⁶ (already being implemented) are leading to a slowdown in the growth of personal income tax

²² It should be recalled that, since Greece joined the euro area in January 2001, reserve assets, as defined by the European Central Bank, include only monetary gold, the "reserve position" at the IMF, "Special Drawing Rights", and Bank of Greece's claims in foreign currency on residents of non-euro-area countries. Conversely, reserve assets do not include claims in euro on residents of non-euro-area countries, claims in foreign currency and in euro on residents of euro area countries, and the Bank of Greece participation in the capital and the reserve assets of the ECB.

²³ See *Consensus Forecasts* for various regions of the world, February 2003, and statements by the IMF Director to the German press, 15 February 2003.

²⁴ See (a) *Consensus Forecasts*, February 2003, (b) *The Economist Poll of Forecasters*, 8 February 2003, (c) *Survey of Professional Forecasters*, ECB, *Monthly Bulletin*, February 2003.

²⁵ See Introductory Report on the Budget.

²⁶ Enacted by Law 3091/2002 ("Simplification and improvement of income and capital taxation, and other provisions"), which was passed in late December.

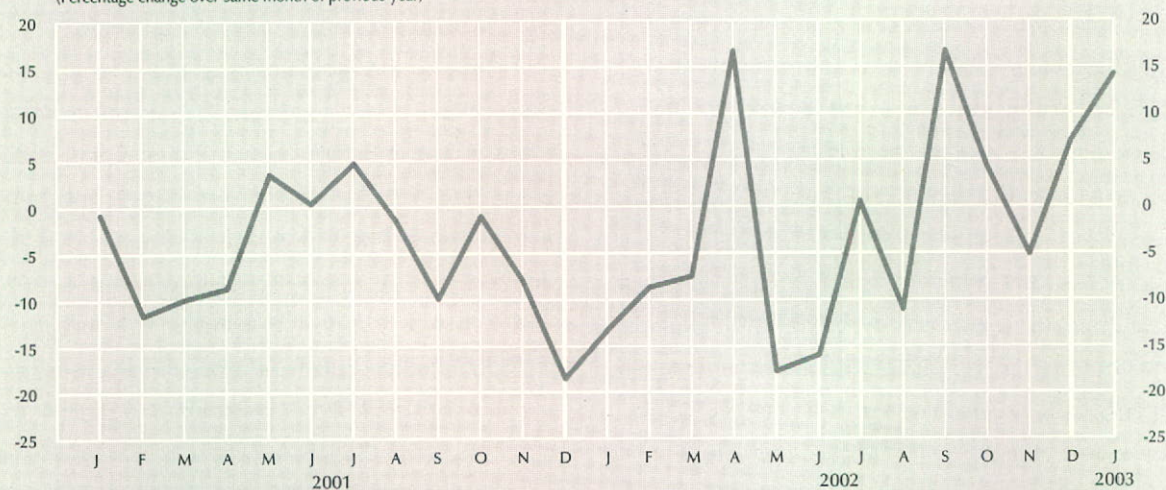
Chart 27

Consumer demand (January 2001 - February 2003)

A. Retail sales volume and retail trade business expectations
(Percentage change over same month of previous year)



B. New passenger car registrations
(Percentage change over same month of previous year)



Source: Calculations based on NSSG (retail sales and cars) and IOBE data (business expectations). Data on the volume of retail sales are being revised. The index of business expectations is constructed on the basis of business firms' estimates on sales and stocks, and of business activity forecasts for the next 6 months.

revenues,²⁷ which helps disposable income and domestic demand grow faster. At the same time, a considerable increase in Public Investment Budget expenditure is forecast. By contrast, the rise in ordinary budget primary expenditure is forecast to decelerate,²⁸ which may contribute to

²⁷ Personal income tax receipts are forecast to increase by 5.2% in 2003 (compared with 7.9% in 2002), while real GDP should grow by 7.0% (2002: 7.1%).

²⁸ According to the Budget, total Public Investment Programme expenditure will grow by 12.9% in 2003 (after declining eventually in 2002, as mentioned earlier). Primary expenditure under the ordinary budget will rise by 6.0% in 2003 (compared with 8.4% in 2002).

further fiscal stabilisation and, therefore, strengthen confidence. Finally, real lending rates remain at historically low levels.

The foregoing general forecasts, assumptions and data make up a reference framework. The remainder of this chapter discusses possible developments in individual components of aggregate final demand, on the basis of current trends and certain specific assumptions or data. In particular:

— *Private consumption* remained strong until November 2002, as evidenced by the data on retail sales of goods other than cars (see Table VIII). Furthermore, new passenger car registrations, after declining in 2002 as a whole, have shown a high annual rate of increase during the last months (7.0% in December 2002 and 14.1% in January 2003²⁹ – see Chart 27B). Households' real disposable income is expected to grow almost as much as in 2002 (by around 3%), considering that: (a) the average annual inflation rate will remain the same as in 2002 or rise slightly, (b) employees' average nominal pre-tax earnings will grow slower than in 2002, but almost by 2% faster than inflation (see Table IV in Chapter IV), (c) the tax cuts that will boost households' disposable income are already being implemented, as mentioned earlier,³⁰ (d) total employment should rise at least as much as in 2002 and, possibly, more (see below). At the same time, the annual growth rate of the outstanding balance of consumer loans remains high (24.2% in December 2002), although it tends to decline (it was 42.5% in December 2001). Accordingly, private consumption is forecast to increase by around 3%, i.e. slightly less than in 2002.

— *Public consumption* is forecast, according to the Updated Stability and Growth Programme (December 2002), to fall by 1.5% at constant prices in 2003 (compared with a rise of about 2%

in 2002), reflecting efforts to speed up fiscal stabilisation, also in the light of the recent revision of the fiscal balance and general government debt data. However, on the basis of experience from the last few years, it cannot be ruled out that an overrun in public consumption expenditure will occur and, as a result, the projected containment of public expenditure will not be achieved.

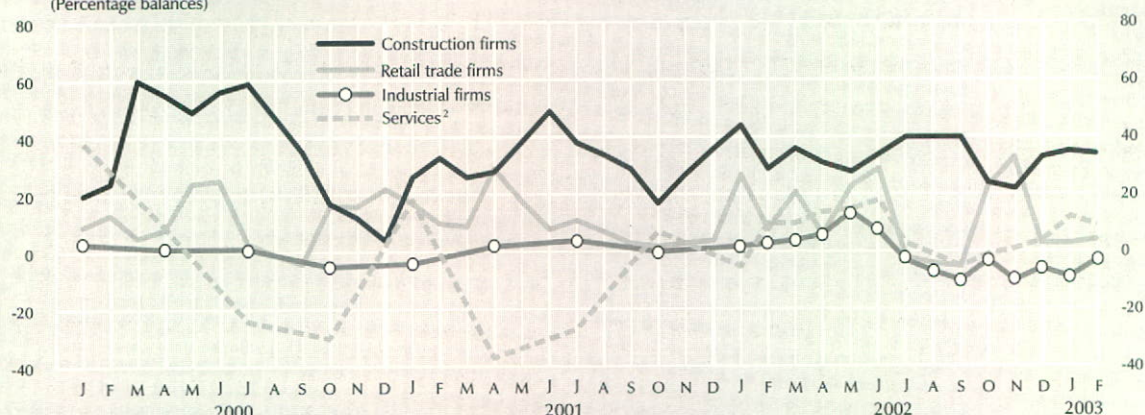
— *Gross fixed capital formation* is expected to grow almost as strongly as in 2002. Specifically, public investment, as already mentioned, is budgeted to rise by 13% at current prices, i.e. by around 10% at constant prices. These figures are realistic, considering that: (a) Public Investment Programme expenditure declined in 2002, which partly reflects the deferment of some expenditure to 2003, and (b) certain major public projects associated with the Olympic Games must be completed or, at least, make considerable progress in the course of 2003. Private residential investment should also rise considerably (by more than 5%), as suggested by current developments in the volume of new buildings on the basis of permits issued, which is a leading indicator, and by the strong growth of the outstanding balance of housing loans (35.6% in December 2002), which slowed down marginally in comparison with December 2001 (38.9%). Finally, business investment should grow considerably. Specifically, according to the Budget, public enterprises'³¹ investment, which does not depend on foreign demand, will rise by 22.7% (at current prices). Besides, in view of the Olympic Games, investment by hotels and other enterprises in the services sector is

²⁹ The number of new passenger car registrations in January 2003 was the highest in the last 24 months (i.e. since January 2001).

³⁰ At the same time, however, the favourable influence exerted in 2002 by the abolition of stamp duties on the annual growth rate of business sector employees' real disposable income will be eliminated.

³¹ These no longer include the Hellenic Telecommunications Organisation (OTE) and the Road Construction Fund (TEO).

Chart 28

Business forecasts¹ on employment (January 2000 - February 2003)
(Percentage balances)

1 Firms' responses concern the prospect of an increase in the number of employees in the forthcoming period.

2 Excluding banks and retail trade firms.

Source: IOBE, Business Surveys.

expected to increase. In this connection, the outstanding balance of loans to the tourist industry is reported to be growing rapidly (at an annual rate of 33.7% in December 2002, compared with 19.7% in December 2001).³² Therefore, investment by these enterprises will set the tune for the business sector, even though private industrial firms are more affected by the current international conjuncture and uncertainty as well as by developments in competitiveness and thus the forecast 10.1% rise (at current prices) in their investment expenditure in 2003³³ may prove too optimistic.³⁴

— It is estimated that the *real external balance* will make a negative contribution to GDP change also in 2003, particularly because goods and services exports are forecast to rise less than imports. Indeed, as the growth rate differential between these two aggregates is expected to widen, the negative contribution of the trade balance to GDP change will be larger than in 2002. More specifically, as already mentioned, the pace of economic recovery in Greece's major trading partners and the countries of origin of the tourists visiting Greece will be relatively slow and the price competitiveness of Greek goods and ser-

vices will deteriorate further. Besides, the current uncertainty associated with geopolitical tensions in the Middle East has already had an adverse effect on bookings for the new tourist season. Hence, it is estimated that the volume of services exports (including tourism) will decrease slightly, while the volume of goods exports will show a small increase, and, as a result, goods and services export volume will grow by about 1%. On the other hand, the sustained strong growth of consumer demand, in conjunction with the fact that the volume of imports of goods and services was almost unchanged in 2002, makes plausible an increase in this magnitude in 2003, at a rate expected to be around 2.5%.

As mentioned earlier, in 2003 the volume of goods exports will grow less than the volume of goods imports. By contrast, export prices are

³² However, this acceleration is associated, to some extent, with the reclassification of the commercial banks' data on loans (see Chapter VI.2).

³³ According to the latest investment survey of IOBE (October-November 2002).

³⁴ It should be recalled that the initial investment forecasts of Greek industrial firms usually prove over-optimistic in relation to their *ex post* estimates and reviews. This was the case in 2002 (see Section 1 of this chapter).

expected to increase more than import prices (as in 2002). On the basis of these forecasts, in conjunction with the fact that imports are much larger than exports, it is estimated that the trade deficit (at current prices) will widen in 2003, but will remain almost unchanged as a percentage of GDP. At current prices, it is estimated that the widening of the trade deficit and the expected decrease in the services surplus will be largely offset by increased inflows from the EU (which had declined in 2002). Transfers from the EU are forecast to rise in 2003 owing to payments for programmes under CSF II³⁵ and the expected faster absorption of funds associated with the implementation of programmes under CSF III.³⁶ As a result, the current account deficit will eventually rise only slightly as a percentage of GDP (in 2002 it stood at 6.5%, compared with 6.2% in 2001).

As regards *employment*, it should be recalled that in the January-September 2002 period total employment grew at an average year-on-year rate of 0.4% and the number of employees at a rate of only 0.1%. For 2003, it is estimated that a further rise in employment in the sectors associated with the preparation for the Olympic Games (mainly in other sectors, such as manufacturing and tourism, which are affected more directly by increased uncertainty about the world economic and geopolitical developments and by the forecast deterioration of price competitiveness. These estimates are largely confirmed by the firms' employment expectations, according to IOBE's business surveys (see Chart 28). Specifically, the employment outlook of construction firms remains posi-

tive and is actually improving. The employment outlook of firms in the retail and services sectors has been only slightly positive in recent months, while, in manufacturing, the employment outlook has remained negative since July 2002.

On the basis of the above indications and assumptions, the Bank of Greece estimates that the growth rate of economic activity in Greece will remain high in 2003 (3.7%, i.e. slightly lower than in 2002).³⁷ According to the foregoing analysis, this forecast includes the adverse impact from international uncertainty that has already been manifested on domestic aggregates, but excludes the effects of a possible sharp and serious deterioration in the external –geopolitical and economic– environment. Such effects will be discussed in Chapter VII.

³⁵ According to the official procedure applied by the EU for closing programmes under CSF II, Member States should submit payment applications until 31 March 2003. The bulk of the relevant applications has already been sent.

³⁶ 50% of the programmes under CSF III have already obtained approval and are ready for implementation. On the basis of payments up to end-January 2003, the rate of absorption of EU funds is 18% (announcement by the Deputy Minister of Economy and Finance, 11 February 2003).

³⁷ According to the Updated Stability and Growth Programme (December 2002), the forecast growth rate would be 3.8% (i.e. unchanged from 2002, on the basis of the then estimates). The European Commission (*Autumn Forecasts*, 13 November 2002) forecasts an acceleration in the GDP growth rate from 3.5% in 2002 to 3.9% in 2003, and the OECD (December 2002) forecasts a speeding up from 3.6% to 3.9%. The IMF staff, following the recent consultations with the Greek authorities, reported in the "Conclusions" they published on 10 February 2003 that the GDP growth rate had come close to 4% in 2002, according to official data, and that they expected "broadly similar growth rates for the two-year period 2003-2004". It should be recalled that, according to the NSSG flash estimates published on 13 February 2003, GDP grew by 4.0% in 2002.

VI. Money, credit and capital markets in Greece

1. Developments in monetary aggregates

The annual growth rate of the Greek contribution¹ to the euro area M3 decelerated substantially in 2002, falling gradually from 4.4% in the fourth quarter of 2001 to 2.1% in the same quarter of 2002 and turning negative for the first time in December (-0.2%, see Table XIII). Throughout 2002, the annual growth rate of the Greek M3 was lower than the corresponding rate for the euro area as a whole and averaged about one third of that rate (see Chart 29).

The drop in the Greek M3 growth rate in 2002 is associated with the slowdown in total credit expansion that year, which reflected the significant weakening of credit expansion to enterprises and households, while the financing of general government by Monetary Financial Institutions (MFIs) decreased further, albeit at a lower rate, in 2002 (for more details see Section 2 of this chapter). Another factor behind the weaker growth of the Greek M3 was a shift from repurchase agreements (repos), whose yields have once more become subject to tax as from 1 January 2002, to longer-term deposits (not included in M3) and government paper. It should be noted that the non-MFI private sector's holdings of government paper increased by €1,038 million in 2002, compared with a decrease of €1,855 million in 2001. The slower growth of the Greek M3 during the previous year is also related to the evolution of the MFIs' net external asset position (including that against their euro area counterparts), which fell significantly that

¹ As from August 2002, the Greek M3, in line with the ECB's uniform definition (see "Monetary aggregates" in the Glossary) has been adjusted and now includes money market fund units. For the calculation of the new M3, assets and liabilities between credit institutions and money-market funds are netted. The Greek M3 is added to the M3 of the other euro area countries to yield the overall euro area M3.

Table XIII

Greek contribution to the monetary aggregates of the euro area

(Not seasonally adjusted data)

	Outstanding balances on 31.12.02 (million euro)	Annual percentage changes ¹					
		2001	2002				
		Q4 ²	Q1 ²	Q2 ²	Q3 ²	Q4 ²	December ³
1. Currency in circulation, M0	7,401	0.5	-16.3	-17.0	-12.7	1.6	3.1
2. Overnight deposits	15,225	5.3	13.0	12.0	15.8	5.7	-4.8
3. M1 (1+2)	22,626	3.5	2.7	1.4	5.2	4.1	-2.3
4. Savings deposits and deposits redeemable at notice up to three months	58,757	12.9	16.5	16.3	14.6	9.7	3.3
5. Deposits with agreed maturity up to two years	28,908	-9.3	-2.7	2.2	6.1	10.1	5.4
6. M2 (3+4+5)	110,292	4.3	8.2	9.4	10.5	8.7	2.6
7. Repurchase agreements (repos)	20,004	38.3	10.3	-10.1	-20.2	-19.0	-17.4
8. Money market fund units	10,709	-38.4	-32.6	-25.9	-18.8	-3.7	10.9
9. Debt securities up to two years	154	-1.1	-27.8	-87.1	-79.3	-26.2	-3.1
10. M3 (6+7+8+9)	141,159	4.4	4.0	2.3	1.6	2.1	-0.2

1 Annual rates of change in the corresponding index, which is compiled on the basis of the balance of the corresponding monetary aggregate in December 1998 and the accumulated monthly flows, adjusted for exchange rate variations, reclassifications etc.

2 The quarterly average is derived from the arithmetic annual averages for each month (calculated as the average of the rates at the end of the reference month and the end of the previous month) and is not the average of the rates at the end of each of the quarter's months (see the "Technical Notes" in the ECB Monthly Bulletin).

3 Annual rates of change on the basis of the corresponding index at the end of the month.

Sources: Bank of Greece and ECB.

year (2002: -€11,936 million, 2001: -€2,897 million). This development stemmed from the fact that MFIs' external liabilities grew faster than their external assets. Most of the increase in MFIs' liabilities was accounted for by the growth of liabilities to euro area residents, indicating the greater integration of the Greek banking market into the market of the euro area. Moreover, the sharper deceleration of the Greek M3, as compared with the euro area M3, reflects the faster increase in the longer-term liabilities of domestic MFIs, as well as the deterioration of their net external asset position, in contrast to the improved net external asset position of euro area MFIs.

As far as the main components of M3 are concerned, throughout the period January-September 2002 currency in circulation (M0) was at a lower level than in the corresponding period of 2001,

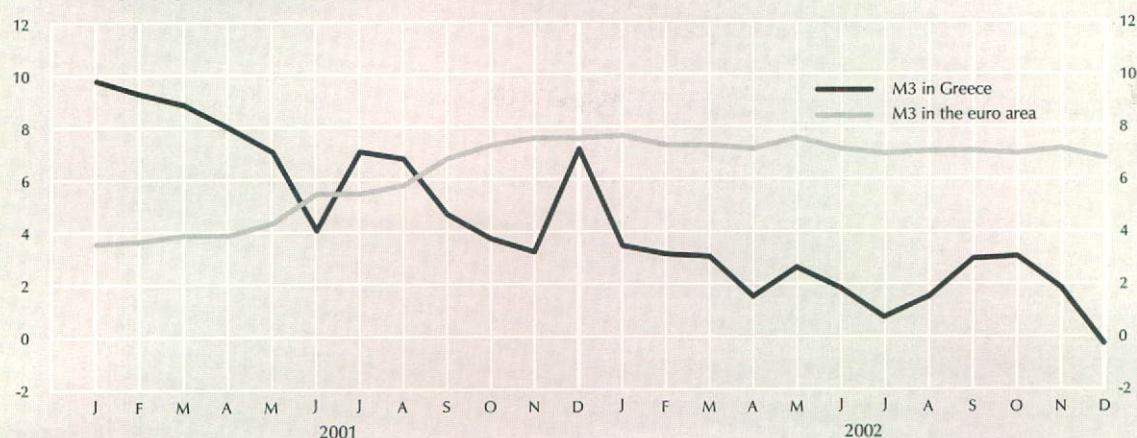
recording an annual rate of change of -12.7% in the third quarter of 2002, compared with a growth rate of 0.5% in the fourth quarter of 2001.² Although M0 decreased strongly in the first few months of 2002, as a direct result of the euro cash changeover on 1 January 2002, its year-on-year rate of decrease began to moderate from May onwards and its rate of change became positive for the first time during the October-December 2002 period (annual rate of increase: 1.6% in the last quarter of 2002). This development reflects the fact that, with the completion of the change-

2 It should be noted (as already mentioned in the *Interim Report* 2002, p. 77, footnote 2) that, since part of the euro banknotes and coins in circulation in individual euro area countries is held by residents of other euro area countries (and residents of third countries), the national components of M0 cannot easily be measured with a sufficient degree of accuracy. The volume of banknotes in circulation in individual countries since the beginning of 2002 is calculated on the basis of each country's capital key, which defines its participation in the capital of the ECB. Thus, the 2002 M0 is not fully comparable with the 2001 figure.

Chart 29

M3 in the euro area and Greece
(January 2001 - December 2002)

(Percentage change over same month of previous year, data not seasonally adjusted)



Sources: Bank of Greece and ECB.

over to the euro, the public appeared to be increasing again their currency holdings. Moreover, it is also connected with declining interest rates and, consequently, lower opportunity costs of holding currency, along with an apparently strong demand for the euro by residents of neighbouring countries.

Until September 2002 the average growth rate of deposits by Greek and other euro area residents³ (excluding central government) with credit institutions operating in Greece was faster than in the corresponding period of 2001, for all deposit types. This largely reflects a shift away from repos (whose yields, as already mentioned, have once more become subject to tax as from 1 January 2002) and equity securities, as uncertainty generated by stock market developments boosted demand for more liquid assets. However, over the October-December 2002 period, shifts of funds from shorter to longer-term deposits, as well as to government paper, led to different annual rates of change in deposits depending on maturity. In more detail, overnight deposits (sight deposits and current accounts), following a marked increase in December 2001,⁴ grew at relatively high rates throughout the January-September 2002 period.

Their annual growth rate accelerated gradually from 5.3% in the last quarter of 2001 to 15.8% in the third quarter of 2002. After September though, the rate decelerated sharply, to 5.7% in the fourth quarter of 2002, because of a decrease in overnight deposits during the October-November period, but also owing to base effects related to the run-up to the introduction of the euro towards the end of 2001. Savings deposits and deposits redeemable at notice of up to three months also rose at a relatively high rate during January-September 2002. Thus, their annual growth rate came to 14.6% in the third quarter of 2002, up from 12.9% in the last quarter of 2001, without considerable fluctuations during the period under review. However, in the fourth quarter of 2002 these deposits shrank by €1,183 million and their annual rate of change fell to 9.7%, because of a drop in savings deposit rates (and a small increase in the interest rates on deposits with

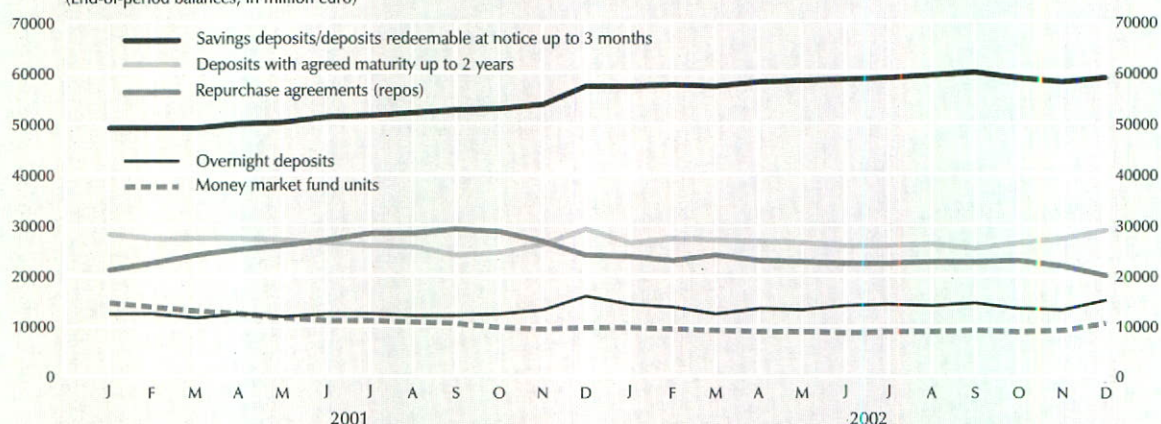
³ Deposits by residents of other euro area countries in December 2002 corresponded to a mere 0.6% of total deposits included in the Greek M3.

⁴ Overnight deposits increased by 20.2% that month, as households placed part of the currency in circulation in such deposits, with a view to ensuring its automatic conversion into euro.

Chart 30

Deposits, repurchase agreements and money market fund units in Greece¹ (January 2001 - December 2002)

(End-of-period balances, in million euro)



¹ These aggregates concern deposits, repos and money market fund units, which, according to the ECB definition, are included in M3.

Source: Bank of Greece.

agreed maturity) over that period, which prompted savers to pursue more profitable investments. The annual growth rate of deposits with an agreed maturity of up to two years also picked up, reaching 6.1% in the third quarter of 2002, compared with a 9.3% decrease in the fourth quarter of 2001. In the last quarter of 2002 this rate accelerated to 10.1%, as it was fuelled by savers' desire to secure higher yields amid expectations of a fall in ECB key rates (which eventually took place, as already mentioned, on 5 December 2002).

Repo holdings by Greek and other euro area residents (excluding central government) with credit institutions operating in Greece decreased noticeably last year and, as they had begun to decline in October 2001 (see Chart 30), their annual rate of change turned negative for the first time in April 2002. During 2002, repo holdings shrank by €4,226 million, recording an annual rate of decrease of 19% in the fourth quarter of 2002, compared with a growth rate of 38.3% in the same quarter a year earlier. This development was directly related to the 7% tax⁵ imposed on repo yields for agreements made as from January 2002, as well as to a savers' shift towards more prof-

itable investments. Finally, as far as holdings of money market fund units are concerned, the negative (yet increasingly lower) rates of change they registered until November 2002 became positive in December (10.9%) and thus their annual rate of decrease dropped to 3.7% in the last quarter of 2002, from 38.4% in the respective quarter of 2001.

Total deposits by Greek residents (households and enterprises) in euro and other currencies rose by €2,952 million in 2002, owing to an increase in the outstanding balance of euro deposits and a decrease in the corresponding balance of deposits in other currencies during 2002, a pattern reflecting savers' confidence in the single currency. Besides, this development is also related to the widening of the positive spread of interest rates on deposits in euro over those on deposits in US dollars,⁶ as

⁵ The decision pertaining to the taxation of repo yields was announced in November 2001.

⁶ Despite the cut in ECB key rates in early December, the spread between the interbank rate for deposits in euro with a maturity of three months and the corresponding rate for deposits in US dollars grew from 142 basis points in December 2001 to 153 basis points in December 2002.

Table XIV

Total credit expansion in Greece

(Percentage change of balances over same month of previous year)

	December		2002
	2000	2001	
1. Total credit expansion	15.3	9.3	8.5
2. Credit expansion to general government ¹	6.1	-4.6	-1.3
3. Credit expansion to enterprises and households	27.6	24.8	16.9
3.1 Credit expansion to enterprises	24.6	18.5	9.6
3.2 Credit expansion to households	35.5	40.4	32.2
of which:			
3.2.1 Housing loans	31.2	38.9	35.6
3.2.2 Consumer loans	42.7	42.5	24.2

¹ Percentage change in the sum of bank loans to general government and government paper holdings of credit institutions and money market funds.

Source: Bank of Greece.

well as to the weakening of the US dollar against the euro.

2. Credit expansion

The growth of credit extended by MFIs to the economy as a whole decelerated in 2002 (to an annual rate of 8.5% from 9.3% in 2001), reflecting the evolution of credit to enterprises and households. By contrast, although MFIs' lending to the general government⁷ declined further in 2002, its rate of decrease was lower than in 2001 (2002: -1.3%, 2001: -4.6%, see Table XIV). In any case, it should be noted that the general government borrowing requirement was slightly lower in 2002, amounting, on a cash basis, to €5,542 million, compared with €5,715 million in 2001. Moreover, an increase was recorded in holdings of government paper by the non-MFI private sector (2002: €1,038 million, 2001: -€1,855 million), as well as in net holdings of government paper by non-residents (2002: €11,302 million, 2001: €8,567 million).

Bank credit to enterprises and households

Credit expansion to enterprises and households decelerated to 16.9% in 2002, from 24.8% in 2001 (see Table XV). The slowdown took place gradually from the beginning of the year onwards and mainly reflected the limited increase in credit to enterprises, while a slowdown was also observed in credit expansion to households, in particular consumer loans, although these loans continued to grow at high rates. As noted in the past,⁸ the rapid growth of consumer loans in recent years may be explained by (i) the low level of their aggregate volume in relation to national income, (ii) the sharp decline in their interest rates,⁹ and (iii) keen competition between banks in the field of consumer credit. In any case, the gradual deceleration in the growth rate of consumer loans was

⁷ The financing of general government by MFIs comprises (i) loans granted by credit institutions, and (ii) the sum total of government paper held by credit institutions and money market funds.

⁸ See Bank of Greece, *Monetary Policy, Interim Report 2002*, November 2002, Section V.3.

⁹ The interest rate on personal loans dropped from 20.8% in December 1999 to 11.6% in December 2002.

Table XV

Credit to enterprises and households in Greece by branch of economic activity

	Outstanding balances on 31.12.02 (million euro)	Annual percentage changes					
		2001		2002			
		December ¹	Q1 ²	Q2 ²	Q3 ²	Q4 ²	December ¹
– Agriculture	3,225	–4.1	–15.1	–17.9	–16.1	–14.0	–13.4
– Industry ³	14,364	6.7	7.7	7.7	7.6	11.5	13.9
– Trade	15,671	25.5	25.2	21.3	16.8	7.8	0.9
– Housing	21,225	38.9	39.2	39.8	38.7	35.4	35.6
– Consumer credit	9,755	42.5	39.1	34.8	31.1	27.4	24.2
– Other	22,271	29.0	26.1	17.8	18.3	20.3	19.4
Total	86,511	24.8	23.5	20.4	19.5	18.3	16.9

1 Annual percentage change at the end of the month.

2 The quarterly average is derived from the arithmetic annual averages for each month (calculated as the average of the rates at the end of the reference month and the end of the previous month) and is not the average of the rates at the end of each of the quarter's months (see the "Technical Notes" in the ECB Monthly Bulletin).

3 Including manufacturing (industry and small-scale manufacturing) and mining.

Source: Bank of Greece.

to be expected and is connected with the gradual saturation of the consumer credit market.

Bank credit to enterprises rose by 9.6% in 2002, compared with 18.5% in 2001. Despite this significant slowdown, the growth of these loans was faster than nominal GDP growth (7.1%) and more than double the corresponding euro area figure (December 2002: 3.5%). The sectoral breakdown of credit to enterprises shows that this weakening came as a result of a significant contraction of the net outstanding balance of loans granted by the Agricultural Bank of Greece to the agricultural sector,¹⁰ although a smaller slowdown was also observed in credit expansion to all the other sectors, with the exception of industry and tourism where an acceleration was recorded. Nevertheless, it should be noted that no safe conclusions can be drawn regarding the sectoral breakdown of loans, because of a change in banks' statistical reporting forms,¹¹ requiring greater detail in the sectoral classification of loans as of September 2002. This change prompted several banks to proceed to the reclassification of loans, which led to a considerable decrease in the outstanding balance of credit to

trade and an increase in the respective figures for industry and tourism.

Credit expansion to households slowed down, as already mentioned, but remains strong. In more detail, total credit to households increased by 32.2% in 2002, compared with 40.4% in 2001. This development was mainly driven by a significant decline in the growth rate of consumer loans (2002: 24.2%, 2001: 42.5%), while the growth rate of housing loans also fell slightly, from 38.9% in 2001 to 35.6% in 2002. A large increase (2002: 59.7%, 2001: 74%) was observed in other loans (i.e. other than housing and consumer loans) to households, which comprise debit balances on current accounts, loans to meet tax and social insurance obligations, loans to buy shares and loans to private non-profit institutions. However, the outstanding balance of these loans remains low (December 2002: €518 million or 1.6% of

¹⁰ More specifically, as a result of debt rescheduling for cattle-breeders in 2002 and, more generally, of the portfolio restructuring policy implemented by the Agricultural Bank of Greece, loans to the agricultural sector decreased by €500 million or 13.4% in 2002, compared with a decrease of €161 million or 4.1% in 2001.

¹¹ Introduced in May 2002 following an ECB regulation.

total credit to households, December 2001: €325 million or 1.4% of total credit to households), which explains their very high growth rates.

It is worth noting that 72.7% of credit expansion to households in 2002 is accounted for by the increase in housing loans, compared with 63.9% in 2001. This is connected with the relatively sharp rise in real estate prices (see Chapter IV) that boosted purchasers' borrowing requirements, and the announced changes in the tax treatment of interest on housing loans to be granted from 2003 onwards. Indeed, many borrowers rushed into concluding housing loans in the course of 2002, so as to avoid the tax deduction caps effective as of 2003 for interest on these loans. The large increase in housing loans is also related to particularly keen competition between banks and the resulting low interest rates on such loans. It should be noted in this respect that interest rates on housing loans fell in 2002 (for example, the average interest rate on fixed-rate housing loans with a maturity of over 5 years fell to 4.9% in December 2002 from 5.4% in December 2001) and their average at the end of the year was lower than the corresponding euro area figure.

The growth of consumer and other (i.e. non-housing) loans to households in 2002 accounts for 16.8% of total credit expansion to enterprises and households, which is roughly the same share as in 2001. In terms of outstanding balances, these loans represented 11.9% of total bank lending to enterprises and households, up from 11% in 2001. Although increasingly larger, this share is still rather low, when compared with the euro area average (16.3%). However, the robust growth of consumer and housing loans suggests an upward trend in household indebtedness and a need to closely monitor the evolution of these aggregates.

The total outstanding balance of bank lending to

Greek households at the end of 2002 corresponded to 22.6% of GDP, compared with a euro area average of 46.9%. Based on this comparison, the indebtedness of Greek households cannot be regarded as high in general, even though it cannot be ruled out that some of them may have borrowed more than what would be justified by their income and the value of their assets. The generally low level of indebtedness of Greek households is confirmed by a recent sample survey commissioned by the Bank of Greece (see Annex to this chapter). In any case, monitoring of household debt will be considerably facilitated once the Credit Bureau run by "Bank Information Systems – Teiresias S.A." becomes fully operative. This undertaking is currently in progress. For the time being, a pilot run of this system has been carried out on a database comprising 20% of bank customers in the fields of personal loans and credit cards. Nevertheless, it should be noted that the Bank of Greece, taking into account the risk exposure entailed by the rapid growth of bank lending, in particular consumer loans, has adjusted upwards by 10 percentage points the ratio of banks' provisions for doubtful loans and loans overdue for more than one year, while it has also laid down specific stipulations with regard to provisions for housing and consumer loans.¹²

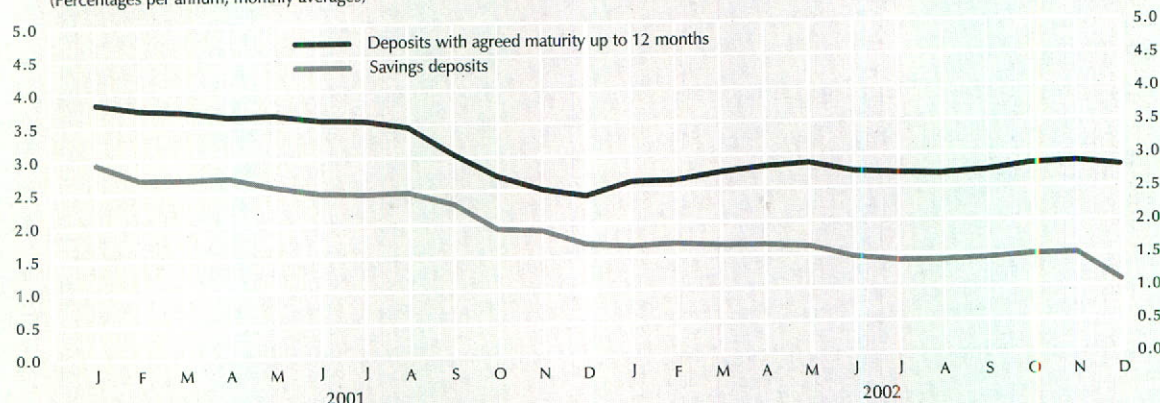
As far as individual categories of consumer loans are concerned, loans through credit cards continued to rise at a high, albeit considerably lower, rate in 2002 (2002: 33.1%, 2001: 62.7%), owing to strong competition between banks and the preference of both enterprises and consumers for this type of bank credit. On an aggregated basis, loans granted against supporting documents and personal loans increased at a lower rate (2002: 16.3%, 2001: 28.1%). As a result of these developments, the composition of consumer loans has

¹² See Bank of Greece Governor's Act 2513/15 January 2003.

Chart 31

Bank deposit rates in Greece (January 2001 - December 2002)

(Percentages per annum, monthly averages)



Source: Bank of Greece.

changed, with an increase in the share of loans through credit cards (2002: 50.8%, 2001: 47.4%), which, despite relatively high interest rates, offer retail customers easier access to bank credit.

3. Bank interest rates

The level of bank deposit and lending rates across euro area countries is determined on the basis of ECB official rates and competitive conditions between credit institutions. The impact of the 0.50 percentage point reduction in ECB key rates, which was decided on 5 December 2002, passed through, as expected, to Greek and other euro area bank interest rates on both deposits and lending.

Except for the interest rate on deposits with agreed maturity, Greek deposit rates followed a downward course in 2002. In more detail, the overnight rate fell by 0.5 percentage point to 0.7% in December. After dropping moderately (by 0.2 percentage point) until November, the average savings deposit rate was further reduced (by 0.4 percentage point) to 1.1% in December 2002, following the change in ECB rates in early December. However, as inflation remained well above the nominal interest rate on

these deposits throughout the year, the respective real interest rate was negative (–2.0% on average).¹³ It should be noted that the low interest rate on savings deposits also reflects partly the cost of the facilities offered by such accounts (e.g. bill payments through standing payment orders, withdrawals and transfers of funds via cards and the internet etc.), as well as the higher liquidity of savings deposits. Repo yields decreased by a further 0.5 percentage point in the course of 2002.¹⁴ By contrast, the average interest rate on deposits with an agreed maturity of up to twelve months rose significantly (by 0.4 percentage point) to 2.8% in December (see Chart 31). Developments in Greek interest rates, in conjunction with a small decline in the corresponding average euro area rates,¹⁵ have made the spread between the Greek sight deposit rate and the corresponding euro area rate to narrow considerably, while that for deposits with an agreed maturity of up to 12 months shifted from negative in early 2002 to positive at the end of the year (0.30 percentage point). Nevertheless, it should be noted that any

¹³ After the deduction of tax on interest income, the real interest rate becomes –2.2%.

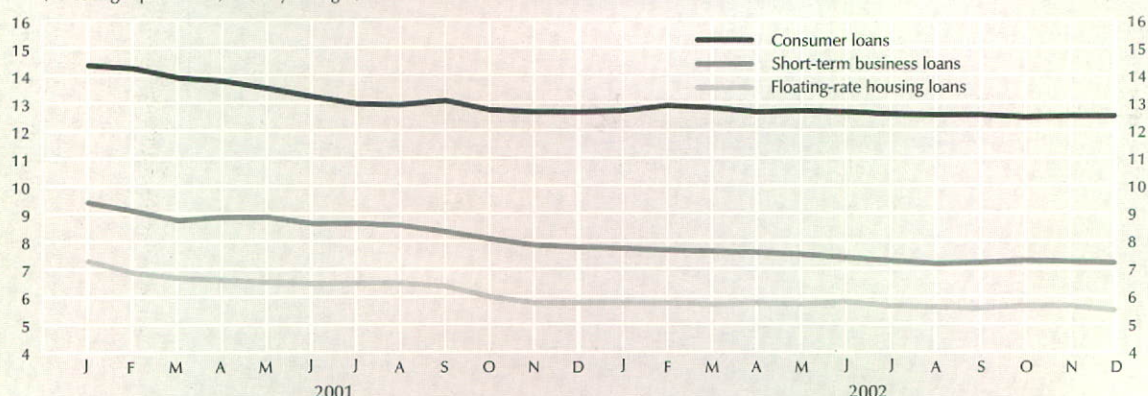
¹⁴ Yields on repos with a maturity of one month were 2.9% in December 2002, down from 3.4% in December 2001.

¹⁵ The interest rates on sight deposits and deposits with an agreed maturity of up to 12 months are the most suitable for comparisons between Greece and the other euro area countries.

Chart 32

Bank lending rates in Greece (January 2001 - December 2002)

(Percentages per annum, monthly averages)



Source: Bank of Greece.

Table XVI

Lending rates in the euro area and Greece

(Percentages per annum)

	December 2001	December 2002	Change Dec. 2002/Dec. 2001
Short-term business loans			
Weighted average interest rate in the euro area	6.26	5.97	-0.29
Maximum interest rate in the euro area	8.89	8.70	-0.19
Minimum interest rate in the euro area	4.45	4.20	-0.25
Interest rate in Greece	7.79	7.23	-0.56
Fixed-rate housing loans			
Weighted average interest rate in the euro area	5.52	5.10	-0.42
Maximum interest rate in the euro area	6.29	5.95	-0.34
Minimum interest rate in the euro area	4.52	4.00	-0.52
Interest rate in Greece ¹	5.40	4.91	-0.49
Consumer loans (personal loans)			
Weighted average interest rate in the euro area	9.81	9.59	-0.22
Maximum interest rate in the euro area	11.62	11.64	0.02
Minimum interest rate in the euro area	5.45	5.09	-0.36
Interest rate in Greece	11.62	11.64	0.02

¹ Average interest rate on loans with a maturity of over five years.

Sources: ECB and Bank of Greece.

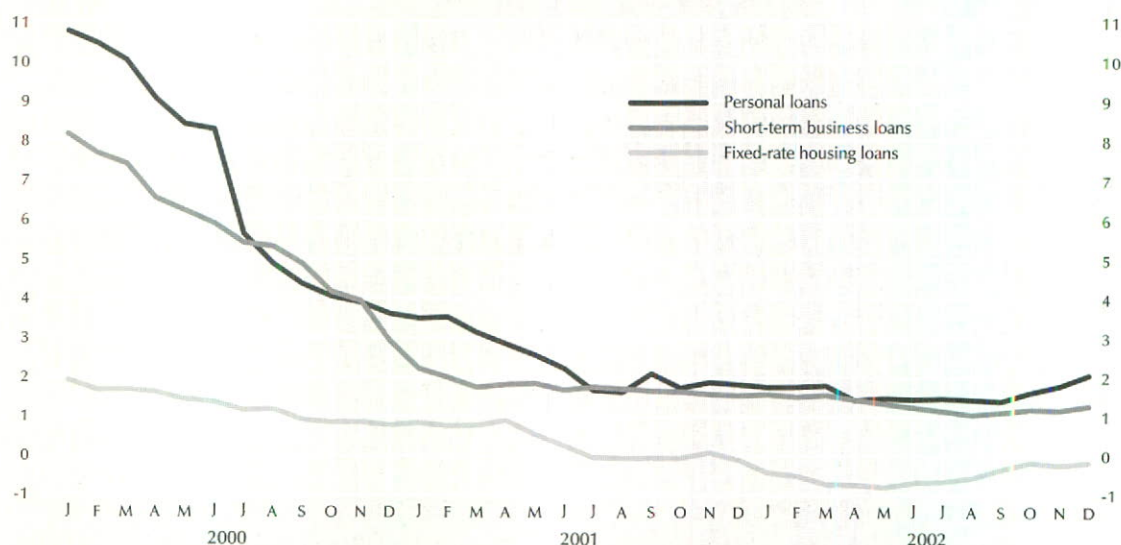
minor differentials between interest rates across euro area countries are explained by differences in competitive conditions and in the functions of deposit accounts, and, in some cases, by the different tax treatment of interest income from deposits.

During 2002, downward trends were also recorded for Greek bank lending rates (see Chart 32), which

converged further towards the generally lower interest rates of the euro area. Specifically, the average interest rate on short-term loans to enterprises decreased by 0.6 percentage point in 2002 and reached 7.2% in December. As a result, its spread over the corresponding euro area rate shrank to 1.3 percentage points from 1.5 percentage points at the end of 2001 (see Table XVI and

Chart 33

Bank lending rate differentials between Greece and the euro area (January 2000 - December 2002)
(Percentage points)



Sources: Bank of Greece and ECB.

Chart 33). It should be noted though that some enterprises with high credit-standing are financed at generally lower interest rates linked to EURIBOR rates. The average interest rate on long-term loans to enterprises also declined by 0.8 percentage point and, since the corresponding euro area rate declined by 0.3 percentage point over the same period, the spread between them narrowed to 1.5 percentage points in December 2002 from 2 percentage points in December 2001.

Trends in consumer loan interest rates were mixed in 2002. The interest rate on loans through credit cards, although it increased by 0.3 percentage point throughout January-November 2002, dropped by 0.3 percentage point in December, eventually returning to its December 2001 level (15.4%). It should be noted in this respect that interest rates on loans through credit cards are higher worldwide than those applicable to other types of consumer loans, owing to the increased risks they entail. Interest rates on loans against supporting documents fell by 0.5 percentage point to 10.5% in December. By contrast, the

interest rate on personal loans remained unchanged in 2002 at 11.6%. This, in conjunction with the fact that the corresponding euro area rate declined by 0.2% in 2002, caused their spread to increase to 2.0% in December 2002, from 1.8% in December 2001.¹⁶

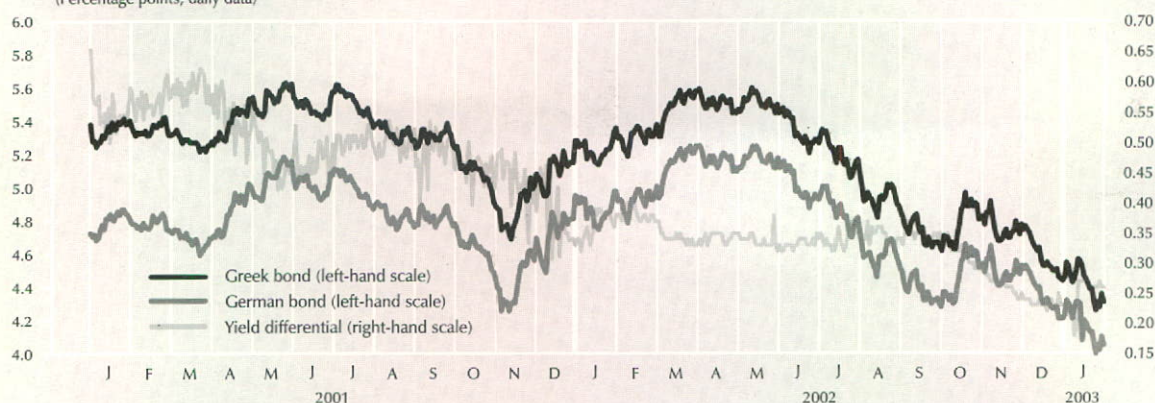
A decrease was also observed in interest rates on housing loans. In more detail, the interest rate on fixed-rate housing loans with a maturity of over 5 years was reduced by 0.5 percentage point and stood at 4.9% in December, i.e. 0.2 percentage point lower than the euro area average. A smaller decline (of 0.3 percentage point) was recorded in the interest rate on floating-rate housing loans in 2002 (December 2002: 5.5%, December 2001: 5.8%).

The spread between the (weighted) average interest rate on lending and the corresponding deposit

¹⁶ The Greek interest rate on personal loans is the most suitable for comparison with the euro area rate on consumer loans, which is published in the *Monthly Bulletin* of the ECB.

Chart 34

Yields on the 10-year Greek government bond and the comparable German bond
(January 2001 - January 2003)
(Percentage points, daily data)



Sources: Bank of Greece and Bloomberg.

rate has been following a downward path in recent years. In particular, it narrowed by approximately 3 percentage points between December 1998 and December 2002. This narrowing is related to the abolition or cuts of certain taxes and levies,¹⁷ but also to the harmonisation (in the second half of 2000) of the minimum reserve ratio of the Bank of Greece with that of the euro area. These adjustments had a significant, both direct and indirect, impact on the cost of money. To a large extent, however, the narrowing of the spread came as result of keener competition between banks, especially in loans to households. Moreover, the decrease in the spread is connected with the cutdown on banks' operational costs, which, as a percentage of their assets, fell to 2.4% in 2001 from 2.8% in 1997, while, according to data for January-September 2002, they decreased further in 2002.

4. Capital markets

4.1 The bond market

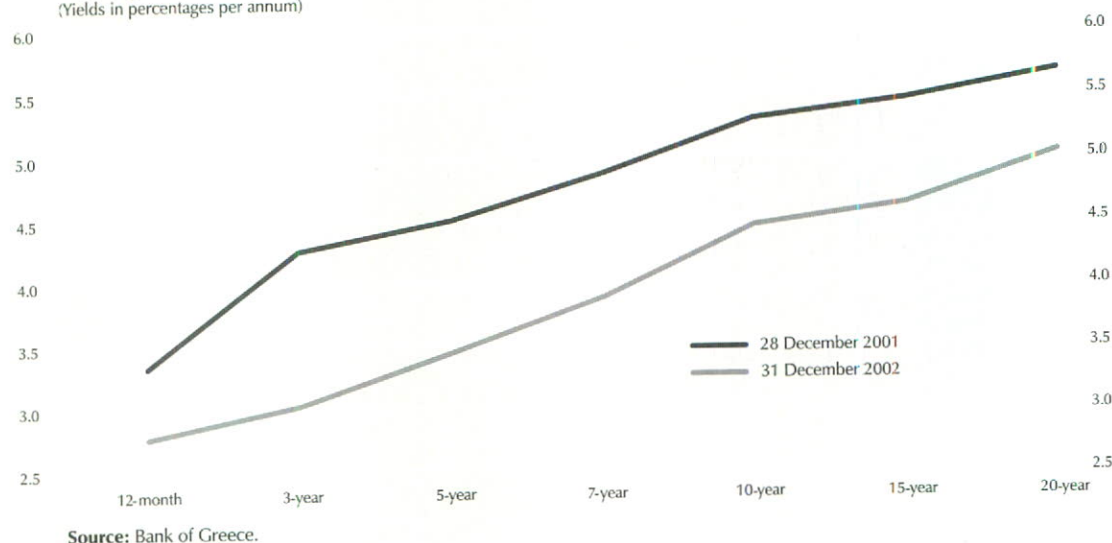
In line with developments in US and euro area government bond yields, the yields of comparable Greek bonds rose from early October 2001 to mid-March 2002. Later on, however, their upward

trend reversed as demand for bonds became stronger (see Chart 34). This led to a decline in bond yields in the period from mid-May to late December 2002 (with the exception of a limited rebound in October, as a result of an investor shift to equity securities). The downward trend in yields, mainly in the medium-term maturity band, continued through to January 2003. This pattern stemmed initially from expectations of a recovery in economic activity and then from adverse developments in international stock markets, the downward revision of forecasts of an economic upturn in the United States and the euro area over 2002-2003, as well as the recent tension in the Persian Gulf, which have prompted a "flight to safety" from equity securities to government bonds on the part of domestic and foreign investors.

Between end-December 2001 and end-December 2002, government bond yields decreased across the whole spectrum of maturities. The decline was most pronounced for 3-year bonds, whereas it was relatively limited for 20-year bonds. As a

¹⁷ The Special Tax on Banking Transactions was cut on 1 September 1997 to 3% from 4% and was eventually abolished on 1 January 2001. Moreover, on 1 April 2000 the levy under Law 128/75 was reduced to 0.6% from 1.2%.

Chart 35

Greek government paper yield curves
(Yields in percentages per annum)

result, the government paper yield curve shifted downwards,¹⁸ bringing down by 26 basis points the spread between the yields of the 10-year government bond and the 12-month Treasury bill during the same period (see Chart 35). However, markets seem to have remained sanguine about the medium to longer-term economic outlook, as reflected by the steepening of the yield curve segment corresponding to maturities of 3 to 10 years. Indeed, between end-December 2001 and end-December 2002, the yield spread of the 10-year bond over the 3-year bond increased by 40 basis points (see Chart 35).

In more detail, the yield of the 10-year Greek government bond was 4.44% at the end of December 2002, i.e. 84 basis points lower than a year earlier (5.28%), with strong fluctuations in the course of the year, between a trough of 4.44% (31 December) and a peak of 5.60% (15 May) – see Chart 34. During the first ten months of 2002 the yield differential between the Greek 10-year bond and the comparable German bond averaged 35 basis points, recording only small fluctuations over this period. Yet, this differential was subsequently limited, as soon as Greece's credit rating was

upgraded,¹⁹ and at the end of December 2002 came down to the very low level of 23 basis points, from 34 basis points at the end of December 2001.

The average daily value of transactions conducted through the Electronic Secondary Securities Market (HDA) followed an impressive upward course over the first ten months of 2002, while in the remaining two months of the year it dropped below the October 2002 level. Overall, it increased by 77% to €2.3 billion in 2002, compared with €1.3 billion in 2001 (see Chart 36).

The primary market for Greek government bonds was dominated by syndicated bond issues²⁰ and, to a smaller extent, by auction issues. Moreover, reopenings of past government issues were executed through auction procedures. The funds raised

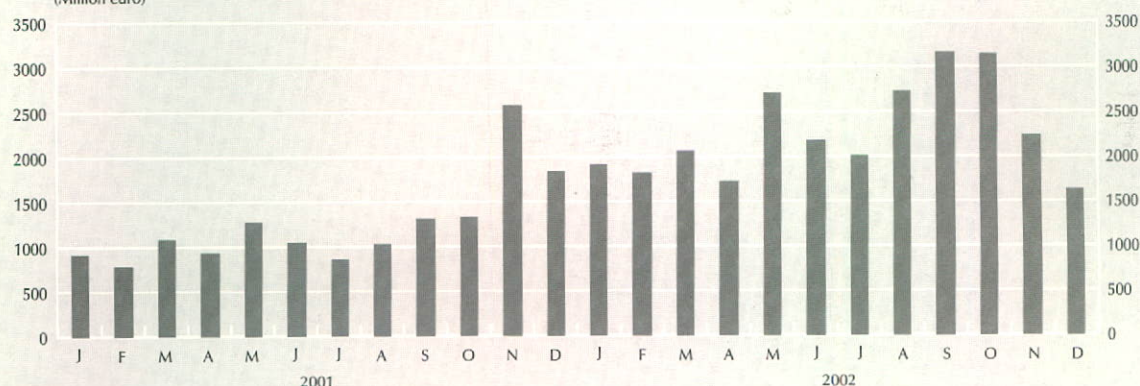
¹⁸ Heightened market uncertainty and volatility in January 2003 caused the yield curve to shift further downwards, particularly in the medium-term maturity band.

¹⁹ On 4 November 2002, Moody's upgraded Greece's longer-term credit rating from A2 to A1.

²⁰ For each bond issue, five credit institutions are selected (among Primary Dealers) as lead managers. The interest rate of these issues is determined by the government in line with the terms (i.e. interest rates) applicable to comparable maturities in the euro area bond market.

Chart 36

Average daily value of transactions in the Electronic Secondary Securities Market (HDAT)
(January 2001 - December 2002)
(Million euro)



Source: Bank of Greece.

Table XVII

Greek government paper issuance

Type of security	January - December			
	2001		2002	
	Million euro	Percentage of total	Million euro	Percentage of total
Treasury bills	1,209	5.0	1,506	4.7
Bonds ¹	22,985	95.0	30,563	95.3
3-year	—	—	6,931	22.7
5-year	5,270	22.9	7,351	24.1
7-year	5,103	22.2	1,541	5.0
10-year	8,132	35.4	8,891	29.1
15-year	673	2.9	—	—
20-year	3,807	16.6	5,849	19.1
Total	24,194	100.0	32,069	100.0

1 By initial maturity.

Source: Bank of Greece.

during 2002 totalled €32.1 billion, compared with €24.2 billion in 2001 (see Table XVII). Specifically, 3-year and 5-year bond issues accounted for €14.2 billion or 47% of total issuance (2001: 23%), 7-year bond issues accounted for €1.5 billion or 5% of total issuance (2001: 23%), while the remaining 48% (2001: 53%) concerned 10-year and 20-year bond issues. This points to a considerable shift, mainly from 7-year bonds to 3-year and 5-year bonds (see Table XVII), in line with similar developments in the secondary market for

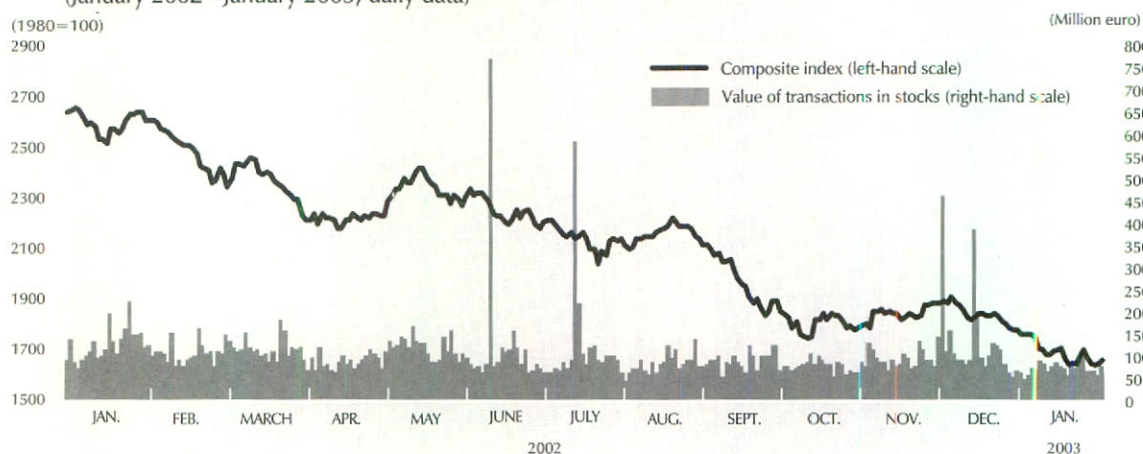
government paper. The weighted average maturity of Greek government paper issued in 2002 stood at around the same level as in 2001.

4.2 Stock market developments

In the course of 2002 the composite share price index of the Athens Stock Exchange (ASE) followed a downward course, with some fluctuations (see Chart 37). The decline in share prices was relatively steeper in the last four months of

Chart 37

Athens Stock Exchange: composite share price index and value of transactions
(January 2002 - January 2003, daily data)



Source: Athens Stock Exchange.

2002 and continued into January 2003. Yet, it should be noted that the US and the euro area stock markets also witnessed sharply falling and highly volatile share prices in 2002. These developments in international stock markets were driven by a decrease in corporate profits, mainly in high-technology sectors such as telecommunications,²¹ the non-transparent accounting practices applied by some major US firms, the downward revision of earlier optimistic projections about the global economy, as well as the recent tension in the Persian Gulf. In addition, in the period under review, the Greek stock market was adversely affected by a drop in the profitability of many listed firms. A particularly pronounced fall in profitability was seen in banks and portfolio investment companies.²² The P/E ratio on all ASE-listed shares declined (to 14 at end-December 2002, from 18 at end-December 2001), whereas it increased (from 12 to 13 respectively) on bank shares.²³ Moreover, stock market transactions and the funds raised through the stock market stood at very low levels in 2002 relative to 2001.

The downturn in the Greek stock market contributed, to a large extent, to a decline in mutual funds' assets in the course of 2002. Specifically,

the value of equity mutual funds' assets decreased by 31.7% at the end of December 2002 relative to a year earlier, while a smaller decline (-5.2%) was recorded in the total value of mutual funds' assets.

Between end-December 2001 and end-December 2002, the ASE composite share price index dropped by 32.5%, reaching a peak of 2,646.4 points on 4 January and a trough of 1,727.1 points on 9 October (see Chart 37). In the course of 2002, this index decreased at a lower rate than the Dow Jones EURO STOXX index for the euro area (-34.5%), but still higher than that of the US Standard and Poor's 500 index (-23.4%).

The average daily value of stock transactions on the ASE amounted to €100 million in 2002, down from €166 million in 2001. Moreover, total funds raised through capital increases dropped to €353 million in 2002, from €836 million in 2001 (see

²¹ The drop in the share prices of these firms, especially in the United States but also in the euro area, reflects *inter alia* their high levels of indebtedness, combined with the uncertainty as to returns on their investment in UMTS mobile telephony.

²² In 2002 the pre-tax profits of all listed companies shrank by approximately 17%, whereas those of non-financial firms rose slightly.

²³ Other than Bank of Greece shares.

Table XVIII
Fund-raising through the Athens Stock Exchange

Branches	January - December			
	Number of firms		Funds raised ¹ (million euro)	
	2001	2002*	2001	2002*
Listed firms	19	23	366.8	267.2
Firms listed for the first time	21	14	469.6	85.8
Total	40	37	836.4	353.0
– Banks	1	3	1.5	55.1
– Investment	5	0	22.3	–
– Insurance	0	0	–	–
– Leasing	0	0	–	–
– Holding	2	4	12.0	162.3
– Industrial	10	7	445.8	12.6
– Construction	9	0	228.0	–
– Commercial	6	5	36.7	25.0
– Telecommunications	0	2	–	8.0
– Real estate	0	1	–	32.7
– Information technology	3	9	19.4	18.3
– Health services	0	1	–	18.8
– Other	4	5	70.7	20.2

¹ Share capital increase through public subscription and private investment. Subscriptions to new capital are entered on the last day of the subscription period.

* Provisional data.

Sources: Athens Stock Exchange and Bank of Greece

Table XVIII). These funds were raised by 37 companies (2001: 40 companies), of which 14 were listed for the first time and accounted for €86 million of the aforementioned amount, compared with €470 million in the corresponding 2001 period.

As in 2001, the banking sub-index performed more poorly than the composite index in 2002. Specifically, share prices, stock trading and, consequently, the market capitalisation of banks with ASE-listed shares declined in 2002 at a faster rate than the respective figures for the stock market as a whole. This development came as result of a further decline in Greek commercial banks' profitability in 2002, continuing a trend observed since

2000. Pre-tax profits of Greek commercial banks with ASE-listed shares shrank by approximately 45% in 2002, compared with reductions of 13.4% and 24.3% in 2001 and 2000 respectively. The stronger decline in commercial banks' profitability in 2002 was due to considerably lower income from financial operations and commission fees. By contrast, net interest income increased faster than operational costs.²⁴ Despite these unfavourable developments, Greek commercial banks outperformed their counterparts in other EU countries in 2002.

²⁴ Total assets of commercial banks also increased slightly during 2002.

Greek households' borrowing and indebtedness: evidence from a sample survey of the Bank of Greece

The high annual rates of increase in consumer and housing loans in recent years (32.2% in 2002, compared with 40.4% in 2001) have justifiably raised the question whether these trends might suggest that Greek households are overindebted. As this has not only economic and social dimensions, but is also of direct relevance to the Bank of Greece as the supervising authority of the banking system (given that it affects banks' lending portfolios), the Bank of Greece commissioned the conduct of a household survey to a specialised company.¹ The survey was carried out between late September 2002 and late January 2003 over a large sample of 6,007 households (more specifically, respondents were all members of these households, aged 25 or more) from every urban and semi-urban area nationwide, all together representing about 80% of the country's population. A random sampling technique, stratified by geographical district, was used to ensure that the sample is representative of the surveyed population, while the relevant questionnaire attempted to cover the principal economic and social parameters of household borrowing. The survey results, notably those pertaining to Greek households' borrowing and indebtedness, are briefly assessed below. However, they are of relative significance only, as the lack of prior experience on such surveys does not allow the evaluation of the survey errors. Therefore, the results must be interpreted with due caution and, where possible, cross-checked with other information. Moreover, the lack of comparable data for earlier periods does not permit an analysis of household borrowing over time or any conclusions about prevailing trends by income group and on whether these trends suggest a different response of individual household groups to changes in interest rates, income, real estate prices etc.

During the survey, 2,303 "full" responses were collected, which corresponds to an average response rate of 38.3%. This is a satisfactory figure, as (i) households were asked to answer a very difficult questionnaire on a relatively sensitive issue, and (ii) the response of any given household was deemed "full" only if filled-in questionnaires had been collected from all members of that household. It should be noted, however, that the response rate varies significantly across geographical areas. The lowest response rate (31.3%) was recorded in Athens and the highest (48.6%) in semi-urban areas (see Table 1). As a result, the representation of geographical areas in the sample of "fully" responding households is not exactly proportional to their respective population: "Other" urban and semi-urban areas are overrepresented at the expense of Athens, which is underrepresented, while Thessaloniki's share is exactly proportional to its population. To some extent, this affects the representativeness of the total surveyed population in the sample; hence, appropriate caution is warranted when interpreting the relevant results. However, this does not impede the analysis and comparison of household behaviour across geographical areas.

As shown in Table 2, 1,146 of the 2,303 households, i.e. 49.8% (or 48.2% if a weight is applied so that each geographical area is represented according to its population) reported that they do not have any outstanding debt from any bank or non-bank loan. Thus, households' recourse to borrowing for financing their needs eventually seems to be less widespread than it might be suggested by the rapid growth of bank loans to households, as well as the highly advertised instalment payment schemes offered by retail firms in recent years. Nevertheless, there are significant differences across geographical areas. Among the sample households from semi-urban areas, about 64.7% reported that they do not have any outstanding debt from any loan, whereas the corresponding rate for Athens is smaller (42.5%). The proportion of households with no

1 The sample survey was conducted by the TNS-ICAP S.A.

Table 1

Regional breakdown of contacted households and households with completed interviews

	Contacted households (a)	Interviewed households (b)	Response rate (percentages) (b/a)	Contacted households as a percentage of all households	Interviewed households as a percentage of all households
Athens	2,774	869	31.3	46.2	37.7
Thessaloniki	679	263	38.7	11.3	11.4
Other urban areas	1,624	719	44.3	27.0	31.2
Semi-urban areas	930	452	48.6	15.5	19.6
	6,007	2,303	38.3	100.0	100.0

Table 2

Loan distribution by category and region

	Athens		Thessaloniki		Other urban areas		Semi-urban areas		Total	
	Number of households	Percentage*	Number of households	Percentage*	Number of households	Percentage*	Number of households	Percentage*	Number of households	Percentage*
Loans for: house construction/purchase	136	15.2	40	15.2	114	16.3	39	8.7	329	14.3
house repair	55	6.2	11	4.2	35	5.0	26	5.8	127	5.5
land acquisition	5	0.6	1	0.4	5	0.7	1	0.2	12	0.5
car purchase	108	12.1	39	14.8	66	9.5	33	7.4	246	10.7
Bank loans: consumer	49	5.5	7	2.7	37	5.3	10	2.2	103	4.5
personal	99	11.1	33	12.5	74	10.6	31	6.9	237	10.3
other	7	0.8	1	0.4	7	1.0	4	0.9	19	0.8
Credit from retailers	84	9.4	21	8.0	45	6.4	30	6.7	180	7.8
Credit card debt	318	35.6	63	24.0	148	21.2	57	12.7	586	25.4
Loans from individuals	13	1.5	6	2.3	7	1.0	5	1.1	31	1.3
Without any debt obligations (including debts arising from loans, credit cards, bills etc.)	380	42.5	122	46.4	354	50.7	290	64.7	1,146	49.8
Reports	1,254		344		892		526		3,016	
Index (Number of households=100)	894		263		698		448		2,303	

* The percentages for each region do not add up to 100%, since some households may have various debt commitments (for example, a housing loan plus a consumer loan).

outstanding loan debts varies also significantly depending on their net income and wealth position. Table 3 shows that 64.9% of low-income households (defined as those with an annual income of up to €15,000 or 5.1 million drachmas) have not contracted any kind of loan. The corresponding figure for the middle-income households (defined as those with an annual income in the range of €15,001 to €30,000 or 5.1 million drachmas to 10.2 million drachmas) falls to 37.6% and is fur-

ther reduced in the case of high- or very high-income households (annual income of more than €30,000 or 10.2 million drachmas). A similar picture emerges if the household wealth position is taken into account (see Table 4): Over 50% (51.8%) of households near the bottom end of the wealth distribution (defined as those owning at most €120,000 or 40.9 million drachmas) have not contracted any kind of loan. This percentage falls as wealth builds up and is limited to around 30%

Table 3
Loan categories and (net) household income

a. Number of households					
	Total annual household income ¹				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
Loans for: house construction/purchase	82	156	91	0	329
house repair	38	54	34	1	127
land acquisition	3	5	4	0	12
car purchase	78	116	51	1	246
Bank loans: consumer	45	39	19	0	103
personal	83	104	48	2	237
other	4	12	3	0	19
Credit from retailers	72	79	28	1	180
Credit card debt	159	284	139	4	586
Loans from individuals	17	11	3	0	31
Without any debt obligations (including debts arising from loans, credit cards, bills etc.)	730	317	68	31	1,146
<i>Total reports</i>	<i>1,311</i>	<i>1,177</i>	<i>488</i>	<i>40</i>	<i>3,016</i>
Number of households per income group	1,125	842	299	37	2,303
Number of indebted households	395	525	231	6	1,157

b. Percentages within each household income group*					
	Total annual household income ¹				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
Loans for: house construction/purchase	7.3	18.5	30.4	0.0	14.3
house repair	3.4	6.4	11.4	2.7	5.5
land acquisition	0.3	0.6	1.3	0.0	0.5
car purchase	6.9	13.8	17.1	2.7	10.7
Bank loans: consumer	4.0	4.6	6.4	0.0	4.5
personal	7.4	12.4	16.1	5.4	10.3
other	0.4	1.4	1.0	0.0	0.8
Credit from retailers	6.4	9.4	9.4	2.7	7.8
Credit card debt	14.1	33.7	46.5	10.8	25.4
Loans from individuals	1.5	1.3	1.0	0.0	1.3
Without any debt obligations (including debts arising from loans, credit cards, bills etc.)	64.9	37.6	22.7	83.8	49.8

c. Percentages within indebted households per each income group*					
	Total annual household income ¹				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
Loans for: house construction/purchase	20.8	29.7	39.4	0.0	28.4
house repair	9.6	10.3	14.7	16.7	11.0
land acquisition	0.8	1.0	1.7	0.0	1.0
car purchase	19.7	22.1	22.1	16.7	21.3
Bank loans: consumer	11.4	7.4	8.2	0.0	8.9
personal	21.0	19.8	20.8	33.3	20.5
other	1.0	2.3	1.3	0.0	1.6
Credit from retailers	18.2	15.0	12.1	16.7	15.6
Credit card debt	40.3	54.1	60.2	66.7	50.6
Loans from individuals	4.3	2.1	1.3	0.0	2.7

¹ In euro.

* The percentages within each income group do not add up to 100%, since some households may have various debt commitments (for example, a housing loan plus a consumer loan).

Table 4
Loan categories and household wealth

a. Number of households

	Total household wealth ¹				
	up to 120,000	120,001-300,000	300,001 plus	No response	Total
Loans for: house construction/purchase	152	114	49	14	329
house repair	58	44	20	5	127
land acquisition	5	3	3	1	12
car purchase	139	56	26	25	246
Bank loans: consumer	49	23	11	20	103
personal	130	51	26	30	237
other	6	8	3	2	19
Credit from retailers	93	46	15	26	180
Credit card debt	275	156	92	63	586
Loans from individuals	17	5	3	6	31
Without any debt obligations (including debts arising from loans, credit cards, bills etc.)	621	194	63	268	1,146
<i>Total reports</i>	<i>1,545</i>	<i>700</i>	<i>311</i>	<i>460</i>	<i>3,016</i>
Number of households per wealth bracket	1,198	502	211	392	2,303
Number of indebted households	577	308	148	124	1,157

b. Percentages within each wealth bracket*

	Total household wealth ¹				
	up to 120,000	120,001-300,000	300,001 plus	No response	Total
Loans for: house construction/purchase	12.7	22.7	23.2	3.6	14.3
house repair	4.8	8.8	9.5	1.3	5.5
land acquisition	0.4	0.6	1.4	0.3	0.5
car purchase	11.6	11.2	12.3	6.4	10.7
Bank loans: consumer	4.1	4.6	5.2	5.1	4.5
personal	10.9	10.2	12.3	7.7	10.3
other	0.5	1.6	1.4	0.5	0.8
Credit from retailers	7.8	9.2	7.1	6.6	7.8
Credit card debt	23.0	31.1	43.6	16.1	25.4
Loans from individuals	1.4	1.0	1.4	1.5	1.3
Without any debt obligations (including debts arising from loans, credit cards, bills etc.)	51.8	38.6	29.9	68.4	49.8

c. Percentages within the indebted households per each wealth bracket*

	Total household wealth ¹				
	up to 120,000	120,001-300,000	300,001 plus	No response	Total
Loans for: house construction/purchase	26.3	37.0	33.1	11.3	28.4
house repair	10.1	14.3	13.5	4.0	11.0
land acquisition	0.9	1.0	2.0	0.8	1.0
car purchase	24.1	18.2	17.6	20.2	21.3
Bank loans: consumer	8.5	7.5	7.4	16.1	8.9
personal	22.5	16.6	17.6	24.2	20.5
other	1.0	2.6	2.0	1.6	1.6
Credit from retailers	16.1	14.9	10.1	21.0	15.6
Credit card debt	47.7	50.6	62.2	50.8	50.6
Loans from individuals	2.9	1.6	2.0	4.8	2.7

¹ In euro.

* The percentages within each wealth bracket do not add up to 100%, since some households may have various debt commitments (for example, a housing loan plus a consumer loan).

for wealthy or very wealthy households (owning more than €300,000 or 102.2 million drachmas). These figures imply that recourse to borrowing becomes greater as households' income and wealth increase. Moreover, given that only 1.3% of the sample households reported that they have borrowed from individuals (usually friends), it can be inferred that recourse to bank borrowing also rises along with income and wealth. Disaggregated data reveal that households with very low income (€6,000 maximum) and/or wealth (€15,000 maximum) have limited, if at all, recourse to bank borrowing,² as might have been expected.

The remaining 1,157 households (accounting for 50.2% of the sample, or 51.8% in weighted terms) have outstanding loan debts. On average, each of them owes €16,143 (i.e. about 5.5 million drachmas). If this amount is extrapolated to all the 2,303 households in the sample, it would give an outstanding debt of about €8,100 (on average) per household. This outcome is not essentially different from an estimated €8,200, which is derived by dividing the aggregate outstanding balance of bank loans to households by the total number of households.³ However, the distribution of this balance is very asymmetric (positive asymmetry), since 67.5% of these households have an aggregate outstanding debt of less than €15,000 (approximately 5.1 million drachmas) – see Tables 5b or 6b. Moreover, the survey shows that, among indebted households, 65.4% have a (net) annual income of over €15,000 (see Table 5a), while, for roughly 40%, total wealth exceeds €120,000 (see Table 6b). In addition, the outstanding loan debt incurred by households with an income of €15,000 or less (which represent 34.1% of the indebted households) corresponds to 20.5% of the aggregate borrowing of all households in the sample. It also corresponds to 96.2% (on average) of their income⁴ (see Table 7). Nevertheless, the distribution of debt-to-income ratios is very asymmetric for all levels of income. More specifically, in the case of low-income households, the median⁵ of this ratio stands at 31.6%, i.e. 50% of these households have an outstanding loan

debt of less than one third of their income. Moreover, the examination of the distribution of debt-to-income ratios for "other" loans (i.e. other than those extended for house purchase/construction, house repair or land acquisition), which are normally short-term unsecured loans, mainly for consumer purposes, and exhibit higher sensitivity to economic volatility, indicates that both the mean and the median of this ratio are very low at all income levels (see Table 7c). Consequently, it may be inferred that households' borrowing in Greece is limited in relation to their annual income and wealth. This is also in line with the fact that the total Greek household borrowing-to-GDP ratio, as computed on the basis of data submitted by banks to the Bank of Greece, stood at 22.6% in 2002, while the corresponding ratio for the euro area was 46.9%. In addition, data summarised in Table 8b show that 75% of households are apparently capable of servicing their loans, as the last instalment they paid corresponds at most to one third of their average monthly income, although for those at the lowest income levels this amount may be rather significant compared to their needs.

The most widespread form of household borrowing are credit cards, as around half of the households with outstanding loan debts (50.6%) reported borrowing on credit cards (see Table 3c). On average, the outstand-

² It should be noted that, while households with an income of €6,000 or less account for 10% of the sample, those among them that have had recourse to bank borrowing represent a mere 2.2% of the total number of borrowing households.

³ At the end of 2002, the outstanding balance of total bank loans to households was €31,498.6 million, while the total number of households nationwide is estimated to be 3.8 million.

⁴ For comparative purposes, in the United Kingdom the average borrowing of households with an income of 11,499 sterling pounds or less (approximately €17,000) corresponded to 432% of their income in 2000, compared with 334.3% in 1995. See Cox P., J. Whitley and P. Brietley, "Financial pressures in the UK household sector: evidence from the British Household Panel Survey", *Bank of England Quarterly Bulletin*, Winter 2002, pp. 410-19.

⁵ The median of a sample (or population) corresponds to the value of the middle observation, when all observations of this sample (or population) are arranged in an ascending or descending order of magnitude. Hence the median divides the set of observations into two equal halves: a half of the observations lie above this point and the other half lie below it.

Table 5

The ratio of total household debt to (net) household income (*in euro*)

a. Number of households

Outstanding debt	Total household income				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
up to 300	41	33	7		81
301-1,500	69	101	30	1	201
1,501-3,000	61	61	25	1	148
3,001-15,000	123	163	64		350
15,001-30,000	26	41	18	1	86
30,001-60,000	28	50	30		108
60,001-300,000	8	34	26		68
300,001 plus	0	0	1		1
No response	39	42	30	3	114
Total	395	525	231	6	1,157

b. Households as percentages of indebted households

Outstanding debt	Total household income				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
up to 300	3.5	2.9	0.6	0.0	7.0
301-1,500	6.0	8.7	2.6	0.1	17.4
1,501-3,000	5.3	5.3	2.2	0.1	12.8
3,001-15,000	10.6	14.1	5.5	0.0	30.3
15,001-30,000	2.2	3.5	1.6	0.1	7.4
30,001-60,000	2.4	4.3	2.6	0.0	9.3
60,001-300,000	0.7	2.9	2.2	0.0	5.9
300,001 plus	0.0	0.0	0.1	0.0	0.1
No response	3.4	3.6	2.6	0.3	9.9
Total	34.1	45.4	20.0	0.5	100.0

Table 6

The ratio of total household debt to household wealth (*in euro*)

a. Number of households

Outstanding debt	Total household wealth				
	up to 120,000	120,001-300,000	300,001 plus	No response	Total
up to 300	46	16	7	12	81
301-1,500	101	44	28	28	201
1,501-3,000	75	38	17	18	148
3,001-15,000	182	86	37	45	350
15,001-30,000	48	25	8	5	86
30,001-60,000	49	37	19	3	108
60,001-300,000	19	30	16	3	68
300,001 plus	0	1			1
No response	57	31	16	10	114
Total	577	308	148	124	1,157

b. Households as percentages of indebted households

Outstanding debt	Total household wealth				
	up to 120,000	120,001-300,000	300,001 plus	No response	Total
up to 300	4.0	1.4	0.6	1.0	7.0
301-1,500	8.7	3.8	2.4	2.4	17.4
1,501-3,000	6.5	3.3	1.5	1.6	12.8
3,001-15,000	15.7	7.4	3.2	3.9	30.3
15,001-30,000	4.1	2.2	0.7	0.4	7.4
30,001-60,000	4.2	3.2	1.6	0.3	9.3
60,001-300,000	1.6	2.6	1.4	0.3	5.9
300,001 plus	0.0	0.1	0.0	0.0	0.1
No response	4.9	2.7	1.4	0.9	9.9
Total	49.9	26.6	12.8	10.7	100.0

Table 7

Percentage breakdown of the aggregate debt of the sample and percentage ratio of debt to income by income group

a. Aggregate loans

Income groups (amounts in euro)	Share in the aggregate debt of the sample	Average debt-to-income ratio (percentages)	Median* of the debt-to-income ratio (percentages)
up to 15,000	20.5	96.2	31.6
15,001-30,000	48.7	76.8	23.1
30,001 plus	30.6	58.6	18.6
No response	0.1		
<i>Total</i>	<i>100.0</i>		

b. Loans for house purchase/construction, house repair or land acquisition

Income groups (amounts in euro)	Share in the aggregate debt of the sample	Average debt-to-income ratio (percentages)	Median* of the debt-to-income ratio (percentages)
up to 15,000	18.3	225.3	171.4
15,001-30,000	49.4	158.9	116.7
30,001 plus	32.3	91.5	67.1
No response	0.0		
<i>Total</i>	<i>100.0</i>		

c. Other loans

Income groups (amounts in euro)	Share in the aggregate debt of the sample	Average debt-to-income ratio (percentages)	Median* of the debt-to-income ratio (percentages)
up to 15,000	28.1	38.8	24.2
15,001-30,000	46.4	22.0	10.6
30,001 plus	24.9	12.7	6.7
No response	0.6		
<i>Total</i>	<i>100.0</i>		

* See footnote 5.

ing amount owed per household is €1,830. The second most widespread form of borrowing are housing loans: 28.4%⁶ of the indebted households have taken housing loans, each of them owing €40,000 (13.6 million drachmas) on average. Then follow loans for car purchase (21.3%) and personal bank loans (20.5%), for which the average outstanding amount per household stands at €6,176 and €3,026 respectively. Thus, on average households' personal loans exceed (albeit marginally) the maximum amount (€3,000) allowed per person for such loans, suggesting either that more than one member of the same household have had recourse to such borrowing or that the same member of a specific household has contracted personal loans with more than one bank. The fifth most frequent type of loans are

credit schemes offered by retail firms, given that 15.6% of the indebted households reported such debt obligations. At an individual household level, the average amount due is €1,321 (450,000 drachmas), but debt distribution is again very asymmetric, given that 28% owe a maximum of €300, whereas only 22% owe more than €1,500.

Considering the location of households, the proportion of households in semi-urban areas that have had recourse to various types of borrowing, excluding loans

⁶ The percentages do not add up to 100% since the same household may have various debt commitments (for example, a housing loan plus a credit card debt).

Table 8

The ratio of the last (total) monthly instalment to (net) household income

(In euro)

a. Number of households

Monthly instalment	Total household income				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
up to 100	92	102	31	1	226
101-150	51	46	13	3	113
151-300	89	115	39		243
301-600	68	147	55		270
601-900	14	48	31	1	94
901 plus	22	30	46		98
Holding exclusively bills	0	3	2		5
No response	59	34	14	1	108
Total	395	525	231	6	1,157

b. Households as percentages of indebted households

Monthly instalment	Total household income				
	up to 15,000	15,001-30,000	30,001 plus	No response	Total
up to 100	8.0	8.8	2.7	0.1	19.5
101-150	4.4	4.0	1.1	0.3	9.8
151-300	7.7	9.9	3.4	0.0	21.0
301-600	5.9	12.7	4.8	0.0	23.3
601-900	1.2	4.1	2.7	0.1	8.1
901 plus	1.9	2.6	4.0	0.0	8.5
Holding exclusively bills	0.0	0.3	0.2	0.0	0.4
No response	5.1	2.9	1.2	0.1	9.3
Total	34.1	45.4	20.0	0.5	100.0

Note: Figures in bold refer to households whose montly instalments do not exceed one third of their respective monthly income (which is computed by dividing the total annual household income by the number of months).

for house repair, is roughly half that in other areas, especially in Athens and Thessaloniki (see Table 2). While this reflects, in principle, the low degree of household recourse to borrowing in semi-urban areas, at the same time it also implies a relatively small degree of penetration of the banking system in these areas, in particular as far as credit card use is concerned. Finally, the relatively small proportion of households with housing loans in semi-urban areas is consistent with other survey findings pointing to a substantially higher percentage of self-occupancy in these areas relative to urban areas (Athens⁷ in particular). Therefore, it may be mostly due to the relatively weak demand for new dwellings in semi-urban areas rather than the small degree of penetration of the banking system in these areas.

Of course, these results should be interpreted with the necessary caution, given that they rely on the responses

collected from 38.3% of the households originally selected and designated in the sample, while for the other 61.7%, which, for various reasons, have not been covered by the survey (in particular for the 38.1% that refused to participate therein), both the borrowing pattern and other features may be substantially different. It should also be borne in mind that some bias is introduced in the analysis of total aggregates by the fact that Athens is underrepresented in the sample in relation to its population. This, in conjunction with the fact that the accuracy of information supplied by households could not possibly have been verified, as well as with the lack of previous experience on such surveys, have not allowed the evaluation of the relevant errors. Nevertheless, the survey results suggest that borrowing is significantly concentrated among households with

⁷ See Bank of Greece, *Annual Report 2001, 2002*, Box III.2, p. 68.

the highest levels of income and wealth and that households' outstanding debt does not exceed their annual income, even at the lowest income levels, while debt servicing obligations relative to household income do not seem to be a source of major difficulty for households. This corroborates the view that Greek households have not overborrowed. There is some evidence, however, that a number of households have taken personal loans over the maximum amount of €3,000 per person determined by the Bank of Greece for such

loans. This possibly means that these specific households might have overborrowed and are likely to encounter difficulties in meeting their loan obligations. Notwithstanding this, data submitted by banks to the Bank of Greece indicate that loans in arrears correspond to less than 7% (on the basis of 2001 data) of bank loans to households in aggregate, which in general is considered to be a rather low percentage for such loans.

VII. Elements of uncertainty about the prospects for the economy

1. The current “coordinates” of the Greek economy

Certain basic observations about the current “coordinates” of the Greek economy can be made from the developments and forecasts presented in the previous chapters. To begin with, economic activity has been growing at an average annual rate of 3.8% over the last six years, i.e. faster than the rate of 2.6% recorded in the euro area as a whole over the same period. In fact, despite the significant slowdown in euro area growth in 2002, Greek GDP growth was only slightly affected and remained strong.

However, the increase in employment has not been nearly as robust, and progress in reducing the unemployment rate — still the second highest in the EU — has been relatively slow. Another primary concern is the persistence of inflation above the euro area average. As already discussed, this inflation differential is understandable to the extent that it stems from the Greek economy’s strong growth and ongoing process of real convergence. However, it also stems from the rise in Greek unit labour costs, which — for a number of years now — has been higher than the euro area average, and from insufficient competition in certain sectors of the economy. Furthermore, as pointed out in the *Interim Report* of November 2002, the public debt-to-GDP ratio resumed its downward course in 2002, after a halt in 2000 and 2001, but public debt remains high, and the decrease in the general government deficit over 2000-2002 was limited (as indicated by recent revisions of key fiscal aggregates).

Greece’s higher than euro area growth and inflation rates have caused imports to increase faster than exports and price competitiveness to decrease and have thus been a contributing factor to the

widening of the current account deficit to more than 6% of GDP over the last three years. Even though euro area membership since 2001 has drastically reduced the significance of the current account deficit (and, more particularly, of its financing) as a constraint on economic policy, the widening of this deficit is a definite indication that the overall competitiveness of the Greek economy is falling. This trend, if sustained, will have a negative effect on growth and employment.

These observations should be kept in mind when evaluating the elements of uncertainty that are affecting the Greek economy this year, as presented below.

2. The elements of uncertainty in the external environment

Reference has been made in previous chapters to the very high degree of uncertainty that characterises the current economic situation at global, European and national levels and to the adverse impact that this uncertainty has already begun to have on key economic aggregates. The primary source of uncertainty are the prospects of a war in Iraq. The outbreak of such a war, with its potential political consequences, would have numerous direct and indirect effects on the economy — namely, a sudden and sharp increase in crude oil prices, a decline in household and business confidence and perhaps a continuation of the downward trend in stock prices — and ultimately lead to an upswing in inflation, a slowdown in growth or even a contraction in economic activity (particularly in the sectors of external trade, transport and tourism).

These effects are difficult to estimate accurately because of the volatility of the situation. According to an econometric simulation run by

the OECD,¹ a temporary increase in crude oil prices by \$10 per barrel (from the first half of 2003 through to the end of the year) would have the following *direct economic impact* on the euro area in 2003: (a) average annual inflation would increase by 0.6 percentage point, (b) GDP growth would decline by 0.1-0.2 percentage point. This simulation, however, does not incorporate the potential impact from a deterioration in confidence or the *indirect impact* on prices, just as it does not take into account the impact from the current upward trend in the effective exchange rate of the euro. According to some estimates, an oil price shock combined with a significant appreciation of the euro would: (a) limit the total impact on inflation to roughly 0.3 percentage point in 2003 and perhaps even cause inflation to fall by 0.3 percentage point in 2004, and (b) cause a near doubling of the negative impact on GDP growth, from 0.2-0.3 percentage point in 2003 to potentially as much as 0.5 percentage point in 2004. Moreover, independent European and US researchers and experts have looked into the economic consequences of different scenarios (such as the “no war” scenario, the “short war” scenario, the “medium-duration war” scenario, the “long war” scenario that would be accompanied by a destruction of oil wells).² Obviously, the impact on euro area inflation and growth will depend on the size and timing of the oil price shock and, more generally, on the scale and duration of the war itself. According

¹ See OECD, *Economic Outlook*, December 2002, p. 34 (Box 1.4: “Oil Price Shock”).

² See for instance: (a) Center for Strategic and International Studies, “After an Attack on Iraq: The Economic Consequences”, Washington, 21 November 2002, (b) W. Nordhaus, “The Economic Consequences of a War with Iraq”, in C. Kaysen, St. Miller, M. Malin, W. Nordhaus, J. Steinbruner, *War with Iraq: Costs, Consequences and Alternatives*, Cambridge MA, December 2002, (c) Oxford Economic Forecasting, “Economic Impacts of a War in Iraq”, Oxford, 7 February 2003, and (d) Institut Français du Pétrole (IFP), *Conférence — Panorama 2003 — Review of the past year* (presentation by J.-F. Giannesini), 6 February 2003.

to these simulations, the avoidance of a war or a rapid return to normality could cause oil prices to fall below their present levels by end-2003 and help restore confidence fairly soon. A long war, however, could plunge the world economy into recession.

The climate of economic uncertainty generated by the prospects of a war in Iraq has been heightened by sluggish growth and the substantial macroeconomic and structural imbalances still present in major economies. The United States, for instance, shows a persistently high current account deficit, a rapidly increasing fiscal deficit-to-GDP ratio, very low net household savings, a continuing downward trend in the stock market and a business climate that has been suffering from corporate accounting irregularities. Japan has been experiencing persistent deflation and a rising public debt, while its banking system still faces serious difficulties. In the euro area, although acute macroeconomic imbalances have not been observed, product and labour market flexibility is often considered insufficient.

As mentioned above, similar structural weaknesses are also encountered in Greece, as reflected in the public debt and current account deficit-to-GDP ratios and in competitiveness and unemployment levels. Although these weaknesses obviously do *not* affect *world* economic developments, they do affect the performance of the *Greek* economy.

Macroeconomic and structural imbalances do not only worsen the climate of uncertainty. They can also hamper the adjustment of economies to potential external shocks from a war in Iraq, thus intensifying initial household and business uncertainty about the prospects of such a war. The same holds if the macroeconomic policy mix is inappropriate.

3. The impact of uncertainty and the defences of the Greek economy

In all countries – Greece being no exception – the magnitude of the economic impact of a war in Iraq will, as previously discussed, ultimately depend on the characteristics of the war itself. But, the size of this impact on the Greek economy in particular will also depend on country-specific factors, *both* favourable *and* unfavourable. Amongst the factors that will adversely affect the Greek economy are the following:

- Compared with its European counterparts, the Greek economy would be more vulnerable to a crude oil price shock, on account of its higher energy (and, in particular, oil product) consumption per unit of GDP.³
- Insufficient competition in certain product markets and labour market rigidities may magnify the impact of an oil price shock on consumer prices and inflationary expectations.
- Being closer to the potential conflict zone than other European countries, Greece could suffer heavier consequences on one of its major sectors of economic activity, namely tourism.
- Owing to Greece's distance from its main trading partners, any increase in transport costs in the event of war⁴ would adversely affect export trade and the cost of imports (thus causing a rise in inflation).

However, there are also significant impact-reducing factors to be considered. First and foremost,

³ See Bank of Greece, *Interim Report*, November 2002, pp. 43–44.

⁴ Transport costs would increase as a result of the rise in oil prices and freight insurance premia (including coverage against terrorist attacks).

exports of goods account for a relatively small share of Greek GDP. This fact, which is negative in principle and reflects the structural problems of the Greek economy, should prove to be an advantage in this particular instance, since the adverse impact on total economic activity (GDP) from a drop in exports would be limited. On a more general note, in 2003, as in the last few years, Greek GDP growth should continue to be underpinned by domestic demand – mainly by rapidly increasing investment and private consumption –, considering that –as mentioned in Chapter V.3– real disposable income growth is expected to remain strong, while historically low interest rates persist and inflows from EU structural funds are projected to increase. In the event of a war in Iraq, the deterioration in the climate of confidence will inevitably have a negative impact on domestic demand components, but their growth rate will nonetheless continue to be relatively high.

By causing a higher rate of inflation, an oil price shock would have a direct negative impact on real disposable income, although the latter would simply *increase less*, rather than decrease. It is estimated that if Brent crude oil prices were suddenly to rise by \$10 per barrel, the direct impact on Greece's CPI inflation would be a 0.5 percentage point increase. Thus, the initially forecast growth rate⁵ of real disposable income⁶ would be 0.5 percentage point lower. However, *if at the same time the appreciation of the euro continues, it would significantly reduce this inflationary impact* (not only in Greece, but also in the euro area as a whole as previously mentioned). Private consumption would also be directly affected, in addition to possible *indirect* repercussions from a weakening of confidence. Generally speaking, the outbreak of a war would have a negative impact (i) on exports of goods and tourism services, and (ii) on household and business confidence and thereby on consumption and investment. With

regard to the latter, as mentioned in Chapter V.3, investment by public enterprises does not depend –at least not directly– on external demand (or on the impact on external demand of a possible war in Iraq), while investment by many private enterprises in the services sector is being carried out in view of the 2004 Olympic Games. In contrast, investment by other private enterprises, for instance in the industrial sector, would be more sensitive to a loss of confidence and might decrease in the event of war. All in all, a slowdown in the growth of economic activity should be expected. It is worth noting, however, that a slackening in demand growth would contain the ultimate inflationary impact of a war, considering that it would –to some extent– offset inflationary pressures from the cost side.⁷

These country-specific, impact-accentuating or moderating factors seem to suggest that the impact on the Greek economy –compared with the other euro area economies– would be *greater* in terms of inflation and tourism, but most probably *smaller* in terms of the overall evolution of domestic demand and GDP growth.⁸ As mentioned previously, (i) the size of the impact will ultimately depend on the nature, scale and duration of the war, as well as on the timing of the outbreak and the end of the war in relation to the

5 Roughly 3% – see Chapter V.3.

6 The magnitude of the indirect impact on inflation (and on real disposable income) would depend on the structure of the markets and on the behaviour of businesses and labour unions.

7 The Updated Stability and Growth Programme (December 2002) contains an alternative scenario for 2002-2006 that incorporates the impact from an oil price shock and from a continued downward trend in stock prices. According to this scenario, the deterioration in the external balance and the smaller increase in domestic demand would lead to an average annual GDP growth rate that in 2002-2006 would be 0.7 percentage point lower than in the Programme's central scenario. In contrast, the average annual growth rate of the private consumption deflator is not affected, since the inflationary impact caused by the increase in fuel prices is offset by the inflation-dampening effect of the slowdown in domestic demand growth.

8 The impact on the GDP growth rate from an adverse evolution of exports of goods will also be smaller.

peak of the tourist season in Greece, and (ii) in the event of a rapid return to normality, a marked improvement in basic economic aggregates may be feasible before the year-end.

In any event, the negative impact on the Greek economy of a war in Iraq could be reduced under the following conditions:

— First, the government must take appropriate measures to manage oil stocks and monitor the fuel markets, and prevent the speculative pricing behaviour that could be prompted by an oil price shock.

— Second, the social partners must strive for an immediate improvement of competitiveness in sectors where pricing policies had caused it to diminish in 2002.⁹ Generally speaking, the social partners must work closely together and with the government to ensure that enterprises' pricing policies are moderate and that wage increases do not lead to a spillover of inflationary pressures. This would help: (i) break the vicious circle of price increases leading to labour cost increases and vice versa, (ii) minimise the slowdown in

growth of real incomes, (iii) eliminate the negative consequences on employment, and (iv) maintain the Greek economy's satisfactory growth rate.

More generally, in spite of the significant elements of uncertainty discussed above, economic growth can remain strong in 2003 so long as GDP growth continues to be supported by favourable endogenous factors. As mentioned, however, the social partners must make concerted efforts to improve competitiveness, with a view to minimising the potential adverse impact of exogenous and extraordinary factors on external demand. Furthermore, adherence to the targets of fiscal consolidation, and the strict observance of the Stability and Growth Programme guidelines will certainly dampen inflationary pressures and strengthen confidence. Finally, the implementation of further structural reforms —the benefits of which will mainly be felt *in the medium term*— could also help restore confidence *in the short term*.

⁹ A good example is provided by the "hotels-café-restaurants" category (a tourism sub-sector) where consumer prices increased by 6.4% during 2002.

Monetary policy measures of the Eurosystem

3 January 2002

— The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

— The Governing Council also decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2002. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2002 and the desire of the Eurosystem to continue to provide the bulk of refinancing of the financial sector through its main refinancing operations. The Governing Council of the ECB may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

7 February, 7 March, 4 April 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

23 April 2002

Effective from 24 June 2002, the Governing Council of the ECB approves a new regulation on the application of minimum reserves. According to the new Regulation, electronic money institutions will be subject to minimum reserve requirements. The Regulation further introduces the automatic exemption of institutions from minimum reserve requirements in the event that their license has been withdrawn or renounced, as well as in the event that they are subject to winding-up proceedings. Finally, the formula concerning the calculation of the remuneration of holdings of required reserves is adjusted.

2 May, 6 June 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

2 July 2002

Effective from 7 July 2002, within the framework of a relevant Guideline of the ECB, the Bank of Greece amends and complements some of the provisions by which the monetary policy instruments and procedures applied after its admission into the Eurosystem were laid down. These changes reflect the needs for adjustment created by developments in the conduct of the single monetary policy.

4 July 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

10 July 2002

The Governing Council of the ECB decides to reduce from €20 billion to €15 billion the allotment amount for each of the longer-term refinancing operations to be conducted in the second half of 2002. The new amount takes into consideration the expected liquidity needs of the euro area banking system in the second half of 2002 and the desire of the Eurosystem to continue to provide the bulk of refinancing for the financial sector through its main refinancing operations.

1 August, 12 September, 10 October, 7 November 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending

facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

5 December 2002

– The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 2.75%, starting from the operation to be settled on 11 December 2002. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 3.75% and 1.75% respectively, both with effect from 6 December 2002.

– In addition, it decides that the reference value for the annual growth rate of the broad monetary aggregate M3 will remain at 4.5%.

9 January, 6 February 2003

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.75%, 3.75% and 1.75% respectively.

23 January 2003

The Governing Council of the ECB decides to implement the following two measures to improve the operational framework for monetary policy:

– First, the timing of the reserve maintenance period will be changed so that it will always start on the settlement day of the main refinancing operation (MRO) following the Governing Council meeting at which the monthly assessment of the monetary policy stance is pre-scheduled. Furthermore, as a rule, the implementation of changes to the standing facility rates will be aligned with the start of the new reserve maintenance period.

– Secondly, the maturity of the MROs will be shortened from two weeks to one week.

– These measures are scheduled to come into effect during the first quarter of 2004.

– Further to the press release of 10 July 2002, the Governing Council also decides to maintain at

€15 billion the allotment amount for each of the longer-term refinancing operations to be conducted in the year 2003. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2003 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

Glossary

Collateral: assets pledged as a guarantee for the repayment of short-term loans which credit institutions receive from central banks, as well as assets sold by credit institutions to central banks as part of repurchase agreements.

Community Support Framework (CSF): it is drafted by the Commission of the European Communities (European Commission) in cooperation with the EU Member State concerned and it is approved by the Commission. It includes the development strategy of the country, the action lines and the financing sources (community funding, national public expenditure, private funding).

Deposit facility: a standing facility of the Eurosystem, which counterparties may use to make overnight deposits at a national central bank and which are remunerated at a pre-specified interest rate.

Deposits redeemable at notice: savings deposits for which the holder must respect a fixed period of notice before withdrawing the funds. In some cases there is the possibility of withdrawing a certain fixed amount in a specified period or of earlier withdrawal subject to the payment of penalty. Deposits redeemable at a period of notice of up to three months are included in M2 (and hence in M3), while those with a longer period of notice are part of the (non-monetary) longer-term financial liabilities of the Monetary Financial Institution (MFI) sector.

Effective (nominal/real) exchange rates (EERs): nominal effective exchange rates consist of a geometric weighted average of various bilateral exchange rates. Real effective exchange rates are nominal effective exchange rates deflated by a weighted average of foreign, relative to domestic, prices or costs. They are thus measures of price and cost competitiveness.

EONIA (euro overnight index average): a measure of the effective interest rate prevailing in the euro interbank overnight market. It is calculated as a weighted average of the interest rates on unsecured overnight lending transactions denominated in euro, as reported by a panel of contributing banks.

EURIBOR (euro interbank offered rate): the rate at which a prime bank is willing to lend funds in euro to another prime bank. The EURIBOR is computed daily for interbank deposits with a maturity of one to three weeks and one to 12 months as the average of the daily offer rates of a representative panel of prime banks, rounded to three decimal places.

Euro area: the area encompassing those Member States in which the euro has been adopted as the single currency in accordance with the Treaty and in which a single monetary policy is conducted under the responsibility of the Governing Council of the ECB. The euro area currently comprises Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

European Central Bank (ECB): the ECB lies at the centre of the European System of Central Banks (ESCB) and the Eurosystem and has legal personality under Community law. It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either by its own activities or through the national central banks, pursuant to the Statute of the ESCB and of the ECB.

European System of Central Banks (ESCB): composed of the ECB and the national central banks of all 15 Member States, i.e. it includes, in addition to the members of the Eurosystem, the national central banks of the Member States which have not yet adopted the euro. The ESCB is governed by the Governing Council and the Executive Board of the ECB, and, as a third decision-making body of the ECB, by the General Council.

Eurosystem: comprises the ECB and the national central banks of the Member States which have adopted the euro. There are currently 12 national central banks in the Eurosystem. The Eurosystem is governed by the Governing Council and the Executive Board of the ECB.

Executive Board: one of the decision-making bodies of the ECB. It comprises the President and the Vice-President of the ECB and four other members appointed by common accord by the Heads of State or Government of the Member States which have adopted the euro.

General Council: one of the decision-making bodies of the ECB. It comprises the President and the Vice-President of the ECB and the governors of all 15 EU national central banks.

General government: as defined in the European System of Accounts 1995 (ESA 95), it consists of central, state and local government, and social security funds.

Governing Council: the supreme decision-making body of the ECB. It comprises all the members of the Executive Board of the ECB and the governors of the national central banks of the Member States which have adopted the euro.

Harmonised Index of Consumer Prices (HICP): the measure of prices used by the Governing Council for the purpose of assessing price stability. The HICP was developed by the European Commission (Eurostat) in close liaison with the national statistical institutes and the European Monetary Institute (EMI), and later the ECB, in order to fulfil the Treaty requirement for a consumer price index constructed on a comparable basis, taking into account differences in national definitions.

Key ECB interest rates: the interest rates which reflect the stance of the monetary policy of the ECB. At present, the key ECB interest rates are the minimum bid rate on the main refinancing operations, the interest rate on the marginal lending facility and the interest rate on the deposit facility. Prior to the decision to conduct the main refinancing operations as variable-rate tenders, the rate on fixed-rate tenders had played the role of "key rate". This role is currently performed by the minimum bid rate on the main refinancing operations of the ECB.

Main refinancing operation: a regular open market operation executed by the Eurosystem in the form of a reverse transaction. Main refinancing operations are conducted through weekly standard tenders and normally have a maturity of two weeks.

Marginal lending facility: a standing facility of the Eurosystem, which counterparties may use to receive overnight credit from a national central bank at a pre-specified interest rate against eligible assets.

Monetary aggregates: currency in circulation plus outstanding amounts of certain liabilities of monetary financial institutions and central government that have a high degree of “moneyness” (or liquidity in a broad sense). The narrow monetary aggregate M1 has been defined by the Eurosystem as: currency in circulation plus non-MFI euro area residents’ (other than central government) holdings of overnight deposits with euro area money-issuing institutions. The “intermediate” monetary aggregate M2 comprises M1 plus deposits with agreed maturity of up to two years and deposits redeemable at notice of up to three months. The broad monetary aggregate M3 includes M2 plus repurchase agreements, money market fund shares/units, money market paper and debt securities with a maturity of up to two years. The Governing Council has announced a reference value for the growth of M3.

Overnight deposits: deposits with next-day maturity. This instrument category comprises mainly those sight/demand deposits which are fully transferable on demand (by cheque or similar instrument) without significant delay, restriction or penalty. It also includes non-transferable deposits that are convertible on demand or by close of business on the following day.

Reserve base: the sum of the balance sheet items (in particular: liabilities) which constitute the basis for calculating the reserve requirement on a credit institution.

Reverse transaction: an operation whereby the central bank buys or sells assets under a repurchase agreement or conducts credit operations against collateral.

Standing facility: a central bank facility available to counterparties on their own initiative. The Eurosystem offers two overnight standing facilities: the marginal lending facility and the deposit facility.

TARGET System (Trans-European Automated Real-time Gross settlement Express Transfer system): a decentralised system consisting of 15 national RTGS (Real-Time Gross Settlement) systems (one in each of the 15 EU Member States) and the ECB payment mechanism. These are interconnected by common procedures (Interlinking Mechanism) to allow cross-border express transfers throughout the EU to move from one system to another.

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Table 1

Consumer price index: general index and basic sub-indices

Period	General index		Goods		Services		CPI excluding fresh fruit/ vegetables and fuel		CPI excluding food and fuel	
	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year
1999	99.7	2.6	100.0	1.7	99.3	4.1	99.5	2.9	99.3	3.0
2000	102.9	3.2	103.4	3.4	102.1	2.8	101.4	2.0	101.3	2.0
2001	106.4	3.4	106.7	3.2	105.9	3.7	105.3	3.8	105.0	3.7
2002	110.2	3.6	110.1	3.2	110.4	4.3	109.0	3.6	108.7	3.6
2001 I	104.5	3.3	104.4	2.9	104.5	3.9	103.4	3.8	103.0	3.8
II	107.0	3.7	108.0	3.7	105.6	3.7	105.4	3.8	105.2	3.6
III	105.9	3.8	105.9	3.9	106.0	3.6	105.0	4.0	104.6	3.9
IV	108.0	2.7	108.5	2.2	107.3	3.6	107.3	3.6	107.1	3.4
2002 I	108.6	4.0	108.6	4.0	108.6	3.9	106.9	3.3	106.5	3.4
II	110.8	3.5	111.2	3.0	110.2	4.4	109.4	3.9	109.3	3.9
III	109.6	3.5	108.8	2.7	110.9	4.6	108.8	3.7	108.4	3.6
IV	111.9	3.6	111.8	3.0	112.1	4.5	111.0	3.5	110.9	3.5
2000 Jan.	100.4	2.6	99.9	2.4	101.1	3.0	99.5	2.0	99.1	1.9
Feb.	100.2	2.9	100.1	3.0	100.3	2.8	98.7	1.7	98.1	1.5
March ..	102.7	3.1	104.2	3.6	100.3	2.5	100.8	1.6	100.6	1.4
Apr.	103.2	2.6	104.2	2.9	101.7	2.1	101.4	1.4	101.4	1.2
May	103.5	2.9	104.4	2.8	102.0	3.1	101.6	1.9	101.6	1.7
June ...	103.1	2.5	104.0	2.5	101.7	2.6	101.7	1.5	101.6	1.5
July	101.3	2.7	100.8	3.0	101.9	2.4	100.1	1.2	99.7	1.3
Aug. ...	101.4	3.0	100.8	3.2	102.2	2.7	100.3	1.4	99.9	1.5
Sept. ...	103.5	3.1	103.9	3.3	102.9	2.9	102.5	2.1	102.4	2.3
Oct.	104.7	4.0	105.8	4.8	103.0	3.0	103.1	2.7	103.1	2.8
Nov. ...	105.2	4.2	106.6	5.1	103.1	3.0	103.3	2.8	103.3	2.9
Dec. ...	105.5	3.9	106.1	4.1	104.6	3.7	104.2	3.4	104.2	3.4
2001 Jan.	103.8	3.4	103.2	3.3	104.9	3.7	103.1	3.6	102.7	3.7
Feb.	103.7	3.5	103.4	3.3	104.2	4.0	102.5	3.9	101.9	3.9
March ..	105.8	3.0	106.7	2.3	104.4	4.1	104.7	3.9	104.4	3.7
Apr.	106.8	3.5	107.4	3.1	105.8	4.1	105.4	3.9	105.1	3.7
May	107.2	3.6	108.4	3.8	105.4	3.3	105.2	3.5	105.0	3.3
June ...	107.1	3.9	108.2	4.0	105.5	3.7	105.6	3.8	105.4	3.8
July	105.2	3.9	104.8	4.0	105.8	3.9	104.2	4.1	103.8	4.1
Aug. ...	105.3	3.8	104.8	4.0	105.9	3.6	104.4	4.0	103.8	3.9
Sept. ...	107.3	3.6	107.9	3.8	106.3	3.3	106.4	3.8	106.1	3.6
Oct.	107.6	2.8	108.1	2.2	106.8	3.7	106.9	3.7	106.7	3.5
Nov. ...	107.7	2.4	108.1	1.4	107.1	3.9	107.2	3.8	107.0	3.6
Dec. ...	108.7	3.0	109.2	2.9	108.0	3.3	107.7	3.3	107.5	3.1
2002 Jan.	108.4	4.4	108.5	5.2	108.4	3.3	106.5	3.3	106.0	3.2
Feb.	107.3	3.4	106.7	3.1	108.3	3.9	105.7	3.1	105.2	3.2
March ...	110.0	4.0	110.7	3.8	109.0	4.4	108.4	3.6	108.3	3.7
Apr.	110.9	3.8	111.7	4.0	109.6	3.6	109.0	3.4	108.8	3.5
May	110.8	3.4	111.1	2.4	110.5	4.9	109.7	4.2	109.5	4.3
June ...	110.6	3.3	110.9	2.5	110.3	4.5	109.7	3.9	109.5	3.8
July	108.7	3.3	107.6	2.7	110.5	4.4	108.1	3.7	107.4	3.5
Aug. ...	109.0	3.5	107.9	2.9	110.7	4.5	108.2	3.6	107.6	3.6
Sept. ...	111.0	3.5	110.8	2.7	111.5	4.8	110.3	3.7	110.1	3.8
Oct.	111.6	3.7	111.6	3.2	111.7	4.6	110.7	3.5	110.6	3.6
Nov. ...	111.6	3.6	111.5	3.1	111.9	4.5	110.9	3.5	110.8	3.5
Dec. ...	112.4	3.4	112.3	2.8	112.7	4.3	111.4	3.5	111.2	3.5
2003 Jan.	111.8	3.1	110.8	2.1	113.4	4.7	110.4	3.7	109.9	3.6

Source: Calculations based on NSSG data.

Table 2

Wholesale price index: general index and basic sub-indices

Period	General index		Domestic primary products ¹		Domestic industrial products ¹		Exported products		Imported products	
	(1995=100)	Percentage change over previous year	(1995=100)	Percentage change over previous year	(1995=100)	Percentage change over previous year	(1995=100)	Percentage change over previous year	(1995=100)	Percentage change over previous year
1999	116.4	1.8	124.6	2.2	119.0	2.8	114.0	0.5	111.3	0.6
2000	124.0	6.6	126.5	1.5	125.2	5.2	128.1	12.3	118.5	6.4
2001	126.8	2.3	139.2	10.0	128.7	2.7	128.9	0.7	120.7	1.9
2002	129.8	2.4	154.7	11.2	132.0	2.6	131.4	1.9	121.2	0.4
2001 I	125.0	3.1	129.3	-2.0	127.0	3.8	127.5	3.7	120.1	4.0
II	127.7	3.6	143.3	8.8	129.1	4.0	130.6	3.4	120.9	2.8
III	127.1	2.2	136.1	12.2	129.4	2.9	129.5	0.0	121.1	1.8
IV	127.4	0.2	148.0	22.2	129.1	0.3	128.0	-4.0	120.9	-0.8
2002 I	130.3	4.3	174.1	34.7	130.3	2.6	130.5	2.4	120.8	0.6
II	129.9	1.7	153.1	6.9	131.9	2.2	132.3	1.2	121.2	0.2
III	129.1	1.6	142.6	4.8	132.5	2.4	131.2	1.3	121.4	0.2
IV	130.0	2.0	149.0	0.6	133.1	3.1	131.5	2.7	121.6	0.6
2000 Jan.	120.1	4.7	133.3	-1.9	121.6	4.3	120.1	9.9	114.4	4.1
Feb.	121.2	5.5	130.5	-5.1	122.3	4.7	123.4	12.6	115.6	5.6
March ..	122.3	6.3	132.1	-0.6	123.2	5.1	125.5	12.9	116.3	6.0
Apr.	122.8	5.8	136.2	1.8	123.5	4.5	124.7	10.7	117.2	6.0
May	123.6	6.4	134.9	1.4	124.1	4.9	126.8	12.5	117.8	6.4
June	123.3	6.7	123.9	4.7	124.6	5.0	127.6	12.6	117.8	6.3
July	123.0	6.4	116.9	9.0	125.1	4.5	127.1	10.9	118.0	6.1
Aug.	123.9	7.0	123.8	16.2	125.3	4.6	128.2	11.2	118.7	6.3
Sept.	126.0	7.7	123.1	6.3	127.1	5.6	133.3	14.8	120.1	6.8
Oct.	127.4	8.1	117.5	-5.5	128.8	7.0	135.2	15.9	122.1	8.4
Nov.	127.5	7.9	119.5	-1.6	128.9	6.6	134.7	14.5	122.2	8.1
Dec.	126.7	6.2	126.2	-1.8	128.5	5.9	130.3	9.3	121.3	6.7
2001 Jan.	124.0	3.2	125.6	-5.8	126.3	3.8	126.4	5.3	119.7	4.6
Feb.	125.1	3.2	130.1	-0.3	127.3	4.1	127.5	3.3	120.1	3.9
March ..	125.8	2.8	132.3	0.2	127.6	3.6	128.8	2.6	120.4	3.5
Apr.	127.0	3.4	139.7	2.6	128.7	4.2	129.9	4.2	120.7	3.0
May	127.9	3.5	145.0	7.4	129.3	4.2	130.7	3.1	120.9	2.7
June	128.1	4.0	145.2	17.1	129.2	3.6	131.4	3.0	121.1	2.8
July	127.1	3.4	136.9	17.1	129.2	3.3	129.8	2.1	121.1	2.6
Aug.	126.5	2.1	132.1	6.7	129.3	3.1	128.7	0.4	121.0	1.9
Sept.	127.6	1.3	139.2	13.1	129.9	2.2	130.1	-2.4	121.1	0.9
Oct.	126.9	-0.4	138.0	17.4	129.2	0.3	128.2	-5.2	121.2	-0.7
Nov.	126.8	-0.5	140.9	17.9	129.0	0.1	127.8	-5.1	120.9	-1.1
Dec.	128.7	1.5	165.1	30.8	129.2	0.5	128.1	-1.7	120.7	-0.5
2002 Jan.	130.4	5.1	181.4	44.4	129.7	2.7	129.4	2.4	120.7	0.8
Feb.	129.6	3.6	168.5	29.5	129.8	2.0	129.9	1.9	120.7	0.5
March ..	131.1	4.2	172.6	30.5	131.4	3.0	132.3	2.8	121.0	0.5
Apr.	131.7	3.7	172.2	23.3	132.1	2.7	133.5	2.8	121.2	0.4
May	129.5	1.2	147.0	1.4	132.0	2.1	132.2	1.2	121.2	0.2
June	128.5	0.3	140.2	-3.4	131.5	1.8	131.0	-0.3	121.1	0.0
July	128.2	0.8	136.0	-0.7	132.1	2.3	130.4	0.5	121.0	-0.1
Aug.	129.2	2.1	144.3	9.2	132.5	2.5	130.8	1.6	121.5	0.4
Sept.	130.0	1.9	147.5	6.0	133.1	2.5	132.3	1.7	121.6	0.4
Oct.	130.0	2.4	145.7	5.6	133.3	3.1	132.3	3.2	121.6	0.3
Nov.	129.5	2.1	147.2	4.5	132.7	2.9	130.6	2.2	121.5	0.5
Dec.	130.5	1.4	154.0	-6.8	133.3	3.2	131.5	2.7	121.8	0.9

1 For home consumption.

Source: Calculations based on NSSG data.

Table 3

Gross value added at basic prices and gross domestic product at market prices

	Million euro	Annual percentage changes (at constant prices of year 1995)					
		1995	1997	1998	1999	2000	2001
Primary sector (agriculture)	7,277	0.4	2.3	6.8	-5.4	-3.0	...
Secondary sector	16,550	-1.3	7.2	2.9	4.5	5.5	...
Mining and quarrying	476	-3.5	13.0	-0.6	8.4	0.2	...
Manufacturing	9,572	-3.7	5.3	-0.1	3.6	3.8	...
Electricity - natural gas - water supply	1,751	2.8	6.8	13.1	5.6	2.8	...
Construction	4,751	2.5	10.6	5.2	5.3	10.0	...
Tertiary sector	50,031	5.1	3.1	3.0	5.6	4.9	...
Trade	10,018	5.0	3.6	3.3	8.6	7.9	...
Hotels - restaurants	4,821	14.5	3.7	0.4	-2.5	7.4	...
Transport - communications	4,978	8.4	4.1	11.9	22.7	9.0	...
Financial intermediaries	3,112	4.3	11.5	6.8	1.6	3.3	...
Real estate management and other activities	12,577	3.0	2.5	2.0	6.5	3.6	...
Public administration - security	5,308	-0.9	-0.6	1.1	-2.7	-0.3	...
Education	3,298	3.7	-0.7	1.7	2.6	-1.0	...
Health	3,855	7.8	1.2	-2.9	0.6	3.4	...
Miscellaneous services	2,064	2.5	6.5	5.2	2.0	5.0	...
Gross value added	73,858	3.3	3.9	3.3	4.3	4.4	...
Imputed bank services	2,175	3.3	16.5	2.6	11.1	12.8	...
Gross value added at basic prices	71,682	3.3	3.6	3.3	4.1	4.1	...
Final consumption	70,655	8.2	1.1	2.1	2.5	2.7	3.1
Private consumption	58,405	2.7	3.5	2.9	2.7	3.2	...
Public consumption	12,250	3.0	1.7	1.4	2.3	0.5	...
Gross fixed capital formation and change in stocks	15,119	6.7	10.4	3.2	9.3	6.9	7.4
Gross fixed capital formation	14,867	6.8	10.6	6.2	8.0	5.9	...
By investor: General government	2,538	12.3	8.3	5.4	8.8	5.1	...
Other investors	12,330	5.8	11.0	6.4	7.9	6.1	...
By type: Construction	9,422	7.1	9.2	6.1	2.8	7.2	...
Equipment	4,679	5.2	16.5	3.5	17.6	3.7	...
Other	766	16.2	-14.0	32.8	-0.2	8.6	...
Change in stocks and statistical discrepancy (as a percentage of GDP)	252	0.3	0.3	-0.3	0.0	0.1	...
Domestic final demand	85,774	3.5	4.6	2.8	4.0	3.5	...
Exports of goods and services	14,087	20.0	5.3	8.0	19.7	-1.3	-0.5
Exports of goods	8,344	2.1	2.7	-4.2	11.3	-4.6	...
Exports of services	5,743	44.3	7.7	19.2	25.9	0.8	...
Final demand	99,861	5.8	4.7	3.6	6.6	2.6	...
Imports of goods and services	19,934	14.2	9.2	3.8	14.5	-1.9	0.5
Imports of goods	18,084	6.4	9.4	-4.8	14.8	-2.7	...
Imports of services	1,849	96.4	8.5	53.4	13.1	1.3	...
GDP at market prices	79,927	3.6	3.4	3.6	4.2	4.1	4.0

Source: NSSG/National Accounts Directorate, September 2002: final data for 1997-1999. Updated Stability and Growth Programme (December 2002) for 2000 and 2001. NSSG provisional and summary estimates (13 February 2003) for 2002.

Table 4
Balance of payments
(Million euro)

	January – December			December		
	2000	2001	2002*	2000	2001	2002*
I CURRENT ACCOUNT BALANCE (I.A+I.B+I.C+I.D)	-8,372.4	-8,169.3	-9,119.9	-1,017.9	-1,109.5	-1,556.2
I.A TRADE BALANCE (I.A.1-I.A.2)	-21,927.5	-21,610.9	-22,708.7	-1,847.5	-1,789.6	-2,002.3
NON-OIL TRADE BALANCE	-18,940.8	-18,614.3	-19,203.7	-1,538.6	-1,640.3	-1,662.1
OIL TRADE BALANCE	-2,986.7	-2,996.6	-3,505.0	-308.9	-149.3	-340.2
I.A.1 Exports of goods	11,098.6	11,545.4	10,433.6	1,062.9	909.4	987.1
Fuel	2,421.9	1,650.0	1,121.7	241.5	95.3	109.0
Other goods	8,676.8	9,895.4	9,311.9	821.4	814.1	878.1
I.A.2 Imports of goods	33,026.1	33,156.3	33,142.3	2,910.4	2,699.0	2,989.4
Fuel	5,408.6	4,646.6	4,626.7	550.4	244.6	449.2
Other goods	27,617.5	28,509.7	28,515.6	2,360.0	2,454.5	2,540.2
I.B SERVICES BALANCE (I.B.1-I.B.2)	8,711.1	9,150.0	10,270.8	555.4	551.5	282.2
I.B.1 Receipts	20,977.0	22,075.9	20,419.2	1,605.6	1,511.8	1,097.1
Travel ¹	10,061.2	10,579.9	9,572.4	558.6	533.8	203.0
Transport	8,640.6	9,113.3	8,523.4	814.1	682.0	704.9
Other services	2,275.2	2,382.7	2,323.3	232.8	296.0	189.3
I.B.2 Payments	12,266.0	12,925.8	10,148.3	1,050.2	960.3	814.9
Travel	4,948.9	4,650.8	2,320.9	356.3	320.6	165.0
Transport	4,458.3	5,351.0	5,029.7	442.4	396.3	402.9
Other services	2,858.8	2,924.1	2,797.7	251.5	243.4	247.1
I.C INCOME BALANCE (I.C.1-I.C.2)	-955.3	-1,981.3	-2,073.4	-34.7	-178.6	-209.1
I.C.1 Receipts	3,039.1	2,700.3	1,626.5	302.0	151.8	139.2
Wages, salaries	631.0	606.3	509.6	54.2	50.8	35.4
Interest, dividends, profits	2,408.1	1,494.0	1,116.9	247.7	101.0	103.8
I.C.2 Payments	3,994.3	4,081.6	3,699.9	336.7	330.4	348.3
Wages, salaries	272.0	280.9	240.4	22.5	22.9	14.4
Interest, dividends, profits	3,722.4	3,800.8	3,459.5	314.2	307.5	333.9
I.D CURRENT TRANSFERS BALANCE (I.D.1-I.D.2)	5,799.3	6,272.9	5,391.3	309.0	307.3	372.9
I.D.1 Receipts	8,127.0	8,945.9	7,801.4	481.0	906.6	564.9
General government (mainly transfers from the EU) ¹	5,331.8	5,921.7	5,486.3	259.9	682.9	356.9
Other sectors (emigrants' remittances etc.)	2,795.2	3,024.2	2,315.1	221.1	223.7	208.0
I.D.2 Payments	2,327.7	2,673.0	2,410.1	172.1	599.3	192.0
General government (mainly payments to the EU) ¹	1,568.9	1,866.7	1,696.5	118.4	538.7	119.9
Other sectors	758.8	806.3	713.6	53.6	60.6	72.0
II FINANCIAL ACCOUNT BALANCE (II.A+II.B+II.C+II.D)	8,906.3	6,934.8	10,310.4	362.3	1,147.1	1,932.6
II.A DIRECT INVESTMENT²	-1,116.2	1,087.6	-643.0	218.6	-66.9	-126.4
By residents abroad	-2,319.0	-688.5	-696.3	-71.1	-79.0	-150.2
By non-residents in Greece	1,202.8	1,776.1	53.4	289.7	12.1	23.8
II.B PORTFOLIO INVESTMENT²	9,107.5	9,464.8	10,937.8	-278.6	1,344.0	-45.6
Assets	-933.0	-514.7	-2,230.0	-96.7	-223.2	-964.7
Liabilities	10,040.5	9,979.5	13,167.8	-182.0	1,567.2	919.2
II.C OTHER INVESTMENT²	-4,856.8	-9,794.6	1,998.6	-1,561.2	-529.9	2,030.5
Assets	-1,060.6	-1,467.0	-7,481.9	-1,060.1	1,387.3	308.3
Liabilities	-3,796.2	-8,327.6	9,480.5	-501.1	-1,917.2	1,722.3
(General government loans)	(-437.7)	(-2,809.7)	(-4,510.1)	(350.8)	(-94.6)	(-432.0)
II.D CHANGE IN RESERVE ASSETS³	5,771.7	6,177.0	-1,983.0	1,983.6	400.0	74.0
III ERRORS AND OMISSIONS	-533.9	1,234.5	-1,190.4	655.6	-37.7	-376.4
RESERVE ASSETS				13,208.0	7,031.0 ⁴	9,014.0 ⁴

1 January-October 2002 data on travel receipts and payments have been revised.

2 (+) net inflow, (-) net outflow.

3 (+) decrease, (-) increase.

4 Since Greece entered the euro area in January 2001, reserve assets, as defined by the European Central Bank, include only monetary gold, the "reserve position" at the IMF, "Special Drawing Rights", and Bank of Greece's claims in foreign currency on residents of non-euro area countries. Conversely, reserve assets do not include claims in euro on residents of non-euro area countries, claims in foreign currency and in euro on residents of euro area countries, and the Bank of Greece participation in the capital and the reserve assets of the ECB.

* Provisional data.

Source: Bank of Greece.

Table 5

Monetary aggregates in the euro area¹

(Outstanding balances in billion euro, not seasonally adjusted)

End of period	Currency in circulation	Overnight deposits	M1	Deposits with agreed maturity up to two years	Deposits redeemable at notice up to three months	M2	Repurchase agreements	Money market fund shares/units	Money market paper and debt securities up to two years	M3 ²
	(1)	(2)	(3)=(1)+(2)	(4)	(5)	(6)=(3)+(4)+(5)	(7)	(8)	(9)	(10)=(6)+(7)+(8)+(9)
2000	348.4	1,728.8	2,077.1	991.8	1,221.1	4,290.1	174.9	300.0	135.7	4,900.7
2001	239.7	1,968.2	2,207.9	1,088.8	1,367.9	4,664.6	218.5	398.0	145.9	5,427.0
2002	341.2	2,083.1	2,424.3	1,076.3	1,458.5	4,959.1	226.5	470.1	127.0	5,782.7
2001 Jan. ³	336.1	1,692.8	2,028.8	1,036.1	1,275.1	4,340.0	211.4	327.9	139.0	5,018.3
Feb.	335.0	1,692.9	2,028.0	1,049.0	1,269.7	4,346.7	213.2	333.3	145.5	5,038.7
March ..	336.3	1,703.2	2,039.5	1,065.9	1,269.8	4,375.1	222.6	343.6	139.3	5,080.7
Apr.	336.2	1,735.9	2,072.1	1,067.8	1,273.4	4,413.3	221.4	351.4	140.0	5,126.0
May	332.9	1,759.2	2,092.1	1,069.0	1,273.2	4,434.3	233.8	360.2	135.0	5,163.3
June	333.0	1,798.4	2,131.4	1,066.2	1,283.0	4,480.6	221.5	357.3	145.2	5,204.7
July	328.0	1,780.3	2,108.3	1,073.2	1,287.2	4,468.7	223.4	366.4	140.4	5,198.9
Aug.	319.2	1,747.5	2,066.7	1,088.8	1,292.9	4,448.4	230.8	377.6	142.5	5,199.3
Sept.	309.6	1,815.1	2,124.7	1,070.9	1,299.7	4,495.3	225.7	381.2	147.6	5,249.9
Oct.	295.5	1,816.1	2,111.6	1,074.7	1,311.6	4,497.9	235.1	392.3	149.5	5,274.7
Nov.	279.7	1,864.6	2,144.3	1,077.6	1,326.4	4,548.2	225.9	400.8	152.2	5,327.1
Dec.	239.7	1,968.2	2,207.9	1,088.8	1,367.9	4,664.6	218.5	398.0	145.9	5,427.0
2002 Jan.	246.5	1,921.9	2,168.4	1,081.0	1,390.4	4,639.8	216.2	416.6	141.8	5,414.4
Feb.	240.3	1,917.1	2,157.4	1,076.7	1,394.5	4,628.7	221.1	427.0	138.8	5,415.5
March ..	254.3	1,914.2	2,168.5	1,088.5	1,397.9	4,654.9	229.6	431.2	137.2	5,453.0
Apr.	261.7	1,945.5	2,207.2	1,092.1	1,391.9	4,691.2	228.1	437.5	134.7	5,491.5
May	273.9	1,945.4	2,219.3	1,099.6	1,394.0	4,712.8	234.8	442.6	144.0	5,534.3
June	285.8	1,992.1	2,277.9	1,074.8	1,400.0	4,752.8	229.6	439.2	132.9	5,554.4
July	296.8	1,959.3	2,256.1	1,083.7	1,403.0	4,742.8	228.8	450.3	125.5	5,547.4
Aug.	301.2	1,927.4	2,228.6	1,096.9	1,408.9	4,734.3	236.5	463.4	126.6	5,560.8
Sept.	306.7	1,984.3	2,291.0	1,073.6	1,411.1	4,775.7	238.3	460.4	131.3	5,605.8
Oct.	313.9	1,968.3	2,282.3	1,093.6	1,417.7	4,793.5	235.6	462.7	133.7	5,625.5
Nov.	321.4	2,020.9	2,342.3	1,086.2	1,428.8	4,857.3	229.6	477.1	131.2	5,695.3
Dec.* ...	341.2	2,083.1	2,424.3	1,076.3	1,458.5	4,959.1	226.5	470.1	127.0	5,782.7

1 Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.

2 M3 and its components exclude holdings by non-residents of the euro area of money market fund shares/units, money market paper and debt securities up to 2 years.

3 Data for the euro area until the end of 2000 concern the Euro-11. As from 1 January 2001, they concern the Euro-12.

* Provisional data.

Source: ECB.

Table 6

The Greek contribution to the monetary aggregates of the euro area¹*(Outstanding balances in billion euro, not seasonally adjusted)*

End of period	Currency in circulation ²	Overnight deposits	M1	Savings deposits and deposits redeemable at notice up to three months	Deposits with agreed maturity up to two years	M2	Repurchase agreements	Money market fund shares/units	Debt securities up to two years	M3
(1)	(2)	(3)=(1)+(2)	(4)	(5)	(6)=(3)+(4)+(5)	(7)	(8)	(9)	(10)=(6)+(7)+(8)+(9)	
2000	7.7	13.3	21.1	49.9	28.9	99.8	18.5	15.4	0.2	133.9
2001	7.2	16.1	23.2	57.2	29.4	109.8	24.2	9.7	0.1	143.8
2002	7.4	15.2	22.6	58.8	28.9	110.3	20.0	10.7	0.2	141.2
2001 Jan.	6.7	12.5	19.2	49.0	28.1	96.3	21.0	14.7	0.2	132.2
Feb.	6.5	12.4	18.9	49.1	27.4	95.3	22.6	13.7	0.2	131.8
March ..	6.6	11.6	18.2	49.1	27.5	94.7	24.2	12.9	0.2	132.0
Apr.	6.9	12.4	19.2	50.0	27.3	96.5	25.2	12.4	0.2	134.2
May	6.9	11.8	18.7	50.1	27.1	95.9	26.1	11.8	0.2	134.0
June	7.4	12.4	19.8	51.2	26.5	97.5	27.3	11.2	0.2	136.1
July	7.5	12.5	20.0	51.5	26.1	97.6	28.6	11.2	0.2	137.5
Aug.	7.3	12.3	19.6	52.2	25.8	97.6	28.5	10.9	0.2	137.1
Sept.	7.2	12.2	19.4	52.7	24.0	96.1	29.3	10.5	0.2	136.0
Oct.	6.8	12.4	19.3	52.9	24.8	96.9	28.7	9.6	0.2	135.4
Nov.	6.7	13.2	19.9	53.7	26.3	99.9	26.8	9.4	0.1	136.2
Dec.	7.2	16.1	23.2	57.2	29.4	109.8	24.2	9.7	0.1	143.8
2002 Jan.	5.5	14.3	19.8	57.2	26.5	103.5	23.9	9.8	0.1	137.3
Feb.	5.2	13.8	19.0	57.5	27.4	103.9	23.0	9.4	0.1	136.4
March ..	5.4	12.5	17.9	57.3	27.2	102.5	24.2	9.3	0.1	136.1
Apr.	5.5	13.7	19.2	58.0	26.9	104.2	22.9	8.9	0.0	136.0
May	5.9	13.3	19.2	58.2	26.6	103.9	22.8	8.9	0.0	135.7
June	6.2	14.2	20.4	58.7	26.0	105.1	22.6	8.7	0.0	136.3
July	6.4	14.3	20.7	58.8	26.0	105.6	22.5	8.9	0.0	137.0
Aug.	6.4	14.1	20.6	59.5	26.3	106.3	22.8	8.9	0.1	138.1
Sept.	6.6	14.7	21.3	59.9	25.4	106.7	22.9	9.1	0.1	138.8
Oct.	6.9	13.5	20.4	58.9	26.6	105.9	23.2	9.0	0.1	138.1
Nov.	7.0	13.3	20.3	58.1	27.4	105.8	22.0	9.1	0.2	137.1
Dec.	7.4	15.2	22.6	58.8	28.9	110.3	20.0	10.7	0.2	141.2

¹ The Greek contribution begins upon Greece's entry into the euro area (1 January 2001). For statistical reasons, however, the data on monetary aggregates were extended to cover previous years as well.

² As from January 2002, currency in circulation is calculated on the basis of Greece's subscription key to the ECB capital, excluding 8% of the banknotes issued, which corresponds to the ECB. As a result, published data on monetary aggregates (M1, M2 and M3) may not fully reflect the actual Greek contribution to these aggregates in the euro area, as currency in circulation in Greece is affected by the flows of euro banknotes and coins in the euro area, as well as by holdings thereof by non-euro area residents.

Source: Bank of Greece.

Table 7

Deposits of domestic firms and households with Other MFIs,¹ by currency and type*(Outstanding balances in million euro, not seasonally adjusted)*

End of period	Total deposits	Breakdown by currency		Breakdown by type		
		Deposits in euro ²	Deposits in other currencies	Sight deposits	Savings deposits	Time deposits ³
2000	90,737.8	73,720.2	17,017.6	11,007.0	50,917.8	28,813.0
2001	101,809.5	79,566.0	22,243.5	13,385.2	58,323.1	30,101.1
2002	104,761.1	87,732.3	17,028.8	13,367.3	60,406.1	30,987.7
2001 Jan.	88,672.8	71,364.1	17,308.7	10,004.0	50,097.1	28,571.6
Feb.	88,128.8	71,100.2	17,028.6	10,019.8	50,121.5	27,987.5
March	87,506.4	69,835.1	17,671.3	9,376.2	50,163.9	27,966.3
Apr.	89,005.3	72,383.4	16,621.9	10,149.5	50,991.1	27,864.7
May	88,126.9	71,588.8	16,538.1	9,522.3	51,161.0	27,443.6
June	89,219.5	73,009.8	16,209.7	10,132.4	52,280.3	26,806.8
July	89,196.9	73,484.2	15,712.7	10,146.2	52,527.7	26,523.0
Aug.	89,264.4	73,797.9	15,466.5	9,826.6	53,222.9	26,215.0
Sept.	88,095.4	72,815.9	15,279.6	9,849.7	53,729.9	24,515.9
Oct.	89,382.6	74,146.8	15,235.8	10,125.1	53,972.1	25,285.4
Nov.	92,567.2	73,956.4	18,610.7	10,928.3	54,790.3	26,848.6
Dec.	101,809.5	79,566.0	22,243.5	13,385.2	58,323.1	30,101.1
2002 Jan.	97,542.0	78,693.6	18,848.4	11,839.1	58,355.2	27,347.7
Feb.	98,302.4	79,029.9	19,272.4	11,356.7	58,674.4	28,271.3
March	96,741.8	77,970.2	18,771.6	10,267.5	58,309.6	28,164.7
Apr.	98,685.7	80,274.3	18,411.5	11,584.4	58,979.2	28,122.2
May	97,779.9	79,934.6	17,845.3	10,795.2	59,174.0	27,810.7
June	98,751.5	81,549.4	17,202.1	11,758.3	59,654.1	27,339.2
July	99,132.9	81,816.4	17,316.4	11,888.0	59,768.1	27,476.8
Aug.	99,924.1	82,255.7	17,668.4	11,656.2	60,475.4	27,792.5
Sept.	101,076.4	84,497.2	16,579.2	12,328.6	61,820.2	26,927.6
Oct.	100,492.7	83,175.9	17,316.8	11,399.8	60,572.9	28,519.9
Nov.	100,771.5	83,612.4	17,159.2	11,686.3	59,933.8	29,151.4
Dec.	104,761.1	87,732.3	17,028.8	13,367.3	60,406.1	30,987.7

¹ Other Monetary Financial Institutions (Other MFIs) comprise credit institutions other than the Bank of Greece and money market funds.² Including (until 31 December 2001) deposits in drachmas and the other euro legacy currencies.³ Including blocked deposits.

Source: Bank of Greece.

Table 8
ECB and Bank of Greece interest rates

(Percentages per annum)

1. ECB interest rates				2. Bank of Greece interest rates				
With effect from ¹	Deposit facility	Main refinancing operations ³	Marginal lending facility	With effect from	Overnight deposit facility – first tier ⁴	Overnight deposit facility – second tier ⁴	14-day intervention rate	Lombard rate
1999 1 Jan.	2.00	3.00	4.50	1999 14 Jan.	11.50	9.75	12.00	13.50
4 Jan. ²	2.75	3.00	3.25	21 Oct.	11.00	9.75	11.50	13.00
22 Jan.	2.00	3.00	4.50	16 Dec.	10.25	9.25	10.75	12.25
9 Apr.	1.50	2.50	3.50	27 Dec.	10.25	9.00	10.75	11.50
5 Nov.	2.00	3.00	4.00					
2000 4 Feb.	2.25	3.25	4.25	2000 27 Jan.	9.50	8.50	9.75	11.00
17 March	2.50	3.50	4.50	9 March	8.75	8.00	9.25	10.25
28 Apr.	2.75	3.75	4.75	20 Apr.	8.00	7.50	8.75	9.50
9 June	3.25	4.25	5.25	29 June	7.25	-	8.25	9.00
28 June ³	3.25	4.25	5.25	6 Sept.	6.50	-	7.50	8.25
1 Sept.	3.50	4.50	5.50	15 Nov.	6.00	-	7.00	7.75
6 Oct.	3.75	4.75	5.75	29 Nov.	5.50	-	6.50	7.25
				13 Dec.	4.75	-	5.75	6.50
				27 Dec.	3.75	-	4.75	5.75
2001 11 May	3.50	4.50	5.50					
31 Aug.	3.25	4.25	5.25					
18 Sept.	2.75	3.75	4.75					
9 Nov.	2.25	3.25	4.25					
2002 6 Dec.	1.75	2.75	3.75					

1 The date refers to the deposit and marginal lending facilities. For main refinancing operations, unless otherwise indicated, changes in the rate are effective from the first operation following the date indicated. The change on 18 September 2001 was effective on that same day.

2 On 22 December 1998 the ECB announced that, as an exception measure between 4 and 21 January 1999, a narrow corridor of 50 basis points would be applied between the interest rates for the marginal lending facility and the deposit facility, aimed at facilitating the transition to the new regime by market participants.

3 Until 21 June 2000: fixed rate tenders, from 28 June 2000: minimum bid rate in variable rate tenders.

4 On 29 June 2000 the second tier of the deposit facility was abolished; the interest rate thereafter applies to the unified deposit acceptance account.

Sources: ECB and Bank of Greece.

Table 9
Money market interest rates
(Percentages per annum, period averages)

Period	Overnight deposits ¹	1-month deposits ²	3-month deposits ²	6-month deposits ²	9-month deposits ²	12-month deposits ²
2000	8.24	8.28	7.89	7.32	6.90	6.55
2001	4.39	4.33	4.26	4.16	4.10	4.09
2002	3.29	3.30	3.32	3.35	3.41	3.49
2001 Jan.	4.75	4.81	4.77	4.68	4.60	4.58
Feb.	4.99	4.80	4.76	4.67	4.61	4.59
March	4.78	4.78	4.71	4.58	4.49	4.47
Apr.	5.06	4.79	4.69	4.57	4.50	4.49
May	4.65	4.67	4.64	4.57	4.53	4.53
June	4.54	4.53	4.45	4.35	4.33	4.31
July	4.51	4.52	4.47	4.39	4.33	4.31
Aug.	4.49	4.46	4.35	4.22	4.14	4.11
Sept.	3.99	4.05	3.98	3.88	3.80	3.77
Oct.	3.97	3.72	3.60	3.46	3.39	3.37
Nov.	3.51	3.43	3.39	3.26	3.20	3.20
Dec.	3.34	3.42	3.34	3.26	3.25	3.30
2002 Jan.	3.29	3.35	3.34	3.34	3.39	3.48
Feb.	3.28	3.34	3.36	3.40	3.48	3.59
March	3.26	3.35	3.39	3.50	3.65	3.82
Apr.	3.32	3.34	3.41	3.54	3.70	3.86
May	3.31	3.37	3.46	3.62	3.80	3.95
June	3.35	3.38	3.46	3.59	3.73	3.87
July	3.30	3.36	3.41	3.48	3.54	3.64
Aug.	3.29	3.33	3.35	3.38	3.40	3.44
Sept.	3.32	3.32	3.31	3.27	3.23	3.24
Oct.	3.30	3.31	3.26	3.17	3.12	3.13
Nov.	3.30	3.23	3.12	3.04	3.01	3.02
Dec.	3.09	2.98	2.94	2.89	2.87	2.87
2003 Jan.	2.79	2.86	2.83	2.76	2.72	2.71

1 Until December 2000: interbank overnight rate in Greece. As from January 2001: euro overnight index average (EONIA).

2 Until December 2000: interbank rates (ATHIBOR). As from January 2001: euro interbank offered rates (EURIBOR).

Sources: Bank of Greece and Bloomberg.

Table 10
Greek government paper yields
(Percentages per annum, period averages)

Period	Yield on one-year Treasury bills	Government bond yield					
		3-year	5-year	7-year	10-year	15-year	20-year
2000	6.22	5.99	5.98	6.05	6.10	6.26	6.35
2001	4.08	4.28	4.58	4.82	5.30	5.51	5.76
2002	3.50	4.06	4.45	4.78	5.12	5.24	5.52
2001 Jan.	4.57	4.66	4.91	5.03	5.35	5.61	5.81
Feb.	4.59	4.66	4.90	5.04	5.35	5.56	5.78
March	4.47	4.50	4.73	4.94	5.28	5.49	5.71
Apr.	4.48	4.53	4.79	4.89	5.39	5.55	5.77
May	4.52	4.59	4.89	5.01	5.54	5.70	5.92
June	4.31	4.40	4.73	4.88	5.48	5.66	5.91
July	4.31	4.39	4.75	4.89	5.52	5.71	5.94
Aug.	4.11	4.17	4.52	4.68	5.33	5.56	5.82
Sept.	3.77	3.78	4.27	4.47	5.31	5.55	5.88
Oct.	3.37	3.40	3.97	4.20	5.07	5.30	5.64
Nov.	3.20	4.12	4.14	5.07	4.90	5.10	5.36
Dec.	3.30	4.15	4.37	4.73	5.13	5.28	5.52
2002 Jan.	3.48	4.27	4.51	4.95	5.24	5.36	5.55
Feb.	3.59	4.37	4.73	5.07	5.31	5.41	5.60
March	3.81	4.58	5.00	5.27	5.51	5.58	5.78
Apr.	3.86	4.59	4.99	5.27	5.51	5.60	5.84
May	3.98	4.63	5.00	5.27	5.52	5.60	5.86
June	3.87	4.46	4.81	5.09	5.36	5.47	5.71
July	3.65	4.23	4.59	4.90	5.21	5.33	5.57
Aug.	3.44	3.90	4.29	4.60	4.95	5.07	5.34
Sept.	3.24	3.59	3.98	4.33	4.73	4.86	5.18
Oct.	3.13	3.52	3.95	4.34	4.79	4.94	5.32
Nov.	3.02	3.40	3.87	4.26	4.76	4.90	5.33
Dec.	2.87	3.19	3.63	4.05	4.58	4.71	5.13
2003 Jan.	2.70	2.91	3.36	3.81	4.43	4.51	4.97

Source: Bank of Greece.

Table 11

Domestic MFI loans to domestic firms and households, by currency and branch of economic activity

(Balances in million euro)

End of period	Total	In euro	In foreign currency	Branches of economic activity						
				Agriculture	Industry ¹	Trade	Housing	Tourism	Consumer credit	Other
2000	59,330.0	50,065.6	9,264.4	3,884.9	11,823.7	12,374.2	11,271.9	1,814.3	5,511.3	12,649.7
2001	74,027.4	66,722.6	7,304.8	3,724.2	12,614.9	15,524.3	15,652.2	2,171.3	7,852.0	16,488.5
2002	86,510.5	80,099.7	6,410.8	3,224.7	14,364.0	15,670.8	21,224.7	2,903.2	9,755.4	19,367.7
2001 Jan.	59,938.1	51,062.9	8,875.2	3,809.7	11,617.1	12,370.5	11,542.8	1,851.0	5,601.0	13,146.0
Feb.	60,758.1	52,131.0	8,627.1	3,723.9	11,813.8	12,374.8	11,775.0	1,894.5	5,715.7	13,460.4
March	62,687.0	54,138.2	8,548.8	3,869.2	11,972.1	12,731.5	12,067.4	1,946.9	5,973.5	14,126.4
Apr.	63,300.2	54,967.1	8,333.1	3,957.4	11,802.2	12,716.1	12,327.2	1,998.4	6,109.2	14,389.7
May	65,437.2	56,478.3	8,958.9	3,838.0	12,184.5	13,619.7	12,752.8	2,042.1	6,322.2	14,677.9
June	67,191.8	58,451.6	8,740.2	3,802.5	12,493.1	14,110.5	13,053.2	2,066.5	6,577.4	15,088.6
July	67,876.5	59,419.2	8,457.3	3,807.4	12,712.7	14,014.7	13,531.7	2,055.5	6,727.6	15,026.9
Aug.	68,345.9	60,214.8	8,131.1	3,767.4	12,630.0	14,031.4	13,859.7	2,040.1	6,887.2	15,130.1
Sept.	69,886.2	61,843.1	8,043.1	3,821.8	12,843.6	14,456.8	14,250.8	1,990.0	7,117.5	15,405.7
Oct.	70,591.5	62,887.0	7,704.5	3,735.5	12,718.4	14,510.7	14,695.7	1,992.2	7,379.6	15,559.4
Nov.	72,434.1	64,675.3	7,758.8	3,666.9	12,733.1	14,755.9	15,187.6	2,007.1	7,535.4	16,548.1
Dec.	74,027.4	66,722.6	7,304.8	3,724.2	12,614.9	15,524.3	15,652.2	2,171.3	7,852.0	16,488.5
2002 Jan.	73,982.0	66,648.1	7,333.9	3,230.0	12,435.1	15,174.6	16,024.7	2,236.0	7,783.7	17,097.9
Feb.	75,202.2	67,723.9	7,478.3	3,030.3	12,724.5	15,846.7	16,417.5	2,267.5	7,944.7	16,971.0
March	76,235.3	69,080.0	7,155.3	3,139.4	13,168.1	15,788.0	16,891.9	2,316.4	8,129.8	16,801.7
Apr.	76,958.0	69,886.9	7,071.1	3,196.1	12,801.1	15,939.4	17,362.1	2,341.0	8,301.2	17,017.1
May	78,009.6	71,192.8	6,816.8	3,193.0	12,912.6	16,064.7	17,721.8	2,372.2	8,508.3	17,237.0
June	79,960.9	73,475.3	6,485.6	3,167.7	13,360.0	16,516.2	18,194.3	2,414.5	8,678.1	17,630.1
July	81,233.9	74,622.8	6,611.1	3,167.7	13,720.8	16,570.9	18,759.9	2,411.6	8,868.0	17,735.0
Aug.	82,041.4	75,311.8	6,729.6	3,191.4	13,625.4	16,580.6	19,304.9	2,399.3	8,997.7	17,942.1
Sept.	82,662.6	75,930.7	6,731.9	3,212.8	13,785.6	16,059.8	19,503.8	2,560.0	9,228.1	18,312.5
Oct.	83,996.1	77,164.1	6,832.0	3,221.6	13,961.2	16,161.2	19,914.7	2,635.0	9,420.9	18,681.5
Nov.	85,614.8	78,732.9	6,881.9	3,167.1	14,528.2	15,663.2	20,416.6	2,761.1	9,612.9	19,465.7
Dec.	86,510.5	80,099.7	6,410.8	3,224.7	14,364.0	15,670.8	21,224.7	2,903.2	9,755.4	19,367.7

¹ Including mining and small-scale manufacturing.

Source: Bank of Greece.

Table 12
Bank deposit and lending rates in Greece
(Percentages per annum, period averages)

Period	Deposit rates			Lending rates			
	Sight deposits	Savings deposits	12-month time deposits	To firms		To households	
				Short-term	Long-term	Consumer ¹	Housing ²
2000	2.73	5.71	6.14	12.33	11.52	17.00	9.76
2001	1.45	2.40	3.32	8.58	8.66	13.35	6.45
2002	0.82	1.51	2.76	7.41	7.43	12.64	5.70
2001 Jan.	1.66	2.93	3.84	9.40	9.12	14.37	7.31
Feb.	1.62	2.69	3.74	9.10	9.31	14.25	6.89
March	1.60	2.70	3.71	8.78	8.99	13.93	6.70
Apr.	1.69	2.71	3.62	8.88	9.08	13.80	6.60
May	1.54	2.57	3.64	8.87	8.98	13.53	6.55
June	1.52	2.47	3.57	8.65	8.69	13.25	6.49
July	1.42	2.46	3.55	8.64	8.61	12.97	6.50
Aug.	1.51	2.47	3.45	8.59	8.74	12.94	6.48
Sept.	1.31	2.30	3.05	8.35	8.38	13.07	6.38
Oct.	1.09	1.93	2.71	8.08	8.33	12.76	6.00
Nov.	1.28	1.90	2.51	7.87	8.00	12.68	5.77
Dec.	1.20	1.69	2.41	7.79	7.65	12.65	5.78
2002 Jan.	0.90	1.66	2.62	7.74	7.36	12.70	5.77
Feb.	0.79	1.68	2.63	7.66	7.81	12.89	5.77
March	0.83	1.66	2.74	7.63	7.60	12.82	5.76
Apr.	0.83	1.66	2.82	7.59	7.69	12.66	5.77
May	0.79	1.62	2.87	7.52	7.78	12.69	5.74
June	0.75	1.46	2.75	7.40	7.58	12.67	5.80
July	0.72	1.41	2.72	7.29	7.41	12.61	5.68
Aug.	0.90	1.41	2.57	7.17	7.49	12.54	5.64
Sept.	0.85	1.44	2.72	7.20	7.49	12.57	5.59
Oct.	0.91	1.48	2.84	7.29	7.20	12.49	5.66
Nov.	0.84	1.50	2.87	7.24	6.90	12.53	5.65
Dec.*	0.75	1.09	2.80	7.23	6.82	12.53	5.53

1 Average rate on all categories of consumer loans.

2 Average rate on variable-rate housing loans with a maturity of over 5 years.

* Provisional data.

Source: Bank of Greece.

