

BANK OF GREECE

# MONETARY POLICY

1999-2000



FEBRUARY 2000

BANK OF GREECE

REPORT ON  
MONETARY  
POLICY  
1999-2000



FEBRUARY 2000



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## To the Greek Parliament and the Council of Ministers

This Report is submitted —in accordance with Law 2548/1997 and the Statute of the Bank of Greece— to the Greek Parliament and the Council of Ministers at a particularly important moment, which virtually coincides with the submission by the Greek Government of the application for Greece's entry into the final stage of Economic and Monetary Union.

The primary objective of the monetary policy pursued in 1999 was to achieve price stability and meet the convergence criterion set for inflation in the Maastricht Treaty. Indeed, price stability was largely achieved in 1999 and, on the basis of the Harmonised Index of Consumer Prices in Greece and the European Union, it is forecast that Greece will meet the inflation criterion.

The first section of the Report examines in detail developments in the money, foreign exchange, bank credit and capital markets. It also examines the course of inflation and the factors which affected it, in correlation with the evolution of economic activity and employment. Based on this analysis, the monetary policy pursued in 1999 is assessed in connection with the objectives set, and its contribution to the achievement of price stability is ascertained.

The second section of the Report presents the objectives, strategy and stance of monetary policy for 2000, as well as certain restrictions and elements of uncertainty facing this policy in the final stage of transition to the euro area. Ensuring

price stability in the year 2000 requires the continuation of anti-inflationary monetary policy. The new central exchange rate of the drachma against the euro, effective from 17 January, facilitates the attainment of the inflation target, although this is hindered by the steep rise in world oil prices, while the prospect of gradual convergence of Greek interest rates towards those in the euro area places restrictions on the conduct of monetary policy. Under these conditions, it is difficult to ensure price stability in 2000 by relying solely on monetary policy, but it is feasible, provided that planned economic and structural policies are implemented consistently and moderate pricing and wage policies are adopted by the social partners. Moreover, in order to offset possible inflationary pressures from certain —mainly exogenous— factors, the economic authorities should speed up structural reforms and broaden their field of application, while fiscal policy should be pursued flexibly, to enable its timely adjustment.

Monetary policy will aim to consolidate price stability and ensure the smooth entry of Greece into the euro area. More specifically, it will seek to formulate appropriate exchange rate and interest rate combinations, so that transition to the final stage of Economic and Monetary Union will be completed without hindrance. With the country's entry into the euro area, conditions of price stability will be established and, in general, an economic environment promoting fast and sustainable growth will emerge.

Athens, 29 February 2000

Lucas Papademos  
Governor

# Monetary Policy Council of the Bank of Greece

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# I. Monetary developments and policy in 1999

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## I.1 Monetary policy objectives and results in 1999

As stated in the Monetary Policy Report submitted by the Bank of Greece to the Greek Parliament and the Council of Ministers in March 1999, the primary objective of monetary policy for 1999 was to achieve stability of the general level of prices, i.e. to reduce the annual rate of inflation to a level not exceeding 2 per cent. The timely achievement of this objective was necessary, in order to meet the inflation criterion of the Maastricht Treaty, which is a prerequisite for Greece's entry into the euro area in January 2001.

In conducting monetary policy, the Bank of Greece sought to keep relatively stable the exchange rate of the drachma against the euro within the Exchange Rate Mechanism II (ERM II), which the drachma joined in January 1999 at a central rate of 353.109 drachmas per euro and with the normal fluctuation band of  $\pm 15$  per cent. Moreover, the Bank announced indicative forecasts of 7-9 per cent for both the growth of the broader liquidity indicator (M4N) and total credit expansion. These forecasts were considered to be consistent with the inflation target and the anticipated growth rate of GDP.

The inflation target was largely attained in 1999. Inflation, as measured by the Consumer Price Index (CPI), declined gradually from 3.9 per cent in December 1998 to 2 per cent in August and September 1999, but then began to accelerate, owing to a significant rise in the world oil price, and stood at 2.7 per cent in December 1999. Core inflation, however, which is not influenced by developments in fuel and fresh fruit/vegetable prices, continued its downward course and since October 1999 has not exceeded 2 per cent. The inflation differential between Greece and the euro

area, on the basis of the Harmonised Index of Consumer Prices (HICP), narrowed considerably to 0.7 percentage point in December 1999 from 2.9 percentage points in December 1998. It is also characteristic that the average annual inflation rate, as measured by the HICP, fell to 2.3 per cent.

Apart from monetary policy, other factors that supported disinflation were the considerable slowdown in the growth of unit labour costs (1998: 3.9 per cent, 1999: 2.5 per cent), the reduction in the general government's deficit as a percentage of GDP (1998: 2.5 per cent, 1999: 1.5 per cent) and the *ad hoc* measures taken by the government in the second half of 1999. By contrast, the rise in the world oil price, combined with the strengthening of the US dollar against the euro, had a negative impact on the general level of prices, causing a temporary acceleration of inflation from October 1999 onwards.

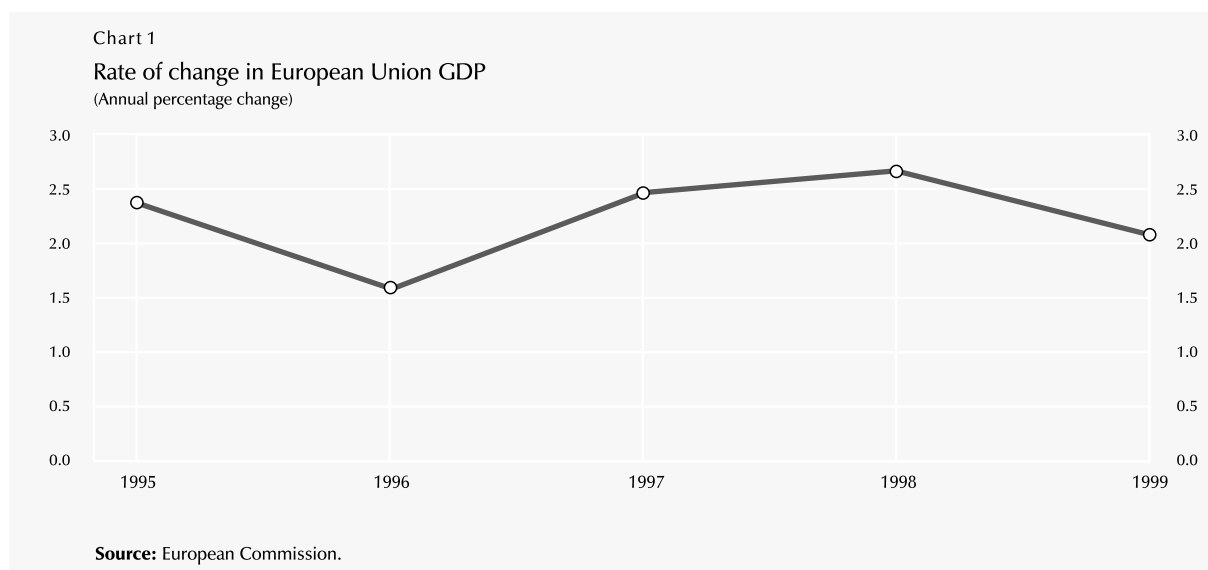
Monetary policy (through interest rate policy, Bank of Greece interventions in the interbank money and foreign exchange markets, and the *ad hoc* measures taken to check credit expansion) affected towards the desired direction the exchange rate of the drachma, monetary and credit aggregates and total domestic demand, thus contributing substantially to the containment of inflationary pressures and the weakening of inflationary expectations.

In the course of 1999 the drachma remained strong within ERM II and traded 7.7 per cent on average above its central rate. This was due, to a large extent, to the maintenance of domestic interest rates at high levels, as well as to favourable economic developments and prospects. Over the period of almost two years since its entry into ERM in March 1998, the drachma has not come under pressure generating tension

in the foreign exchange market, while the volatility of its exchange rate against the euro has been limited. With the appreciation of the central rate of the drachma against the euro (from 353.109 to 340.75 drachmas) in January 2000, the necessary adjustment of its current exchange rate to the new central rate was reduced to 2.6 per cent from 6 per cent (which would have been required, had the appreciation not taken place). This has led to the containment of inflationary pressures and the abatement of inflationary expectations, which are linked with the convergence of the drachma towards its central rate by the end of the year 2000.

In the course of 1999, the broader liquidity indicator M4N grew by 5.6 per cent, i.e. at a rate below the reference range (7-9 per cent) and the outcome for 1998 (9.8 per cent). The year-on-year growth rate of M4N followed a downward path in 1999 and from March 1999 onwards fluctuated broadly within (or below) the reference range.

Total credit expansion, adjusted for valuation differences due to the substantial appreciation of the Japanese yen and, to a smaller degree, of the US dollar, stood at 11.1 per cent in 1999, thus overshooting the reference range (7-9 per cent) for 1999 and the 1998 figure (9.1 per cent). This pattern reflected stronger credit expansion to the public sector, whereas credit expansion to the private sector decelerated. The acceleration of credit expansion to the public sector reflected a change in the method of financing central government borrowing requirements rather than an increase in the latter, which in fact were smaller than in 1998 (see Table V on page 31). The containment of credit expansion to the private sector was considerably supported by the *ad hoc* measures taken by the Bank of Greece in April and July 1999.



As a result of the interest rate policy of the Bank of Greece, interest rates in the interbank money market remained at high levels and stood between 8.5 per cent and 10 per cent at the end of 1999, depending on maturity. Bank deposit and lending rates, after a small decline in early 1999, remained virtually unchanged, although they increased in real terms, owing to the slowdown in inflation. The 10-year government bond yield, which is one of the convergence criteria, averaged 6.3 per cent in 1999 and its differential from the corresponding German bond yield narrowed to below 100 basis points in mid-February 2000, from around 300 basis points at end-1998. The continuous narrowing of the differential between Greek and European bond yields entails the fulfilment of the convergence criterion regarding long-term interest rates and has been accounted for by the decline in inflation, the stability of the drachma parity, the improvement in public finances and, more generally, by favourable expectations about Greece's entry into the euro area.

These developments suggest that monetary policy retained its anti-inflationary stance in 1999, contributing decisively to macroeconomic stability

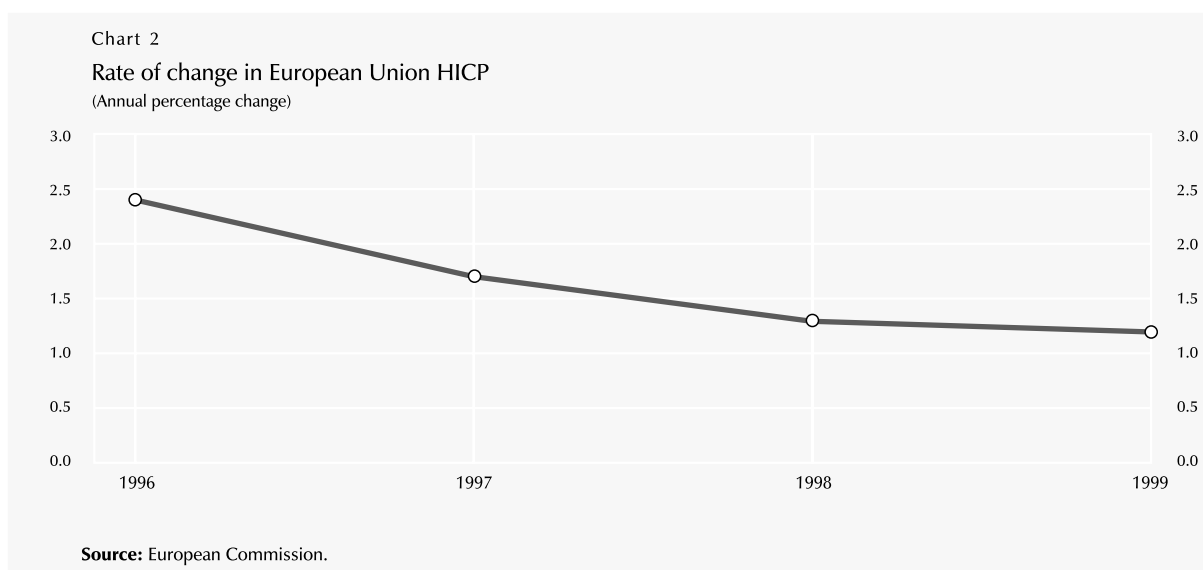
and to the nominal and real convergence of the Greek towards the euro area economy.

## 1.2 International economic developments

The growth rate of world output in 1999 is estimated at 3 per cent,<sup>1</sup> compared with 2.2 per cent in 1998, when the repercussions of international monetary and stock market turbulence, following the crisis in Southeastern Asian economies in 1997-98, had been relatively stronger. In OECD countries as a whole, the average growth rate of GDP accelerated to 2.8 per cent in 1999, from 2.4 per cent in the previous year. The volume of world trade increased by 4.9 per cent in 1999, compared with 5.1 per cent in 1998. Inflation in OECD countries (excluding high-inflation countries) is estimated to have been 1.1 per cent in 1999, compared with 1.4 per cent in 1998.

The faster growth of world GDP resulted from the

<sup>1</sup> Estimates concerning non-European countries or groups of countries which are larger than the European Union are derived from Eurostat, February 2000, and OECD, Economic Outlook, December 1999. European Commission estimates (autumn 1999) were used for the European Union and the euro area.



(limited) economic recovery in Japan and the fact that Southeastern Asian countries managed to get over the economic crisis of previous years. Indeed, a substantial improvement was observed in non-OECD countries in 1999, with the average growth rate of GDP speeding up to 3.3 per cent, from 1.9 per cent in 1998. The main factor behind this development was an increase in output in a number of small and medium-sized economies, whereas the majority of non-OECD large economies experienced relative recession in 1999.

The growth rate of economic activity in the European Union (EU) is estimated to have decelerated to 2.1 per cent in 1999, from 2.6 per cent in 1998 (see Chart 1). This was mainly accounted for by the slower growth of exports (1999: 3.0 per cent, 1998: 5.6 per cent), whereas private consumption (1999: 2.7 per cent, 1998: 2.8 per cent) and investment (1999: 4.9 per cent, 1998: 5.2 per cent), especially in equipment, continued to increase at a relatively fast pace. However, the quarter-on-quarter growth rate of EU economic activity accelerated in 1999, after a slowdown in the last quarter of 1998 (increase of 0.2 per cent over the third quarter of 1998), and came to 1.0 per cent (2.3 per cent on an annual basis) in the third quarter of 1999. It

seems that economic growth continued to accelerate in the last quarter of 1999, partly reflecting an increase in inventories towards the end of the year, in order to deal with eventual problems associated with the transition to the year 2000. Industrial output in the EU has started to pick up since June 1999, business expectations of industrial firms have been increasing since April 1999, especially as regards export prospects, construction firms' expectations are improving and consumer confidence remains at historically high levels.

It is estimated that employment in the EU continued to grow in 1999 (1.2 per cent, compared with 1.3 per cent in 1998) and that the rate of unemployment declined appreciably to 9.2 per cent in 1999, from 9.9 per cent in 1998, although the sustained growth of employment encouraged a rise in labour supply. This satisfactory development is attributable to: the expansion of the services sector; wage moderation in recent years; the development of part-time employment; the adoption of measures which directly promote employment (e.g. in the context of National Action Plans for Employment); and the implementation of structural reforms in goods and labour markets of several EU Member States.

Average annual inflation in the EU, measured on the basis of the Harmonised Indices of Consumer Prices (HICPs), was 1.2 per cent in 1999, compared with 1.3 per cent in 1998, despite the considerable rise in oil price and the increase in the prices of other raw materials, such as metals, in the last months of 1999 (see Chart 2 and Table XXI in Section II.3). The twelve-month inflation rate accelerated from 1.0 per cent in December 1998 to 1.7 per cent in December 1999, mostly because of the rise in the world oil price, but also owing to the weakening of the euro against major currencies in 1999. In the euro area, average annual inflation stood at 1.1 per cent in 1999 and the twelve-month inflation rate sped up from 0.8 per cent in December 1998 to 1.7 per cent in December 1999. Significant inflation differentials were recorded across individual euro area Member States. For instance, in December 1999, Germany and France experienced the lowest level of inflation (1.4 per cent), whilst Ireland the highest one (3.9 per cent).

Apart from keener competition as a result of the introduction of the euro, the maintenance of relatively low inflation rates reflected wage moderation, which was associated with the anti-inflationary monetary policy pursued by the European Central Bank in the euro area and with the stability-oriented policy conducted by national central banks in non-euro area EU countries. Moreover, the relatively loose situation in labour markets and the low industrial capacity utilisation rate, which are typical of early stages of economic recovery, supported the containment of inflation. Lastly, structural factors related to market deregulation and increased competition had a favourable effect on prices, especially in the fields of services (e.g. telecommunications) and electricity.

Despite the slowdown in economic growth, the general government's deficit in the EU as a whole

fell to 1 per cent of GDP on average in 1999, compared with 1.5 per cent in 1998 (structural deficit in 1999: 0.7 per cent, 1998: 1.3 per cent), and the public debt-to-GDP ratio dropped to 68.6 per cent in 1999, compared with 69.6 per cent in 1998. In the euro area the fiscal deficit decreased to 1.6 per cent of GDP on average in 1999, compared with 2 per cent in 1998, and the public debt/GDP ratio to 73.1 per cent in 1999, compared with 73.5 in 1998. It is estimated that the targets for 1999 set in the Stability Programmes and the Convergence Programmes of EU Member States were, in most cases, achieved and that fiscal surpluses were recorded in several countries. This reflected an estimated rise in government revenue as a percentage of GDP (1999: 46.6 per cent, 1998: 46.3 per cent), mostly because of an increase in revenue from corporate income tax (associated with the upward revision of estimates on economic growth), in conjunction with the decrease in the general government expenditure/GDP ratio (47.6 per cent in 1999, compared with 47.8 per cent in 1998).

Economic growth in the United States continued at a strong pace throughout 1999. GDP grew by 4.1 per cent, compared with 4.3 per cent in 1998. The strength of corporate investment, especially in information technology, brought about a considerable increase in potential output. In December 1999, industrial production rose for the eleventh month in a row. The annual production of cars overshot the previous peak in 1978, while unemployment in this industry fell to a 29-year record low. Unemployment in the economy as a whole reached the particularly low level of 4.2 per cent in 1999, compared with 4.5 per cent in 1998. However, the annual increase in the labour cost index decelerated slightly to 3.3 per cent in 1999, from 3.5 in 1998. Thus, the GDP deflator was eventually restrained to the low level of 1.5 per cent, with some acceleration in the fourth quarter of 1999, compared with 1.2 per cent in 1998.

Moreover, a decrease in private savings and an increase in consumer loans in 1999, in conjunction with deteriorating terms of trade and a strong rise in active demand, pushed upwards the US current account deficit to 3.7 per cent of GDP in 1999, from 2.5 per cent in 1998.

Japan showed signs of recovery and finally achieved a 1.3 per cent GDP growth (compared with a decrease of 2.5 per cent in 1998), owing to the impact of fiscal measures and the efficient restructuring of the banking sector. The GDP deflator declined by 0.4 per cent in 1999, compared with an increase of 0.3 per cent in 1998. Unemployment rose to 4.7 per cent in 1999, from 4.1 per cent in 1998. The structural primary deficit is estimated to have increased to 5.5 per cent in 1999. Fiscal measures to boost employment were taken and, in the period during which restructuring measures were implemented, public sector investment increased by at least 25 per cent. The current account surplus stood at 2.7 per cent of GDP in 1999, compared with 3.2 per cent in 1998.

The above developments in economic activity and prices were influenced by the conduct of monetary policy. In the euro area, responsibility of determining monetary policy lies exclusively with the European Central Bank (ECB) as of the start of 1999. In the course of 1999, the Governing Council of the ECB changed twice the Bank's interest rates: on 8 April, it lowered by 50 basis points to 2.5 per cent the interest rate on the main refinancing operations and, on 4 November, it restored it to 3 per cent. The latter change was aimed at dealing in time with risks to price stability arising from the increase in oil prices and faster economic growth, as well as from M3 growth at a rate (around 6 per cent) considerably higher than the reference value of 4.5 per cent and from the maintenance of strong credit expansion to the private sector (around 10 per cent) – i.e. monetary devel-

opments partly due to low nominal interest rates and the maintenance of a very low level of inflation. The ECB aims to contain inflationary expectations, in order to minimise the impact of the rise in oil price on wage demands for 2000, account also taken of the high level of unemployment in the euro area. Indeed, the increase in ECB interest rates on 4 November 1999 had a direct favourable effect on inflationary expectations, as it was coupled with downward movements in yields on euro area long-term securities (a 30 basis point drop was recorded in 10-year yields) in the first half of November 1999.<sup>2</sup>

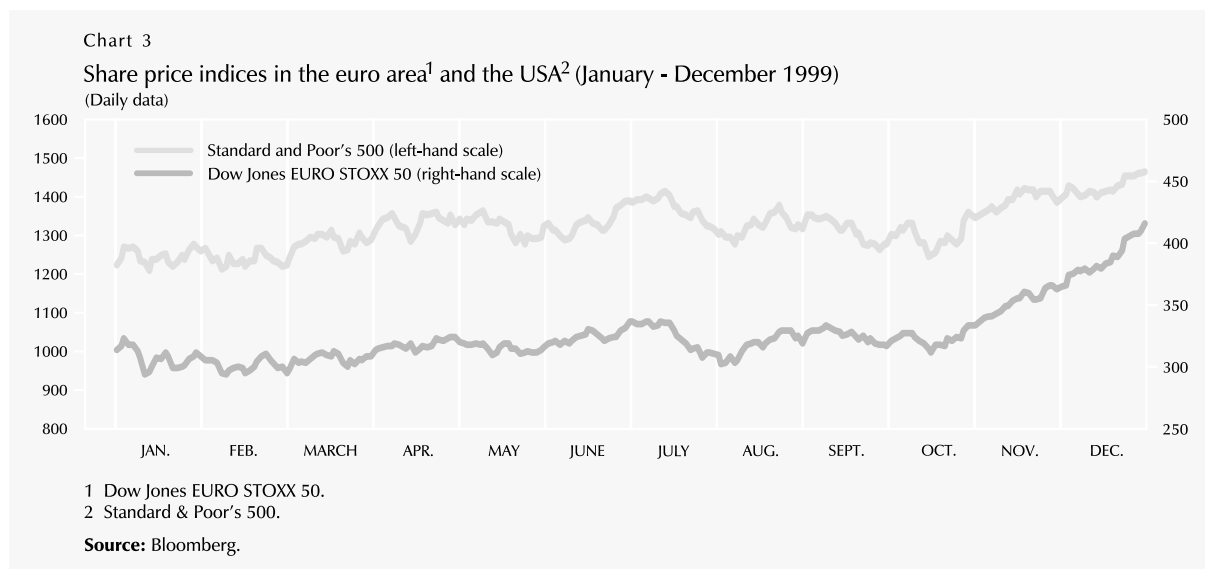
Following an assessment of, at times mixed, evidence on the course of inflation and its determinants, the Federal Reserve Bank proceeded to three limited increases (of 0.25 percentage point each) in its interest rate target for the overnight money market, which thus came to 5.5 per cent. Also, it raised its discount rate twice by 0.25 percentage point to 5 per cent. The Bank of Japan maintained its overnight interbank market rate close to zero.

Robust economic growth in the United States, in conjunction with relatively subdued growth in the European Union, expectations about the evolution of interest rate differentials between the US and the EU, as well as the impression that no adequate structural reforms are implemented in the EU in order to enhance economic growth, contributed to an almost continuous strengthening of the US dollar against the euro since the start of monetary union on 1 January 1999. The downward trend of the euro was temporarily interrupted between mid-July (January 1999 average: \$1.161 per euro, 12 July 1999: \$1.0124) and mid-October 1999 (15 October 1999: \$1.0869 per euro). Then, the euro began again to depreciate against

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<sup>2</sup> A decrease of about 30 basis points in 10-year yields had occurred around the end of October.





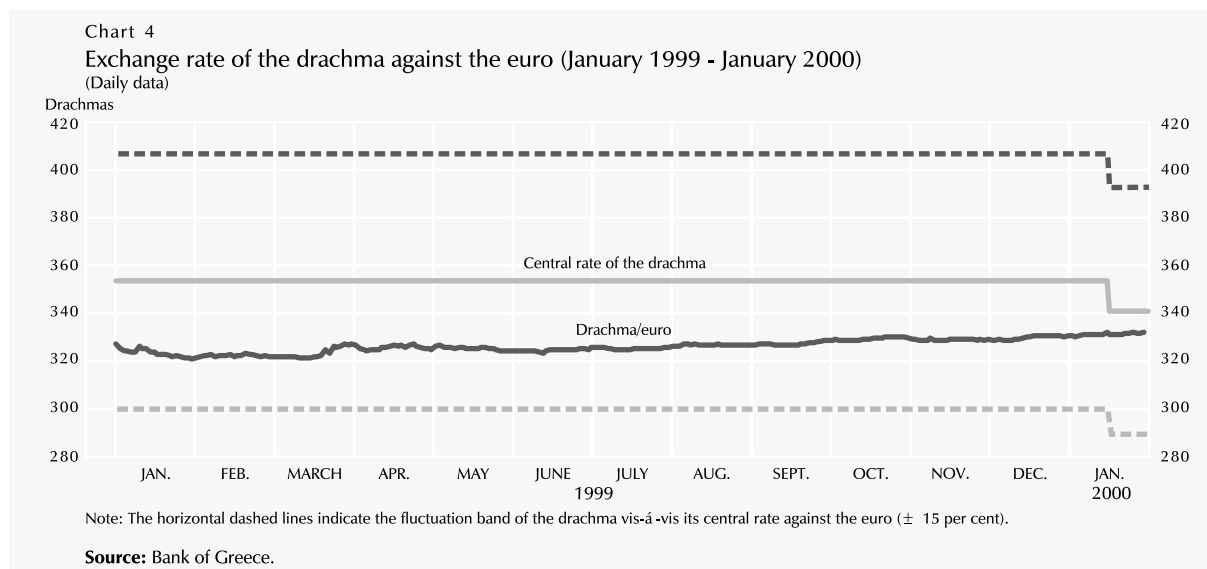
the US dollar and fell to the lowest level for 1999 (\$1.0015) on 3 December 1999 (December 1999 average: \$1.011). In 1999 the Japanese yen strengthened considerably against the US dollar and to a larger extent against the euro (January 1999 average: 131.3 yen per euro, December 1999 average: 103.7 yen per euro).

In 1999 – mostly in the second half of the year – yields on long-term securities in euro area markets increased considerably. Yields in the rest of EU Member States followed a similar path. In the euro area, 10-year bond yields rose to 5.30 per cent in December 1999, from 3.82 per cent in January 1999. The performance of the French index-linked bond yields supported the view that expected real interest rates increased somewhat. Indeed, the rise in euro area bond yields followed a similar increase in US bond yields (from 4.69 per cent in December 1998 to 6.26 per cent in December 1999) and is consistent with faster economic growth in the euro area, as well as with a rekindling of inflationary expectations due to the rise in oil prices and the weakening of the euro. Moreover, the rise in US long-term interest rates is associated with gradually increasing expectations of rises in short-term interest rates, in view of an eventual upsurge of infla-

tionary pressures as a result of the ongoing acceleration of economic activity in that country. In Japan, 10-year interest rates increased marginally, from 1.39 per cent in December 1998 to 1.73 per cent in December 1999.

Stock prices followed an upward course in many EU stock exchanges. Reflecting the improved economic outlook of the euro area, the Dow Jones EURO STOXX 50 index rose by roughly 30 per cent between January and December 1999 (see Chart 3). Real estate prices (for which full and harmonised EU-wide data are not available) rose by about 1 per cent annually in the period from 1993 to 1998. Real estate prices in non-euro-area EU countries seem to have increased slightly faster in that period. Overall, real estate and stock prices provide monetary policy with a useful complementary indicator of the path that the general level of goods and services prices may follow in future. However, the ECB and other central banks consider them as aggregates which monetary policy<sup>3</sup> is unable to (or should not try to) influence in the medium-term.

<sup>3</sup> This could lead to destabilisation, speculation and the wrong impression that monetary policy can (or must) ensure capital gains directly to investors or reduce the risks which are inherent in the securities and real estate markets.



Lastly, stock prices grew notably in the United States in 1999, where the Dow Jones index rose by 24.2 per cent (Standard and Poor's 500: 19.5 per cent) and in Japan, where the Nikkei index increased by 36.8 per cent.

### 1.3 Exchange rate developments

During 1999, the drachma participated in the Exchange Rate Mechanism II (ERM II) at a central rate of 353.109 drachmas to the euro and with the standard fluctuation band. This mechanism replaced the previous Exchange Rate Mechanism (ERM) but kept the same standard fluctuation band ( $\pm 15$  per cent).

The drachma's participation in ERM/ERM II was successful. During the nearly two-year period from its entry into the mechanism until the end of 1999, the drachma generally avoided the sort of pressure that would upset the foreign exchange market. The main goal of monetary policy throughout this period was to achieve and ensure price stability. Because of relatively high interest rates, the drachma was kept strong within ERM II (see Chart 4). During 1999, the appreciation of the

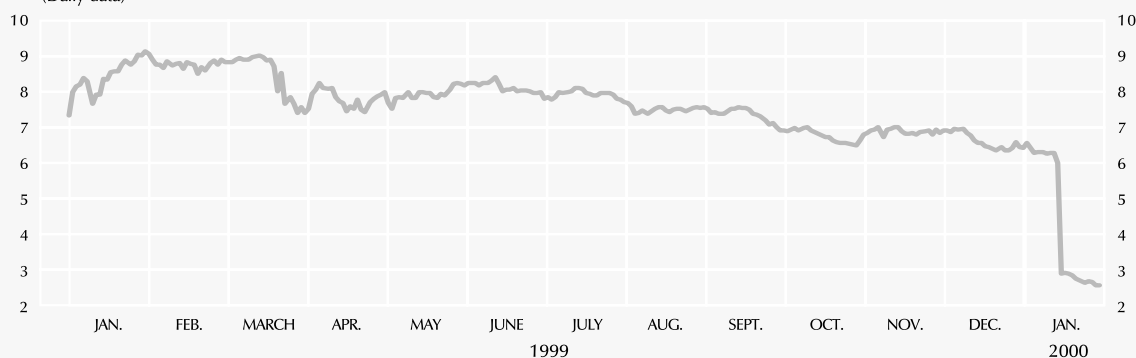
drachma relative to its central rate against the euro fluctuated between 6.5 per cent and 9 per cent, with an average of 7.7 per cent (see Chart 5). This was not only consistent with the anti-inflationary monetary policy pursued, but was also the result of positive economic developments and the economy's favourable prospects. It should be noted that from the drachma's entry into the ERM on 16 March 1998 until the end of 1998 its appreciation against the ECU fluctuated within wider limits (from 2.2 per cent to 8.5 per cent).<sup>4</sup> The volatility<sup>5</sup> of the drachma's exchange rate against the euro was, on average, limited and followed a downward trend during 1999. At the end of 1999, volatility corresponded to about one third of that recorded at the beginning of the year (see Table I).

<sup>4</sup> The range of the drachma's deviation from its central exchange rate against the ECU is smaller if changes in the drachma's exchange rate during the first days following ERM entry on 16 March 1998 are not taken into account. In that period, the Greek currency gradually appreciated against its bilateral central rates within the ERM. Thus, between the end of April 1998 and end-December 1998, the drachma's minimum and maximum deviation above its central rate against the ECU was 3.7 per cent and 8.5 per cent, respectively.

<sup>5</sup> As measured by the monthly standard deviation (percentage points) of the daily percentage changes in the exchange rate of the drachma against the euro.

Chart 5

Deviation of the drachma from its central rate against the euro, in percentages  
(January 1999 - January 2000)  
(Daily data)



Note: A positive deviation corresponds to an appreciation of the drachma against its central rate.

Source: Bank of Greece.

Table I  
Exchange rate volatility<sup>1</sup>

3-month average up to:	May '98	Aug. '98	Nov. '98	Feb. '99	May '99	Aug. '99	Nov. '99
Volatility index	6.7554	5.2137	6.1619	3.2711	3.7443	1.3466	1.1789

1 Monthly standard deviation (percentage points) of daily percentage changes in the exchange rate of the drachma against the ECU/euro.

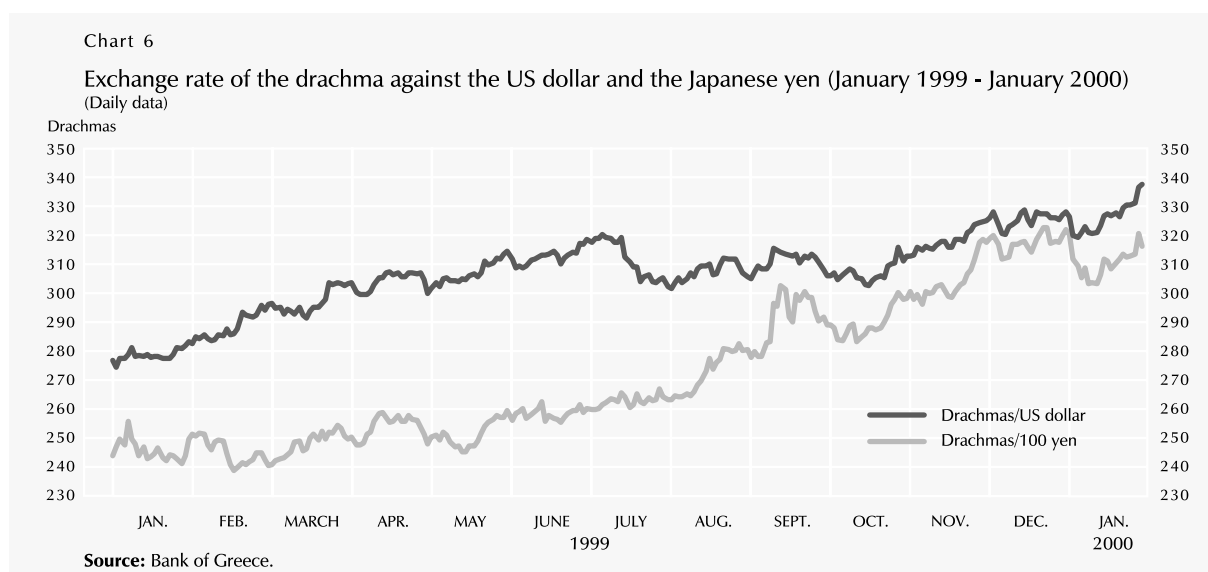
Source: Bank of Greece.

During 1999, the drachma's exchange rate against the euro and, consequently, its deviation from the central rate were on a slightly downward course. More specifically, during the first two months of 1999 the drachma came under pressure to appreciate, reflecting significant foreign capital inflows. The inflows mainly concerned investments of non-residents in Greek government bonds, related to the large yield differential between Greek and foreign securities and to the prospect for the convergence of Greek interest rates towards euro area levels, combined with the credibility of the monetary policy pursued. During this period, the Bank of Greece intervened in the foreign exchange market in order to restrain upward pressure on the drachma and reduce its volatility. From mid-January to end-March 1999, the appreciation of the drachma relative to its central rate against the euro was at high levels, between 8.5 per cent and

9 per cent, compared with 7.5 per cent in December 1998.

At end-March 1999, capital outflows were reported, which were partly due to the uncertainty caused by the crisis in Kosovo. The drachma's appreciation was limited to 7.5-8 per cent and it stayed at that level until the end of May 1999. During June-July 1999, thanks to the influence of seasonal factors on the current account balance and also because of capital inflows, the drachma became stronger and its appreciation relative to its central rate against the euro reached 8-8.5 per cent.

From August to December 1999, the drachma's deviation from its central rate gradually fell to 6.5 per cent, although there were periods (from early August to late September and during November) when this deviation remained unchanged. The



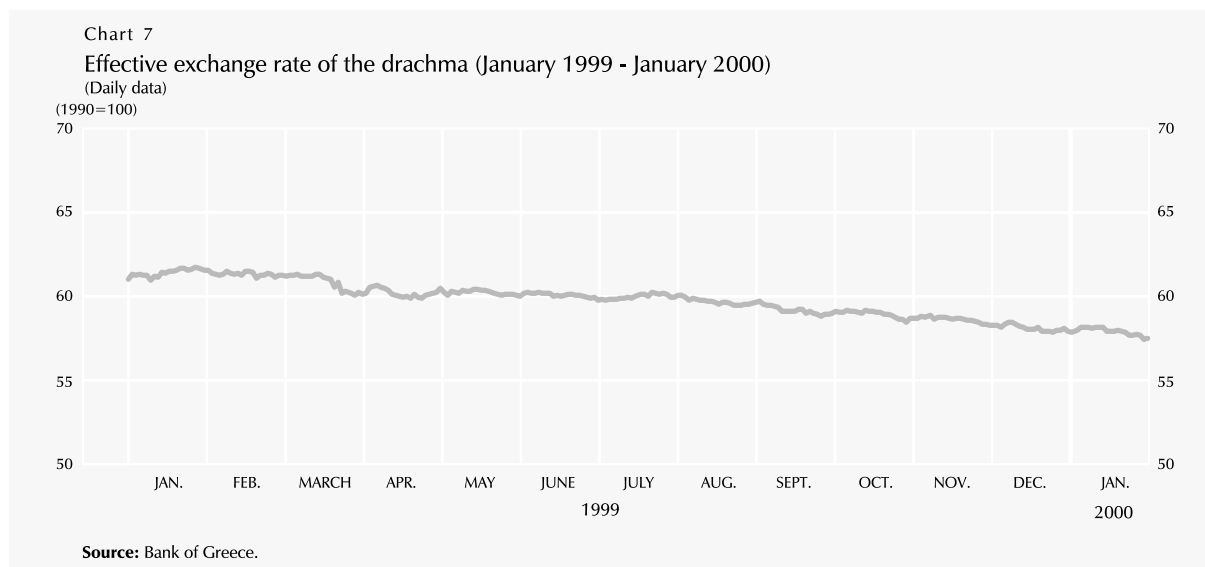
drachma exchange rate relative to the euro fell in the period from 25 September to the end of October 1999, because of capital outflows caused by market expectations that the current rate of the drachma against the euro would approach its central rate faster. Consequently, the exchange rate deviation from the central rate was about 6.5 per cent at the end of October, from 7 per cent at the end of September. For 1999 as a whole, the drachma remained broadly stable against the euro; the exchange rate fell, from 327.3 drachmas to the euro at the beginning of the year, to 330.4 drachmas per euro at year-end. Foreign exchange reserves amounted to \$18.9 billion at the end of 1999, compared with \$18.2 billion at the end of 1998.

The drachma exchange rate against currencies outside the euro area followed almost the same course as the euro rate against these currencies, given that the drachma exchange rate policy aimed at a relatively stable exchange rate of the Greek currency against the euro. Relative to the US dollar, the drachma's exchange rate fell during 1999 to 328.4 drachmas per dollar at year-end, compared with 282.6 drachmas at the end of 1998 (see Chart 6). As mentioned before (see Section

I.2), this development reflects the dynamism of the US economy and the widening of the interest rate differential between the US and the euro area. Relative to the Japanese yen, the drachma exchange rate fluctuated around 250 drachmas per 100 yen in the first five months of 1999. From the end of May to the end of the year, however, the yen appreciated almost constantly against major currencies, partly reflecting improved economic conditions in Japan. This strengthening of the yen resulted in an exchange rate of 322.3 drachmas per 100 yen at the end of 1999.

The effective exchange rate of the drachma<sup>6</sup> remained almost unchanged through most of 1999 (see Chart 7). During the last couple of months of the year, however, it fell, because of the appreciation of the Japanese yen and the US dollar. Consequently, the effective rate declined by 4.3 per cent between December 1998 and December 1999. On average, it fell by 0.9 per cent during 1999, thus helping to mitigate domestic inflationary pressures.

<sup>6</sup> The effective exchange rate is the value of a representative "basket" of foreign currencies, each of which is weighted according to its relative importance in Greece's external trade.



On 17 January 2000, the central rate of the drachma against the euro was revalued by 3.5 per cent to 340.75 drachmas per euro. This adjustment facilitates the conduct of anti-inflationary monetary policy, in view of the gradual decline of domestic interest rates to euro area levels. Indeed, the adjustment of the current exchange rate of the drachma from 331.8 drachmas per euro, where it stood immediately before the central rate was reset on 14 January 2000, to 340.75 drachmas per euro by the end of 2000, limits the depreciation of the exchange rate to 2.6 per cent from 6 per cent that would have been required if the central rate of the drachma had remained at 353.109 drachmas per euro.<sup>7</sup> At the same time, the adjustment of the central rate had a positive impact on inflationary expectations and is, therefore, expected to have a similar effect on collective wage bargaining. On the other hand, although the overall adjustment of domestic interest rates is not influenced by the revaluation of the central exchange rate, there is now greater freedom in deciding on the timing and size of gradual interest rate cuts, since these will be combined with a smaller depreciation of the drachma than would be the case if the central rate had not been revalued.

#### 1.4 Interest rates and money market interventions

##### *The interest rate policy of the Bank of Greece*

The Bank of Greece maintained its interest rates at generally high levels, in the context of the anti-inflationary policy pursued (see Table II and Chart 8). Specifically, after a small cut in its interest rates in January 1999,<sup>8</sup> the Bank kept them stable until mid-October 1999 and reduced them further in October and December 1999 and in January 2000.

Keeping Bank of Greece interest rates unchanged for a long time (from January to October 1999), despite the considerable decline in inflation dur-

<sup>7</sup> Following the adjustment of the drachma's central exchange rate and until the end of February 2000, the deviation of the current rate from the central rate fluctuated between 2 per cent and 3 per cent.

<sup>8</sup> The Bank's rates were cut as follows: the standing overnight deposit facility rate was cut by 25 basis points (first tier) and by 10 basis points (second tier); the 14-day deposit rate by 25 basis points and the Lombard rate by 2 percentage points (see Table II). The significant reduction in this rate was of a technical nature and did not affect rates in the interbank market, which has been characterised, since the drachma's ERM II entry, by excess liquidity, which is being absorbed by the Bank of Greece.

Table II

## Adjustment of Bank of Greece interest rates

(Percentages per annum)

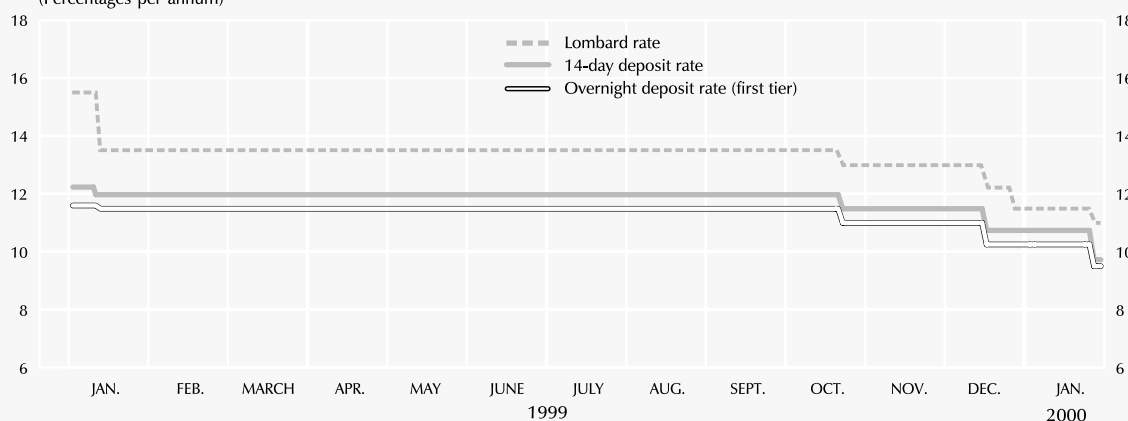
Date of interest rate change	Overnight deposit rate		14-day deposit rate	Lombard rate
	First tier	Second tier		
10 Dec. 1998 .....	11.60	9.75	12.25	15.50
14 Jan. 1999 .....	11.50	9.75	12.00	13.50
21 Oct. 1999 .....	11.00	9.25	11.50	13.00
16 Dec. 1999 .....	10.25	9.00	10.75	12.25
27 Dec. 1999 .....	10.25	9.00	10.75	11.50
27 Jan. 2000 .....	9.50	8.50	9.75	11.00

Source: Bank of Greece.

Chart 8

## Bank of Greece interest rates (January 1999 - January 2000)

(Percentages per annum)



Source: Bank of Greece.

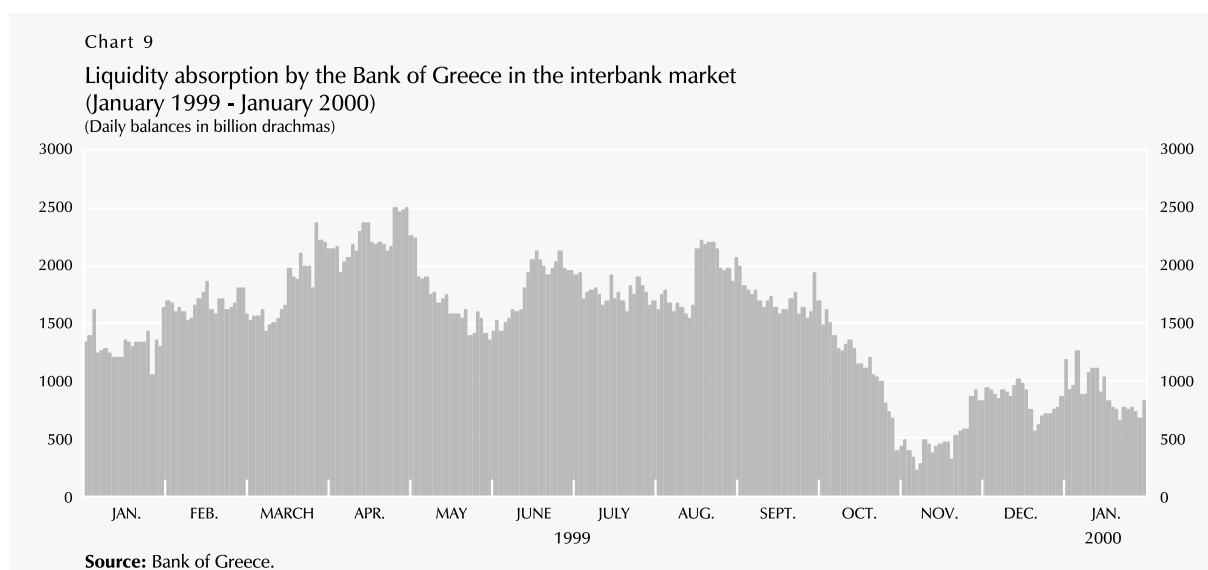
ing this period, underscores the Bank's cautious stance. This stance was dictated by the fact that core inflation (calculated on the basis of the Consumer Price Index excluding fuel and fresh fruit/vegetables), although it declined during this period, remained at relatively high levels, as well as by some adverse developments in factors affecting inflation, such as the steep rise in oil prices in the world market and, at times, the sharp increase in bank credit, especially consumer loans.

When reducing its rates in October<sup>9</sup> and December,<sup>10</sup> the Bank took account of the following: the stabilisation of core inflation after September 1999 at a level not exceeding 2 per cent; the satis-

factory course of average annual inflation based on the Harmonised Index of Consumer Prices;

**9** All the Bank's rates were reduced by 50 basis points in October 1999. Furthermore, in early October 1999, in the context of harmonisation to euro area practices concerning deposit facilities, the Bank doubled the amount of the total funding of credit institutions through the Lombard facility, from 450 to 900 billion drachmas. This increase in effect abolishes the need of credit institutions for current account overdrafts, which incur a penalty rate. In mid-January 1999, this rate was reduced by two percentage points to 20 per cent.

**10** All the Bank's rates were reduced by 75 basis points in December 1999, except for the overnight deposit facility rate (second tier), which was reduced by 25 basis points. This differentiation in the cut of the rates for the two tiers of the overnight deposit facility results, *ceteris paribus*, in a smaller reduction in the average effective rate of the total deposit facility and reduces the drop in the lower limit of interbank rates.



and the fact that the rate of change in M4N was moving within or below the forecast range (7-9 per cent) for 1999.

Moreover, at the end of December 1999, the Bank reduced the Lombard rate further by 75 basis points to 11.50 per cent, in order to facilitate the banking system's smooth transition to the year 2000. These arrangements included offering credit institutions the possibility to borrow without limit, by using the Lombard facility during the period from 15 November 1999 to 14 January 2000, provided that borrowed funds were covered by a collateral on government securities of equal value.<sup>11</sup> The arrangements also included raising (as from 10 December 1999) from 10 per cent to 15 per cent<sup>12</sup> the ceiling on banks' withdrawals from their required reserve accounts with the Bank of Greece.

For the last reduction in its rates in January 2000,<sup>13</sup> the Bank, in addition to the forecast change in average annual HICP inflation and the containment of the growth rate of M4N in 1999 to a level below the forecast range for the year, also took into account the expected favourable effect on inflation of the revaluation of the drachma's central

exchange rate against the euro within ERM II on 17 January 2000.

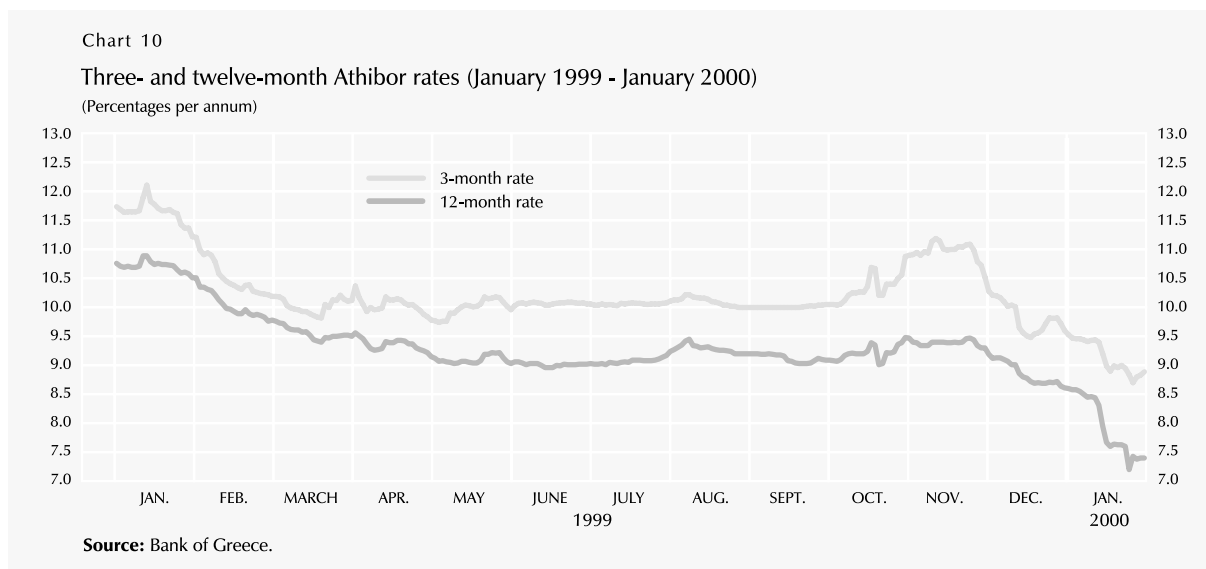
The Bank of Greece reduced its interest rates at a time when the rates of the European Central Bank were increased (see Section I.2). Hence, the size of the required adjustment of domestic rates was limited.

During 1999, the Bank of Greece absorbed considerable amounts of liquidity from the interbank money market in order to keep interest rates at levels compatible with the anti-inflationary monetary policy it pursued (see Chart 9). The average daily outstanding balance of funds absorbed rose to about 1,500 billion drachmas in 1999 from 750 billion in 1998. Liquidity absorption reached high levels from the beginning of 1999 to the end of September. This largely reflected capital inflows, especially during the first two months of the year.

<sup>11</sup> Act 20/23 September 1999 of the Monetary Policy Council.

<sup>12</sup> Act 23/7 December 1999 of the Monetary Policy Council.

<sup>13</sup> The rate for the first tier of the overnight deposit facility was reduced in January 2000 by 75 basis points to 9.5 per cent and that for the second tier by 50 basis points to 8.5 per cent. The 14-day deposit rate was reduced by 1 percentage point to 9.75 per cent and the Lombard rate by 50 basis points to 11 per cent.



During the last quarter of 1999, liquidity absorption decreased significantly and the average daily outstanding balance of funds absorbed was about 800 billion drachmas, as a result of capital outflows, increased fund-raising by the government in October 1999 and the accumulation of reserves for financing government expenditure, which, for seasonal reasons, is quite high at the end of the year.

In order to pursue more effectively its interbank market intervention policy, the Bank of Greece began, in April 1999, to conduct 3-month deposit acceptance tenders with a view to absorbing, for a longer period of time, part of the excess liquidity, which is of a structural nature. During the second half of 1999, the amount of liquidity absorbed through these 3-month interventions corresponded, on average, to roughly one third of total liquidity absorbed.

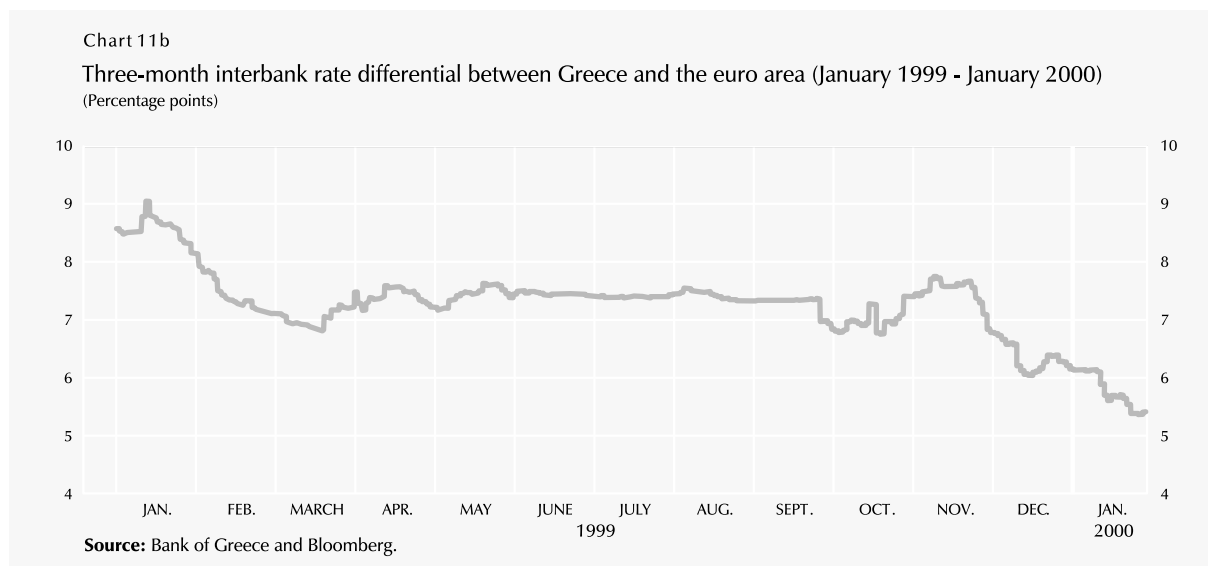
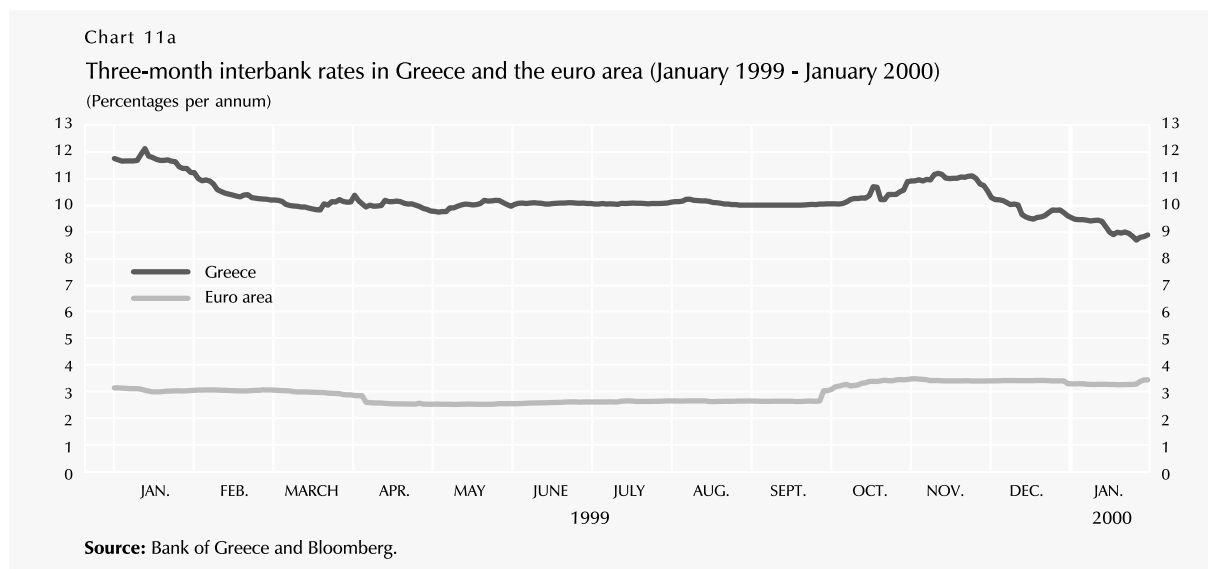
#### *Interbank rates*

Interest rates in the interbank money market remained at high levels in 1999. More specifically, Athibor rates fell by 1 or 2 percentage points in the first months of 1999, with the steepest

decline at shorter maturities. During the following months and until about mid-October 1999, rates remained at roughly the same level. The exception was the 12-month rate, which marked a further slight drop. From mid-October until the end of November 1999, interbank rates showed an upward trend, which was related to reduced liquidity in the interbank market during that period. From the end of November 1999, however, this trend was reversed and rates began to fall, as the market anticipated an imminent rate reduction by the Bank of Greece. At the same time, as mentioned above, the liquidity of the banking system increased. In particular, the 3-month Athibor was reduced to 9.5 per cent at the end of 1999 from 11 per cent in mid-November 1999, while the 12-month Athibor fell to 8.6 per cent from 9.4 per cent during the same period (see Chart 10).

After the revaluation of the central exchange rate of the drachma against the euro and the adjustment of Bank of Greece interest rates in January 2000, interbank rates were further reduced by 0.6 to 1.2 percentage points, with the biggest cuts at longer maturities. Specifically, the 3-month Athibor was reduced to 8.9 per cent at the end of





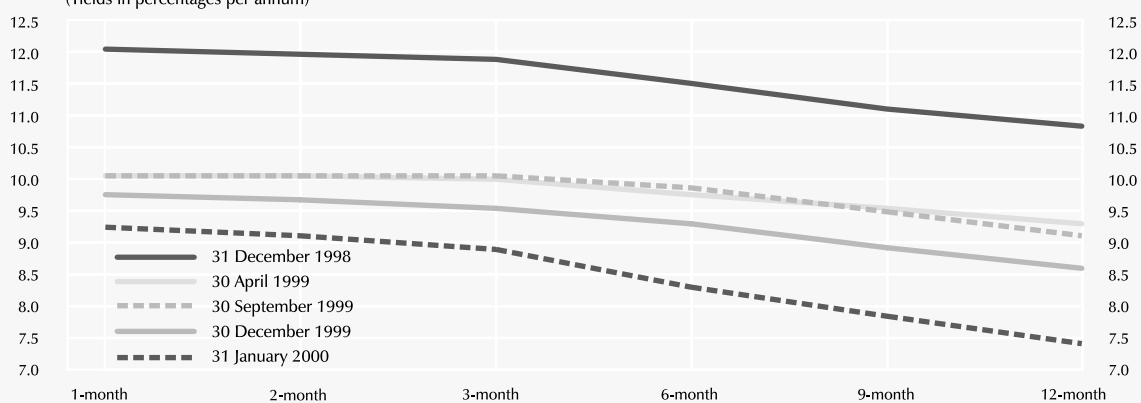
January 2000 and the 12-month Athibor to 7.4 per cent.

The spread between Greek interbank rates and the corresponding euro area rates remained on the whole unchanged through most of 1999. A reduction in the spread was observed in January and December 1999. Specifically, for 3-month rates the spread decreased by about one percentage point in January and remained almost stable at 7 percentage points until December 1999,

when it narrowed by about 1.5 percentage points (see Charts 11a and 11b).

The yield curve in the interbank market moved downwards at almost the same pace for all maturities during 1999; this movement continued in January 2000 (see Chart 12). The main features of the curve were its slightly downward slope at the longer maturities and the fact that it was almost horizontal at the short maturities (one to three months). This shape of the yield curve suggests

Chart 12  
Yield curves in the Athens interbank market (Athibor)  
(Yields in percentages per annum)



Source: Bank of Greece.

Chart 13  
Bank deposit rates<sup>1</sup> (January 1999 - January 2000)  
(Percentages per annum)



<sup>1</sup> Monthly average levels.

Source: Bank of Greece.

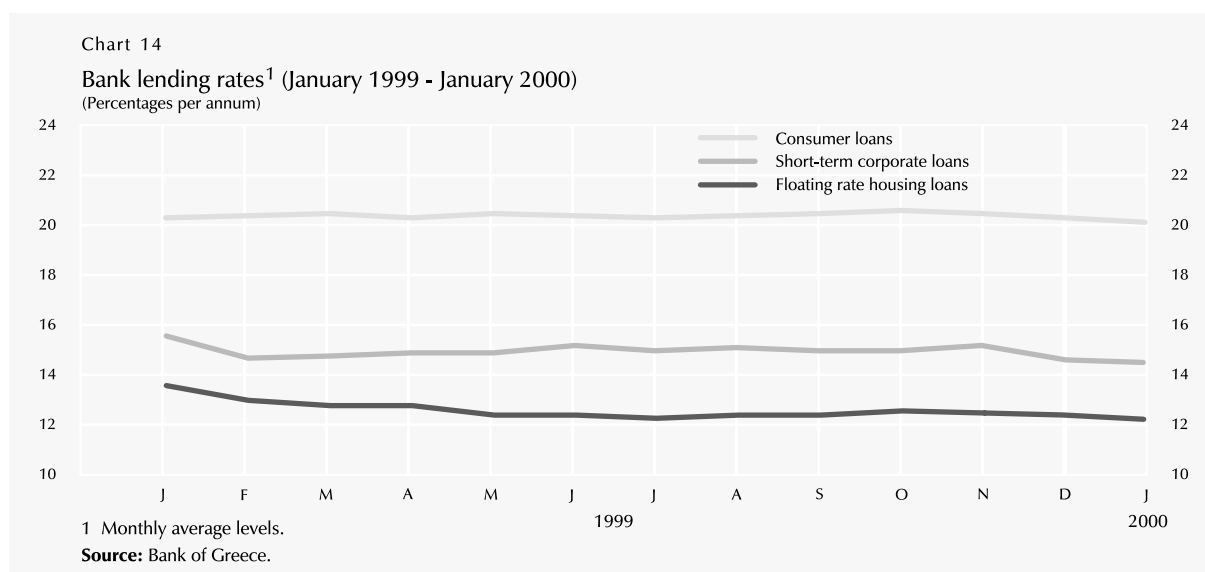
that the market did not expect a speedy adjustment of domestic rates to euro area levels.

#### *Bank deposit and lending rates*

The course of deposit rates was similar to that of interbank rates. After a small decrease in early 1999, deposit rates remained almost unchanged until the end of the year (see Chart 13). In particular, the savings deposit rate was reduced by about half a percentage point during the first two months of 1999 and remained stable around 8 per cent almost until

the end of the year. In late December 1999 and in January 2000, banks reduced savings deposit rates by half a percentage point, following the cut in Bank of Greece rates in December 1999.<sup>14</sup>

<sup>14</sup> Time deposit rates were also reduced. The reduction in the 12-month time deposit rate during the first months of 1999 was greater than that in savings deposit rates and its adjustment to a lower level (8.5 per cent) lasted until the end of May. This rate was further reduced – slightly – during the last two months of 1999, thus converging towards the savings deposit rate. In February 2000, commercial banks reduced the savings deposit rate by a further 50 basis points, in response to the adjustment of Bank of Greece interest rates in January 2000.



An initial decline followed by stabilisation was also observed in the interest rates on corporate and housing loans (see Chart 14). The interest rate on corporate loans was reduced by about one percentage point in the first two months of 1999 and remained stable around 15 per cent almost until the end of the year. In January 2000, corporate loan rates decreased by 60 basis points, while consumer loan rates were reduced by up to 1.5 percentage point.

#### *Yields on government securities*

As stated in Section I.7, yields on government securities decreased significantly in 1999, although they fluctuated during the year. Specifically, the 10-year bond yield, i.e. the reference rate of the convergence criterion regarding interest rates, generally followed a downward course during the first half of 1999, because of positive developments in macroeconomic indicators and the steady convergence of the Greek towards the euro area economy (see Chart 17 on page 39). During the same period, yields on similar European securities, especially German bonds, remained almost unchanged. As a result, the yield differential between Greek and German 10-year bonds was further reduced,

to almost 170 basis points at the end of June 1999, compared with about 300 basis points at the end of 1998. Towards the end of the first half of 1999, the downward trend in yields on government securities came to a halt, owing to developments in the US bond market, which affected yields in all EU countries. The yield on the Greek 10-year government bond followed an almost parallel course with that of the equivalent German bond, even though the yield differential between these securities continued to decline, falling below 100 basis points in mid-February 2000.

As regards the convergence criterion regarding interest rate levels,<sup>15</sup> the spread between the aver-

<sup>15</sup> The convergence criterion referring to the long-term interest rate regards the comparison between the average yield on the 10-year Greek government bond in the last 12 months before the examination of whether Greece qualifies for euro area membership and the average yield on comparable securities of, at most, the three best performing countries in terms of price stability during the same period. Specifically, Article 4 of Protocol No.6 of the Maastricht Treaty stipulates: "The criterion on the convergence of interest rates referred to in the fourth indent of Article 109j (1) of this Treaty shall mean that, observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of, at most, the three best-performing Member States in terms of price stability. Interest rates shall be measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions".

Table III

Evolution of the Greek long-term interest rate<sup>1</sup> and of the reference rate<sup>2</sup>

(Percentages per annum)

12-month average up to:	Greece (1)	Reference rate (2)	Difference (1)-(2)
<b>1998</b> Oct. . . .	9.0	6.9	2.1
Nov. . . .	8.8	6.8	2.0
Dec. . . .	8.5	6.6	1.9
<b>1999</b> Jan. . . . .	8.1	6.5	1.6
Feb. . . .	7.7	6.5	1.2
March . .	7.4	6.4	1.0
April . . .	7.2	6.4	0.8
May . . .	7.1	6.3	0.8
June . . .	6.9	6.3	0.6
July . . . .	6.8	6.3	0.5
Aug. . . .	6.8	6.4	0.4
Sept. . . .	6.7	6.5	0.2
Oct. . . .	6.4	6.4	0.0
Nov. . . .	6.4	6.5	-0.1
Dec. . . .	6.3	6.6	-0.3

1 Yield on 10-year Greek government bonds (data daily average).

2 Average of corresponding interest rates of the three best-performing countries in terms of price stability (i.e. Germany, France and Austria) plus 2 percentage points.

Source: Bank of Greece, European Commission and European Central Bank.

age Greek long-term interest rate and the reference rate (two percentage points above the average interest rate of the three Member States with the best performance in terms of inflation) was continuously reduced and became negative, after October 1999, indicating the fulfilment of the relevant criterion (see Table III). This was due to the considerable progress achieved in lowering inflation, to the improvement in the country's public finances and to the maintenance of the stability of the drachma's exchange rate. These developments led to the upgrading of the country's creditworthiness, as measured by international credit rating institutions. The recent moderate rise in inflationary pressures, which is mostly due to exogenous factors, does not seem to have significantly affected prospects in the market for government securities, whose yields remained low.

## 1.5 Monetary aggregates

The monetary aggregate M4N,<sup>16</sup> used by the Bank of Greece as an indicator of liquidity conditions in the economy, expanded by 5.6 per cent in 1999, compared with a forecast range of 7-9 per cent. During 1998, M4N had increased by 9.8 per cent. The 12-month growth rate of M4N followed a downward course in 1999 (see Chart 15). Specifically, in the period March-July 1999 this rate was within the forecast range, while from August to December 1999, with the exception of November,<sup>17</sup> it was very close to, or lower than, the lower limit of the forecast range.

The slower growth of the liquidity indicator M4N in 1999 was connected with significant fund-raising by banks through the stock market and with the shift of private capital from money market to equity-type funds, which are not included in monetary financial institutions,<sup>18</sup> because they invest most of their capital in stocks. It should be noted in this respect that the total amount drawn for banks' capital increases was 1,286 billion drachmas in 1999, compared with 210 billion in 1998. The deceleration of the M4N growth rate in 1999 was also connected with the considerable reduction of private investment in Treasury bills, to the extent that it was replaced by investment in assets not included in M4N, such as the two-year savings bonds.

<sup>16</sup> This aggregate includes currency in circulation, private deposits either in drachmas or in foreign currency, as well as private investment in repos, bank bonds, money market fund units and government securities maturing in up to twelve months. Consequently, M4N includes all monetary liabilities of monetary financial institutions to the domestic private sector, as well as private investment in government securities maturing in up to twelve months. By monetary financial institutions we mean credit institutions and money market mutual funds.

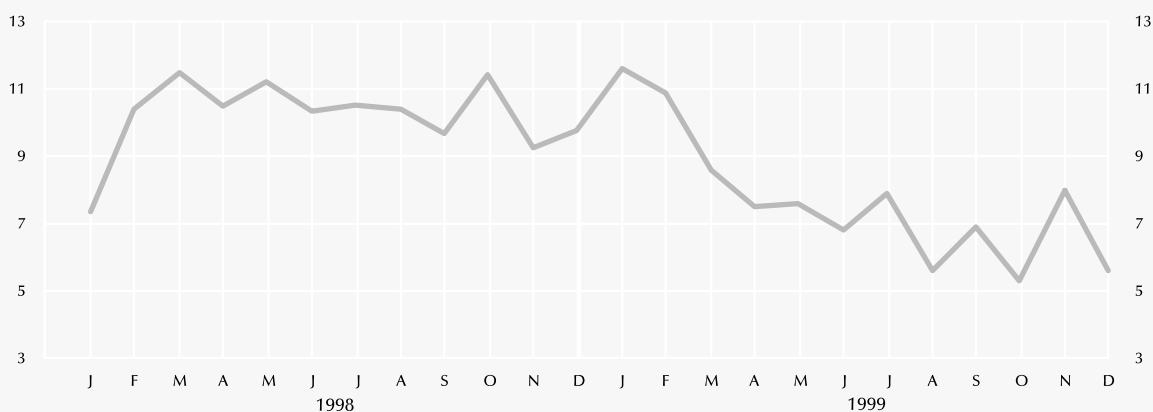
<sup>17</sup> In November 1999, the M4N twelve-month growth rate accelerated to 8 per cent, mainly because of increased government spending. The government advanced some payments in order to avoid problems connected with the "millennium bug".

<sup>18</sup> See footnote 16.

Chart 15

## Liquidity indicator M4N (January 1998 - December 1999)

(Percentage change over same month of previous year)



Source: Bank of Greece.

Table IV

Monetary aggregates and liquidity<sup>1</sup>

(Changes in billion drachmas and percentage change in outstanding balances over previous year)

	1997	1998	1999*
1. Currency in circulation, M0	241 (12.4%)	23 (1.1%)	466 (21.1%)
2. Private deposits	2,039 (11.5%)	1,672 (8.5%)	2,788 (13.0%)
2.1 In drachmas	1,697	385	2,525
2.2 In foreign currency	342	1,287	263
3. Repos	-24	856	2,143
4. Bank bonds	57	10	-105
5. Money-market fund units	2,152	1,536	-1,406
6. Private investment in Greek government securities with an initial maturity of up to one year	-2,231	-1,059	-1,978
<b>7. Liquidity indicator M4N (=1+2+3+4+5+6)</b>	<b>2,234 (7.8%)</b>	<b>3,038 (9.8%)</b>	<b>1,908 (5.6%)</b>
8. Total private investment in Greek government securities	119	61	-1,750

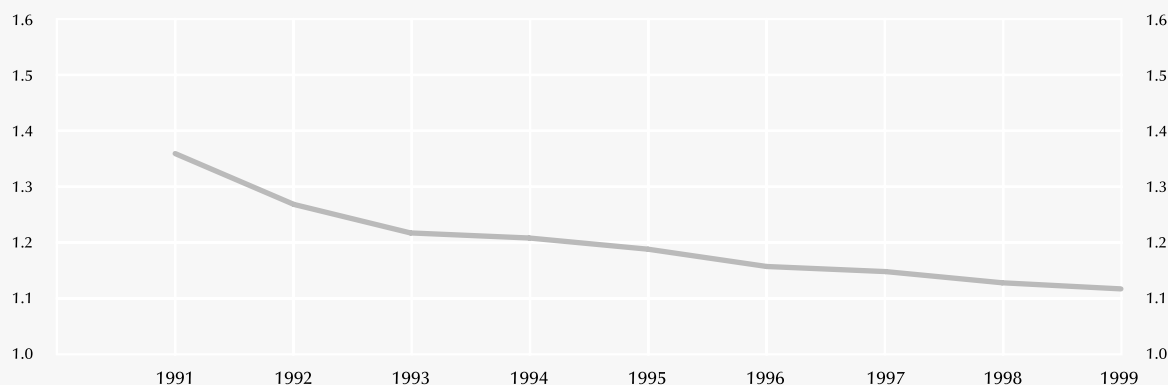
1 Monetary aggregates comprise monetary liabilities of banks and money-market funds, i.e. of monetary financial institutions (MFIs), to the domestic private sector.  
 \* Provisional data.

Source: Bank of Greece.

As regards the components of M4N (see Table IV), currency in circulation rose at a much faster rate in 1999 (21.1 per cent) than in 1998 (1.1 per cent). A steep rise in currency in circulation was

observed at the end of 1999, which, beyond a seasonal effect, reflected increased holding of banknotes by the public to face problems that might disrupt the functioning of IT systems during

Chart 16  
Income velocity of M4N<sup>1</sup>



<sup>1</sup> M4N is calculated at average annual levels.

**Source:** Bank of Greece and National Statistical Service of Greece (NSSG), National Accounts.

the transition to the year 2000. However, thanks to the full preparation of the banking system, which had begun three years earlier, the transition was effected smoothly, with no problem at all. The quantity of money held outside the banking system returned to normal levels relatively quickly and by the end of January 2000 the twelve-month growth rate of currency in circulation had fallen to about 12 per cent.

The growth rate of private deposits in drachmas and foreign currency also accelerated (1999: 13.0 per cent, 1998: 8.5 per cent). This development largely reflected increased demand for sight deposits (1999: 47.2 per cent, 1998: 26.9 per cent), mainly due to a substantial growth of trading volume in the Athens Stock Exchange<sup>19</sup> in 1999. The rise in deposits in 1999 was also related to the reduction in private investment in Treasury bills. This investment decreased by 1,978 billion drachmas in 1999 (compared with a reduction of 1,059 billion in 1998), since, in 1999 as in the previous year, the value of Treasury bills issued was significantly smaller than corresponding redemptions, as part of the government's policy of lengthening the average maturity of public debt.

The large increase in private investment in repos, which began after the taxation of their yields was abolished in September 1998, continued during 1999. More specifically, this investment increased by 2,143 billion drachmas in 1999, compared with an increase of 856 billion in 1998. On the other hand, holdings of money market fund units were reduced by 1,406 billion drachmas, compared with an increase of 1,536 billion in 1998. This development was related, as already mentioned, to the investors' shift to equity funds, boosting their assets to 5,031 billion drachmas at the end of 1999, from 494 billion at the end of 1998.

Developments in the individual components of M4N largely reflected capital shifts between these items and did not affect total M4N, which is a more credible indicator of the economy's liquidity. At average annual levels, the M4N rate of growth was higher than that of nominal GDP; consequently, the income velocity of M4N showed a further slight fall in 1999 (see Chart 16).

<sup>19</sup> The average daily value of transactions in the stock exchange rose to 236 billion drachmas in 1996, from 56 billion in 1998.

**Table V**  
**Net borrowing requirement of central government<sup>1</sup>**  
*(Billion drachmas)*

	1997	1998	1999*
<b>I. Government budget</b>	<b>2,595</b>	<b>2,271</b>	<b>1,849</b>
1. Primary surplus (–)	–318	–642	–810
2. Revenue credited to public debt management accounts	–140	–335	–638
3. Interest payments <sup>2</sup> (Transfers from previous fiscal year)	3,053 (77)	3,248 (205)	3,297 (118)
<b>II. DIDAGEP<sup>3</sup></b>	<b>25</b>	<b>79</b>	<b>71</b>
<b>III. Central government (I+II)</b>	<b>2,620</b>	<b>2,350</b>	<b>1,920</b>

1 On a cash basis.

2 Including capitalised interest.

3 Agricultural Markets Management Service.

\* Provisional data.

Source: Bank of Greece.

## I.6 Credit expansion

Total credit expansion reached 12.3 per cent in 1999, accelerating in comparison with 1998 (9.7 per cent). However, as detailed below, credit expansion in 1999 appears to be faster because of large foreign exchange valuation differences, due to the significant appreciation of the Japanese yen and the US dollar. Excluding these differences, total credit expansion is limited to 11.1 per cent in 1999, against an indicative forecast of 7-9 per cent. Compared with 1998, credit expansion to the public sector sped up, while credit expansion to the private sector slowed down.

### *Credit expansion to the public sector*

In more detail, financing of the public sector increased by 11.4 per cent in 1999, compared with a 7.4 per cent rise in 1998. This development reflects the increased financing of central government, since the financial surplus of public enterprises and entities rose slightly in 1999

to 420 billion drachmas, from 388 billion in 1998.

The acceleration of credit expansion to central government was not due to increased borrowing requirements (see Table V). By contrast, the central government borrowing requirement was significantly smaller in 1999 than in 1998 (1999: 1,920 billion drachmas, 1998: 2,350 billion). This reduction was due to the increase in the primary surplus to 810 billion drachmas, compared with 642 billion in 1998, given that interest payments were slightly higher in 1999 (3,297 billion drachmas, 1998: 3,248 billion) and that the DIDAGEP deficit stood at roughly 1998 levels (1999: 71 billion drachmas, 1998: 79 billion). An increased credit balance, compared with 1998, was also recorded in the government accounts with the Bank of Greece, which include public debt management accounts. The reduction in the central government's borrowing requirement resulted in a corresponding decrease in total PSBR (1999: 1,500 billion drachmas, 1998: 1,962 billion).

Table VI

Financing of net public sector borrowing requirement<sup>1</sup> (PSBR)

(Billion drachmas)

	1997	1998	1999*
1. Bank of Greece	227	218	80
2. Monetary financial institutions	656	-183	580
3. Private sector	119	61	-1,750
4. External sector	1,140	1,866	2,590
<b>Total</b>	<b>2,142</b>	<b>1,962</b>	<b>1,500</b>

Deficit (+)/surplus (-).

<sup>1</sup> Including general government and public enterprises.

\* Provisional data.

Source: Bank of Greece.

The faster credit expansion to the public sector is related to significant changes observed in the method of financing of its borrowing requirements by the private non-bank sector and banks. In particular, in 1999 private non-bank holdings of government securities decreased considerably, while such holdings by credit institutions increased (see Table VI). More specifically, holdings of government securities by the private non-bank sector were reduced by 1,750 billion drachmas in 1999, compared with an increase of 61 billion drachmas in 1998, while government securities holdings by monetary financial institutions and by foreign investors increased by 3,170 billion drachmas, (1998: 1,683 billion). The prospect of Greece joining the euro area and the anticipated convergence of Greek interest rates towards the lower level of European rates, and hence expectations of capital gains from holdings of Greek government securities explain the increased demand by banks and foreign investors.

#### *Credit expansion to the private sector*

The Bank of Greece was especially concerned about developments in the bank credit market during 1999. Because of keener competition and the relatively recent liberalisation of the banking

system, bank loans, particularly consumer and housing loans, rose at a fast pace in 1998 and the beginning of 1999. As the Bank of Greece estimated that this pace would continue or even accelerate, because of the anticipated decline in interest rates, it took *ad hoc* measures in April 1999, which it further tightened in July. These measures, combined with the interest rate policy, were aimed at containing credit expansion (see on the next page Box 1: "Measures to contain credit expansion").

Credit developments during 1999 were marked by a slowdown in the growth rate of loans to the private sector. In particular, the outstanding balance of these loans rose by 1,840 billion drachmas or 14.4 per cent in 1999, compared with an increase of 1,672 billion drachmas or 15 per cent in 1998. The slowdown of credit expansion was due to the moderate rise of drachma-denominated loans, while the outstanding balance of loans in foreign currency increased at a much faster pace than in 1998. However, the increase in the latter balance is largely attributable to the appreciation of the yen (by 30.0 per cent) and the US dollar (by 16.2 per cent) against the drachma in 1999. Given that about two thirds of foreign currency loans to the private sector are concluded in these two cur-



## **BOX 1**

### **Measures to contain credit expansion**

Some categories of loans which affect final demand and are related to the course of inflation, such as consumer loans and loans to domestic and import trade, were increasing at an especially fast and, in some cases, accelerating pace since the beginning of 1999. This forced the Bank of Greece to take measures in April 1999, which it further strengthened in July 1999. In particular, in April 1999, with Monetary Policy Council Act 13/16 April 1999, the Bank took measures to restrain credit expansion, which were supplementary to the monetary policy pursued. The measures were aimed at containing the annual rate of increase in loans to the private sector and public enterprises and entities at 12 per cent at end-1999, a level consistent with the target set for 1999, i.e. to contain total credit expansion to 7-9 per cent. These measures referred separately to two categories of loans: on the one hand, to the sum total of loans to domestic and import trade and to consumers and, on the other hand, to the sum total of other categories of loans to the private sector and of loans to public enterprises and entities. This was done to increase the effectiveness of the measures, as in this way no room was left for a large increase in consumer loans at the expense of a corre-

sponding reduction in loans to other sectors. If a bank's credit expansion were to exceed 12 per cent in each of the above two categories, it would be required to deposit the excess amount in a non-interest-bearing account with the Bank of Greece. More specifically, since bank credit is characterised by seasonal fluctuations, the requirement in the form of a six-month non-interest-bearing deposit would be imposed if credit expansion were to exceed 3.5 per cent in the second quarter of 1999, 5.5 per cent in the April-September period and 9.5 per cent in the period from April to December 1999.

Developments in the first half of 1999 indicated that the annual growth rate of consumer loans remained very high, despite a small deceleration. For this reason, in July 1999 the Bank of Greece, by Monetary Policy Act 16/28 July 1999, took additional measures to contain consumer loan expansion. In case their growth rate were to exceed 2 per cent in the quarter July-September 1999 and 6 per cent in the period July-December 1999, the bank involved would be required to deposit for six months in a non-interest bearing account with the Bank of Greece double the excess amount.

rencies, the appreciation vis-à-vis the drachma led to a significant rise, in drachma terms, in the balance of foreign currency loans, but this rise does not reflect a corresponding increase in bank credit. Adjusted for foreign exchange valuation differences, which are estimated at 520 billion drachmas in 1999 (1998: 220 billion), credit expansion to the private sector reached 10.3 per cent, i.e. it slowed down considerably compared with 1998 (13.0 per cent).

Loans in drachmas grew by 11.2 per cent (1998: 15.4 per cent), while loans in foreign currency rose by 24.3 per cent (1998: 13.8 per cent) or

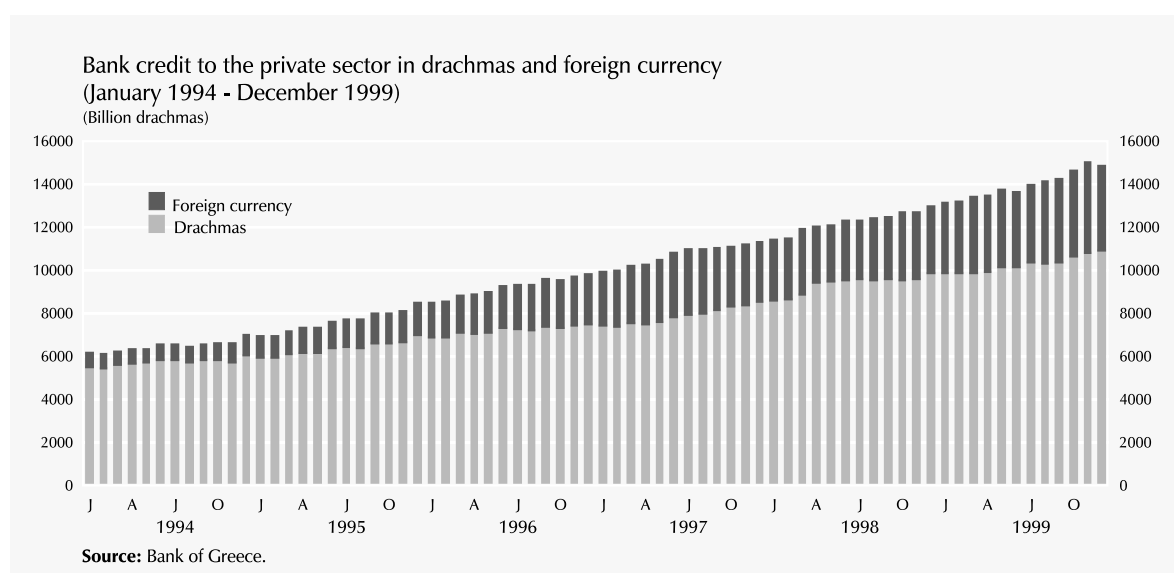
— adjusted for foreign exchange valuation differences— by 7.6 per cent (1998: 5.7 per cent). Most foreign currency loans are concluded in Japanese yen. The outstanding balance of yen-denominated loans at the end of 1999 amounted to the equivalent of 1,852 billion drachmas or \$5.7 billion and accounted for 48 per cent of foreign currency loans (see Box 2: "Financing of the private sector in foreign currency"). This outcome was due to the very low interest rates on yen-denominated loans, which actually fell further during 1999, from 3.9 per cent at the beginning of the year, to 3.3 per cent at year-end.

## BOX 2

### Financing of the private sector in foreign currency

Until the end of the 1980s, private sector financing in foreign currency was very limited, as a restrictive regime was in effect, requiring special permission by the Bank of Greece to conclude loans in foreign currency. The liberalisation of this category of loans began gradually in 1987. By a Bank of Greece decision, manufacturing, mining and hotel firms were allowed to conclude, without a prior approval by the Bank of Greece, foreign currency

It should be noted that the liberalisation of foreign currency loans took place in parallel with a general deregulation of the bank market and the implementation of a more credible monetary policy as regards the stability of the drachma exchange rate. This resulted in a fast growth of loans in foreign currency. Such loans to the private sector increased at an average annual rate of 43.6 per cent during the period 1994-1999, while private sector financing in drachmas dur-



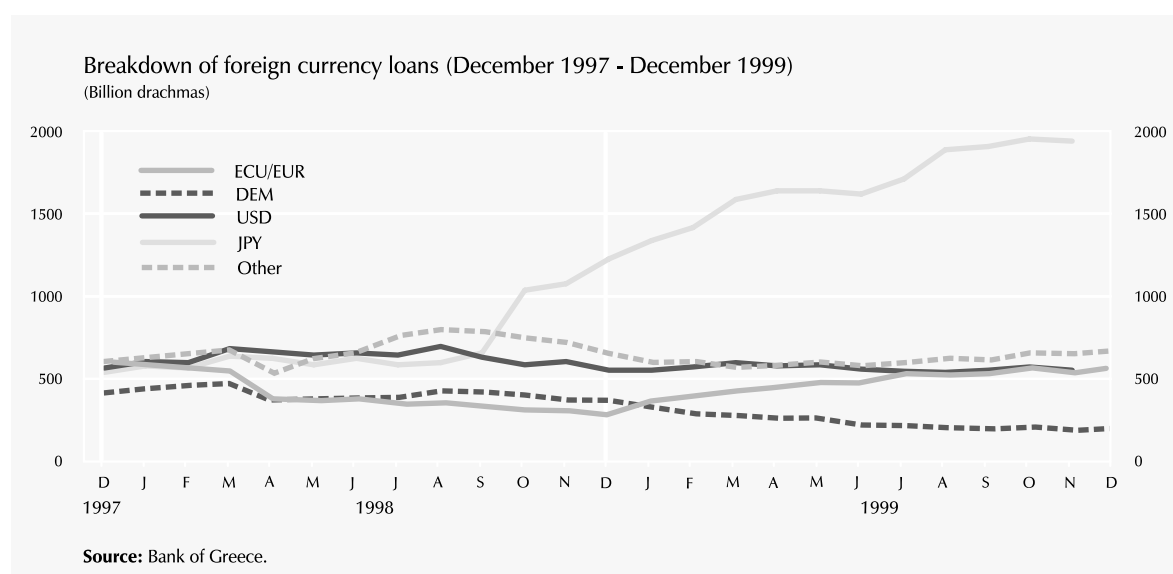
loans, both in Greece and abroad. The loans ought to have a maturity of at least six months and to be used to finance investment and cover working capital requirements.

The liberalisation was later extended to trade firms (September 1988) and services rendering firms (March 1990), while in 1991 it was extended to almost all private and public enterprises. Credit in foreign currency was completely liberalised in 1994, with the lifting of all remaining restrictions, loan maturity being one of them.

ing the next period grew at an average annual rate of 14.8 per cent (see the first chart of the Box). Thus, the share of foreign currency loans in the overall financing of the private sector increased from 11 per cent at the end of 1993 to 27 per cent at the end of 1999, rising steadily for the biggest part of this period. It is worth mentioning the small reversal in this trend during the second half of 1997, mainly because of the then prevailing expectations of a drachma devaluation. The adoption, on 1 September 1997, of a single charge rate (1.2 per cent) for the contribution to the "common account for the refunding of interest →

→ differences" (Law 128/75), instead of the previously adopted method of linking the level of the charge with the level of the interest rate, also played a role in this reversal: the adoption of a single rate affected only foreign currency loans, which, because of their low interest rate, were burdened either very slightly (10 per cent of the normal contribution) or not at all under the previous regime. After the

connected with the fact that interest rates on yen-denominated loans were lower than on loans in other currencies. It should be noted, however, that the rate of growth in yen-denominated loans, adjusted for foreign exchange valuation differences, declined during the second half of 1999, because of the significant appreciation of the Japanese currency in this period. During 1998-1999, there was also a small decline in



devaluation of the drachma in March 1998, a small substitution of loans in drachmas for loans in foreign currency is obvious. Since then, foreign currency loans continue to rise, albeit at a slower rate than before.

The breakdown of foreign currency loans by currency reveals that, in the 1998-1999 period, yen-denominated loans more than tripled, while changes in loans denominated in other currencies were negative (see the 2nd chart of the Box). As a result, the share of yen-denominated loans rose from 19.7 per cent at the end of 1997 to 47.8 per cent at the end of 1999. A large rise in demand for loans in yen was observed in the period from October 1998 to March 1999, related to expectations of a depreciation of the yen and to developments in the Japanese economy. This rise was also

the outstanding balances of dollar-denominated loans, related to expectations of a future appreciation of the dollar and to the rise in US interest rates, especially during 1999.

Finally, with regard to credit expansion in foreign currency by sector of economic activity, in the 1998-1999 period trade ranked first, with a 34 per cent share in total financing in foreign currency. The share of industry was 28 per cent, while the percentages of the other sectors were very small. During the aforementioned period, loans to trade firms doubled, while loans to tourist enterprises rose by 24 per cent and the increase for the other sectors was smaller. The largest increases concern mainly loans granted to import firms but also to sectors with revenue in foreign currency, such as tourism and shipping.

Table VII

## Changes in total bank credit to the private sector by branch of activity

	Outstanding balances on 31.12.99* (billion drachmas)	Changes in outstanding balances			
		1998		1999*	
		Change in billion drachmas	Percentage change	Change in billion drachmas	Percentage change
<b>Private sector<sup>1</sup></b>	<b>11,268</b>	<b>1,395</b>	<b>16.5</b>	<b>1,421</b>	<b>14.4</b>
In drachmas	7,658	1,038	17.7	750	10.9
In foreign currency <sup>1</sup>	3,610	357	13.8	671	22.8
Manufacturing	2,789	175	7.0	283	11.3
Trade	3,050	440	19.7	193	6.8
Housing	1,969	242	18.5	416	26.8
Consumer credit	1,251	256	36.7	296	31.0
Other	2,209	282	16.7	233	11.8

1 Outstanding balances of foreign currency loans, denominated in drachmas, in 1998 and 1999 include substantial foreign exchange valuation differences due to the devaluation of the drachma in March 1998, upon entry into the Exchange Rate Mechanism of the European Monetary System, and to the considerable appreciation of the Japanese yen and the US dollar in 1999. Net of these differences, total credit expansion to the private sector comes to 941 billion drachmas or 9.6 per cent in 1999 (1998: 14.1 per cent) and credit expansion in foreign currency to 191 billion drachmas or 6.5 per cent in 1999 (1998: 6.1 per cent).

\* Provisional data.

Source: Bank of Greece.

The breakdown of commercial bank credit by branch of economic activity reveals that, during 1999, credit expansion to housing and manufacturing accelerated, while that to trade and consumers slowed down considerably (see Table VII). Credit to manufacturing increased by 283 billion drachmas or 11.3 per cent in 1999, compared with a rise of 175 billion or 7 per cent in 1998. Net of foreign exchange valuation differences, credit expansion to manufacturing firms was limited to 6 per cent in 1999 (1998: 3.9 per cent), i.e. it was kept at relatively low levels. This is largely due to the fact that these firms cover by own funds a large part of their financing requirements. It should be noted that the funds raised by manufacturing firms through the Athens Stock Exchange rose to 396 billion drachmas in 1999 from 175 billion in 1998. Consequently, the ratio of bank borrowing to own funds of these firms fell during 1999, even more if account is taken of the increase in their own funds, which stemmed from non-distributed profits; these profits are estimated to have been high in recent years, because of the satisfactory business profitability.

Credit expansion to trade slowed down considerably in 1999. Commercial bank credit to trade rose by 193 billion drachmas or 6.8 per cent, compared with 440 billion drachmas or 19.7 per cent in 1998. The slowdown was evident from the beginning of 1999, albeit with significant fluctuations.

Credit expansion of commercial banks to housing accelerated significantly, a trend observed almost uninterruptedly from the beginning of the year. Housing loans increased by 26.8 per cent in 1999, compared with 18.5 per cent in 1998, with a small slowdown in December 1999, when the outstanding balance of these loans remained at November levels. Housing loans are concluded mainly in drachmas: housing loans in foreign currency account for only 11.2 per cent of total housing loans. Therefore, the high growth rates of housing loans reflect real changes and are not due to foreign exchange valuation differences. Housing loans increased by 416 billion drachmas in 1999, representing 29 per cent of the total increase in commercial bank loans (in 1998 the

corresponding figures were 242 billion drachmas and 17 per cent). This boom in housing loans was related mainly to the rather recent deregulation of the housing loan market and to strong competition between banks in the field of housing credit, as also reflected in the greater reduction in housing loan rates, compared with interest rates on other types of bank loans (see Chart 9 on page 23). In detail, interest rates on fixed-rate housing loans with a maturity of more than five years dropped by 2.6 percentage points in 1999 to 8.0 per cent in December, while interest rates on floating-rate housing loans with a maturity of more than five years dropped by 1.2 percentage point in 1999 to 12.4 per cent at the end of the year.

The growth of consumer loans also decelerated in 1999, although these loans continue to be the fastest-growing category of commercial bank credit. In particular, consumer credit rose by 296 billion drachmas, or 31 per cent in 1999, compared with 256 billion or 36.7 per cent in 1998. The 12-month growth rate of such loans accelerated considerably in the first four months of 1999, but decelerated from May onwards, with a great slowdown in the last four months of 1999, which reflects the measures taken by the Bank of Greece to restrain credit expansion, especially of consumer credit.<sup>20</sup>

During 1999, there was also a significant change in the structure of consumer loans. A considerable speed-up was observed in the growth of personal loans (1999: 49.1 per cent, 1998: 25.8 per cent) and loans through credit cards (1999: 43.4 per cent, 1998: 35.4 per cent), while the growth rate of loans against supporting documents came almost to zero (1999: 2.1 per cent, 1998: 56.7 per cent). Both personal loans and credit card loans are granted by banks against no specific collateral and they usually regard relatively small

amounts, while their interest rates are much higher than those on loans against supporting documents. At the end of 1999, the interest rate on credit cards was 21.9 per cent (half a percentage point down from the beginning of the year) and the rate on personal loans 20.7 per cent (0.3 percentage point higher than at the beginning of the year), while the rate on loans against supporting documents was 18.2 per cent, the same as at the beginning of the year.

The breakdown of credit to the private sector and public enterprises and entities in the period April-December 1999 shows that commercial banks as a whole overshot slightly the ceiling set by the Bank of Greece on credit to domestic/import trade and to consumers, but not the ceiling on credit to "other" sectors. More specifically, during that period credit expansion to domestic/import trade and to consumers was 9.7 per cent (against a ceiling of 9.5 per cent), while credit expansion to the other sectors was 7.8 per cent (against a 9.5 per cent ceiling). Moreover, the outstanding balances of consumer loans rose by 9 per cent in the second half of 1999 (ceiling: 6 per cent). These developments show that the Bank of Greece's measures contributed significantly to the containment of credit expansion in 1999, especially if account is taken of the trends in the first months of the year and of the effect of foreign exchange valuation differences, which increased the outstanding balances of foreign currency loans. However, the growth rate of loans continued to be high and, for this reason, in December 1999 the Bank decided to prolong the effect of these measures until March 2000, so that monetary policy could maintain its anti-inflationary stance.

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<sup>20</sup> For consumer loans as well, the high rates of growth were not due to foreign exchange valuation differences, given that foreign currency loans represent only 2 per cent of all consumer loans.

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## 1.7 Capital markets

### *1.7.1 Developments in fixed-income securities markets during 1999*

The positive course of domestic macroeconomic aggregates during 1999, the structural changes in the euro area caused by the introduction of the new currency, and developments in international bond markets, especially in the United States, where there was a rising trend in long-term bond yields, were the main determinants of yields on Greek government securities.

#### *International markets*

Intense activity in the issuance of bonds with the euro as the common reference currency was one of the most important events in fixed-income securities markets in recent years. Although this state of euphoria moderated with the passage of time, the introduction of the new currency acted as a catalyst, especially in euro area markets, where yields on 10-year bonds (the reference securities) were kept below 5 per cent in the first part of 1999.

In mid-1999, long-term US bond yields began to rise, owing to expectations of faster economic growth and to indications of an interest rate increase by the Federal Reserve. The rise in basic rates in the United States and the euro area during the second half of 1999 confirmed existing expectations of an increase in prices. In the euro area, 10-year bond yields rose significantly from the beginning of 1999, affected by upward trends in US bond markets and by the adoption of a “restraint bias” by the Federal Reserve in mid-May 1999. By June, yields in the euro area had increased by 100 basis points over early 1999 levels. This eventually reversed the upward trend of

yield differentials between the United States and the euro area. Apart from the pressure exerted by increasing US bond yields, the rise in euro area yields probably also reflected expectations that short-term interest rates had bottomed out. The decline of the euro further strengthened expectations of an imminent rise in short-term rates.

Apart from these developments, international bond markets were also influenced by local or technical factors, such as the financial crisis in Brazil early in the year, the war in Yugoslavia during the second quarter of 1999, and the uncertainty surrounding the transition to the year 2000. This last factor is partly to blame for the decline in bond issuance, given that many issuers estimated that the last quarter of 1999 would not be favourable in terms of available liquidity. Thus, despite the significant rise in long-term yields during 1999, several enterprises and financial institutions continued with a substantial bond issuance up to the third quarter of 1999, in order to offset the risk from the continuous rise in the cost of borrowing.

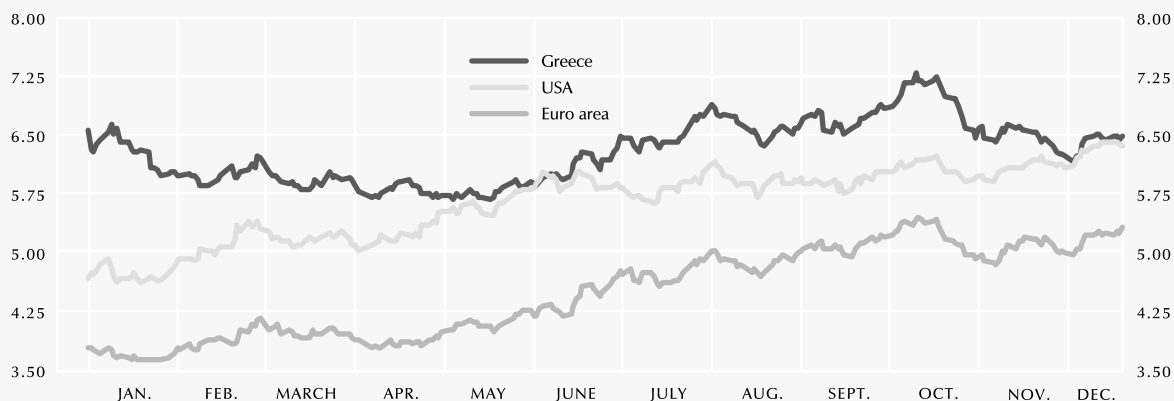
#### *The domestic bond market*

During 1999, the domestic bond market showed remarkable resistance to pressures from yield fluctuations in international markets, especially in the US and euro area markets; it also showed signs of maturity when responding to local crises that affected bond markets globally. This maturity was evident in the drastic reduction in yields on long-term Greek government bonds and led to a considerable shrinkage of the yield differential between these securities and corresponding bonds in the euro area.

This reduction in yields was achieved in three distinct phases. During the first phase, which coincided with the first quarter of 1999, the yield differential between Greek and German bonds was

Chart 17

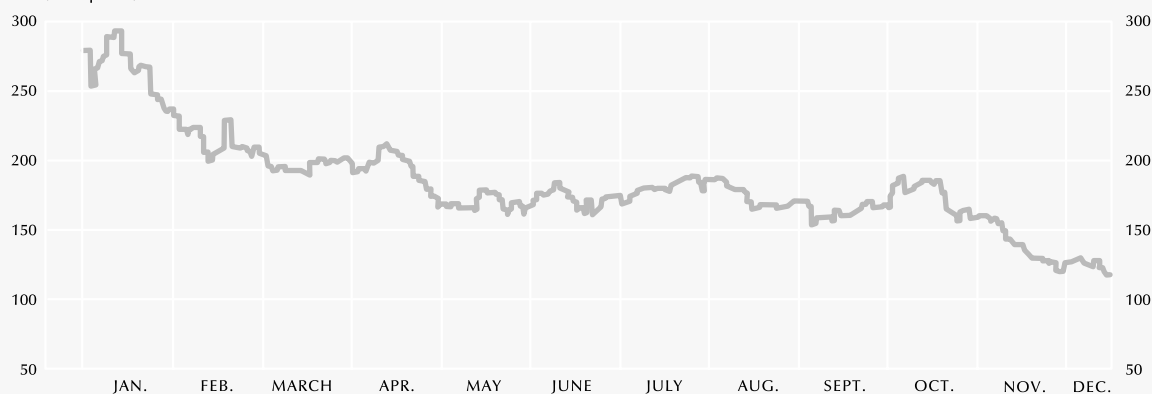
10-year government bond yields in Greece, the USA and the euro area in 1999  
(Percentages per annum)



Source: Frankfurt Stock Exchange, AMEX and Bank of Greece.

Chart 18

Yield differential between 10-year Greek government bonds and comparable German securities in 1999  
(Basis points)



Source: Frankfurt Stock Exchange and Bank of Greece.

reduced from over 250 basis points in the beginning of 1999 to less than 200 basis points in March (see Charts 17 and 18). During the second phase, which began with the end of the war in Yugoslavia in early June and lasted until the end of October 1999, the yield spread ranged between 150 and 180 basis points. Finally, the third phase, which covered the last two months of 1999, was marked by further, fast reduction in yield differentials, from 150 basis points in November to about 110 basis points at the end of 1999. This last phase of decrease in Greek long-term bond

yields was related to the reduction in Bank of Greece's interest rates in October and December 1999 and heralded the Greek market's full synchronisation with euro area markets.

Despite the negative impact of the international conjuncture on domestic securities during the year, the parameters determining the effectiveness of the primary and secondary domestic market improved considerably. Thus, in contrast to US and euro area bond markets, where the spread between maximum and minimum yields on 10-year securi-

ties reached 180 basis points in 1999, for Greek government bonds this spread did not exceed 165 basis points. The domestic primary market was marked by a smooth procedure of tenders for fixed-income securities through “issuance reopenings”, that is, without changing the main terms of the issuance concerning the level of the fixed rate. The favourable conditions which prevailed in the secondary market during the year allowed the reopening of 3-year, 5-year, 7-year, 10-year and 15-year Greek government bond issues at regular intervals, from four to six times, with the same terms of issue. Another feature of the primary market is that almost 50 per cent of long term issues concerned 10- and 15-year bonds, while the coverage ratio — funds offered over funds demanded — in the tenders exceeded 2.4.

Taking account of market conditions in the management of public debt, the government extended further the average maturity of the drachma-denominated debt by issuing securities of a maturity longer than that of already issued securities. The level of liquidity also improved, as did the depth of the secondary bond market. It is characteristic that the average daily volume of transactions through the Bank of Greece’s book-entry securities system exceeded 800 billion drachmas in November and December 1999, compared with about 600 billion between January and October 1999 and 250 billion in 1998. The greatest interest during the year was shown for 10-year securities, which accounted for 40 per cent of transactions, while 15- and 7-year securities accounted each for 20 per cent. Yield differentials between bid and offer were gradually reduced, from 45 basis points in December 1998 to less than 25 basis points at the end of 1999, while for the maturities which attracted the main interest of investors, differentials were between 10 and 20 basis points. Finally, the daily fluctuations of bond prices became more moderate during 1999.<sup>21</sup>

As a result of the considerable convergence of long-term bond yields during the year, as well as of the continuing improvement in both the effectiveness of local markets and macroeconomic aggregates, Greece’s creditworthiness, as measured by international credit-rating institutions, was upgraded. However, the most important achievement, which highlights the resilience and maturity of the domestic fixed-income securities market, is undoubtedly the significant reduction in yield differentials against euro area countries in an international environment marked by volatility and rising yields.

#### *1.7.2 Stock market developments*

The main features of the stock market during 1999 were the impressive rise in share prices and the value of transactions, as well as the large amount of new issues of shares. These developments were affected by the favourable macroeconomic environment, but also by the structural changes that took place at enterprise or economic sector level. Especially positive was the effect of Greece’s prospects of joining the euro area, owing both to the progress made in the convergence of macroeconomic aggregates, especially inflation, and to expectations, created by these developments, of a drop in domestic interest rates. The stock market was also positively affected by the continuing high profitability of most business firms and the attempted restructuring of many of them through mergers and acquisitions, which provides a new base for coping with increasing international competition.

From the beginning of 1999, share prices and the value of transactions showed an upward trend,

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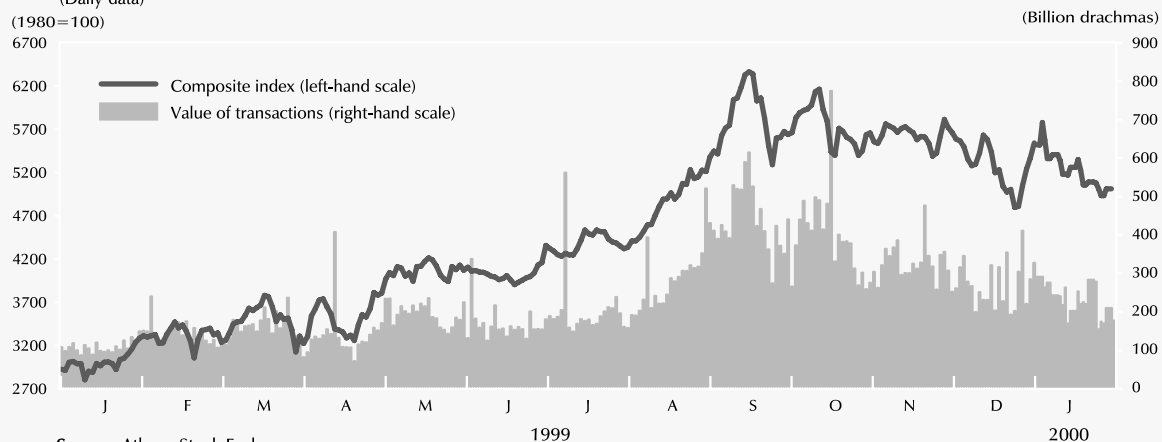
<sup>21</sup> The volatility levels of Greek government securities are below the limit set by the European Central Bank for euro area securities, in the framework of intra-day liquidity provision on collateral of such securities.



Chart 19

Athens Stock Exchange: composite share price index and value of transactions  
(January 1999 - January 2000)

(Daily data)



Source: Athens Stock Exchange.

Table VIII

Share price index (1980=100)<sup>1</sup>

	1998		1999		Percentage change 1999/1998	
	End of period	Average levels	End of period	Average levels	End of period	Average levels
Composite index	2,737.6	2,542.8	5,535.1	5,291.5	102.2	108.1
Banks	5,799.4	5,270.4	10,165.4	9,643.9	75.3	83.0
Leasing	343.0	342.5	1,545.6	1,636.3	350.6	377.8
Insurance	1,290.9	1,191.6	3,731.1	3,601.9	189.0	202.3
Portfolio investment	876.5	821.1	2,822.7	2,650.4	222.0	222.8
Industrial	1,714.0	1,640.9	3,451.6	3,229.2	101.4	96.8
Construction	502.2	477.4	3,446.0	3,616.4	586.3	657.5
Holding	2,156.0	2,013.5	6,770.4	6,988.1	214.0	247.1
Other	1,897.3	1,854.5	6,985.4	6,807.2	268.2	267.1
Parallel market index	208.7	203.0	1,582.6	1,708.7	658.4	741.7

<sup>1</sup> Excluding leasing companies (1987=100) and parallel market (1994=100).

Source: Athens Stock Exchange.

which became more pronounced in the period from early August to mid-September 1999 (see Chart 19). Thereafter, and until the end of February 2000, the evolution of the above aggregates seemed to stabilise at lower levels, with considerable fluctuations at times.

The composite share price index rose by 102.2 per cent between the end of December 1998 and the end of December 1999, while its total rise in the period 1997-1999 was 493 per cent. At aver-

age levels, share prices in 1999 rose by 108.1 per cent. The lowest level of the share price index (2,883.3 points) was observed on 15 January and the highest (6,355 points) on 17 September 1999. The significant rise of share prices in 1999 was accompanied by increased volatility of the relevant index, which, however, was largely due to the rise in prices. Typical of 1999 developments was the great differentiation observed in share price increases in individual branches (see Table VIII). A relatively smaller increase was observed in

bank and industrial firm share prices (83 per cent and 96.8 per cent, respectively, on average in 1999). By contrast, an enormous rise was recorded in shares traded on the parallel market (741.7 per cent) and in construction company shares (657.5 per cent).

The average daily value of transactions rose steeply in 1999, reaching 441 billion drachmas in September, compared with 84 billion drachmas in December 1998. In the last quarter of 1999, however, the average daily turnover was significantly reduced, coming to 271 billion drachmas in December 1999. Share marketability (number of shares traded to total number of shares listed) also rose considerably to 12.1 per cent in 1999, from 7.3 per cent in 1998.

The large rise in share prices and the increased number of shares listed on the Athens Stock Exchange (ASE) brought the market capitalisation of shares to 67,311 billion drachmas or 176 per cent of GDP in December 1999, from 22,839 billion or 64 per cent of GDP at the end of 1998. In 1999, trading was affected to a great extent by the savers' shift to shares, either through the direct purchase of such securities or through the acquisition of equity fund units. New investments by mutual funds in ASE-listed shares amounted to about 2,200 billion drachmas in 1999. However, the significant rise in share prices and in the value of transactions from the beginning of August to mid-September 1999 was due to increased demand for shares, which, in turn, stemmed from the entry of many new investors in the stock market. In the third quarter of 1999, some 270,000 new accounts were opened at the ASE's Book-Entry Securities System (SAT). Attracting these new investors to the stock market was facilitated by the active involvement of a large number of Order Reception and Transmission Companies (AELDE) – small brokerage firms with no authori-

sation to trade directly on the ASE – in many towns throughout the country.

During the period of share price correction in September 1999, some problems emerged in relation with the settlement of investors' open positions with securities companies and the consequent lack of liquidity in the stock market. Exacerbation of these problems might put additional pressure on the Stock Exchange and cause a wider turbulence in financial markets. In order to avoid this and to enhance transparency in transactions, at end-September 1999 the Bank of Greece raised (from 5 to 15 million drachmas) the limits on personal loans granted on collateral of listed securities<sup>22</sup> and deregulated the financing of investment firms (EPEY) and securities companies (AXE) by credit institutions.<sup>23</sup>

Fund-raising through the stock market reached a much higher level than in 1998. Total funds raised through the stock market by share capital increases rose to 3,309 billion drachmas in 1999, from 827 billion in 1998 (see Table IX). These funds were raised by 156 firms (75 in 1998), of which 40 (24 in 1998) had listed their shares on the (ASE) for the first time. The breakdown of fund-raising by branch of activity shows that 1,286 billion drachmas were raised by 13 banks, compared with 210 billion by 8 banks in 1998. Considerably increased was the resource of non-financial firms to the stock market; during 1999 such firms raised 1,524 billion drachmas, i.e. almost triple the amount for 1998 (544 billion). This development led to the broadening of the capital base of business firms and to the reduction in their financial expenditure, thus contributing to an increase in their investment activity.

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<sup>22</sup> See Bank of Greece Governor's Act 2452/27 September 1999.

<sup>23</sup> See Bank of Greece Governor's Act 2453/27 September 1999.

**Table IX**  
Fund-raising through the Athens Stock Exchange<sup>1,2</sup>

Firms	1998		1999	
	Number of firms	Amounts in billion drs.	Number of firms	Amounts in billion drs.
Banks	8	210	13	1,286
Investment	6	60	16	395
Insurance	–	–	5	73
Leasing	1	12	2	30
Industrial	31	175	43	396
Construction	4	27	18	282
Commercial	4	27	21	195
Telecommunications	1	170	1	26
Shipping	5	65	3	146
Information technology	6	20	11	92
Other	9	61	23	388
<b>Total</b>	<b>75</b>	<b>827</b>	<b>156</b>	<b>3,309</b>

1 Subscriptions to new capital are entered on the last day of the subscription period.

2 Share capital increase through public subscription and private investment.

Source: Athens Stock Exchange and Bank of Greece.

**Table X**  
Fund-raising through the Athens Stock Exchange by means of share capital increase or sale of existing shares

Year/quarter	By share capital increase <sup>1</sup>		By sale of existing shares <sup>2</sup>		Total (in billion drachmas)
	Number of firms	Amounts (in billion drachmas)	Number of firms	Amounts (in billion drachmas)	
1998	75	827	1	308	1,135
1999	156 <sup>3</sup>	3,309	11	847	4,156
1998 a' . . . . .	7	32			32
b' . . . . .	20	241			241
c' . . . . .	23	252			252
d' . . . . .	25	302	1	308 <sup>a</sup>	610
1999 a' . . . . .	15	315	2	101 <sup>b</sup>	416
b' . . . . .	32	786	2	2	788
c' . . . . .	42	560	2	463 <sup>c</sup>	1,023
d' . . . . .	75	1,648	5	281 <sup>d</sup>	1,929

1 Through issuance of new shares.

2 Through public subscription. Mainly regarding Hellenic Telecommunications Organisation (OTE), Eurobank and PANAFON S.A. shares.

a Sale of OTE shares by the government.

b Sale of Eurobank shares owned by Consolidated Euro Finance Holdings S.A.

c Sale of OTE shares by the government.

d Sale of PANAFON S.A. shares owned by FRANCE TELECOM S.A. Including the sale of existing shares of two new firms (Water Supply and Sewerage Company – EYDAP: 62.5 billion drachmas and Hellenic Industrial Development Bank –ETBA: 31.6 billion drachmas).

3 The sum total for the year is lower because 8 firms increased their share capital twice in the course of 1999.

Source: Athens Stock Exchange and Bank of Greece.

The sale of existing shares by public subscription through the ASE was also high in 1999. By this method, some 847 billion drachmas were raised, up from 308 billion in 1998. Another feature of

stock market developments in 1999 was the rather increased supply of new shares in the market during the last quarter of the year, mainly by already listed firms (through capital increases and

the sale of already existing shares). In particular, during the fourth quarter of 1999, fund raised through capital increases amounted to 1,648 billion drachmas, or 50 per cent of total funds raised in 1999, while fund-raising through the sale of already existing shares was 281 billion drachmas or 33 per cent of total sales of existing shares in the year (see Table X). It is estimated that this increased supply of new shares during the last quarter of 1999 affected share prices and the value of transactions during that period.

The development of stock market aggregates over recent years is attributable to a number of factors, some of which will continue to have a positive effect during 2000 and 2001. Among these factors are the stabilisation of the Greek economy, the reduction in the fiscal deficit (the latter is forecast to come to zero in 2001), the prospect of Greece joining the euro area, the significant drop in interest rates and their convergence, by the end of 2000, with the corresponding European rates, and the favourable prospects for increased profits, along with the ongoing restructuring of business firms to face the increasing competition that the introduction of the euro will bring about. Of course, it should not be neglected that the evolution of stock market aggregates depends on other factors as well, such as developments in international capital markets, the supply of new shares, but also on factors that contribute to dissimilar trends in the share prices of various enterprises.

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## 1.8 Inflation

In the course of 1999, inflation decelerated in Greece, whereas it sped up in the euro area, as the world prices of crude oil more than doubled and the nominal effective exchange rate of the euro fell.<sup>24</sup>

The above factors also had an upward effect on Greek inflation, which, however, eventually decelerated, since other factors had a stronger counter-effect: First, in the course of 1999 the drachma remained stable against the euro (in fact, it appreciated slightly at average levels) and monetary policy in general was tight. In addition, in March-April 1999, the effect of the drachma's devaluation (in March 1998) on the year-on-year growth rate of consumer prices was eliminated. Second, the fiscal policy pursued and the evolution of wages, along with the additional *ad hoc* measures taken by the government, had an anti-inflationary effect. Third, the evolution of fresh fruit/vegetable prices was generally favourable.

Consequently, the 12-month rate of increase in the Consumer Price Index (CPI) decelerated to 2 per cent in August-September 1999, from 3.9 per cent in December 1998. From October, it started to accelerate gradually and in December it reached 2.7 per cent, almost exclusively because of the increase in fuel prices (see Chart 20 on the next page). Average annual CPI growth decelerated further to 2.6 per cent in 1999 from 4.8 per cent in 1998.

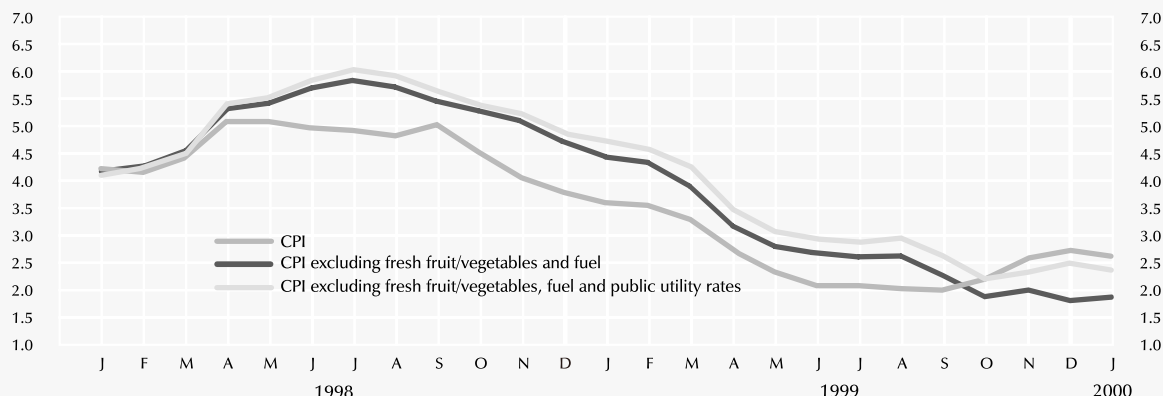
Moreover, the inflation differential between Greece and the euro area (on the basis of the Harmonised Index of Consumer Prices (HICP) narrowed impressively (to 0.7 percentage point from 2.9 percentage points) in the course of 1999, as in Greece the 12-month inflation rate fell to 2.4 per cent in December 1999, from 3.7 per cent in December 1998, whereas in the euro area (where it had dropped to 0.8 per cent in December 1998) it accelerated after February 1999, reaching 1.7 per cent in December (see below Chart 21 and Box 3).

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<sup>24</sup> See also European Central Bank (ECB), *Monthly Bulletin*, January 2000, p. 6.

Chart 20

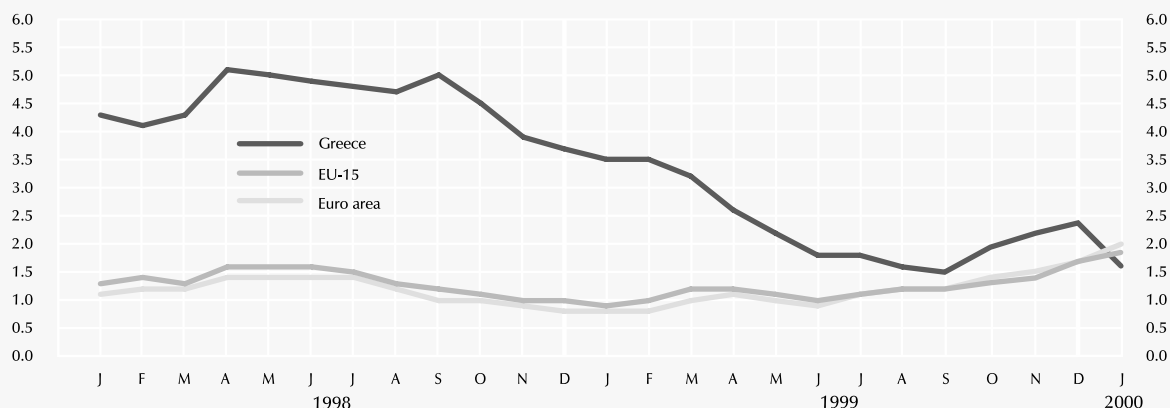
Consumer price index and core inflation (January 1998 - January 2000)  
(Percentage changes over same month of previous year)



Source: Calculations based on NSSG data.

Chart 21

Harmonised index of consumer prices in Greece, the EU and the euro area  
(January 1998 - January 2000)  
(Percentage changes over same month of previous year)



Source: NSSG and Eurostat.

The abatement of inflationary pressures in Greece in 1999 is corroborated by other indicators as well:

— First, “core inflation”, as measured by the 12-month rate of change in the CPI excluding fresh fruit/vegetables and fuel, fell to 1.8 per cent in December 1999<sup>25</sup> from 4.9 per cent in December 1998. It is worth noting that, until September, core inflation was higher than inflation measured by the CPI,<sup>26</sup> but the difference between the two indices was narrowing and from October

onwards it became negative (see Chart 20): *since then core inflation has remained lower than CPI inflation and has not exceeded 2 per cent*. The maintenance of core inflation at levels exceeding 2 per cent through to September 1999 was mainly

<sup>25</sup> The 12-month rate of change in the CPI excluding fresh fruit/vegetables, fuel and public utility rates followed a similar path (see Chart 20).

<sup>26</sup> This was due to the fact that *the 12-month rate of change in fuel (and fresh fruit/vegetable) prices which are included in the CPI (but not in core inflation) remained negative until end-September, despite the considerable increases recorded after February 1999. Since October, however, this rate has become positive.*

### BOX 3

#### Greece: Comparison between the Harmonised Index of Consumer Prices and the CPI

The Harmonised Indices of Consumer Prices (HICPs) are compiled with the aim of measuring inflation in EU Member States by a single method. The HICPs of Member States do not have common weights (i.e. they do not refer to a common “basket” of goods and services), but are based on national data and take account of the particular consumption patterns of households in each country.

The single European Index of Consumer Prices (EICP), which covers the European Union as a whole, consists

December 1999) around 95 per cent of the CPI “basket”. For instance, fees for medical and dental care and hospitalisation fees, along with tuition fees for private primary/secondary schools and for vocational training or technical schools were not covered by the HICP. These items will be covered in two stages by all Member States. Since January 2000, the HICP covers educational outlays and some categories of outlays for health and social welfare services (the remaining categories of the latter outlays will be covered as of January 2001).

Weights by category of expenditure: HICP and CPI

Categories	Weights		Difference between weights (1)-(2)
	HICP(1)	CPI(2)	
<i>OVERALL INDEX</i>	<i>1,000.00</i>	<i>1,000.00</i>	
Food and non-alcoholic beverages	232.21	205.67	26.54
Alcoholic beverages and tobacco	39.50	34.98	4.52
Clothing and footwear	117.90	111.13	6.77
Housing, water supply, electricity, fuel	136.54	135.85	0.69
Durables, household goods and services	89.54	83.90	5.64
Health	13.34	57.40	-44.06
Transport	133.90	135.87	-1.97
Communications	29.71	18.10	11.61
Entertainment, cultural activities	49.81	50.41	-0.60
Education	13.01	27.28	-14.27
Hotels, cafeterias and restaurants	85.19	82.88	2.31
Miscellaneous goods and services	59.34	56.53	2.81

**Note:** HICP weights are those applying up to December 1999.

**Source:** Calculations based on NSSG data.

of the weighted average of the corresponding HICPs of the 15 Member States, according to the share of private consumption of each country in total private consumption in the EU. (The weight for Greece was 2.35 per cent in 1999). The Monetary Union Index of Consumer Prices (MUICP), i.e. a single HICP for the 11 euro-area countries is compiled in a similar way.

In the case of Greece, the HICP and the CPI are closely correlated, since the HICP is largely based on the same data as those used for the CPI, while the CPI is compiled by the improved new method commonly agreed upon at EU level. However, significant differences also exist, regarding:

— The items covered. The “basket” of goods and services which are included in the HICP represented (until

— Coverage in geographical and population terms. The HICP is based on the principle of “domestic final monetary consumption expenditure of households”, i.e. expenditure by all households in Greece, irrespective of place of stay, and by persons living together in institutions. Thus, the HICP covers rural areas as well. Harmonisation of coverage in geographical and population terms was completed in January 2000, from which month onwards the HICP covers also foreign tourists’ consumption in Greece. By contrast, given that in non-urban areas of Greece household consumption of own products is considerable and the size of markets small, the Greek CPI covers only urban centres, which, however, are considered as representative of broader geographical areas. Moreover, it refers only to households and not to collective cohabitation nor foreign tourists’ expenditure in Greece. ➔

### Analysis of differences between the HICP and the CPI

Period	12-month rate of percentage change		Difference between HICP and CPI rates (percentage points)	Analysis of deviations between the two rates:	
	HICP	CPI		Due to weight differentials (percentage points)	Due to differentials in coverage (percentage points)
1998 Jan. ....	4.26	4.40	-0.14	0.12	-0.26
Feb. ....	4.17	4.27	-0.10	0.11	-0.21
March ....	4.32	4.57	-0.25	0.13	-0.38
April ....	5.11	5.34	-0.23	0.15	-0.38
May ....	5.02	5.29	-0.27	0.12	-0.39
June ....	4.86	5.20	-0.34	0.08	-0.42
July ....	4.78	5.10	-0.32	0.10	-0.43
Aug. ....	4.71	5.03	-0.32	0.11	-0.43
Sept. ....	4.99	5.22	-0.24	0.18	-0.41
Oct. ....	4.45	4.69	-0.23	0.21	-0.44
Nov. ....	3.99	4.22	-0.23	0.21	-0.44
Dec. ....	3.73	3.87	-0.14	0.26	-0.40
<b>Year 1998</b>	<b>4.53</b>	<b>4.77</b>	<b>-0.23</b>	<b>0.15</b>	<b>-0.38</b>
Jan. ....	3.50	3.70	-0.20	0.22	-0.41
Feb. ....	3.45	3.69	-0.24	0.18	-0.42
March ....	3.25	3.40	-0.15	0.14	-0.29
April ....	2.59	2.81	-0.21	0.08	-0.29
May ....	2.13	2.37	-0.25	0.06	-0.30
June ....	1.79	2.09	-0.29	-0.02	-0.28
July ....	1.84	2.09	-0.25	0.02	-0.27
Aug. ....	1.69	1.98	-0.29	-0.02	-0.27
Sept. ....	1.60	2.02	-0.42	-0.16	-0.26
Oct. ....	1.89	2.25	-0.35	-0.13	-0.22
Nov. ....	2.22	2.59	-0.38	-0.14	-0.24
Dec. ....	2.37	2.74	-0.37	-0.14	-0.23
<b>Year 1999</b>	<b>2.35</b>	<b>2.64</b>	<b>-0.28</b>	<b>0.01</b>	<b>-0.29</b>

Source: Calculations based on NSSG data.

→ Owing to the above differences between the HICP and the CPI, the corresponding weights, by category of expenditure, are differentiated, as shown in the first table of the Box. The greatest differences are observed in health and education (the HICP weights of which are lower than the respective CPI weights), as well as in food-non alcoholic beverages and telecommunications (where, by contrast, the HICP weights are higher).

Another difference between the two indices regards the classification of items and the frequency of “basket” revision. The CPI uses the international Classification of Individual Consumption by Purpose (COICOP) in a way which corresponds to the structure of households’ consumption expenditure during the period covered by the survey on household budgets. Thus, the consumer “basket” remains unchanged throughout the period covered by the index (i.e. until the index is revised on the basis of a later survey on household budgets). The HICP employs the same classification, albeit adjusted to take into

account the requirements and particularities of harmonisation (COICOP/HICP), a fact which enables a continuous revision of the “basket” by incorporating new items in it, provided that expenditure for these items exceeds one thousandth of total consumption expenditure.

In 1998 and 1999, the 12-month inflation rate, as measured by the HICP, was 0.2-0.3 percentage point (on average) lower than the corresponding CPI rate. This differential, which ranged between 0.10 percentage point in February 1998 and 0.42 percentage point in September 1999 (see the second table of the Box), was the outcome of contrasting factors. More specifically:

– The largest part of the differential stemmed from the inadequate coverage of items by the HICP, as compared with the CPI, particularly in the services sector. It is estimated that about 16 per cent of the services covered by the CPI was not covered (until December 1999) by the HICP, which hence showed a smaller increase in →

→ respective prices. In 1998 and 1999, the differential ranged between  $-0.21$  and  $-0.44$  percentage point and averaged  $-0.34$  percentage point. The largest part of this negative differential was due to the inadequate coverage of health outlays.

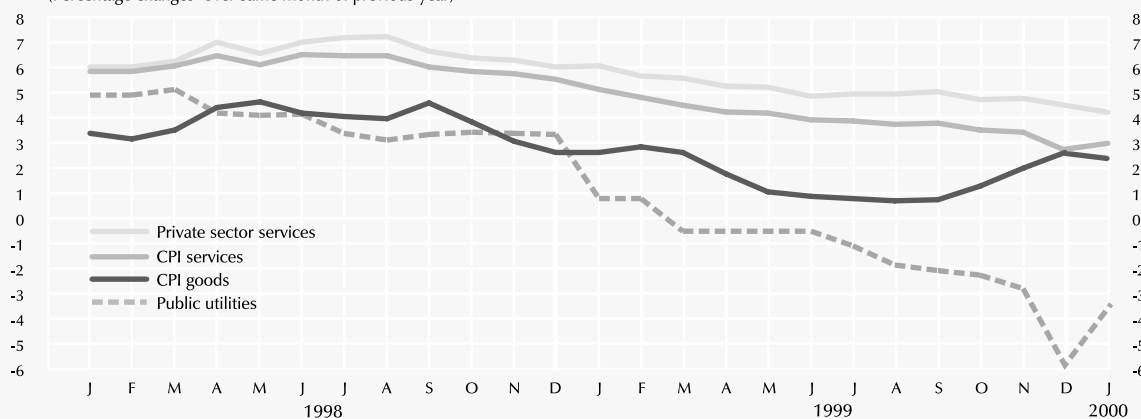
— The remaining (and smaller) part of the differential between the two indices was accounted for by differences in the structure of expenditure, as the latter is expressed by the weights applicable to each category of goods and services. The fact that the HICP weights were higher than the corresponding CPI weights in those categories of CPI items whose price increases overshot the increase in the general level of prices contributed to a faster growth of the HICP in the January 1998-May 1999 period. This positive differential ranged from  $0.06$  to  $0.26$  percentage point. However, as the HICP weight on telecommunications (whose prices declined in the course of 1999) was higher than the corresponding CPI weight, the differential between the HICP and the CPI turned negative from June 1999 onwards and stood at  $-0.14$  percentage point in December (see the second table of the Box).

The differentials between the HICP and the CPI referred to in the last two paragraphs are likely to incorporate “bias effects”, stemming from factors such as changes in data sources regarding prices, qualitative changes, the introduction of new products etc. Nevertheless, the improvement of the methodology used for the compilation of the two indices, particularly the HICP, has contributed considerably to a more accurate measurement of inflation and an abatement of such effects.

In December 1999, the 12-month growth rate of the HICP reached  $2.4$  per cent (CPI:  $2.7$  per cent). To be more precise, the difference between the two rates amounted to  $-0.37$  percentage point, of which  $-0.23$  percentage point stemmed from differences in coverage (chiefly because the HICP does not fully cover health and education services) and the remaining  $-0.14$  percentage point was accounted for by weight differentials (especially by the fact that the HICP weight for telecommunications, the prices of which declined, was higher than the corresponding CPI weight, while the general level of prices was rising).

Chart 22

CPI goods and services (January 1998 - January 2000)  
(Percentage changes over same month of previous year)



Source: Calculations based on NSSG data.

due to the high 12-month rate of increase in the prices of private sector services (5.4 per cent on average in the January-September period) and of certain goods (see Chart 22 and Table XI). Underlying the decline in core inflation after September was also the drop in passenger car

prices and in Hellenic Telecommunications Organisation (OTE) and Public Power Corporation (DEH) rates.

— Second, although the 12-month rate of change in the Wholesale Price Index (WPI) compiled by



Table XI

CPI goods and services by descending 12-month rate of change in December 1999

## A. Rate of change higher than 2.7 per cent

Item	Weights % (base year 1994)	Percentage change
Heating oil	22.30	41.5
Fuel (gasoline)	41.52	19.1
Olive oil	9.33	17.8
Parking	1.04	16.9
Newspapers – magazines	8.20	14.3
Hotels	6.46	13.4
Chocolate milk	0.34	13.3
Private hospital fees	6.62	12.4
Refuse collection	5.47	11.2
Frozen fish (categories A, B, C)	1.51	9.4
Honey	0.68	9.2
Dry cleaning	1.91	8.6
Soft drinks (served)	9.78	8.0
Taxi fare	5.60	7.3
Veterinary services	0.16	7.2
Salted-dried fish	0.73	6.9
Coffee (served)	9.78	6.5
Household services	9.97	6.2
Tobacco	29.53	6.1
Drinks (served)	9.78	5.9
Fresh vegetables	15.06	5.8
Canteens	4.60	5.6
Newspaper notices and advertisements	0.34	5.2
Car services	12.46	5.0
Restaurants	35.44	5.0
Other services related to housing n.e.c.	8.90	5.0
Fresh milk	9.79	4.9
Dance schools, gyms etc.	2.25	4.6
Cinema	2.06	4.5
House repair and maintenance	9.75	4.5
Sweets	6.70	4.4
Tailoring-sewing expenses	0.60	4.1
Air fares	3.29	4.1
Jams	0.23	4.1
Medical services	13.44	4.1
Rents	50.81	4.0
Fruit juices	1.35	3.7
Theatre	0.87	3.6
Ice creams	2.16	3.6
Yogurt	3.76	3.5
Other cereals	0.87	3.5
Foreign language tuition fees	11.27	3.5
Private school tuition fees (secondary education)	2.43	3.4
Musical instruments	0.17	3.4
Children underwear	2.86	3.4
Fast food	7.05	3.4
Potato products	0.24	3.3
Barbers – hairdressers	4.09	3.3
Nurse for the exclusive care of patients	2.47	3.3
Men's underwear	1.95	3.2
Textiles	1.18	3.1
Postal services	0.33	3.1
Cleaning and storing of carpets	0.85	3.1
Car insurance premiums	8.30	3.1
Men's footwear	7.16	3.1
Women's footwear	9.66	3.0
"Frontistirion" tuition fees	8.41	2.8
Toasted bread	1.08	2.8
Other garments	5.10	2.8
Alteration of garments	0.22	2.8
Children's footwear	6.23	2.8
Children's clothes	11.44	2.8
Dental services	20.40	2.8
Private school tuition fees (primary education)	2.43	2.8
Therapeutic appliances and equipment	1.77	2.7

→

Table XI (cont'd)

B. Rate of change between 2 and 2.7 per cent		
Item	Weights ‰ (base year 1994)	Percentage change
Firewood	0.71	2.7
Fresh pork	5.05	2.7
Preserved meat	1.23	2.6
Shoe repairs	0.08	2.6
House insurance premiums	0.71	2.5
Fresh beef	24.70	2.4
Development of photographic films	0.98	2.3
Mattresses – bed linen – pillows etc.	2.06	2.2
Rice	1.61	2.2
Wood and metal furniture	13.06	2.1
Babies' clothes	2.44	2.1
Car wash	0.59	2.1
Other cooking – heating appliances	0.74	2.1
Soft cheese	11.14	2.1
Drivers' schools	0.30	2.1
C. Rate of change between 0 and 2 per cent		
Item	Weights ‰ (base year 1994)	Percentage change
Women's clothes	31.30	2.0
Refreshments	3.51	1.9
Lubricants	0.69	1.8
Women's underwear	3.78	1.8
Professional & technical schools – Initial Training Centres	2.75	1.8
Lighting – Decoration items	1.55	1.7
Water supply	7.04	1.7
Pulse	1.40	1.7
Sports and camping goods	0.79	1.6
Beer	1.81	1.6
Clothing material	0.15	1.6
Transportation of commodities	0.80	1.5
Personal care non-durables	19.71	1.4
Curtains – coverlets etc.	7.63	1.4
Chocolate – chocolate products	1.29	1.4
Lab tests	1.49	1.4
Fresh lamb – goat	6.86	1.4
Tickets for football – basketball games	2.76	1.3
Tableware – glassware	4.55	1.2
Tools and equipment for house and garden	1.56	1.2
Biscuits – cookies	4.82	1.1
Photo films	0.30	1.1
Other goods	2.11	1.1
Salt – spices	0.59	0.9
Cleaning products	12.82	0.9
Jewelry – watches	5.26	0.9
Blankets and household linen	4.47	0.8
Wine	1.42	0.8
Electrical heating appliances	1.64	0.8
Fresh beef	0.18	0.8
Bread	13.70	0.8
Sugar	1.57	0.7
Gas	1.41	0.7
Pasta	2.86	0.6
Mineral water	0.69	0.6
Personal care durables	0.89	0.6
Cutlery	0.81	0.5
Tobacconist's	0.13	0.5
Stationery	3.16	0.5
Books	7.90	0.5
Pharmaceutical products	0.53	0.5
Goods for house repair & maintenance	6.50	0.4
Expenses for religious ceremonies	10.35	0.3
Sweepers etc.	0.51	0.3
Repair of home appliances	1.02	0.2
Other household items	8.43	0.2
Repair of audio-visual, photographic and information processing equipment	0.92	0.2
Flowers	2.91	0.2
Drugs – medicines	9.95	0.2



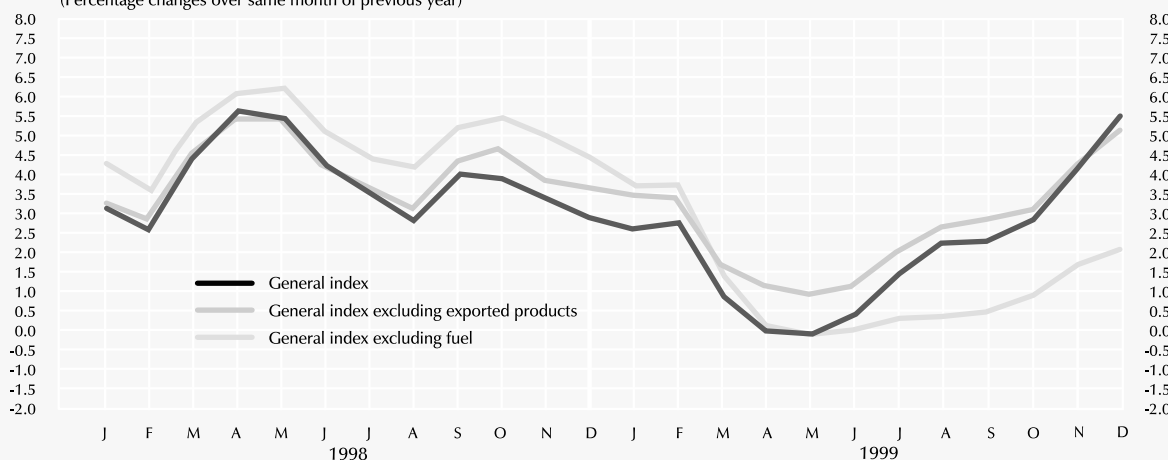
Table XI (cont'd)

C. Rate of change between 0 and 2 per cent (cont'd)		
Item	Weights % (base year 1994)	Percentage change
Alcoholic drinks	2.22	0.1
Floor coverings	2.27	0.1
Hospitals	0.74	0.0
Toll fees	1.04	0.0
Urban transportation	4.91	0.0
Intercity buses	2.29	0.0
Intercity trains	0.29	0.0
Radio and television contributions	1.77	0.0
Rental of audio-visual, photographic and information processing equipment	0.27	0.0
Legal services	2.04	0.0
D. Negative rate of change		
Item	Weights % (base year 1994)	Percentage change
Car and motorcycle circulation dues	2.68	-0.0
Other meat products	1.12	-0.1
Kitchen and household utensils	3.49	-0.1
Fresh butter	0.31	-0.1
Tea	0.11	-0.1
Fresh fish (category C)	3.96	-0.2
Frozen & preserved vegetables	0.87	-0.3
Fresh poultry	8.33	-0.3
Motorcycles – bicycles	1.87	-0.5
Holiday packages	2.66	-0.5
Frozen meat	1.62	-0.6
Eggs	1.91	-0.7
Processed fruit	0.16	-0.7
Children's food	0.73	-0.7
Preserved fish	0.52	-0.8
Ships	2.14	-0.9
Vegetable fat	0.28	-1.0
Vegetable butter	0.73	-1.0
Car spare parts	11.54	-1.0
Men's clothes	25.07	-1.1
Non-electronic games	4.18	-1.2
Flour	0.83	-1.2
Ready sauces, soups etc.	0.84	-1.4
Hard cheese	6.31	-1.5
Sausages – ham etc.	2.85	-1.6
Powder milk	0.77	-1.7
Dried fruit and nuts	1.27	-1.9
Laundry	1.75	-2.2
Refrigerators	1.94	-2.2
Fresh fish (category B)	2.52	-2.2
Travel items	2.59	-2.2
Other home appliances	0.69	-2.3
Preserved tomatoes	0.79	-2.4
Dish-washers	0.43	-2.7
Fresh fruit	16.67	-3.0
Stereos etc.	1.33	-3.2
Fresh fish (category A)	2.95	-3.2
Preserved milk	3.46	-3.3
Coffee	2.76	-3.4
Discs – cassettes – diskettes	2.14	-3.8
Other frozen fish	0.82	-4.1
Electronic games	0.10	-4.4
Computer	0.92	-4.5
Electric cooker	1.67	-4.7
Olives	0.67	-4.9
Photo cameras	0.45	-5.2
Pet food	0.88	-5.2
Television & VCR	2.28	-6.4
Seed-oil	1.43	-7.2
Cocoa	0.10	-8.9
Telephone charges	17.77	-9.4
Fresh potatoes	4.95	-10.8
Cars	42.83	-10.9
Electricity	22.96	-15.3

Source: Calculations based on NSSG data.

Chart 23

Wholesale price index (January 1998 - December 1999)  
(Percentage changes over same month of previous year)



Source: NSSG.

NSSG rose considerably during the year (from 3.0 per cent in December 1998 to 5.5 per cent in December 1999) owing to the significant increase in fuel prices,<sup>27</sup> the growth rate of the WPI excluding fuel decelerated substantially to 2.1 per cent in December 1999, from 4.5 per cent in December 1998 (see Chart 23).

### 1.9 Factors affecting inflation in 1999

The monetary and economic policies pursued maintained their clear anti-inflationary stance in 1999.

More specifically, monetary policy, through both the determination of interest rate levels and Bank of Greece interventions in money and foreign exchange markets, influenced the course of the exchange rate as well as of monetary and credit aggregates and –through them– total demand, inflationary expectations and prices (for more detail, see Sections I.1 and I.3-I.7).

As mentioned above, real interest rates remained high throughout 1999. As a result, the growth rate of the liquidity indicator M4N stood at 5.6 per cent, i.e. below its reference range (7-9 per cent),

while total credit expansion –although it did not decelerate– was contained at 11.1 per cent (excluding foreign exchange valuation differences). At the same time, the evolution of the exchange rate of the drachma, combined with the decrease in the export prices of Greece's trading partners and with the favourable development of raw material prices (excluding crude oil) in the world market,<sup>28</sup> minimised imported inflation (excluding that related with fuel prices). Indeed, although in December 1999 the effective exchange rate of the drachma was 4.3 per cent lower than in December 1998, in 1999 it was, on average, 0.9 per cent lower than in 1998, whereas in 1998 it had decreased by 5.9 per cent. In 1999, the average annual rate of change in the wholesale prices of imported final products<sup>29</sup>

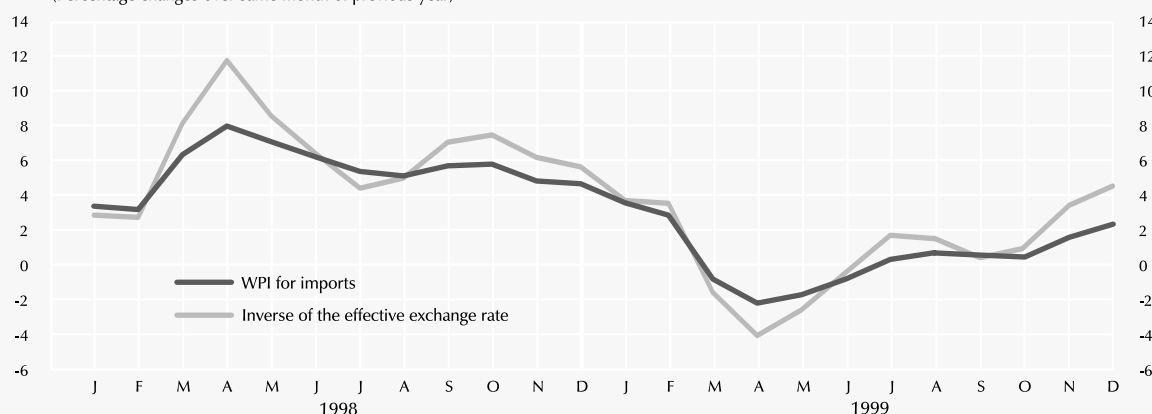
<sup>27</sup> The 12-month rate of change in fuel included in the WPI was negative only until May. Then it turned positive, reaching 123.2 per cent in December. Wholesale prices of fuel (unlike consumer prices) were not affected by cuts in special consumption taxes.

<sup>28</sup> Export prices of OECD countries fell by 1.7 per cent in 1999 (EU countries: –1.1 per cent). Furthermore, the average annual level of raw material prices (excluding energy) in the world market dropped by 3.1 per cent (in euro terms). See OECD, *Economic Outlook*, December 1999, p. 234 and ECB, *Monthly Bulletin*, February 2000, Table 4.2, p. 31\*.

<sup>29</sup> As this index concerns *final* products, it has not been affected to a significant degree by the increase in the price of imported crude oil (which is a raw material). Indeed, the respective rate of change in the WPI for imported goods *excluding fuel* was 0.3 per cent.

Chart 24

Wholesale price index and the inverse of the effective exchange rate of the drachma  
(January 1998 - December 1999)  
(Percentage changes over same month of previous year)



Source: NSSG and Bank of Greece.

Chart 25

Inflationary expectations<sup>1</sup> of consumers and business firms (January 1998 - February 2000)  
(Percentage balances of positive-negative responses)



<sup>1</sup> Business firms' responses regard the prospect of a rise in the prices of their products over the next 3-4 months. Consumers' responses regard the prospect of a faster rise in consumer prices over the next twelve months. Data for consumers are seasonally adjusted.

Source: Foundation for Economic and Industrial Research (IOBE) and European Commission, *European Economy, Supplement B*.

was close to zero (+0.5 per cent — see Chart 24). Additionally, the effect of the drachma's devaluation in March 1998 on the twelve-month CPI rate wore off, as was natural, and this let inflation drop by about one percentage point in total in March and April 1999. The stability of the exchange rate and, more generally, the consistent monetary policy pursued also contributed to the abatement of inflationary expectations (see Chart 25).

The evolution of unit labour costs remained an important disinflationary factor in 1999. The rate

of increase in unit labour costs in the whole economy is estimated — on the basis of available data<sup>30</sup> and indications — to have fallen to 2.5 per cent (compared with 3.9 per cent<sup>31</sup> in 1998), i.e. to a level consistent with the average annual inflation

<sup>30</sup> Since the expansion of sample surveys by NSSG on earnings is currently under way, quarterly data from these surveys on the increase in earnings in 1999 are not yet available.

<sup>31</sup> On the problems in the calculation of unit labour cost growth in the whole economy in 1998 — owing to the release of new data on the evolution of employment — see Bank of Greece, *Monetary Policy: Interim Report 1999*, November 1999, Box, page 53.

Table XII

## Employees' earnings, productivity and labour costs: 1998-2000

(Annual percentage changes)

	1998	1999 (estimate)	2000 (forecast)
<b>Average gross earnings (nominal):</b>			
– whole economy	6.3	4.6	4.4
– central government <sup>1</sup>	8.6	4.5	4.8
– public enterprises	8.0	6.5	5.5
– banks	4.0	7.1	6.5
– manufacturing <sup>2</sup>	4.7	4.4	4.3
Minimum earnings	5.4	3.5	...
<b>Disposable income of an employee with average earnings (nominal)</b>	<b>5.7</b>	<b>3.7<sup>5</sup></b>	<b>6.1<sup>5</sup></b>
<b>(real)</b>	<b>0.9</b>	<b>1.1<sup>5</sup></b>	<b>...</b>
<b>GDP</b>	<b>3.7</b>	<b>3.5</b>	<b>3.8</b>
<b>GDP per employee (whole economy)</b>	<b>0.3 (2.4)<sup>3</sup></b>	<b>2.3</b>	<b>2.5</b>
Output per person-hour in manufacturing	4.4	1.8	3.0
<b>Unit labour costs:</b>			
– whole economy	3.9	2.5	2.0
– business sector <sup>4</sup>	3.3	2.8	2.2
– manufacturing	0.2	2.5	1.3

1 Average compensation per employee.

2 Hourly earnings of blue-collar workers.

3 In parentheses: alternative estimate based on adjustment of data on the increase in employment in 1998, for the sake of greater comparability (see also Bank of Greece, *Monetary Policy, Interim Report 1999*, November 1999, Box on page 53).

4 The business sector includes private and public enterprises and banks.

5 Including the refunding (in December 1999) of civil servants with the difference from tax withheld. The rest of wage earners were similarly refunded by 15 January 2000, which will affect disposable income for the year 2000.

**Source:** Ministry of National Economy/Directorate of Macroeconomic Analysis (revised data and estimates on GDP and GDP per employee on the basis of ESA 95) and Bank of Greece (for the remaining annual aggregates).

forecast for 1999. This drop reflects the slower increase in average earnings in almost all the main sectors of the economy (see Table XII), as a result of the wage policy pursued by central government and of collective wage bargaining in public and private enterprises.<sup>32</sup> In the business sector (developments in which affect inflation more directly from the cost side) unit labour costs rose by 2.8 per cent, i.e. more than in the whole economy (2.5 per cent), though less than in 1998 (3.3 per cent).<sup>33</sup>

The slower increase in earnings in 1999 affected inflation favourably, not only from the cost but also from the demand side, since it contributed to containing the increase in employees' disposable income, an important component of households' total disposable income. Table XII gives some

<sup>32</sup> The increase in civil servants' salaries (2 per cent as from 1 January 1999) was determined by Law 2702/1999. For banks, a two-year collective agreement was signed, providing for increases of 3.4 per cent as from 1 January 1999 and 2.4 per cent as from 1 January 2000. One-year (Hellenic Railways Organisation-OSE, Hellenic Postal Service-ELTA) and two-year (Hellenic Telecommunications Organisation-OTE, Public Power Corporation-DEH) collective agreements were signed for public enterprises, providing for increases of 1.6-2.5 per cent as from 1 January 1999 and 1.5-2 per cent as from 1 July 1999 (for 2000, the agreement for DEH provides for a 2 per cent increase as from 1 January 2000 and a rise in a benefit as from 1 July 2000). Finally, for the non-bank private sector, the two-year collective agreements signed in 1998 applied for most branches and for the minimum wages of unskilled workers, but one-year agreements were also signed for several branches in 1999. In particular, minimum wages increased by 1.8 per cent as from 1 January 1999 (including a corrective pay rise of 0.4 per cent) and by 1.4 per cent as of 1 July 1999. At branch level, increases are estimated — on average, according to a sample of 61 collective agreements and arbitration decisions — at 2.1 per cent as from 1 January 1999 (including the corrective increase) and 1.5 per cent as from 1 July 1999.

<sup>33</sup> Average earnings in *manufacturing* rose slightly less than in 1998 and it is estimated that unit labour cost growth (only 0.2 per cent in 1998) accelerated to about 2.5 per cent (given that the increase in manufacturing output was contained at 0.5 per cent in 1999, compared with 3.4 per cent in 1998).

approximative estimates on the rate of increase in the real disposable income of a *wage earner with average earnings*.<sup>34</sup> Taking also into account the estimated increase in the number of employed wage earners, *total* (not *per capita*) real disposable income of wage earners is calculated to have risen by about 2.5 per cent, an outcome which, to the extent that it was not offset by other factors,<sup>35</sup> contributed to an equivalent (2.6 per cent) containment of increase in consumer demand.

The decrease in the general government's deficit as a percentage of GDP (on a national accounts basis) from 2.5 per cent in 1998 to 1.5 per cent in 1999 (estimates included in the Updated Convergence Programme) had a restrictive effect on the growth of total demand, with favourable repercussions on inflation.

On the other hand, had the large increase in crude oil prices in the world market after February 1999 not exerted an upward pressure on fuel prices in the domestic market (see also Box 4 on page 56),<sup>36</sup> inflation would have fallen considerably faster. More specifically, the price of UK Brent (in US dollars) rose by 142 per cent between end-December 1998 and end-December 1999,<sup>37</sup> while consumer prices of fuel in the domestic market increased by 24 per cent between December 1998 and December 1999 (thus contributing 1.06 percentage points to the rise in the twelve-month inflation rate in December).<sup>38</sup> In fact, it is estimated that, had the government not cut the special consumption taxes on fuel, inflation would have been 0.36 percentage point higher at end-1999.<sup>39</sup>

The generally favourable evolution of fresh fruit and vegetable prices countered by only 0.2 percentage point the exogenous inflationary impact of the rise in fuel prices.<sup>40</sup> Furthermore, the favourable effect of indirect tax cuts (which had been decided by the government in autumn 1998) on

the twelve-month rate of CPI change gradually wore off (between end-September 1999 and January 2000).<sup>41</sup> For these reasons, it was decided to improve the economic policy mix by taking new *ad hoc* measures (similar to those taken in 1998), aimed at reducing indirect taxation and certain

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**34** The calculation of disposable income in Table XII takes into consideration the evolution of income tax and employees' social security contributions for a wage earner with average earnings and a typical family. Income tax is that withheld during the year from an employee's compensation, less any tax refunds from the previous year (paid during the current year). The fact that the income tax scale remained unchanged in 1999 led to an increase in wage earners' income tax burden. However, the considerable tax abatements on income earned in 1999 (Law 2753/99, enacted in early November) had a positive impact on wage earners' disposable income from December 1999 onwards, given that it was decided to refund immediately (together with the Christmas bonus) civil servants with the difference from the withheld tax. The rest of wage earners were accordingly refunded by 15 January 2000. Besides, it should be noted that the considerable cuts in indirect taxation (in 1998 and 1999) contributed directly to the increase in real disposable income, as they led to an equally direct drop of inflation.

**35** See below, pp. 60-61.

**36** The increase in the transportation cost of imported products, because of the events in Yugoslavia, also had an unfavourable effect.

**37** On the basis of data published in the *Economist*. Owing to the appreciation (16.2 per cent) of the US dollar against the drachma during the same period, the rise in the world crude oil price in drachma terms reached 181 per cent. The same conclusion arises on the basis of crude oil prices in euro, as published in the ECB's *Monthly Bulletin*, February 2000, Table 4.2, p. 31\*.

**38** Wholesale fuel prices included in the WPI rose by 123.2 per cent between December 1998 and December 1999. The smaller increase in consumer fuel prices reflects three factors: a) the smaller share of the refinery price in the retail price, b) the cut in tax on gasoline and heating oil and c) the special treatment ("freezing") of heating oil prices for the compilation of the CPI in the summer months.

**39** It has been calculated that (assuming that exchange rates remain unchanged) a 10 per cent increase in the world price of crude oil has a direct impact on the Greek CPI (but also on the HICP of the euro area) of 0.08-0.1 per cent.

**40** Between December 1998 and December 1999, fresh fruit and vegetable prices remained almost unchanged (+0.2 per cent), while they had increased by 6 per cent during 1998 (see Table 1 of the statistical appendix).

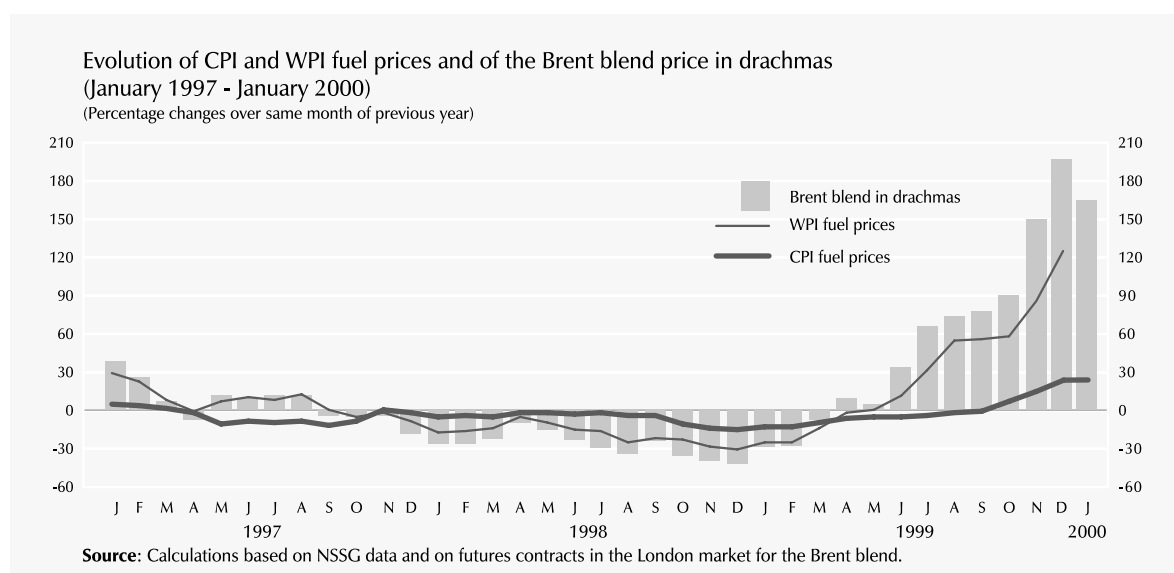
**41** More specifically, these measures concerned the reduction in indirect tax on gasoline as from 24 September 1998, on heating oil as from 15 October 1998, on passenger cars as from 15 November 1998 and on electricity as from 1 January 1999. It has been calculated that the direct contribution of these measures to the drop of the 12-month inflation rate totalled 0.83 percentage point (fuel: 0.40 percentage point, cars: 0.26 percentage point, electricity: 0.17 percentage point). Their direct contribution for 1998 only was 0.66 percentage point.

## BOX 4

### The effect of the increase in fuel prices on inflation

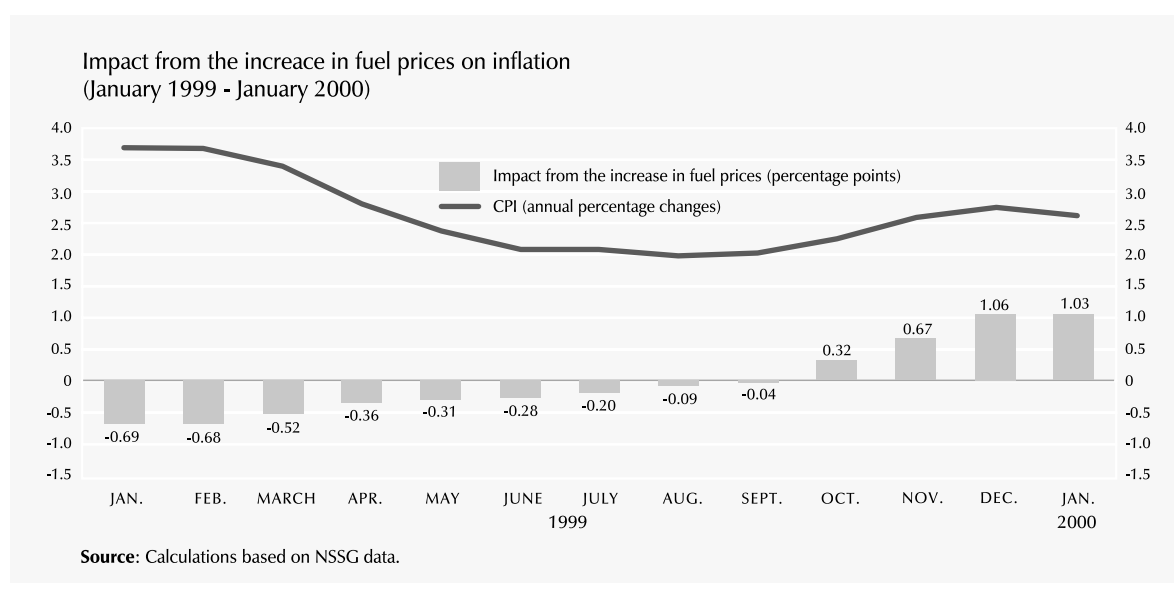
The worldwide rapid increase in fuel prices is attributable to the decrease in oil supply by OPEC countries after the March 1999 agreement. The average annual

change has a direct impact on inflation in any country – including Greece and the other European Union countries.



price of crude oil (in dollars per barrel) had dropped by 6.8 per cent in 1997 and 34 per cent in 1998, but rose by 37.3 per cent in 1999 (OECD data, *Economic Outlook*, December 1999). Obviously, such a consider-

The first chart depicts annual changes in fuel prices included in the Consumer Price Index (CPI) and the Wholesale Price Index (WPI), as well as in the price of UK Brent (*in drachma terms*). In most of 1997-1999, →





**Twelve-month percentage changes in heating oil and gasoline prices on the basis of HICPs**

	Greece		Austria		France		Germany		Euro area	
	Heating oil	Gasoline	Heating oil	Gasoline	Heating oil	Gasoline	Heating oil	Gasoline	Heating oil	Gasoline
1999										
January	-23.3	-8.9	-19.8	-6.6	-15.2	-5.1	-16.6	-4.6	-14.2	-4.8
February	-25.1	-8.0	-16.2	-7.1	-14.0	-4.8	-17.6	-4.8	-13.5	-4.6
March	-19.6	-6.5	-12.2	-5.7	-8.3	-3.0	0.6	-3.4	-3.5	-2.8
April	-16.0	-3.3	-3.8	-4.3	-3.6	0.0	6.8	4.5	1.6	2.1
May	-16.0	-1.4	-1.7	-1.9	-1.5	1.6	8.0	2.6	2.8	2.2
June	-16.0	-1.0	-0.8	-2.0	2.6	2.1	11.7	6.3	5.9	3.7
July	-16.0	1.4	5.3	-0.2	11.0	4.4	25.2	7.7	15.4	5.9
August	-16.0	4.2	12.8	5.6	18.4	7.6	33.0	11.0	21.6	8.9
September	-16.0	5.7	20.3	7.5	23.4	9.3	41.2	13.9	27.6	11.0
October	-3.6	10.7	22.6	10.1	23.8	10.1	41.7	15.3	28.1	11.8
November	23.5	12.2	27.1	10.1	27.0	11.2	49.8	15.3	33.5	12.3
December	41.5	18.7	43.7	14.8	41.7	16.9	68.5	20.3	47.5	16.9

**Source:** Calculations based on NSSG data and Eurostat.

→ changes in fuel prices had negative effects, thus contributing to the deceleration of inflation. However, as shown in the second chart, these effects turned positive

both follow a parallel course. The two tables illustrate —on the basis of the HICP— changes in heating oil and gasoline prices in Greece, in the three best-performing

**Fuel weights (‰) in HICPs (1996=100)**

Countries	Heating oil	Gasoline
Greece	16.55	38.01
Austria	6.99	38.97
France	7.40	47.77
Germany	7.99	39.88
Euro area	6.67	39.79

**Note:** HICP weights as in December 1999.

**Source:** Eurostat and NSSG.

from October 1999 onwards, causing a faster increase in CPI inflation. Moreover, the considerable increase in fuel prices was initially felt at the wholesale price level. The great difference between changes in the fuel component of the CPI and those in the respective sub-index of the WPI (see the first chart) was due to the fact that the increase in consumer fuel prices has been limited, owing to the cut in special consumption taxes during 1999.

The Harmonised Index of Consumer Prices (HICP) is increasing at a slower pace than the national CPI, but

countries in terms of inflation (i.e. Austria, France and Germany) and in the euro area as a whole. They also show the corresponding weights of liquid fuels.

The differences observed between Greece and the other countries with regard to changes in fuel prices (especially the price of heating oil) reflect the measures taken in Greece to reduce fuel taxes. Furthermore, the higher weight of heating oil in Greece has to do with the increased use of alternative energy sources (e.g. natural gas) in the other countries.

Table XIII

## Indicators of consumption demand: 1997-2000

(Annual percentage changes)

	1997	1998	1999	2000 (available period)
Volume of retail sales	4.3	2.4	3.9 (Jan.-Nov.)	...
Food	2.7	2.7	3.8 ( II II )	...
Clothing-footwear	-0.1	1.9	2.8 ( II II )	...
Furniture-household appliances	8.4	-0.6	0.7 ( II II )	...
Other goods	6.4	3.3	6.3 ( II II )	...
Index of business expectations in retail trade	1.6	-0.9	0.1	-3.4 (Jan.-Feb.)
New registrations of passenger cars	13.7	10.8	46.8	1.3 (Jan.)
Number of nights spent in hotels (by Greeks only)	11.8	2.3	2.5 (Jan.-June)	...
Outstanding balance of total consumer credit extended by banks	27.5 (Dec.)	36.7 (Dec.)	31.0 <sup>1</sup> (Dec.)	...

<sup>1</sup> Provisional data.**Source:** Calculations based on data from NSSG (retail sales, cars), IOBE (business expectations), Bank of Greece (consumer credit) and Greek Tourism Organisation (nights spent in hotels).

public utility rates.<sup>42</sup> Furthermore, the rates of most public enterprises had been reduced or had remained unchanged in previous months as well.<sup>43</sup> The “gentlemen’s agreements” of November 1998 also contributed, to a limited extent, to containing inflation in the course of 1999.<sup>44</sup> But for the contribution of the *ad hoc* measures that were implemented from the beginning of 1999, the twelve-month CPI growth rate would have been 1.2 percentage point higher in December 1999.<sup>45</sup> It is useful to mention that these measures also have medium-term effects. The drop of inflation achieved thereby has contributed to the abatement of inflationary expectations of enterprises and households, hence to the moderation of workers’ wage demands and of enterprises’ pricing policy. Furthermore, the evolution of labour costs in 2000 is also being favourably affected by the mechanism of corrective pay rises provided for in most collective agreements in the private sector.<sup>46</sup>

The adverse impact on inflation caused by (i) the rise in the world price of crude oil (+1.4 percentage point) and (ii) the fading away of the effect of the *ad hoc* measures taken in 1998 (+0.7 percentage point), combined with the positive effect of (i)

the *ad hoc* measures taken in 1999 (–1.2 percentage point) and (ii) the evolution of fresh fruit and vegetable prices (–0.2 percentage point), would – *if all the other factors had remained unchanged* –

<sup>42</sup> In greater detail, the special consumption tax on gasoline was reduced by 5 drachmas per litre as from 5 August 1999; as from 6 September 1999, the classification charge on passenger cars was reduced in such a way that their retail price fell by an average of 9.7 per cent as from 15 October 1999; the special consumption tax on heating oil was reduced by 13.9 drachmas per litre in comparison with the winter season 1998-1999; OTE rates dropped by 6 per cent (weighted average) as from 22 November 1999, while the special consumption tax on diesel oil used in electricity production was considerably reduced as from 1 December 1999, which led to a 7.5 per cent decrease in DEH’s rates. Furthermore, a 2.5 per cent ceiling was imposed on the increase in the tuition fees of all private schools (Law 2741/99, Article 10, para. 13).

<sup>43</sup> The retail price of electricity dropped by 8.4 per cent (owing to a decrease in the VAT from 18 to 8 per cent) as from 1 January 1999, while OTE rates dropped (weighted average) by 3.7 per cent in March 1999.

<sup>44</sup> See Bank of Greece, *Monetary Policy 1998-1999*, March 1999, pp. 33-35 and p. 55, footnote 85.

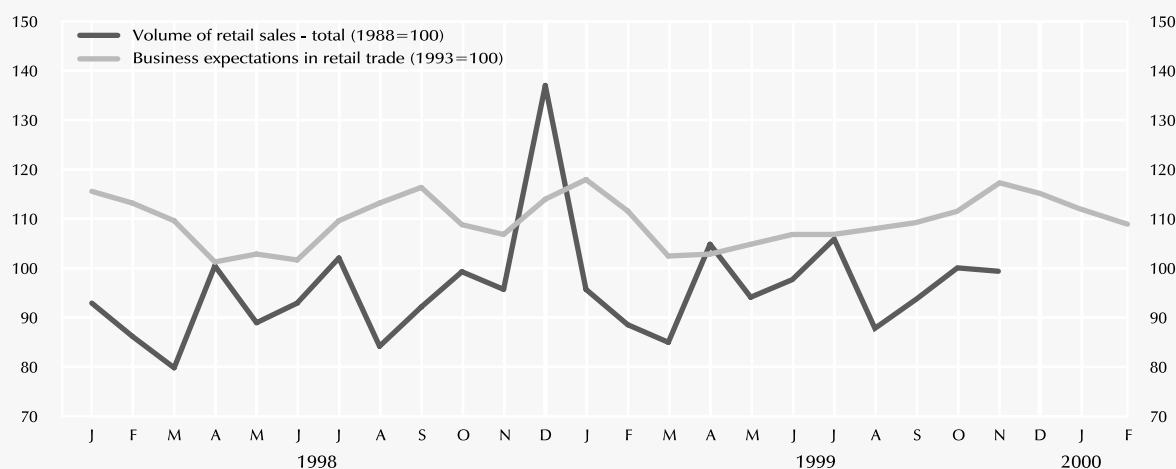
<sup>45</sup> Reduction in the special consumption tax on gasoline: –0.10 percentage point; reduction in passenger car classification charges: –0.33 percentage point; reduction in the special consumption tax on oil: –0.26 percentage point; reduction in OTE rates (as from March and November 1999): –0.18 percentage point; reduction in DEH rates (as from January and December 1999): –0.31 percentage point.

<sup>46</sup> According to these agreements, a corrective wage increase would be granted as from 1 January 2000 if inflation exceeded 2 per cent in December 1999. Therefore, the corrective rise was limited to 0.7 per cent, while, if the *ad hoc* measures had not been taken, it would have reached 1.9 per cent, a development which would have heavily burdened the evolution of labour costs and inflation in 2000.

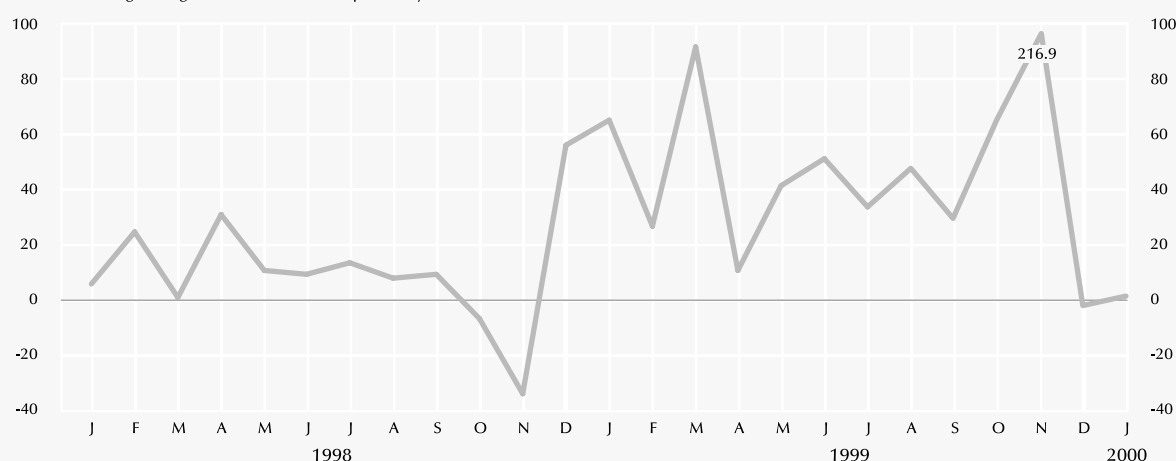
Chart 26

# Consumption demand (January 1998 - February 2000)

A. Retail sales volume and business expectations  
(Indices)



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



**Source:** Calculations based on NSSG (for retail sales and cars) and IOBE data (for business expectations). The index of business expectations is calculated on the basis of business firms' estimates on sales and stocks, and of forecasts on business activity over the next 6 months.

have led inflation to accelerate by 0.7 percentage point in the course of 1999. Inflation actually decelerated by 1.2 percentage point between December 1998 and December 1999, which implies that the anti-inflationary effect of the monetary and fiscal policies pursued, and of wage developments — excluding the effect of the *ad hoc* measures — was of the order of two percentage points.<sup>47</sup>

The analysis of the factors which affected inflation in 1999 should be complemented by certain additional

remarks regarding the evolution of consumption demand (and its relation with the income and other resources of households) and of business profits.

According to available data (see Table XIII and Chart 26), the rate of increase in retail sales vol-

<sup>47</sup> This is confirmed by the fact that the rate of increase in the CPI excluding fresh fruit and vegetables, fuel, public utility rates and cars — i.e. an index which does not include the impact of exogenous factors and of *ad hoc* government measures — dropped from 5.3 per cent in December 1998 to 3.0 per cent in December 1999, i.e. by 2.3 percentage points.

**Table XIV**  
Evolution of real estate (dwellings) prices:  
1994-1999

Year	Athens area		15 provincial cities <sup>3</sup>	
	Percentage changes	Deflated change <sup>4</sup>	Percentage changes <sup>1</sup>	Deflated change <sup>4</sup>
1994	...	...	8.7	-1.6
1995	...	...	9.4	1.5
1996	...	...	6.8	-0.7
1997	12.6 <sup>1</sup>	7.5	11.2	6.0
1998	14.5 <sup>1</sup>	10.2	10.6	6.0
1999	11.3 <sup>2</sup>	8.8	5.4	2.8

1 December-on-December changes.

2 September-November 1999 on September-November 1998 changes.

3 Fourth quarter-on-fourth quarter changes.

4 On the basis of the corresponding Consumer Price Index (CPI) change.

**Source:** For provincial cities, weighted change on the basis of quarterly data on the cities of Agrinion, Alexandroupolis (since 1996), Volos, Heraklion, Thessaloniki, Ioannina, Kavala, Kalamata, Xanthi, Patras, Pyrgos, Rethymnon, Rhodes (since 1997), Sparta and Chania, collected by Bank of Greece branches. For Athens, calculations on the basis of monthly data on the prices of dwellings offered for sale, which for 1997 were regularly published in *Oikonomikos Taxydromos*, while for 1998 and 1999 they were collected by Property Ltd.

ume accelerated in 1999, after its slowdown in 1998 owing to the devaluation of the drachma. Moreover, the number of new passenger car registrations rose steeply, because of price cuts at end-1998 and in September 1999. According to some approximative estimates, annual expenditure for purchases of such vehicles exceeded 1,100 billion drachmas. However, the index of business expectations in retail trade<sup>48</sup> remained almost unchanged in 1999 (+0.1 per cent), while its twelve-month rate of change was negative in the first two months of 2000. Finally, the rate of capacity utilisation did not change noticeably according to available indicators, the evolution of which –at least at first sight– does not imply excess demand.<sup>49</sup> Indeed, the *average annual level* of the rate of capacity utilisation in industry rose only slightly in 1999 (although in the second half of 1999 and the first two months of 2000 it rose considerably), while the number of unemployed persons registered by the Manpower Employment

Agency (OAED) rose in 1999, after the increase in the supply of labour in 1998.

Households' resources were affected not only by the evolution of real disposable income from wages (this was examined above), but also by the higher recourse to borrowing than in 1998. Indeed, consumer credit continued to increase at a very fast twelve-month rate at the beginning of 1999, although this rate decelerated from May onwards (see above, I.6).

At the same time, the appreciation of households' assets continued (real estate,<sup>50</sup> stocks<sup>51</sup> and units of mutual funds investing in equity<sup>52</sup>) and –depending on whether capital gains were realised or not– either augmented readily available resources or created expectations that these resources would be augmented in future; these expectations possibly led to a decrease in savings or to borrowing for consumption purposes.

The effect of the appreciation of households' assets on consumer prices is usually felt with a time lag. Additionally, in the case under discussion this effect was limited, for two main reasons:

— First, part of the resources derived from realised capital gains were used for the purchase of durables

<sup>48</sup> This index also includes passenger car trade firms.

<sup>49</sup> For econometric estimates on the "output gap", see below, II.5, footnote 111.

<sup>50</sup> On the basis of data on dwellings prices presented in Table XIV, it is estimated that the cumulative increase in these prices reached 11.5 per cent in 1999 (against 14.5 per cent in 1998) in the Athens area and 5.5 per cent (1998: about 10.5 per cent) in urban centres in the rest of the country.

<sup>51</sup> The composite share price index of the Athens Stock Exchange rose by 102.2 per cent in 1999. Besides, in the first two months of 2000, it fluctuated considerably but declined in total. (It had risen by 58.5 per cent in 1997 and by 85 per cent in 1998 – or by 493 per cent in the 1997-1999 period). See also I.7.2 above.

<sup>52</sup> It is characteristic that the monthly value of stock market transactions in September 1999 was more than five times higher than in December 1998, while in December 1999 it was more than three times higher. At the same time, the share of *equity-type* mutual funds in the total assets of mutual funds increased sharply.

of a rather large value (usually imported goods, the supply of which is elastic, and preferably cars, the prices of which had *decreased* after the implementation of the *ad hoc* government measures).<sup>53</sup>

— Second, the drop in the composite share price index of the ASE after 17 September 1999 and its fluctuation in January-February 2000 dampened expectations for a steady and fast increase in share prices; in the previous period these expectations had possibly led to a higher propensity to consume and to increased recourse to consumer loans.

As for the contribution of profits to the evolution of inflation,<sup>54</sup> the examination of various price and cost indicators leads to some initial conclusions on the course of profitability in 1999, especially in manufacturing. More specifically, the average annual rate of increase in the wholesale prices of domestic final industrial products for home consumption in 1999 was 3.7 per cent.<sup>55</sup> As regards cost factors, it should be noted that:

— First, raw material prices in the world market showed a 15.8 per cent *average annual* rise in *drachma* terms. This reflected the large increase in crude oil prices (40 per cent, *also in drachma terms*), which more than offset the 4.8 per cent *decrease* in the prices of non-energy raw materials.<sup>56</sup>

— Second, the average annual effective exchange rate of the drachma (which affects the drachma costs of imported inflows) declined only slightly (–0.9 per cent) in 1999.

— Third, unit labour costs in manufacturing are estimated to have increased by about 2.5 per cent.

— Fourth, public utility rates dropped.

— Fifth, *average annual* interest rates on short- and long-term bank credit to enterprises also decreased.

Table XV

WPI for exports and effective exchange rate of the drachma: 1999

(Annual percentage changes)

	Effective exchange rate of the drachma	WPI for exported goods	
		in drachmas	in foreign currency
1999 Jan. ....	–3.5	–0.7	–4.2
Feb. ....	–3.4	0.4	–3.0
March ...	1.7	–2.3	–0.7
April ....	4.3	–4.4	–0.3
May ....	2.7	–3.7	–1.1
June ....	0.5	–2.3	–1.8
July ....	–1.6	–0.6	–2.2
Aug. ....	–1.4	–0.4	–1.8
Sept. ....	–0.5	0.0	–0.5
Oct. ....	–1.0	1.9	0.9
Nov. ....	–3.4	4.0	0.5
Dec. ....	–4.3	7.2	2.6

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

— Finally, according to IOBE surveys, estimates of manufacturing and retail trade firms on total demand and sales, i.e. on *current* –each time– conditions of demand, were negative on average throughout the year; therefore, they did not encou-

<sup>53</sup> Part of these funds was used for the purchase of real estate, the demand for which was already high owing to the gradual decrease in interest rates. Increased demand contributed to a rise in real estate prices, which led to an increase in rents, in order to achieve a satisfactory return on invested capital. However, since the increase in real estate prices led to a rise in the supply of dwellings (as confirmed by the high rate of increase in building activity on the basis of permits issued until 1998), the rise in rents was limited. As a result of these developments, the twelve-month rate of increase in rents (included in the CPI) was almost double that in the inflation rate, but decelerated to 4.0 per cent in December 1999, compared with 6.1 per cent in December 1998.

<sup>54</sup> For the evolution of business profits in 1998, see Bank of Greece, *Monetary Policy 1998-1999*, March 1999, pp. 28-31 and *Annual Report 1998*, April 1999, p. 118. According to income statements for 1998, the increase in total profits (23.1 per cent) was considerably higher than that in the turnover (8.8 per cent). See elaboration of data for 3,485 industrial firms in the *Bulletin of the Federation of Greek Industries*, June-July 1999.

<sup>55</sup> The corresponding rate excluding fuel was 2.6 per cent.

<sup>56</sup> Calculations of average annual changes in drachma terms, on the basis of data on prices in euro, published in the *ECB Monthly Bulletin*, February 2000, Table 4.2, p. 31\*.

Table XVI

## Business firms' estimates on profits, sales and product prices: 1999

(Annual percentage changes)

Size of firm	Profits per firm	Value of sales per firm	Industrial goods prices
Small	3.2	9.5	1.0
Medium-sized	26.4	10.1	0.8
Large	32.7	12.9	1.7
<b>Total industry<sup>1</sup></b>	<b>25.7</b>	<b>10.9</b>	<b>1.0</b>

1 Weighted estimate.

Source: Sample survey conducted by ICAP, *The Greek Industry: estimates for 1999 and expectations for 2000*, December 1999.

rage a substantial increase in profit margins. By contrast, forecasts of industrial firms on sales (which each time concerned the 3-4 months to follow) and of retail trade firms on order books (which each time regarded the next 3 months) were definitely positive during the year.

Taking into consideration the evolution of cost factors (all cost components, excluding crude oil prices,<sup>57</sup> rose at a slower pace than output prices or even decreased), as well as the assessment of demand conditions by enterprises, it is estimated that profit margins of *manufacturing firms producing for the domestic market widened*. By contrast, the pressure exerted by demand and competition in foreign markets seems to have led *export firms* to contain their profit margins. Indeed, the average annual rate of change in the wholesale prices of exported final products was negative in 1999: -0.1 per cent (excluding fuel: -1.3 per cent). At the same time, the evolution of these prices suggests that the pricing policy of export firms in 1999 was taking advantage of every drop in the exchange rate and was offsetting every increase in it, as depicted in Table XV.

The previous analysis mainly concerns *operating* profit margins. *Total* profit margins of firms listed on the ASE widened substantially, given that the increase in net profits was *much* faster than the increase in the turnover, as derived from the pub-

lished summary income statements for the January-September 1999 period and from available information and estimates for the year as a whole.<sup>58</sup> This development mainly reflects the increase in revenue from stock market trading and asset management, as well as the reduction in financial costs, which resulted from the drop in lending rates and from direct fund-raising through the ASE (see Tables IX, X and XIX). Besides, according to estimates based on a sample survey conducted by ICAP, profits per industrial firm rose by 25.7 per cent in 1999, while the value of sales per firm increased by 10.9 per cent. An indirect conclusion drawn from the same survey is that profit margins of large and medium-sized industrial firms widened, while those of small ones dropped (see Table XVI).<sup>59</sup>

<sup>57</sup> The impact of the increase in crude oil prices is evident not only in the large acceleration – from 1.6 per cent in May to 7.4 per cent in December – of the rate of increase in the wholesale price index of domestic industrial products for home consumption (including prices of fuels which are *final products*), but also in the acceleration – from 1.6 per cent in May to 2.4 per cent in October, 2.5 per cent in November and 2.3 per cent in December – of the rate of increase in the respective index *excluding fuel* (which has been affected by the rise in prices of fuels which are *raw materials* and are used as inputs of final products).

<sup>58</sup> As fund-raising through the ASE has led to a considerable increase in own funds, the profitability of own funds (which is usually calculated as the ratio of net profits to own funds on the basis of the balance sheet and the income statement of the same year) is estimated to have risen rather moderately.

<sup>59</sup> ICAP, *The Greek Industry: estimates for 1999 and expectations for 2000*, December 1999. The survey covered a sample of 250 industrial firms.

## 1.10 Economic activity and employment

The growth of economic activity remained strong during 1999, although it decelerated slightly. According to the latest estimates of NSSG and the Ministry of National Economy (based on the European System of Accounts ESA 95 and included in the Updated Greek Convergence Programme), GDP increased by 3.5 per cent, compared with 3.7 per cent in 1998. On the demand side (see Table XVII), the increase in both private consumption and gross fixed capital formation contributed equally to GDP growth; by contrast, the real external balance of goods and services had a small negative contribution, on a national accounts basis.<sup>60</sup> It is worth noting that investment in equipment and non-residential construction rose sharply, offsetting the subdued growth of residential investment and thus contributing to a slightly faster growth of total investment demand, from 8.1 per cent in 1998 to 8.3 per cent in 1999.<sup>61</sup> On the supply side, the branches of construction, electricity – town gas – water supply and services showed the highest rates of increase (see Table 3 of the statistical appendix). These estimates on a national accounts basis are generally in line with the evolution of available short-term indicators (private consumption indicators have already been discussed in Section 1.9).

More specifically, the overall picture of *tourist activity* in the services sector (data on arrivals and overnight stays) was positive, as expected.<sup>62</sup> In the other branches of the services sector, *telecommunications* (Hellenic Telecommunications Organisation –OTE– and mobile telephony companies) exhibited a strong performance.<sup>63</sup> By contrast, a reduction was observed in the *transportation* activity of the Olympic Airways (OA)<sup>64</sup> and the Hellenic Railways Organisation (OSE),<sup>65</sup> which is associated with the structural problems faced by these two public enterprises, increased competition from private companies (in the case of OA)

Table XVII

Aggregate demand and gross domestic product  
(at constant market prices of year 1995)

(Annual percentage changes)

	1998	1999 (estimate)	2000 (forecast)
Private consumption	2.1	2.6	3.0
Public consumption	2.0	–0.2	0.5
– Individual consumption	3.6	0.5	0.8
– Collective consumption	1.0	–0.7	0.3
Gross fixed capital formation:	8.1	8.3	8.6
By investor			
– General government	6.7	13.6	4.0
– Other sectors <sup>1</sup>	8.3	7.3	9.5
By type			
– Consumption	9.0	7.7	8.2
– Equipment	7.2	10.0	10.0
– Other investment	1.4	3.0	3.0
Change in stocks (percentage of GDP)	(–0.1)	(0.0)	(0.0)
Domestic final demand	3.2	3.6	3.9
Exports of goods and services (Exports of goods)	4.2 1.7	5.4 3.8	6.8 5.0
Imports of goods and services (Imports of goods)	1.9 1.2	5.1 5.0	6.1 6.0
Gross domestic product at market prices	3.7	3.5	3.8

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

Source : Revised data on the basis of the European System of Accounts ESA 95. 1998: Estimates by NSSG/National Accounts. 1999-2000: Estimates and forecasts by the Ministry of National Economy/Directorate of Macroeconomic Analysis, December 1999. For more details, see Table 3 of the statistical appendix.

and the adverse effects of the war in Yugoslavia (in the case of OSE).

<sup>60</sup> For details on the balance of payments, see below, 1.11.

<sup>61</sup> It should be noted that the growth rate of investment by general government recorded a particularly strong acceleration (from 6.7 per cent in 1998 to 13.6 per cent in 1999).

<sup>62</sup> Tourist arrivals increased by 13.2 per cent year-on-year in the January-June period, while arrivals by charter flights rose by 14.4 per cent between April and October. Moreover, total overnight stays in hotels increased by 7.3 per cent (those of non-residents rose by 9.2 per cent) in the above period, while overnight stays in AA-C class hotels in tourist areas increased by 4.6 per cent in April through October (year-on-year).

<sup>63</sup> The large rise (101.8 per cent in the January-October period) in OTE's telephone unit rates partly reflects the new method of time charging, while the rise in public revenue from mobile phone rates (a total of 66 per cent in 1999 and 396.4 per cent in January 2000, compared with January 1999) reflects almost exclusively an increase in the volume of services supplied.

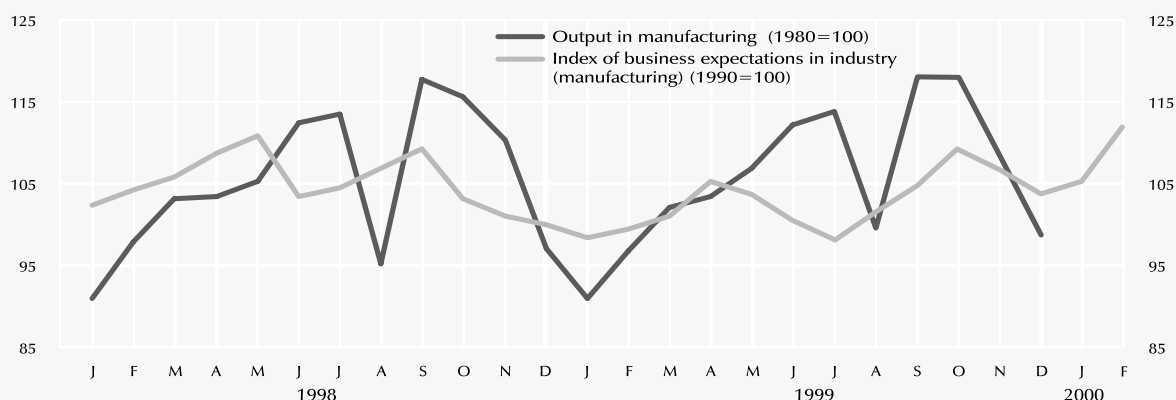
<sup>64</sup> The number of passenger-kms declined by 3.0 per cent in 1999.

<sup>65</sup> The number of ton-kms decreased by 1.3 per cent between January and October.

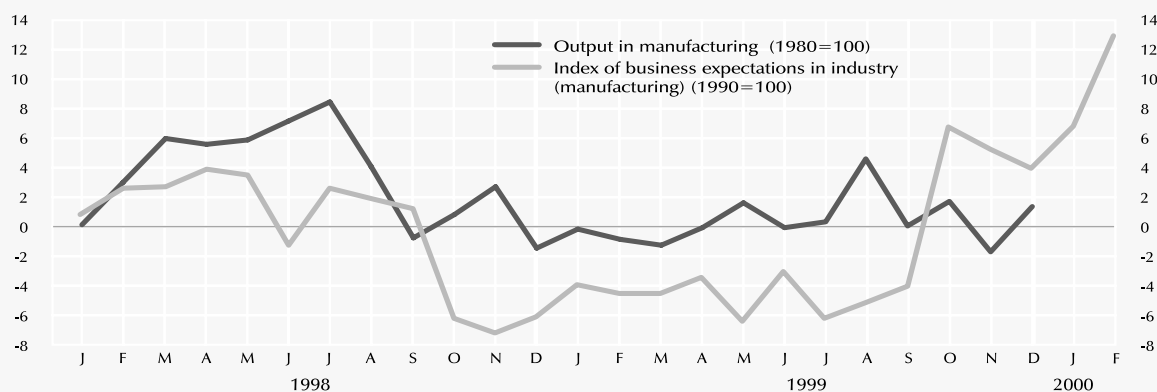
Chart 27

## Output and business expectations in manufacturing (January 1998 - February 2000)

A. Indices



B. Percentage changes over same month of previous year



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

In the secondary sector, *total* industrial output increased by 3.7 per cent in 1999, i.e. less than in 1998, while *manufacturing* output grew by 0.5 per cent.<sup>66</sup> The volatility and/or zero growth that characterised manufacturing production during the last four months of 1998 seem to have continued in 1999, although signals of an upturn were observed in August and October (see Chart 27).<sup>67</sup> It is estimated that these developments are partly associated with changes in the pattern of economic growth in EU countries (i.e. Greece's main trading partners).

However, the level of manufacturing production in September and October 1999 has been the

<sup>66</sup> The increase in total industrial output was due to a growth of 0.5 per cent in manufacturing output, 7.0 per cent in electricity production and 79.8 per cent in natural gas distribution, while mining and quarrying output decreased by 13.3 per cent. The rise in manufacturing output was accounted for by the larger production of consumer durables (+10.1 per cent) and capital goods (+0.9 per cent), whereas consumer non-durables production decreased by 0.5 per cent. In detail, a significant output increase was observed in the industries of furniture, non-electrical machinery-appliances, rubber and plastics, "miscellaneous" items, electrical machinery-appliances-other items, means of transportation, food and chemicals. The electrical machinery etc. industry (increase of 5.4 per cent) includes the production of telecommunications equipment, which increased sharply in 1999, as also in 1998, owing to the procurement agreements concluded between OTE and the respective business firms.

<sup>67</sup> The upturn of the business expectations index in manufacturing in October did not continue at the same fast pace in November and December, but became again significantly stronger in January and February 2000. Moreover, although the average annual rate of capacity utilisation increased only marginally in 1999 (to 76 per cent from 75.5 per cent in 1998), its increase was sharp from September 1999 onwards (in fact during the first two months of 2000 it reached 3.9 percentage points, compared with the corresponding period of 1999).



Table XVIII

## Indicators of investment demand: 1997-2000

(Annual percentage changes)<sup>1</sup>

	1997	1998	1999	2000
Capital goods output	4.3	2.0	0.9	...
Investment expenditure (at current prices) of private industrial firms <sup>2</sup>	26.3 <sup>3</sup>	14.8 <sup>4</sup>	23.0 <sup>5</sup>	18.1 <sup>7</sup>
Rate of capacity utilisation in the capital goods industry	(71.6)	(75.7)	(78.6)	(80.8) (Jan.-Feb.)
Disbursements out of the public investment budget	43.5	17.3	18.8	...
Volume of new buildings (on the basis of permits issued)	5.7	9.4	-8.9 (Jan.-Oct.)	...
Cement production	2.0	2.5	-1.8 (Jan.-Nov.)	...
Output of construction materials (quarrying)	18.8	2.4	8.0	...
Index of business expectations in construction	18.9	19.3	1.4	-10.5 (Jan.-Feb.)
Outstanding balance of total bank credit to housing	22.5 (Dec.)	18.5 (Dec.)	26.8 <sup>6</sup> (Dec.)	...

<sup>1</sup> Excluding capacity utilisation.<sup>2</sup> Estimates of firms participating in the IOBE investment survey.<sup>3</sup> Estimate of the March-April 1998 survey.<sup>4</sup> Estimate of the March-April 1999 survey.<sup>5</sup> Estimate of the October-November 1999 survey.<sup>6</sup> Provisional data.<sup>7</sup> Forecast of the October-November 1999 survey.**Source:** NSSG (capital goods output, cement, output of construction materials (quarrying), volume of buildings), IOBE (rate of capacity utilisation, investment survey, business expectations) and Bank of Greece (disbursements out of the public investment budget, housing loans).

highest since September 1997. Moreover, according to the latest business surveys carried out by IOBE, industrial firms' forecasts (regarding production, sales and exports over the next 3-4 months) remained positive in November and December 1999 (although they were moderate relative to October) and improved significantly during the first two months of 2000. Finally, it is interesting to note that, on the basis of business estimates presented in the ICAP survey (see Table XVI, page 62), the growth of manufacturing production in 1999 may have been noticeably larger than what was recorded by the NSSG index.<sup>68</sup> (Since, according to the survey estimates, the value of sales increased by 10.9 per cent and industrial product prices by 1 per cent, it follows that the rise in sales volume of the firms included

in the sample exceeded 9 per cent, probably with a similar increase in their output).<sup>69</sup>

The picture of investment intentions (and relevant *ex post* estimates) of business firms is clearly positive. As indicated by the latest IOBE investment

<sup>68</sup> The NSSG manufacturing production index does not fully capture actual changes in production, as its coverage is low (by international standards) and its structure is based on 1980 data (base year). For instance, on the basis of this index, the increase in manufacturing in the 1996-1998 three-year period (5.1 per cent in total) was well below the increase, during the same period, in gross added value in manufacturing at constant basic prices of 1995 (9.2 per cent), as this increase is derived from the new national accounts data compiled by NSSG on the basis of ESA 95. For this reason, NSSG is revising the index (using a broader sample of firms and a new base year, 1993).

<sup>69</sup> Even if the value of sales is deflated by the NSSG index for domestic industrial product prices, sales volume appears to have increased by 7 per cent.

Table XIX

## Funds raised through the stock exchange, in relationship with GDP and investment: 1995-1999

(Billion drachmas, current prices)

Year	Funds raised through the Athens Stock Exchange <sup>1</sup>		Gross fixed capital formation (excluding dwellings) by public and private enterprises, <sup>2</sup> at current prices	GDP at current market prices	Funds raised as a percentage of investment		Funds raised as a percentage of GDP	
	Total of firms	Non-financial firms			(1a):(2)	(1b):(2)	(1a):(3)	(1b):(3)
	(1a)	(1b)	(2)	(3)	(1a):(2)	(1b):(2)	(1a):(3)	(1b):(3)
1995 . . . . .	87.1	69.6	2,852.0	27,235.2	3.05	2.44	0.32	0.26
1996 . . . . .	134.8	107.5	3,463.1	29,935.1	3.89	3.10	0.45	0.36
1997 . . . . .	535.5	305.8	4,182.4	33,021.8	12.80	7.31	1.62	0.93
1998 . . . . .	826.9	544.3	4,743.2	35,910.6	17.43	11.48	2.30	1.52
1999 . . . . .	3,309.0	1,524.6	5,288.1	38,319.7	62.57	28.83	8.64	3.98

1 By share capital increase through the issuance of new shares. Excluding the sale of existing shares, which amounted to 308 billion drachmas in 1998 and 791 billion drachmas in 1999.

2 Excluding all general government's investment and households' investment in dwellings.

Source: NSSG/National Accounts for 1995-1998 and Ministry of National Economy/Macroeconomic Analysis Directorate for 1999 (GDP and investment). For the funds raised through the Athens Stock Exchange (ASE): calculations based on ASE data.

survey (October-November 1999), private industrial firms estimate that their investment expenditure at current prices increased considerably and faster than in 1998 (see Table XVIII) and forecast that it will remain high in 2000 as well. Furthermore, 47.2 per cent of industrial firms included in the above-mentioned ICAP's sample survey<sup>70</sup> forecast an increase in their fixed capital formation in 2000 in real terms.<sup>71</sup>

These business estimates and forecasts are reflected in the production of capital goods, which showed a definite upward trend during the second half of 1999.<sup>72</sup> Moreover, the rate of capacity utilisation in capital goods industries rose clearly (+2.9 percentage points) in 1999.<sup>73</sup> Finally, the increase in business investment is also related to the fact that the great increase in funds raised through the ASE during 1999 contributed to the reduction of financing costs and —therefore— facilitated the faster realisation of business investment programmes, while enhancing investment prospects for the year 2000. As can be seen in

Table XIX, funds raised through the ASE in 1999 (by the issuance of new shares in order to increase share capital) were four times higher than in 1998, reaching 3.3 trillion drachmas or 8.6 per cent of GDP. Non-financial firms *alone*, which are more directly related to investment activities, raised funds reaching 1.5 trillion drachmas or 4 per cent of GDP and accounting for 29 per cent of investment (except in dwellings) of private and public enterprises.<sup>74</sup> These developments are evidence of the availability of investment funds.

Total investment demand increased —as already

<sup>70</sup> See above, footnote 59. The survey was conducted in November 1999.

<sup>71</sup> These firms forecast that the increase in their investment expenditure is going to be larger than the inflation rate they expect for the year 2000.

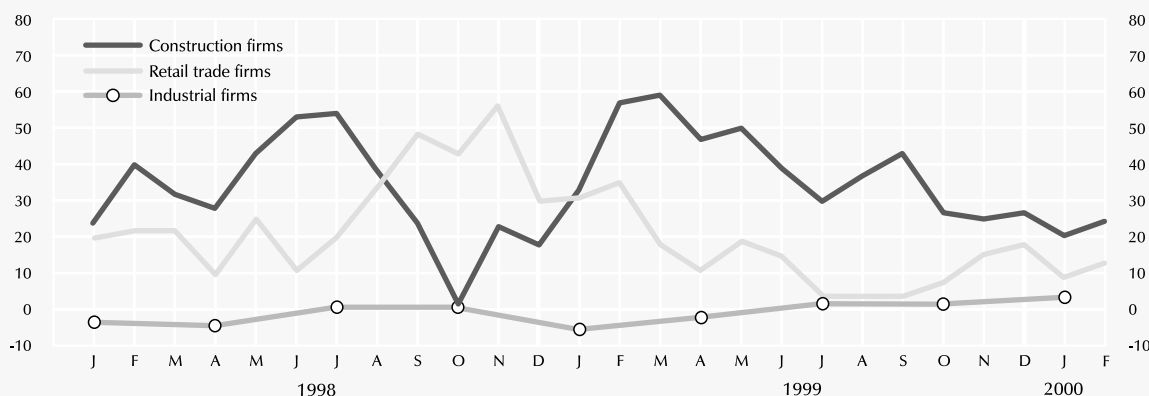
<sup>72</sup> The downward trend which prevailed up to June 1999 was reversed in the second half of the year, when the average twelve-month rate of growth reached 4.2 per cent. Thus, the average rate of growth for the year as a whole stood at 0.9 per cent.

<sup>73</sup> In the first two months of 2000 the increase came to 5.7 percentage points (compared with the same period in 1999).

<sup>74</sup> This does not, of course, imply that the funds raised during a given year are used to finance investment in the same year.

Chart 28

Business forecasts<sup>1</sup> on employment (January 1998 - February 2000)  
(Percentage balances of positive-negative responses)



<sup>1</sup> Business firms' responses refer to the prospect of a rise in the number of employees in the forthcoming period.

Source: IOBE, Economic Conjuncture Surveys.

mentioned – at a high rate, driven not only by an increase in private investment in equipment, but also by a significant growth of public investment (see Table XVII on page 63). By contrast, the rate of increase in private residential investment was moderate and decelerated, although commercial bank housing loans increased (see Table XVIII for available short-term indicators). Disbursements under the Public Investment Budget (PIB) rose by 18.8 per cent in 1999 (Bank of Greece data), which reflects the further progress in 1999 regarding the absorption of funds from the 2nd Community Support Framework (CSF) 1994-1999. On the basis of *payments*, 83 per cent of community funds from the 2nd CSF had been absorbed by the end of 1999, compared with 57.3 per cent by the end of 1998.<sup>75</sup> The inflow of community funds will remain most significant in the medium term as well. The 3rd CSF 2000-2006 provides for the disbursement of funds totalling 15.7 trillion drachmas, an amount exceeding by 57 per cent the corresponding funds of the 2nd CSF.<sup>76</sup>

Available data are insufficient for a comprehensive description of developments in employment, which is estimated to have increased by 1-1.5 per cent in 1999.<sup>77</sup> However, labour market conditions are not “tight” and, thus, they did not cause inflationary

pressures. Indeed, on the basis of the most reliable data (those of NSSG), the average annual rate of total unemployment was 11.1 per cent in 1998, while available indications for 1999 are set out below.

According to IOBE's conjunctural surveys, business expectations during 1999 suggest that employment remained unchanged in industry and increased clearly in construction, while, in retail trade, business expectations were generally positive (see Chart 28). However, according to the already mentioned ICAP's survey,<sup>78</sup> employment in industry *has increased*.<sup>79</sup> In central government,

<sup>75</sup> On the basis of *credit commitments*, the absorption rate reached 93 per cent by 30 November 1999 (and, according to estimates, 100 per cent by the end of the year), a fact which enables absorption, on the basis of *payments*, of the remaining funds during 2000.

<sup>76</sup> From these, 9 trillion drachmas are Community funds, 3 trillion national government funds, 3.2 trillion private sector funds and 0.5 trillion drachmas regard the reserve.

<sup>77</sup> The latest data releases from the NSSG labour force survey concern the four quarters of 1998, while the index of wage earners' employment in manufacturing (also from NSSG) is available up to December 1998. More recent data (for 1999) are not yet available. For employment developments in 1998 on the basis of NSSG data, see Bank of Greece, *Monetary Policy: Interim Report 1999*, November 1999, Box, page 53.

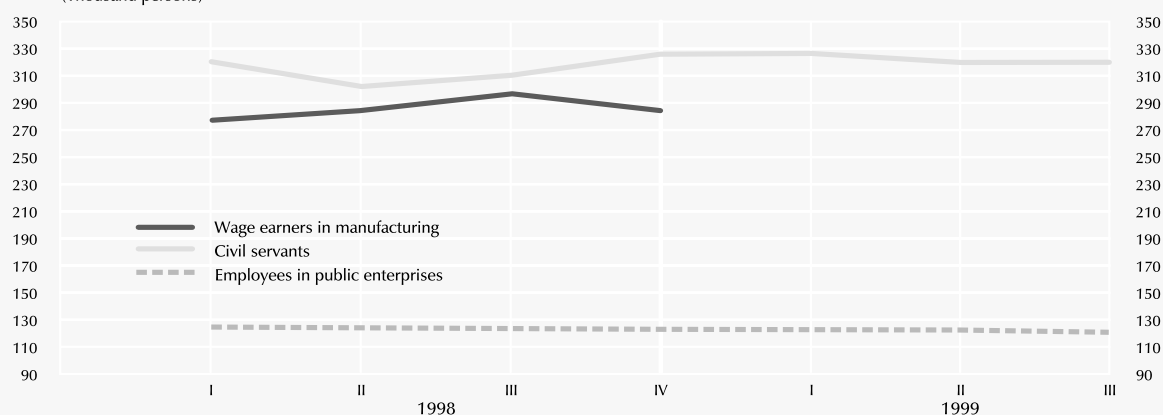
<sup>78</sup> See above, footnote 59.

<sup>79</sup> 42.2 per cent of enterprises estimated that employment increased, 47.5 per cent that it remained unchanged and 10.3 per cent that it decreased. Projections for 2000 were even more positive.

Chart 29

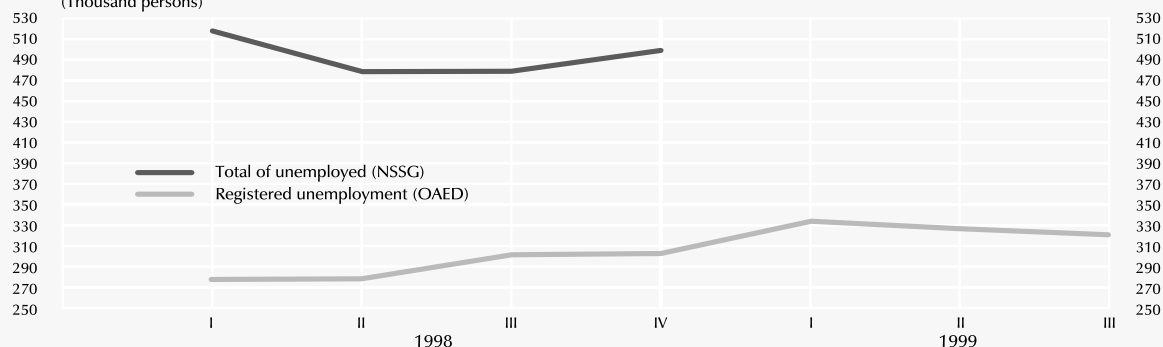
## A. Employment (1998 -1999)

(Thousand persons)



## B. Unemployment (1998 -1999)

(Thousand persons)



**Source:** NSSG (for manufacturing and the total number of unemployed), Ministry of Finance (for civil servants), Ministry of National Economy (for public enterprises) and Manpower Employment Agency -OAED- for registered unemployment. Persons employed in public hospitals are not included in the number of civil servants.

the number of employees increased by about 2.5 per cent<sup>80</sup> during the first nine months of 1999, compared with the corresponding period of 1998. By contrast, the number of employees in public enterprises continued to decline (–1.8 per cent during the first nine months of 1999 – see Chart 29).

Moreover, the increase of 39,000 persons in the number of *registered* unemployed (OAED data) during the first ten months of 1999 (following an increase of 76,000 for 1998 as a whole – see Chart 29) largely reflects the fact that the registration of the unemployed was –and still is– a prerequisite for participation in the subsidised employment and training programmes,

which cover an ever increasing number of persons.<sup>81</sup>

Lastly, in 1999 the legalisation process for foreign workers went on. According to released data, 225,691 persons, i.e. about 60 per cent of those

<sup>80</sup> This percentage is obtained through some adjustments to the initial data, so as, on the one hand, to include employees in public hospitals (whose wages are paid or subsidised by the government's ordinary budget) and, on the other hand, to take into account the fact that in the second quarter of 1998 contracts of a fixed duration referring to substitute teachers in secondary schools terminated earlier than usual (with the result that the raw data show an apparent high annual rate of increase in the number of employees in the second quarter of 1999).

<sup>81</sup> It should be noted that in 1998 the increase in the number of unemployed persons registered by OAED eventually led to a rise in total unemployment as well, as this is measured by the labour force survey carried out by NSSG (see also footnote 77 above).

that had been recorded in the first stage of the process (1 January-1 June 1998)<sup>82</sup> had submitted documents for the issuance of a “green card”<sup>83</sup> by the relevant deadline (end-April 1999), while by mid-February 2000 96,000 “green cards” were issued (corresponding to 43 per cent of qualifying applicants). The government took measures to accelerate the issuance of these cards, with a view to completing the procedure by May 2000.<sup>84</sup>

### I.11 Trade balance and current account balance

The *current account* deficit declined by €141 million in the nine-month period from January to September 1999, compared with the corresponding 1998 period, and stood at €2,629 million, according to Bank of Greece data.<sup>85</sup> This was due to both the increased services surplus and the lower income deficit. In the same period, however, the trade deficit increased, while the transfers surplus decreased relative to the corresponding period of 1998.

The increase (of €644 million) in the *trade deficit*<sup>86</sup> was exclusively due to the increase (of €707 million) in the non-oil trade deficit, since in the January-September 1999 period the oil balance deficit was reduced by €63 million. (However, excluding the first months of 1999, in which the 12-month rate of change in world crude oil prices was negative, the pattern is reversed, depicting a considerable rise in the oil balance deficit in the June-September 1999 period).<sup>87</sup> The increase in the non-oil trade deficit resulted from the rise in the import bill, which more than offset the increase in export receipts, although the latter was sizeable.<sup>88</sup>

Developments in the trade balance on the basis of Bank of Greece data reflect not only the improved recording of items, especially exports, following

the introduction of the new methodology,<sup>89</sup> but also the influence of a number of economic factors. More specifically:

- Foreign demand increased at a slower pace in 1999, because of the deceleration of economic activity in the countries which are Greece’s main trading partners.<sup>90</sup>

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**82** At this stage, 373,196 immigrant workers submitted an application and were recorded by OAED. For the same period (second quarter of 1998), the NSSG labour force survey recorded only 167,000 foreigners — 145,000 employed persons (138,000 of whom originated from non-EU countries) and 22,000 unemployed ones.

**83** This is the “stay permit of limited duration”, which is provided for by relevant legislation (Presidential Decrees (PD) 358 and 359/1997, issued by virtue of Law 2434/1996 and amended by PDs 241 and 242/1998, Article 73 of Law 2676/1998 and Article 20 of Law 2736/1999).

**84** Article 20 of Law 2736/1999. Moreover, the government has drawn up a draft law with permanent arrangements for economic immigrants, given that the “green card” issue was a “one-off” procedure, as it concerned only those foreigners who stayed illegally in Greece at end-November 1997 (i.e. at the time of promulgation of PD 358/97).

**85** See Table 5 of the statistical appendix.

**86** NSSG trade data referring to the same period give a different picture. According to these data, the trade deficit was reduced, along with a decrease in the value and volume of imports and exports. It should be borne in mind that NSSG data are provisional and (pending finalisation) they underestimate the level of exports and imports (especially those to and from EU countries).

**87** However, in the January-September 1999 period, the euro value of oil imports rose by 11.1 per cent, while the average Brent blend euro price increased by 19 per cent, and hence oil import volume was reduced.

**88** It should be noted that the considerable increase in export receipts was partly due to the new, improved method of recording trade flows, which enables a more accurate measurement of items, but has a negative effect on time series comparability. This can be explained by the fact that the number of commercial banks which recorded by the new method export and import data was much larger in the first nine months of 1999 than in the corresponding 1998 period.

**89** It is worth noting that if data on trade balance payments and receipts are deflated by the wholesale price indices for imported and exported goods, respectively, they show that export volume increased by around 38 per cent and import volume by about 12 per cent in the period under review.

**90** According to estimates by the European Commission (*Autumn Forecasts*, Oct. 1998) and the OECD (*Economic Outlook*, Dec. 1999), the growth rate of GDP in EU countries decelerated (1999: 2.1 per cent, 1998: 2.6 per cent), but for the total of OECD countries it accelerated (from 2.4 per cent in 1998 to 2.8 per cent in 1999). Besides, according to IMF estimates, a lower rate of GDP increase was also observed in Central and Eastern European countries. Furthermore, the growth of goods import volume decelerated to 7.2 per cent in 1999 (from 7.6 per cent in 1998) in OECD countries and to 4.3 per cent (from 9.0 per cent) in EU countries. In Greece’s export markets in particular, the growth of goods import volume is estimated to have declined to 7 per cent in 1999 from 8 per cent in 1998.

— The import bill rose, owing to the fast growth of investment in equipment and the pick-up of private consumption, and was specifically burdened by the considerable rise in passenger car imports (after the reduction of the special consumption tax (“classification fees”) in November 1998 and September 1999).

— At the same time, however, the ongoing restructuring of Greek exports enhances competitiveness, contributing substantially to the increase in export receipts. In particular, since the early 1990s the share of “high-technology” products in the value of exports has been increasing. “High-technology products” represent those which are manufactured by new methods or are relatively new in the Greek manufacturing sector (such as machinery and equipment used in the fields of energy production, industrial applications, telecommunications etc., as well as medical and pharmaceutical products, scientific and monitoring tools and appliances etc.). At the same time, the share of traditional industrial products is being reduced, because of the competition from countries with low production costs. According to a recent study by the Panhellenic Exporters’ Association,<sup>91</sup> the percentage share of selected high-technology branches in total exports increased from 6 per cent in 1993 to about 9 per cent in 1997, while exports of these branches in this period grew more than twice as fast as the total value of exports.

The services surplus increased by €527 million in the January-September 1999 period, financing 46 per cent of the trade deficit, compared with 44 per cent in the corresponding period of 1998. This reflects the fact that the growth of travel and transportation receipts exceeded by far the increase in corresponding payments.<sup>92</sup> More specifically:

— In the January-September 1999 period, travel receipts rose by €2,167 million, while correspond-

ing payments by €1,488 million. Despite the crisis in Yugoslavia, which had a negative impact on touring activity in Northern Greece, a considerable increase was recorded in foreign tourist arrivals and overnight stays in hotels.<sup>93</sup> In this respect, it is estimated that the moderate rise in domestic hotel rates offered to foreign tourists<sup>94</sup> boosted external demand for Greek tourist services, despite the slower growth of real income in EU countries. Moreover, the rise in payments for tourist services reflects the increase in the domestic disposable income of households and the increased expenditure for studies abroad (this item is included in tourist services).

— The improved recording of transactions is the main reason for the large rise (of €558 million) in net transportation receipts<sup>95</sup> in the January-September 1999 period. Nevertheless, it should be recalled that, although conditions in the freight market returned partly to normal (after a period of excessive capacity), freight rates remained low, showing only a slight increase by the end of the period under review. This is attributable both to the slow growth of world sea trade (for the second consecutive year) and to relatively high capacity.

The *income balance* also improved, as its deficit was reduced by €602 million. This was mainly due to larger inflows from interest, dividends and

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<sup>91</sup> Panhellenic Exporters’ Association, *Changes in the Composition of Greek Exports*, September 1999.

<sup>92</sup> It should be recalled in this case as well that the new methodology ensures the more comprehensive recording of transactions relating to travel and transportation services.

<sup>93</sup> See above, I.10, footnote 62.

<sup>94</sup> As shown by the Consumer Price Index compiled by NSSG, in the nine-month period from January to September 1999 the average increase —in drachma terms— in hotel rates was 8.6 per cent, while holiday package prices rose by a mere 2.7 per cent (it is estimated that the corresponding increases in foreign currency were 8.4 per and 2.5 per cent, respectively). However, these data concern price increases for domestic tourism, while (according to available data) price increases were smaller for foreign tourists.

<sup>95</sup> More specifically, the new system records all transactions of resident shipping companies, thus reflecting more accurately the volume of shipping business and its contribution to the balance of payments.

Table XX

## Current account balance: 1997-1999

	January - September					
	In million ECU/euro			As a percentage of annual GDP		
	1997	1998	1999	1997	1998	1999
– Trade balance	–11,650	–11,231	–11,875	–10.9	–10.4	–10.1
– Balance on goods and services	–7,017	–6,267	–6,384	–6.6	–5.8	–5.4
– Current account balance <sup>1</sup>	–3,719	–2,770	–2,629	–3.6	–2.7	–2.2

1 The current account balance is divided into trade balance, services balance, income balance and transfers balance.

Source: Bank of Greece (for the current account balance), NSSG and Ministry of National Economy/Directorate of Macroeconomic Analysis (for GDP).

profits, as well as inflows from compensation of employees, which were almost twice as high as in the corresponding 1998 period. Payments for interest, dividends and profits also increased – despite the stabilisation of the public external debt – owing to higher interest payments by the private sector. These include, under the new classification system, interest payments on non-residents' deposits with domestic credit institutions.<sup>96</sup>

In the same period, the *transfers* surplus declined by €344 million, mostly because of the drop in emigrants' remittances, whereas net transfers from the EU rose by €170 million. The increase in net inflows from the EU in the nine-month period from January to September 1999 is largely attributable to the rise in the absorption rate from EU Structural Funds. However, owing to a number of modifications (aimed at enabling faster absorption and effective exploitation of community funds) to the implementation schedule of EU-funded projects, part of the inflows took place at the beginning of 2000. As a result of this time lag, provisional data for the entire year indicate that net inflows from the EU were reduced in 1999, relative to 1998.

As a result of the above developments, the *current account* deficit stood, as already mentioned, at €2,629 million in the January-September 1999

period (see Table XX). In the last quarter of 1999, the faster growth of GDP in EU countries is estimated to have contributed to the increase in the current account balance components related to receipts from exports of goods and services. The exceptionally high 12-month rate of increase in world crude oil prices, as well as the sharp rise in passenger car sales, contributed to the increase in the goods import bill. Moreover, given that the degree of comparability between 1999 and 1998 data has increased, it can be estimated that both the current account deficit and the trade deficit increased considerably in 1999.

Finally, the *financial account* surplus declined by €463.7 million during the January-September 1999 period. This was largely associated with the fact that, although the public sector borrowing requirement decreased, following the improvement of Greece's fiscal aggregates, investment outflows grew, especially towards the Balkans, where the presence of Greek business activity is increasingly stronger in recent years. The reduced surplus reflects the decline in net inflows for direct and portfolio investment (of €100 and €606 million, respectively), as well as the increase (of

<sup>96</sup> It should be noted that interest payments by the private sector accounted for 26 per cent of total interest payments, compared with 14 per cent in the corresponding 1998 period.

€334 million) in net capital outflows for “other investment”. More specifically:

- The drop in net capital inflows for direct investment stemmed from the fact that the €128 million growth of direct investment inflows was overshoot by the €228 million increase in corresponding outflows, owing to the expansion of Greek business activity abroad, especially in the Balkan countries.

- The decline in net inflows for portfolio investment primarily reflects the increase in investment outflows (by Greek residents in foreign markets). Inflows of funds for the purchase of shares and Greek government bonds remained high, although somewhat lower (by €127 million) than in the corresponding 1998 period.

- The rise in net capital outflows for “other investment” resulted from the drop of €690 mil-

lion in inflows (residents’ liabilities), while outflows (residents’ assets) declined by €355 million (mostly because of the decrease in deposits abroad). The drop in inflows (liabilities) came from the considerable reduction (of €2,073 million) in general government borrowing, which was largely linked with steadily decreasing public deficits and the stability that prevailed in world foreign exchange markets.

Reflecting the above developments of both the financial and the current account, Greece’s foreign exchange reserves increased by \$3,886 million between end-December 1998 and end-September 1999, to stand at \$22.1 billion, compared with \$17.7 billion in September 1998. At the end of 1999, foreign exchange reserves reached \$18.9 billion and, according to the latest data available, came to \$19.1 billion at end-February 2000.



## II. Monetary policy goals and strategy for 2000

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### II.1 Global economic outlook

World growth is projected<sup>97</sup> to accelerate to 3.5 per cent in 2000 (1999: 3.0 per cent), while the volume of world trade should reach 7.1 per cent (1999: 4.1 per cent), driven by the strengthening of economic activity in the EU and the recovery of SE Asian countries from the financial crisis of 1997-98. Economic growth in the US is expected to recede to a rate of 3.1 per cent (1999: 4.1 per cent), owing primarily to the anticipated increase in short-term interest rates and to the partial reversal of the impact that the rise in securities prices had on total demand in previous years. In Japan, GDP growth is expected to remain at 1.4 per cent, mainly as a result of an upswing in exports, while it is estimated that the growth of domestic demand will decelerate.

Inflation in the US is projected<sup>98</sup> to rise to 1.9 per cent in 2000 (1.5 per cent in 1999), while prices in Japan should continue to drop at a rate of 0.5 per cent (0.4 per cent in 1999), owing to the slow growth rate of domestic demand, which remains significantly lower than potential supply. In terms of current account balance, the US deficit is expected to widen (2000: 4.2 per cent of GDP, 1999: 3.7 per cent), while Japan's surplus should increase marginally (2000: 2.8 per cent, 1999: 2.7 per cent).

Growth in the EU is projected by the European Commission<sup>99</sup> to accelerate to 3 per cent, from 2.1 per cent in 1999, supported by a rebound in exports as the world trade volume is expected to increase, and by a faster growth in investment. A further substantial drop in unemployment to 8.6

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<sup>97</sup> OECD, *Economic Outlook*, December 1999.

<sup>98</sup> One of the assumptions underlying OECD projections is that oil prices will average 22.1 USD per barrel in 2000.

<sup>99</sup> European Commission forecasts, autumn 1999.

per cent (9.2 per cent in 1999) is also anticipated. Inflation is expected to rise slightly from 1.2 per cent in 1999 to 1.5 per cent in 2000,<sup>100</sup> but the inflation differential between Member States should narrow. The general government deficit in the EU is expected on average to decrease to 0.6 per cent of GDP in 2000 (from 1.0 per cent in 1999), while public debt should fall to 66.3 per cent of GDP (from 68.6 per cent in 1999). The structural primary surplus in the EU is, however, expected to remain broadly unchanged (2000: 3.5 per cent of GDP, 1999: 3.6 per cent).

The main uncertainties underlying these projections involve a possibly substantial correction of US stock market prices, the course of the US dollar, the adverse impact of the yen's appreciation on economic activity in Japan, as well as oil price developments.

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## II.2 Monetary policy in the euro area

The economic environment in which the ECB will conduct monetary policy in 2000 is characterised by a pick-up in economic activity and increased inflationary pressures. A basic principle of this policy is that, by securing monetary stability, the ECB can contribute effectively to the smooth operation of the economic system and to a sustainable rise in the standard of living. The strategy followed by the ECB consists of two "pillars", i.e. the announcement of a "reference value" for the growth rate of the broad monetary aggregate M3 and an assessment of the outlook for price stability and inflationary risks in the euro area (see Box 5).

Indeed, on 2 December 1999, the Governing Council of the ECB announced a reference value of 4.5 per cent for the broad monetary aggregate M3 in 2000, i.e. the same as in 1999. However, this decision does not entail a commitment on the part

of the ECB to correct deviations of monetary growth from the reference value over the short term. Since the launching of Stage Three of EMU in January 1999 led to a major change in the "monetary regime", the relationships previously observed between certain monetary aggregates and the monetary policy goal may have been upset.

The ECB also weighs the combined impact of various economic aggregates — such as wages, the exchange rate, measures of economic activity, fiscal policy indicators, as well as the bond yield curve — on the course of inflation in the years to come.

Based on the analysis of monetary and broader economic developments, the ECB increased the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 4.25 and 2.25 per cent, respectively. It also raised by 25 basis points to 3.25 per cent the interest rate on its main refinancing operations (weekly tenders). The ECB<sup>101</sup> estimated that the monetary and credit expansion levels implied increased liquidity in the euro area. Furthermore, it acknowledged that the increases in prices and costs — more specifically in the prices of oil and other raw materials, as well as in producer prices — were larger and more prolonged than initially expected. The ECB pointed out the risk of these price developments influencing wage negotiations in course in certain euro area countries. This risk is further intensified by the depreciation of the euro against both the dollar and the yen and by clear indications that economic activity is picking up both in the euro area and worldwide.

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**100** An assumption underlying this forecast is that oil prices will on average increase only marginally to \$21.5 per barrel in 2000. For the time being, the rise in oil prices seems set to continue — with the price per barrel rising to \$25 in December 1999, while forward prices in the first half of 2000 are roughly the same.

**101** See the press conference of the President of the ECB following the meeting of the Governing Council on 3 February 2000.

## BOX 5

### The monetary policy conducted by the ECB and the Eurosystem<sup>1</sup>

Article 2 of the Statute of the European System of Central Banks (ESCB) and of the European Central Bank (ECB) states that the ESCB's primary objective is to maintain price stability. Moreover, as laid down in Article 9, par. 2, of the Statute, the ECB shall ensure that the task which has been assigned to the Eurosystem is carried out either via actions of the ECB itself or via the (participating) national central banks (NCBs). More specifically, the Governing Council<sup>2</sup> of the ECB formulates monetary policy for the euro area, while the Executive Board of the ECB carries it out, with the concurrence, to the greatest extent possible, of the NCBs for the implementation of monetary policy operations and of the other Eurosystem tasks (Article 12 of the Statute).

The strategy pursued by the ECB consists of three elements: a quantitative definition of the "price stability" concept (namely a less than 2 per cent year-on-year increase in the Harmonised Index of Consumer Prices) and two "pillars", i.e. a "reference value" for the growth rate of the broad monetary aggregate M3 and an assessment of the outlook for price developments and risks to price stability in the euro area. As price stability is a medium-term objective, the ECB shall refrain from immediately averting possible short-term price variations attributed to non-monetary factors (e.g. changes in indirect taxation).

In its pursuit of price stability, the ECB attaches primary importance to the money supply, since in the long run inflation can only be sustained by monetary causes. On 2 December 1999, the Governing Council of the ECB announced a quantitative reference value of 4.5 per cent

for M3 growth in 2000, i.e. a value equal to the one announced for 1999. Substantial or prolonged deviations of monetary growth from the reference value, under normal circumstances, signal risks to monetary stability over the long term. To avert such risks the ECB should, in principle, raise interest rates. As shown by econometric estimates, the course of M3 tends to be a leading indicator of price developments. However, the announcement of a reference value does not entail a commitment on the part of the ECB to automatically and mechanistically correct deviations of monetary growth from the reference value, in the short term, by adjusting its interest rates. A deviation of monetary growth from the reference value – usually established by comparing the three-month moving average of the year-on-year growth rate of M3 with the reference value – will prompt further analysis to identify and interpret the economic disturbance that caused the deviation.

Apart from monitoring monetary developments, the ECB proceeds to a broadly based assessment of the outlook for inflation and risks to price stability in the euro area, using a wide range of variables with a potential impact on the overall price level. These variables include wages, the exchange rate, various measures of real activity, fiscal policy indicators, the bond yield curve, etc.

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<sup>1</sup> For a more detailed analysis, see the ECB *Monthly Bulletin*, January and December 1999 issues. The Eurosystem comprises the ECB and the NCBs of the 11 Member States that have adopted the single currency.

<sup>2</sup> The Governing Council is composed of the President and the Vice-President of the ECB, the 4 other members of the ECB's Executive Board and the Governors of the NCBs of the 11 Member States that have adopted the euro.

### II.3 The prospects of Greece satisfying the price stability criterion

Greece will be applying for participation in the final stage of EMU on 9 March 2000, while the reports of the European Commission and the European Central Bank on the fulfilment of the

Maastricht Treaty criteria will be released in early May (see Box 6). Thus, the convergence of the Greek economy with regard to the price stability criterion will be assessed on the basis of the increase in the 12-month average of the Harmonised Index of Consumer Prices (HICP) at end-March 2000 over the previous 12-month average.

## BOX 6

### The schedule of decision-making procedures with regard to Greece's admission to the euro area

In accordance with the Treaty, Article 122, paragraph 2 (ex Article 109k, par. 2), with regard to the Member States which do not participate in the euro area (i.e. Member States with a derogation), the European Commission and the ECB shall, at least once every two years, or at the request of a Member State with a derogation, report to the Council as to "the progress made in the fulfilment by the Member States [in question] of their obligations regarding the achievement of economic and monetary union, (...) the compatibility between each Member State's national legislation, including the statutes of its national central bank, and (...) the Treaty, and (...) also (...) the achievement of a high degree of sustainable convergence by reference to the fulfilment (...) of the (...) [convergence] criteria"(Article 121, paragraph 1, ex Article 109j, paragraph 1).

— On 9 March 2000 Greece will officially request from the European Commission and the ECB to draft a report on its convergence performance. Thereafter, the European Commission and the ECB will prepare separate reports on the convergence of Greece (and Sweden)<sup>1</sup> and submit them to the Council of Ministers of National Economy and Finance (ECOFIN) on 3-5 May 2000.

The Treaty (Article 122, paragraph 2) then provides for the following procedures: "After consulting the European Parliament and after discussion in the Council, meeting in the composition of the Heads of State or Government, the Council shall, acting by a qualified majority on a proposal from the Commission, decide which Member States with a derogation fulfil the necessary conditions (...) and abrogate the derogations of the Member States concerned".

— The "proposal of the Commission" for the abrogation of Greece's derogation should normally be submitted to the Council together with the Commission's convergence report.

— The deliberation procedure with the European Parliament will then begin and should normally be completed during the third week of June (12-16 June 2000).

— At its meeting of 5 June 2000, the ECOFIN will hold a preliminary debate on the convergence reports for Greece. This debate will have been prepared by the Economic and Financial Committee<sup>2</sup> (formerly the Monetary Committee) on 26 May 2000.

— The European Council (i.e. the "Council meeting in the composition of the Heads of State or Government") will debate on the subject of Greece's accession to Monetary Union, during its regular summit in "Santa Maria de Feira", near Oporto, Portugal, on 19-20 June 2000.

— The final decision regarding Greece's adoption of the single currency is expected to be made by qualified majority by the Ministers of National Economy and Finance in a meeting of the ECOFIN during the Santa Maria de Feira Summit.

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<sup>1</sup> In accordance with the respective Protocols annexed to the Maastricht Treaty, this procedure is not automatically activated (as it is in the case of Sweden for example) for Denmark and the United Kingdom, but only if these countries should request it.

<sup>2</sup> The Treaty, in Article 114 (ex Article 109c), paragraph 2, provides that: "The Economic and Financial Committee shall have the following tasks: (...) to contribute to the preparation of the work of the Council referred to in (...) Article 122(2) [ex Article 109k]".

The 12-month rate of inflation in the euro area and the EU rose to 2.0 per cent and 1.8 per cent respectively in January 2000 (see Table XXI, p. 77) and, according to the ECB, is projected to increase further in the first months of 2000 and to decelerate thereafter.<sup>102</sup> The three euro area countries with the best performance in terms of price sta-

bility, namely Austria, France and Germany, achieved an unweighted average rate of inflation of 0.7 per cent in the 12 months from February

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<sup>102</sup> See ECB, *Monthly Bulletin*, February 2000, p. 6 and 21-23, as well as the press conference of the President of the ECB, on 3 February 2000. It should be recalled that the increase in the price of crude oil on the world market began in March 1999.

Table XXI

## Harmonised index of consumer prices: Greece and the EU, 1998-2000

(Annual percentage change)

Country	Dec. 1998	Jan.-Dec. 1998	Dec. 1999	Jan.-Dec. 1999	Jan. 2000	Feb. 1999- Jan. 2000
Belgium	0.7	0.9	2.1	1.1	1.8	1.2
Denmark	1.1	1.3	3.1	2.1	2.8	2.2
Germany	0.2	0.6	1.4	0.6	1.9	0.8
Greece	3.7	4.5	2.4	2.3	1.6	2.2
Spain	1.4	1.8	2.8	2.2	2.9	2.4
France	0.3	0.7	1.4	0.6	1.7	0.7
Ireland	2.2	2.1	3.9	2.5	4.4	2.7
Italy	1.7	2.0	2.1	1.7	2.2	1.7
Luxembourg	0.4	1.0	2.3	1.0	3.5	1.4
Netherlands	1.5	1.8	1.9	2.0	1.6	2.0
Austria	0.5	0.8	1.7	0.5	1.6	0.6
Portugal	2.8	2.2	1.7	2.2	1.9	2.1
Finland	0.8	1.4	2.2	1.4	2.0	1.5
Sweden	0.0	1.0	1.2	0.6	1.0	0.6
United Kingdom	1.5	1.5	1.2	1.3	0.8	1.3
<i>European Union</i>	<i>1.0</i>	<i>1.3</i>	<i>1.7</i>	<i>1.2</i>	<i>1.8</i>	<i>1.3</i>
<i>Euro area</i>	<i>0.8</i>	<i>1.1</i>	<i>1.7</i>	<i>1.1</i>	<i>2.0</i>	<i>1.2</i>
<i>Average of three best performing countries in the EU</i>	<i>0.2</i>	<i>0.7</i>	<i>1.3</i>	<i>0.6</i>	<i>1.1</i>	<i>0.6</i>
<i>Average of three best performing countries in the euro area</i>	<i>0.3</i>	<i>0.7</i>	<i>1.5</i>	<i>0.6</i>	<i>1.6</i>	<i>0.7</i>

**Note:** Rates of change in January have been affected by changes in the calculation of HICPs in all EU countries.**Source:** Eurostat. For January 2000, data released on 29 February 2000.

1999 to January 2000. This performance is expected to exceed the 0.7 per cent level (once again on the basis of the HICP) during the 12 months from April 1999 to March 2000, even if the 12-month rate of inflation does not pick up after January. As far as the *European Union* is concerned, the three Member States with the best performance (i.e. Austria, Sweden, France) achieved an unweighted average inflation rate of 0.6 per cent in the 12 months from February 1999 to January 2000. This performance is expected to increase to at least 0.7 per cent in the 12 months from April 1999 to March 2000. The reference value for the convergence criterion should therefore not be lower than 2.2 per cent.

The rate of CPI inflation in Greece fell slightly in January to 2.6 per cent (from 2.7 per cent in

December 1999), while the rate of HICP inflation, according to data released by Eurostat on 29 February 2000, dropped from 2.4 per cent to 1.6 per cent over the same period, basically because of changes in the way that the harmonised index is calculated. (These changes concerned the HICP of all EU countries, but had a different impact on each country's index – see also Box 3, p. 46). In spite of the slight increase anticipated in the 12-month rate of CPI inflation for February (owing to the upsurge in oil prices), Greece is expected to meet the price stability convergence criterion: the average rate of inflation, as measured on the basis of the HICP, has already dropped to 2.2 per cent in the 12 months from February 1999 to January 2000 (according to the data referred to above) and the rates of inflation for the subsequent 12-

month periods ending in February and March 2000 may be even lower.

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## II.4 Monetary policy strategy for 2000

Price stability remains the primary objective of Greece's monetary policy for 2000. This objective was largely attained in 1999, with the rate of inflation from June through October standing at 2 per cent or slightly higher on the basis of the CPI and at less than 2 per cent on the basis of the HICP. Although the significant rise in oil prices after October sparked off a temporary pick-up in inflation, as in all other EU countries, it is worth mentioning that core inflation — i.e. the annual rate of change in the CPI excluding fuel and fresh fruit/vegetables — remained below 2 per cent through January 2000. Inflation must be steered back to a level consistent with price stability, i.e. not more than 2 per cent, so as to prevent a loss in the international competitiveness of Greek products and services and to maintain a climate favourable to investment and sustainable growth.

The exchange rate of the drachma against the euro is the intermediate monetary policy target, the reference point being the new central exchange rate of the drachma (340.75 drachmas per euro), in effect as from 17 January 2000.

Following the revaluation of the central exchange rate of the drachma, its current exchange rate need only be adjusted by 2.6 per cent instead of 6 per cent, which would have been necessary had the central rate remained at its previous level of 353.109 drachmas per euro. Considering that imports account for a substantial share of Greek GDP, this revaluation results in the containment of the expected impact on the general price level, as the current exchange rate will gradually approach the central rate. The revaluation of the

central rate is also expected to have a favourable effect on inflationary expectations.

In order to assess monetary conditions and the course of inflation, the Bank of Greece will, as in previous years, monitor a series of indicators which offer information on supply and demand determinants and affect the future course of inflation. These indicators include the broader monetary aggregate M4N, wages, capacity utilisation in the manufacturing sector, the bond yield curve, etc.

More specifically, as pointed out in previous reports, the importance of M4N as an indicator of monetary policy stance has gradually diminished. This is partly due to the unstable relationship between M4N and the overall price level, owing to the impact of financial innovations and the complete liberalisation of capital movements. The fact that savers' preference is shifting to capital investments not included in M4N — a tendency which is expected to increase in the year 2000, owing, *inter alia*, to the gradual reduction in interest rates — will further impede the use of M4N as an indicator of monetary policy stance. Nevertheless, M4N developments provide valuable information on monetary conditions and the course of inflation in the medium term. This is why the Bank of Greece once again has set an indicative forecast range of 5-7 per cent for M4N growth in the year 2000. This range is judged compatible with the anticipated GDP growth of 3.8 per cent and the further slowdown in the annual rate of inflation (as measured using the GDP deflator) from 3.1 per cent in 1999 to 2.4 per cent in 2000. The projections for M4N growth have taken into consideration that, with the gradual convergence of interest rates on the lower levels of the euro area, demand for the monetary aggregates that make up M4N will fall, while demand for bonds and shares will increase.

In contrast with previous years, the Bank of Greece has not announced an indicative range for total credit expansion in 2000, as it is estimated that the relationship between credit expansion, price increases and economic growth will be characterised by increasing uncertainty, which makes it difficult to forecast a range consistent with the desired course of prices. One reason is that credit expansion to the public sector, and therefore total credit expansion, is directly and largely affected by the government's public debt management policy. More specifically, the fact that the government seeks to prolong the average maturity of public debt affects the holding of securities and leads to portfolio restructuring, as longer-term bonds become more attractive for institutional investors and banks, thereby accelerating credit expansion. As mentioned above (see Section I.6), the acceleration of credit expansion to the public sector in 1999 was not due to increased borrowing requirements, but to a significant change in the portion of requirements covered by the private non-bank sector and banks. Furthermore, a large degree of uncertainty also characterises the forecast range for credit expansion to the private sector, first of all because the provisional measures adopted by the Bank in 1999 to contain credit expansion will be lifted at the end of March 2000 and, secondly, because of the anticipated cuts in interest rates and keener competition between banks. Obviously, all these factors will keep the private sector's demand for bank credit high.

The Bank of Greece will be carefully monitoring bank credit developments so as to reach a more accurate assessment of the conditions prevailing in the bank loan market: the impact of various factors, such as the degree of recourse to alternative sources of borrowing and, in general, other sources of financing will be taken into account. It should be noted, however, that the means available to the Bank of Greece for controlling credit expansion

have diminished. Furthermore, the inevitable gradual convergence of Greek interest rates on those of the euro area by the end of the year will reduce the Bank's ability to contain credit expansion. The anti-inflationary effort must therefore be supported by other economic policy instruments (see Section II.5).

Apart from the potential impact on the overall price level, rapid credit expansion also poses risks for credit institutions. These risks need to be carefully monitored and effectively dealt with. Experience has shown that rapid credit expansion in times of intense competition is usually coupled with a tendency of banks to undertake greater risks. Banks will have to be particularly careful in the years 2000 and 2001 —when a substantial part of the remaining convergence of Greece's money and capital markets to the corresponding markets of the euro area will have to be completed— and refrain from extending too much credit, so that their portfolios will not be burdened with bad debts that would impair their profitability and competitiveness in the long run. In the context of banking supervision, the Bank of Greece will place particular emphasis on the monitoring and efficient management of the credit risks banks undertake.

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## II.5 The outlook for inflation and the monetary policy stance

Ensuring price stability in the year 2000 will require the continuation of anti-inflationary monetary policy and the co-ordinated implementation of an appropriate economic —especially structural— policy.

Given that the impact of monetary policy takes time to manifest itself and affects the course of inflation for over a year, the tight monetary policy

implemented in 1999 and the policy for 2000 will help ensure price stability not only in 2000 but also in 2001 (when the implementation of an independent national monetary policy will no longer be possible). As far as the year 2000 is concerned, the moderate adjustment of the drachma's current exchange rate against the euro towards its new central rate, in effect since 17 January 2000, and the careful implementation of interest rate policy will contribute to price stability. It is estimated that the 3.5 per cent revaluation of the drachma's central exchange rate within ERM II and the smaller depreciation of the current parity that this revaluation entails will favourably affect the average annual rate of inflation by at least half of a percentage point. Furthermore, the favourable effect of the revaluation of the drachma's central parity on the prices of imported raw materials and intermediate goods will serve to offset the negative impact on competitiveness.

Nevertheless, the gradual convergence of domestic interest rates towards euro area levels, during the run-up to Greece's entry into the final stage of EMU, will render the conduct of monetary policy more difficult and gradually dampen its restrictive stance.

The impact that domestic interest rate convergence towards euro area levels will have on inflation cannot be estimated accurately for 2000, as it will be the combined result of contrasting forces and will manifest itself with some delay. Generally speaking though, it is estimated that the impact on total demand and inflation will most likely be limited during 2000. This estimate is based more specifically on the following:

- Certain interest rates (e.g. on mortgage loans) have already begun to decline since 1999, suggesting that convergence to euro area levels is taken for granted. Interest rates on loans denomi-

nated in foreign currency, which account for a sizeable share of the total, will not be affected.

- On the whole however, the cut in lending rates will reduce borrowing costs for households and enterprises, while the concurrent cut in deposit rates and government bond yields will reduce the "opportunity cost" of consumption (for households) and investment (for enterprises). Furthermore, the drop in interest rates is expected to contribute —to the extent that it had not been anticipated and to the degree that it is not offset by other factors— to a rise in the current value<sup>103</sup> of equity (and, therefore, to an increase in the wealth of households). These developments will help strengthen consumption and investment demand and, depending on actual market conditions, may exert upward pressure on prices.

- At the same time, however, the cut in lending rates, as well as fund-raising through the stock market (see Tables IX, X and XIX above), will contribute directly to the containment of business firms' costs (and therefore prices), while the drop in deposit rates and government securities yields will have a negative impact on the disposable income of households and the "non-operating" revenue of enterprises, thereby helping restrain demand and inflation.

The overall impact of the above factors on inflation cannot be estimated with accuracy, particularly for 2000, since, *inter alia*, interest rate convergence will be taking place gradually and the repercussions thereof will not all manifest themselves at once.

In any case, price stability would be difficult to ensure in 2000 solely via monetary policy. It

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<sup>103</sup> To the extent that it is linked to the current value of expected profits. At the same time, the drop in interest rates (insofar as it has not been anticipated) will also boost demand for equity.



would be feasible to ensure price stability, however, provided that economic and structural policies are pursued as planned and so long as wage developments contribute to price stability. Specifically:

— First, according to the Updated Convergence Programme for 1999-2002, which was approved by the EU Council on 31 January 2000, the general government deficit will continue to decrease (on a national accounts basis) from 1.5 per cent of GDP in 1999 to 1.2 per cent in 2000 and to 0.2 per cent in 2001, with a surplus of 0.2 per cent of GDP projected for 2002. These targets are consistent with the fundamental principle of the Stability and Growth Pact<sup>104</sup> and entail the continuation of a restrictive fiscal policy stance for the purpose of containing inflation. It should be noted, however, that the newly implemented income tax measures<sup>105</sup> have increased the average disposable income of wage earners, but are not expected to increase the public deficit, as they will be offset by other measures.<sup>106</sup> In particular, it is estimated that wage earners' average disposable income will increase in 2000 at a rate about 1.5 percentage points higher than that of average pre-tax earnings (see Table XII). This increase will, to a certain extent, affect the course of total disposable income and consumption demand and may thus have an impact on prices.

— Second, the decrease in the growth rate of unit labour costs in the whole economy from 2.5 per cent in 1999 to roughly 2 per cent in 2000 (according to provisional forecasts — see Table XII) is compatible with the price stability objective. According to the Updated Convergence Programme, this slowdown will continue through 2001 (1.5 per cent) and 2002 (1.4 per cent). In greater detail, the central government wage bill (excluding pensions, but including health care outlays) will increase in 2000 by 5.8 per cent

(budget forecasts), compared with 5.9 per cent in 1999, while the *per capita* wage bill of central government is estimated to rise by 4.8 per cent (1999: 4.5 per cent).<sup>107</sup> The average gross earnings of employees of private and public enterprises and banks are projected to increase roughly as much as in 1999.<sup>108</sup> As a result, average earnings in the whole economy should also increase almost as much as in 1999 (4.4 per cent, com-

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**104** As stated in the Stability and Growth Pact (which comprises the Resolution of the European Council of 17 June 1997 and Council Regulations (EC) No. 1466/97 and 1467/97), "adherence to the medium-term objective of *budgetary positions close to balance or in surplus* will allow Member States to deal with normal cyclical fluctuations while keeping the government deficit within the 3 per cent of GDP reference value".

**105** As far as employees are concerned, the new tax arrangements under Law 2753/99 provided for the reimbursement (in December 1999 for civil servants and in January 2000 for other categories of employees) of the differential between the income tax due and the income tax actually withheld during 1999 and for substantial cuts in tax withheld on salaried services, starting from 1 January 2000. These arrangements will also lead to slightly increased tax rebates (after final tax settlement) in mid-2000. For the other categories of workers (the self-employed, etc.) — whose incomes are not taxed at the source — the tax cuts will be "spread out" over 2000 and 2001. Apart from tax cuts, other measures announced in September 1999 included increases in farmers' pensions and in the "pensioners' social solidarity allowance" (established by Article 33 of Law 2768/99), as well as a 10 per cent rise in unemployment benefits (the Ministerial Decision has already been issued). All of these measures will increase the disposable income of *low-revenue* households in 2000.

**106** Indeed, the substantial fiscal cost of these measures (as well as of *ad hoc* anti-inflationary measures reducing indirect taxation) is largely offset by the increase in revenue from the tax on stock market transactions (owing, first, to the increase in the volume of transactions and, second, to the rise in the relevant tax rate from 0.3 per cent to 0.6 per cent, as stipulated by Article 22 of Law 2742/99), by the growth in revenue from "classification fees" on passenger cars, as well as by the increase in revenue from the income tax of legal entities (owing to the more accurate recording of profits in the income statement of enterprises — especially those whose shares are listed on the Stock Exchange).

**107** In particular, according to Articles 30 and 31 of Law 2768/99, total monthly earnings of civil servants will increase by 2.1-2.9 per cent starting from 1 January 2000. Higher wage increases are granted to officers of the armed and the security forces (in two stages), while some of the allowances granted to various categories of government employees have also been increased.

**108** As mentioned previously (see footnote 32), the 2-year collective agreement for 1999-2000 for bank employees provides for an increase of 2.4 per cent from 1 January 2000 (some banks will be granting additional wage increases on the basis of agreements at enterprise level). A similar collective agreement with Public Power Corporation employees provides for an increase of 2 per cent from 1 January 2000 and an increase in an allowance, starting from 1 July 2000.

pared with 4.6 per cent). Confirmation of this forecast will, of course, depend on the outcome of collective wage bargaining in the private sector and some public enterprises. It should be pointed out that the maintenance of low inflation and the reduction of the tax burden for wage earners, as a result of the new income tax measures mentioned above, can facilitate the acceptance of moderate wage increases. As evidenced in the private sector by the positions adopted so far by both sides in the bargaining for the national general collective labour agreement,<sup>109</sup> an agreement on an average annual wage increase that would not exceed the inflation target or the anticipated rise in productivity may be feasible.<sup>110</sup>

— Third, the faster implementation of structural policy announced by the government could lead to a substantial improvement in productivity and to increased competition. In particular, the deregulation of the energy, telecommunications and transportation markets, increased labour market flexibility, modernisation of the public sector, privatisation of public enterprises and banks, mergers of private enterprises, further development of the capital market, as well as investment in major infrastructure projects, will all contribute to a better adjustment of the Greek economy to external disturbances, while also speeding up the rise in productivity and potential output.<sup>111</sup> The faster increase in productivity helps keep the growth rate of unit labour costs at levels compatible with the maintenance of price stability (as mentioned above). The favourable impact on inflation will, in fact, be greater, as market deregulation will contribute to a faster rise in productivity and to increased competition in *certain parts of the services sector*, where until recently the delay in relative productivity growth and insufficient competition were conducive to faster price increases and thus contributed appreciably to the upward divergence of Greek inflation compared with the rest of

the EU.<sup>112</sup> The faster rise in productivity and potential output will also entail flexible response of supply to eventual upswings in demand, thus preventing the resurgence of inflationary pressures.

The preceding analysis supports the conclusion that the prospects of ensuring price stability in 2000 are favourable.

Of course, there are still some elements of uncertainty in the year 2000, related to *exogenous factors*, such as developments in crude oil prices in the world market and — to a lesser extent — in the

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**109** Private sector employees have already received a corrective increase of 0.7 per cent as of 1 January 2000. Negotiations for increases for the year 2000 began in mid-January, when the General Confederation of Greek Workers (GSEE) presented its demands. GSEE is mainly demanding that wage increases “compensate” for the projected rate of inflation and for a share in GDP growth, and that there should exist a corrective pay rise clause. It is also demanding a special “minimum wage allowance” on the grounds that minimum wages have increased less than average wages in recent years.

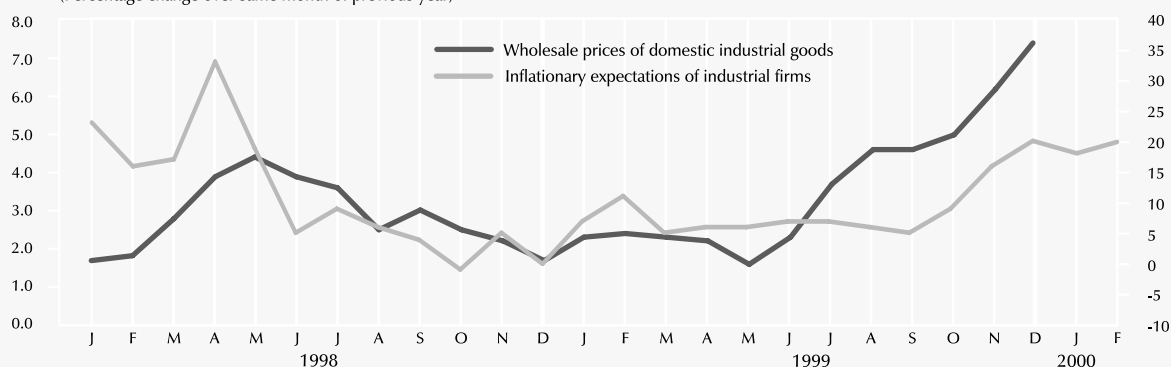
**110** The rise in productivity is mainly due to substantial investments by enterprises and to infrastructure investments carried out in recent years. From 1996 to 1999 investments in equipment rose at an average annual rate of 12 per cent, while total investments, excluding dwellings, rose by 11 per cent.

**111** Available econometric assessments and projections for the “output gap” of the Greek economy (in other words, the difference between current and potential output in the whole economy as a percentage of potential output) do not coincide. According to the OECD, potential output will continue to exceed current output in 2000, albeit by a narrower margin than in 1999. According to the IMF and the European Commission, current output was already in excess of potential output in 1999 and is projected to exceed it even more in 2000. By contrast, according to the Greek Ministry of National Economy, potential output will overshoot current output during both 1999 and 2000, the difference remaining unchanged. Whatever the case, all of the above measurements place the output gap at close to zero, between a range of –0.5 and +0.7. For purposes of comparison, it is worth noting that the OECD estimates the output gap in the EU at –1.1 in 1999 and –0.6 in 2000. See OECD, *Economic Outlook*, December 1999; IMF: *Greece: Staff Report*, November 1999; European Commission, AMECO database, November 1999; Ministry of National Economy/Macroeconomic Analysis Directorate, *Current developments and prospects for the Greek and the world economy – Biannual Report*, December 1999.

**112** See “The contribution of the Balassa-Samuelson effect to inflation: cross-country evidence” in IMF: *Greece, Selected Issues*, December 1999 and IMF, *Greece: Staff Report*, November 1999. Also, “Inflation differentials in a monetary union” ECB, *Monthly Bulletin*, October 1999.

Chart 30

Wholesale price index for domestic industrial goods, and inflationary expectations of industrial firms\* (January 1998 - February 2000)  
(Percentage change over same month of previous year)



\* Prices: Annual percentage changes, left-hand scale.

Expectations: Difference between positive-negative responses of industrial firms on the prospect of increase in their prices over the next 3-4 months, right-hand scale.

Source: NSSG and IOBE.

prices of other commodities,<sup>113</sup> the possible continued appreciation of the dollar against the euro (which may have an upward effect on the drachma prices of imports) or unpredictable developments in fresh fruit and vegetable prices. There is also a negative factor of a technical nature: the favourable impact that indirect tax cuts in 1999 had on the 12-month rate of inflation is gradually wearing off. Finally, the pricing policy of enterprises, especially in sectors where competition is inadequate, may –as in the past– hinder a faster deceleration of inflation. Even in the industrial sector, which is more exposed to the pressure of competition, the 12-month rate of increase in the prices of domestic industrial products for home consumption accelerated from June 1999 onwards, largely –but not exclusively– on account of fuel price developments.<sup>114</sup> Manufacturing firms' forecasts of a rise in the prices of their products were stronger from October 1999 onwards (see Chart 30).

The reference to factors that might adversely affect the course of inflation in 2000 underlines how crucial it is not to relax the anti-inflationary effort. Enterprises, in particular, can and must be moderate –considering how substantially their

profits rose in 1999– in their pricing policies. Thus, not only will they be contributing to the deceleration of inflation, but they will also be enhancing the competitiveness of their products. Meanwhile, collective bargaining must lead to wage increases that are compatible with the inflation target and the anticipated increase in productivity, with due consideration to the rise in disposable income as a result of the latest tax measures. This is the best way to improve real wages and increase employment in the medium term. Finally, structural reforms will have to be implemented at a faster pace and cover a broader spectrum, while fiscal policy will have to be carried out flexibly, to enable its timely adjustment for offsetting possible inflationary pressures from the above mentioned sources.

<sup>113</sup> According to the latest OECD forecast (*Economic Outlook*, December 1999), the average annual increase in crude oil prices (in dollars) on the world market will reach 27.7 per cent in 2000, as opposed to 37.3 per cent in 1999. Oil prices in US dollars are expected to decrease between December 1999 and December 2000, thus producing a favourable impact on inflation in Greece and the euro area as a whole. Furthermore, export prices in the OECD countries will increase by 1.4 per cent (and EU export prices by 2.2 per cent), whereas in 1999 export prices in the OECD countries had decreased by 1.7 per cent (and EU export prices by 1.1 per cent).

<sup>114</sup> In December, exclusively owing to fuel price developments, see footnote 57.

Monetary policy will seek to consolidate price stability and ensure the smooth entry of the drachma into the euro area. The recent acceleration of inflation, owing mainly to further oil price increases, and the elements of uncertainty regarding future inflationary developments call for extreme care in the conduct of interest rate policy. Therefore, the convergence of Greek interest rates towards euro area rates will be gradual and is likely to be concentrated in the second half of 2000. Interest rate adjustment in certain countries followed a similar course during the run-up to the euro's introduction. The gradual reduction of Greek interest rates in 2000 will also be affected by the course of European interest rates. It is generally accepted that monetary conditions, the forecast pick-up in economic recovery, and emerging inflationary risks in the euro area will lead the

European Central Bank to raise interest rates. Such a move would facilitate the convergence of Greek interest rates by the end of the year, but would also affect their reduction during the year. The decisions of the Bank of Greece regarding the time and extent of interest rate adjustments will be based on overall assessments of the course of inflation, as indicated by domestic monetary and economic conditions, international money market developments and the intensity and origin of possible exogenous pressures on prices (e.g. pressures associated with developments in oil prices and in the exchange rate of the dollar against the euro). Monetary policy will endeavour to establish appropriate exchange rate and interest rate combinations, so as to ensure an unobstructed transition to the final stage of EMU.

# Monetary policy measures

## **12 January 1999**

— Effective from 13 January 1999, the intervention rate of the Bank of Greece in the interbank market for the acceptance of 14-day deposits is lowered to 12 per cent from 12.25 per cent.

— Effective from 14 January 1999, the interest rate for the first tier of the deposit facility is lowered to 11.5 per cent from 11.6 per cent.

— Effective from 14 January 1999, the Bank of Greece Lombard rate is lowered to 13.5 per cent from 15.5 per cent.

— Effective from 14 January 1999, the rate on credit institutions' overdrafts from their current account with the Bank of Greece is lowered to 20 per cent from 22 per cent.

## **29 January 1999**

With the aim of improving the quality and further enhancing the soundness of banks' loan portfolios, the Bank of Greece establishes a general framework of minimum quantitative criteria for assessing the adequacy of provisions made by credit institutions for claims arising from lending.

## **6 April 1999**

With the aim of absorbing from the interbank market that part of liquidity which has become of a more permanent nature, the Bank of Greece establishes, on a monthly basis, competitive interest rate tenders for the acceptance of three-month deposits.

## **16 April 1999**

With a view to further enhancing the anti-inflationary policy pursued, the Bank of Greece decides that the following amounts shall be deposited with it in a non-interest bearing account for a period of six months:

(i) Any amount of the commercial, housing and cooperative banks' total outstanding balance of consumer credit and loans to domestic and import trade which exceeds the corresponding total balance outstanding on 31 March 1999 by:

3.5 per cent or 150 million drachmas on 30 June 1999,

5.5 per cent or 250 million drachmas on 30 September 1999, and

9.5 per cent or 400 million drachmas on 31 December 1999, whichever is the highest in all cases.

(ii) Any amount of the banks' total outstanding balance of loans, other than the above, to the private sector and public enterprises and entities which exceeds the corresponding total balance outstanding on 31 March 1999 by:

3.5 per cent or 200 million drachmas on 30 June 1999,

5.5 per cent or 300 million drachmas on 30 September 1999, and

9.5 per cent or 550 million drachmas on 31 December 1999, whichever is the highest in all cases.

#### **18 May 1999**

Effective from 19 May 1999, the maximum borrowing of credit institutions from the Bank of Greece through the Lombard facility is adjusted as follows:

a) The additional amount allocated to each credit institution after the allocation of total borrowing is raised from 300 to 700 million drachmas.

b) The additional amount to which a credit institution is entitled if it is a Primary Dealer is raised from 10 billion to 15 billion drachmas.

#### **23 June 1999**

With a view to enabling new credit institutions (established from 1 January 1998 onwards) to deal with the special conditions which have emerged in connection with Monetary Policy Council Act 13/16 April 1999 regarding temporary reserve requirements on credit institutions whose credit expansion exceeds the limits set, the Bank of Greece allows the above (new) institutions to calculate in an alternative way the ceiling on the change in their outstanding balance of loans over corresponding balances on 31 March 1999. This ceiling is calculated as a percentage of the paid-up share capital or cooperative or endowment capital of the above credit institutions.

#### **28 July 1999**

Credit institutions whose outstanding balances on all kinds of consumer credit exceed corresponding balances on 30 June 1999 by:

2 per cent or 50 million drachmas on 30 September 1999, and

6 per cent or 130 million drachmas on 31 December 1999

shall be subject to additional temporary reserve requirements, apart from those provided for in Monetary Policy Council Act 13/16 April 1999. The requirements shall be in the form of a six-month deposit in a non-interest-bearing account with the Bank of Greece of double the amount in excess of the above limits.

#### **5 August 1999**

The provisions on the supply of foreign exchange for current transactions between residents of Greece and non-residents, as well as for capital movement, are simplified. More specifically, the maximum amount up to which no supporting documents are required for the supply of foreign exchange to cover personal needs and current

transactions of natural persons is raised from €2,000 to €10,000. Moreover, supporting documents are not required for small value transactions (up to €2,000). Further, the requirement to submit multiple statistical statements at various stages of the process of capital transfer abroad is abolished.

#### **14 September 1999**

In order to help those hit by the earthquake of 7 September 1999 in the area of Attica, the Bank of Greece exempts from the restrictions imposed on banks' credit expansion loans supplied as from 8 September 1999 to natural persons or business firms included in the programmes for support to earthquake victims.

#### **23 September 1999**

Effective from 1 October 1999, the maximum total borrowing of credit institutions from the Bank of Greece through the Lombard facility is raised from 200 billion to 480 billion drachmas. The amount added after the allocation of total borrowing is determined as follows:

- (i) 1 billion drachmas for each cooperative bank authorised to operate throughout the country and 700 million drachmas for each other cooperative bank,
- (ii) 2 billion drachmas for each other credit institution.

The additional amount to which a credit institution is entitled if it is a Primary Dealer is raised from 15 billion to 25 billion drachmas.

In the period 15 November 1999-14 January 2000, borrowing through the Lombard facility is not subject to any quantitative restrictions, provided that it is covered by an equivalent value of securities valued according to applicable rules.

#### **27 September 1999**

— The maximum amount of credit supplied by credit institutions to a natural person on collateral of securities listed on the Athens Stock Exchange is raised from 5 million to 15 million drachmas; such credit may not exceed 50 per cent of the current market value of these securities.

— Credit institutions are allowed to cover all kinds of financing requirements of investment firms and securities companies.

#### **20 October 1999**

— The intervention rate of the Bank of Greece for the acceptance of 14-day deposits is lowered to 11.5 per cent from 12 per cent.

— Effective from 21 October 1999, the interest rate for the first tier of the deposit facility is lowered to 11.5 per cent and that for the second tier to 9.25 per cent from 9.75 per cent.

— Effective from 21 October 1999, the Bank of Greece Lombard rate is lowered to 13 per cent from 13.5 per cent.

#### **7 December 1999**

Effective from 10 October 1999, the minimum daily balance of credit institutions' reserve requirements with the Bank of Greece is lowered to 85 per cent from 90 per cent of such requirements.

#### **15 December 1999**

— The intervention rate of the Bank of Greece for the acceptance of 14-days deposits is lowered to 10.75 per cent from 11.5 per cent.

— Effective from 16 December 1999, the interest rate for the first tier of the deposit facility is lowered to 10.25 per cent from 11 per cent and that for the second tier to 9 per cent from 9.25 per cent.

— Effective from 16 December 1999, the Bank of Greece Lombard rate is lowered to 12.25 per cent from 13 per cent.

#### **24 December 1999**

Effective from 27 December 1999, the Bank of Greece Lombard rate is lowered to 11.5 per cent from 12.25 per cent.

#### **29 December 1999**

The measures restraining banks' credit expansion are extended until the end of March 2000. In particular, the following amounts shall be deposited with the Bank of Greece in a non-interest-bearing account for a period of six months:

(i) any amount of the total outstanding balance on 31 March 2000 of consumer credit and loans to domestic and import trade which exceeds by 12 per cent or 700 million drachmas the corresponding total balance outstanding on 31 March 1999,

(ii) any amount of the total outstanding balance on 31 March 2000 of loans, other than the above, to the private sector and public enterprises and entities which exceeds by 12 per cent or 850 million drachmas the corresponding total balance outstanding on 31 March 1999.

If the total outstanding balance, on 31 March 2000, of consumer credit extended by a bank exceeds by 8.5 per cent or 260 million drachmas the balance outstanding on 30 June 1999, an additional amount equal to double the one in excess shall be deposited with the Bank of Greece in a non-interest-bearing account for a period of six months.

Alternative drachma ceilings are laid down for

small banks and banks which began to operate on 1 January 1998 or later.

#### **26 January 2000**

- The intervention rate of the Bank of Greece for the acceptance of 14-day deposits is lowered to 9.75 per cent from 10.75 per cent.

— Effective from 27 January 2000, the interest rate for the first tier of the deposit facility is lowered to 9.5 per cent from 10.25 per cent and that for the second tier to 8.5 per cent from 9 per cent.

— Effective from 27 January 2000, the Bank of Greece Lombard rate is lowered to 11 per cent from 11.5 per cent.

#### **3 February 2000**

With a view to adjusting the provisions concerning transactions in gold to the provisions governing foreign exchange transactions in general, purchases and sales of gold not used for commercial or industrial purposes are fully liberalised. Such transactions may be freely carried out henceforth by credit institutions and/or the Bank of Greece.

#### **14 February 2000**

With a view to adjusting the reserve requirement system to the respective framework of the European System of Central Banks, the distinction between the interest-bearing and the non-interest-bearing part of credit institutions' reserve requirements with the Bank of Greece is abolished as of 10 March 2000. The total amount of these deposits will be henceforth remunerated at a single interest rate, to be determined by a Monetary Policy Council Act.



## Bank of Greece decisions\*

*Re: Interest rate on Bank of Greece financing of credit institutions on collateral of Greek government securities (Lombard facility) (Monetary Policy Council Act 27/24 December 1999)*

The Monetary Policy Council of the Bank of Greece, having regard to:

- a) Articles 7 and 12 of Law 2548/1997 re: “Provisions relating to the Bank of Greece”,
- b) Bank of Greece Governor’s Act 2185/24 March 1993 (Chapter II, par. D), as applicable, on Bank of Greece financing of credit institutions on collateral of Greek government securities (Lombard facility) (latest relevant Act of the Monetary Policy Council: 24/15 December 1999),
- c) the need to facilitate the financing of credit institutions in light of the transition to the year 2000,
- d) the advisability of reducing the fluctuation range of short-term interest rates in the interbank market,

has decided the following:

Effective from 27 December 1999, the Bank of Greece Lombard rate (Bank of Greece Governor’s Act 2185/24 March 1993, Chapter II, par. D) is set at 11.50 per cent per annum.

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\* Previous decisions of the Bank of Greece have been published in the corresponding chapters of the following Bank of Greece publications: *Monetary Policy 1998-1999*, March 1999, *Monetary Policy, Interim Report 1999*, November 1999, *Economic Bulletin*, No. 13, July 1999, and *Economic Bulletin*, No. 14, December 1999.

*Re: Amendment of Monetary Policy Council Act 13/16 April 1999 re: "Temporary reserve requirements on credit institutions whose credit expansion exceeds provided for limits" (Monetary Policy Council Act 28/29 December 1999)*

The Monetary Policy Council of the Bank of Greece, having regard to:

- a) Articles 2 and 7 of Law 2548/1997 re: "Provisions relating to the Bank of Greece",
- b) Monetary Policy Council Act 13/16 April 1999 re: "Temporary reserve requirements on credit institutions whose credit expansion exceeds provided for limits" as applicable (latest relevant Act of the Monetary Policy Council: 18/14 April 1999),
- c) Article 16 of Law 2744/25 October 1999, which stipulates that 31 December 1999 will be a holiday for the financial sector of the economy,
- d) developments in the bank credit market,

has decided to amend as follows Monetary Policy Council Act 13/16 April 1999, as applicable:

1. Credit institutions whose outstanding loan balances on 31 March 2000 exceed the corresponding balance on 31 March 1999 by:

- a) 12 per cent or 700 million drachmas, for the sum total of the outstanding balances on all types of consumer loans and loans to domestic and import trade (Monetary Policy Council Act 13/16 April 1999, par. 1),
- b) 12 per cent or 850 million drachmas, for the sum total of the outstanding balances on loans, other than the above, to the private sec-

tor and public enterprises and entities (Monetary Policy Council Act 13/16 April 1999, par. 2)

shall be subject to the requirements (concerning the amount and maturity of the required deposit) provided for in Monetary Policy Council Act 13/16 April 1999.

c) Particularly for credit institutions which began to operate on 1 January 1998 or later and were granted the possibility (Monetary Policy Council Act 15/23 June 1999) of applying an alternative ceiling on the change in their loan balances, the respective ceilings on increases in the outstanding balances of credit extended by these institutions shall, for the purpose of implementation of the present Act, be the following percentages of their paid-up capital:

- (i) for the loans referred to in par. 1 (a) above: 70 per cent,
- (ii) for the loans referred to in par. 1 (b), above: 80 per cent.

2. Credit institutions whose outstanding balances on all types of consumer credit (Code Number 11000, Sample No. 1) on 31 March 2000 exceed corresponding balances on 30 June 1999 by:

- (i) 8.5 per cent or 260 million drachmas,
- (ii) 30 per cent of the paid-up capital, particularly for credit institutions which began to operate on 1 January 1998 or later and were granted the possibility (Monetary Policy Council Act 15/23 June 1999) of applying an alternative ceiling on the change in their loan balances

shall be subject to additional reserve requirements, as provided for in Monetary Policy Council Act 16/28 July 1999.

3. The required reserves (equal to or double the amount in excess) shall be deposited in a non-interest-bearing account with the Bank of Greece for a period of six months, with value date 2 May 2000.

4. Calculation of the required reserves, according to Monetary Policy Council Act 13/16 April 1999, as applicable, shall be carried out on the basis of the balances outstanding on 5 January 2000 instead of 31 December 1999.

\* \* \*

*Re: Adjustment of Bank of Greece interest rates (Monetary Policy Council Act 29/26 January 2000)*

The Monetary Policy Council of the Bank of Greece, having regard to:

- a) Articles 7 and 12 of Law 2548/1997 re: "Provisions relating to the Bank of Greece",
- b) Bank of Greece Governor's Acts 2185/24 March 1993 (Chapter II, par. D) and 2214/15 June 1993, as applicable, regarding Bank of Greece financing of credit institutions on collateral of government securities (Lombard facility) (latest relevant Act of the Monetary Policy Council: 27/24 December 1999),
- c) Bank of Greece Governor's Act 2407/26 March 1997 (par. 3) and 2408/26 March 1997, as applicable, regarding the Bank of Greece deposit facility to credit institutions (latest relevant Act of the Monetary Policy Council: 24/15 December 1999),
- d) the forecast development of average annual inflation on the basis of the Harmonised Index of Consumer Prices,

e) the estimated favourable effect on inflation of the recent revaluation of the drachma's central rate against the euro in the exchange rate mechanism (ERM II),

f) the containment of the annual growth rate of the broader liquidity indicator (M4N) close to the lower limit of the forecast range (7-9 per cent) for 1999,

has decided the following:

1. The interest rates for the first and the second tier of the overnight deposit facility (Bank of Greece Governor's Act 2407/26 March 1997) are set at 9.50 per cent and 8.50 per cent per annum, respectively.

2. The Bank of Greece Lombard rate (Bank of Greece Governor's Act 2185/24 March 1993, Chapter II, par. D) is set at 11 per cent per annum.

The provisions of the present Act shall be effective as of 27 January 2000.

\* \* \*

*Re: Transactions in gold (Bank of Greece Governor's Act 2456/3 February 2000)*

The Governor of the Bank of Greece, having regard to:

- a) Law 2548/1997 re: "Provisions relating to the Bank of Greece",
- b) Article 1 of Law 1266/1982 re: "Authorities responsible for the conduct of monetary, credit and exchange rate policies, and other provisions",
- c) Article 5, par. 1 of Emergency Law 362/1945,

- d) Article 15, par. 1 of Law 2771/1999,
- e) the provisions of Monetary Committee decisions 1310/1/25 January 1964 and 1395/1/22 December 1965, as supplemented by Monetary and Credit Matters Committee decision 215/2/21 January 1985,
- f) Presidential Decrees 96/1993 and 104/1994,
- g) Bank of Greece Governor's Act 2302/16 May 1994, as applicable, concerning capital movements between residents and non-residents of Greece,
- h) the advisability of adjusting the provisions regarding transactions in gold to the provisions governing foreign exchange transactions in general,

has decided the following:

1. Purchases and sales of gold not used for commercial or industrial purposes may be effected by credit institutions operating in Greece and authorised to carry out foreign exchange transactions on their own account and at their own risk.

The above transactions may be carried out with natural or legal persons, residents or non-residents of Greece, as well as between credit institutions, the provisions governing the interbank foreign exchange market being correspondingly applicable.

2. For the purposes of the present Act, the term "gold" shall mean gold sovereigns, gold coins and gold bars meeting international standards.

3. Residents and non-residents of Greece shall state, when arriving in or leaving Greece, the gold they transfer, if its total value exceeds an amount equal to €2,000 or €10,000, respectively, or shall

produce a certificate of the relevant transaction, if a domestic credit institution has acted as an intermediary for the purchase of the gold.

With regard to the above statement of residents, the limits stipulated by Presidential Decree 96/1993, as applicable, concerning the obligation to declare the Tax Registration Number and submit a certificate of payment of tax liabilities shall apply.

4. a) The Bank of Greece carries out purchases and sales of gold of the type provided for by the present Act.

b) The Foreign Exchange Department and the Cash Department of the Bank of Greece shall be responsible for determining the procedures and the other modalities concerning the implementation of the present Act, including submission of statistical data by credit institutions to the Bank of Greece.

5. Monetary Committee decisions 1310/1/25 December 1964 and 1395/1/22 December 1965, as well as Monetary and Credit Matters Committee decision 215/2/21 January 1985 are abolished. Obligations arising from the above decisions and having been assumed, up to the promulgation of the present Act, by natural or legal persons, residents or non-residents of Greece, with respect to the possession, disposal and transfer of gold coins they have acquired cease to be in effect.

\* \* \*

*R e: Reserve requirements on credit institutions with the Bank of Greece (Monetary Policy Council Act 30/14 February 2000)*

The Monetary Policy Council of the Bank of Greece, having regard to:

- a) Articles 2 and 7 of Law 2548/1997 re: "Provisions relating to the Bank of Greece",
- b) Bank of Greece Governor's Act 1959/25 July 1971 re: "Reserve requirements on deposits with banks", as applicable (latest relevant Act of the Monetary Policy Council: 23/7 December 1999),
- c) Monetary Policy Council Act 10/22 December 1998, on the Operating Rules of the "HERMES" real-time payment system (in drachmas),
- d) Article 7, par. 4, of Law 2548/1997, on the imposition of sanctions by the Bank of Greece in the event of credit institutions' non-compliance with the provisions concerning reserve requirements (the sanctions are in the form of a deposit, in a non-interest-bearing account, of up to double the amount of the relevant requirement for a period up to twice as long as the period of the violation),
- e) the need to enhance the effectiveness of the policy for the management of credit institutions' reserves after inception of operation of the "HERMES" real-time payment system in drachmas,
- f) the advisability of adjusting the reserve requirement system to the respective framework applied by the European System of Central Banks,

has decided to amend certain provisions on reserve requirements with the Bank of Greece (Presidential Decree 1959/25 July 1991, as applicable) and to determine the following:

- a) Unification of the interest-bearing and the non-interest-bearing part of reserve requirements
1. The distinction between the interest-bearing and the non-interest-bearing part of reserve

requirements on credit institutions with the Bank of Greece is abolished. The total amount of the reserve required from each credit institution shall be kept in an interest-bearing account with the Bank of Greece and be remunerated at a rate to be determined by a Monetary Policy Council Act. Interest shall be calculated on the basis of the "actual/360" day-count convention and be paid on the second business day after the end of each maintenance period.

- 2. a) As to the maintenance of the required reserve at average monthly level, the provisions of par. 1a (first indent) of Bank of Greece Governor's Act 2385/28 March 1996 shall apply.
  - b) During the monthly maintenance period, daily balances may not be lower than the amount determined by Monetary Policy Council Act 23/7 December 1999.
  - c) Credit institutions' cash reserves (up to an amount of 2 per cent) shall be netted against the total requirement.
- b) Reserve requirement accounts and procedure
- 1. a) Without prejudice to the provisions of par. b2, fund-raising and depositing by credit institutions in the context of the present Act shall be effected through their settlement account with the "HERMES" system, in which account the amount credit institutions are allowed to use freely according to the provisions of Monetary Policy Council Act 23/7 December 1999, as applicable, shall be kept at average monthly levels.
  - b) The amount corresponding to the remaining proportion of the reserve requirement shall be kept in a separate account.

2. On the starting day of the maintenance period, the calculation of the amount of the required reserve, as well as the relevant book entries, shall be effected by the competent service of the Bank of Greece.

3. In the event that the reserve requirement is not met at an average monthly level, credit institutions shall, on their own initiative, proceed to the actions necessary in order to meet the relevant requirement by the closing time of "HERMES" on the last business day of the maintenance period.

4. In the event that the outstanding balance of relevant accounts exceeds, on average, the amount of the reserve requirement, no interest shall be paid on the excess amount and the latter shall not

be taken into account for meeting the requirement of the next maintenance period.

#### c) Sanctions

In the event that credit institutions do not fully meet the relevant reserve requirement, the Bank of Greece imposes the sanctions provided for by Law 2548/1997 and the relevant articles of its Statute, as applicable.

The other provisions of Bank of Greece Governor's Act 1959/25 July 1991, as applicable, shall remain unchanged.

The present Act shall be effective as of 10 March 2000.

# Statistical appendix





# Tables

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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	
	(1994=100)	Percentage change over previous year	(1994=100)	Percentage change over previous year	(1994=100)	Percentage change over previous year	(1994=100)	Percentage change over previous year	(1994=100)	Percentage change over previous year
<b>1996</b> .....	117.8	8.2	115.2	7.2	122.4	9.9	118.2	8.1	118.7	8.4
<b>1997</b> .....	124.3	5.5	119.5	3.7	132.6	8.4	125.3	6.0	126.8	6.8
<b>1998</b> .....	130.3	4.8	124.1	3.9	140.8	6.2	132.0	5.3	134.0	5.7
<b>1999</b> .....	133.7	2.6	126.2	1.7	146.5	4.1	135.8	2.9	138.0	3.0
<b>1998</b> I .....	127.1	4.4	121.0	3.4	137.7	6.0	128.1	4.5	130.0	5.0
II .....	131.6	5.3	126.3	4.5	140.6	6.5	132.6	5.7	134.8	6.0
III .....	130.2	5.1	123.6	4.3	141.6	6.4	132.4	5.9	134.2	6.2
IV .....	132.1	4.3	125.5	3.2	143.4	5.8	134.8	5.2	137.2	5.5
<b>1999</b> I .....	131.7	3.6	124.3	2.8	144.5	4.9	133.7	4.3	135.8	4.5
II .....	134.7	2.4	128.0	1.3	146.5	4.2	136.5	2.9	139.1	3.2
III .....	132.9	2.0	124.6	0.8	147.1	3.9	135.7	2.5	137.6	2.5
IV .....	135.4	2.5	128.1	2.0	148.1	3.3	137.3	1.9	139.7	1.8
<b>1997</b> Jan. ....	121.2	6.8	115.9	5.6	130.1	8.6	122.1	6.9	122.9	7.1
Feb. ....	120.7	6.5	115.6	5.3	129.5	8.5	121.5	6.6	122.4	7.2
March ..	123.4	6.0	119.4	4.3	130.2	8.8	124.3	6.5	126.0	7.4
Apr. ....	124.5	5.9	120.0	4.1	132.2	8.7	125.3	6.5	127.0	7.4
May ....	125.0	5.4	121.0	3.1	131.9	9.2	125.3	6.6	126.9	7.6
June ....	125.5	5.6	121.7	3.7	132.0	8.5	125.7	6.1	127.4	7.0
July ....	123.1	5.4	117.7	3.5	132.5	8.5	124.0	5.8	125.2	6.6
Aug. ....	123.2	5.6	117.7	3.6	132.8	8.7	124.2	5.9	125.4	6.8
Sept. ....	125.3	4.9	120.3	2.7	134.0	8.5	126.8	5.8	128.5	6.8
Oct. ....	126.1	4.7	121.1	2.9	134.6	7.6	127.7	5.4	129.5	6.0
Nov. ....	126.5	5.2	121.7	3.5	134.8	7.7	127.8	5.3	129.7	6.0
Dec. ....	127.6	4.7	122.0	3.0	137.1	7.4	128.9	5.1	131.0	5.8
<b>1998</b> Jan. ....	126.5	4.4	119.9	3.4	137.8	5.9	127.4	4.3	129.1	5.1
Feb. ....	125.9	4.3	119.3	3.2	137.2	5.9	126.8	4.4	128.4	4.9
March ..	129.0	4.6	123.7	3.6	138.2	6.1	130.2	4.7	132.4	5.1
Apr. ....	131.1	5.3	125.4	4.5	140.9	6.6	132.2	5.5	134.6	6.0
May ....	131.6	5.3	126.7	4.7	140.1	6.2	132.4	5.6	134.4	5.9
June ....	132.0	5.2	126.9	4.3	140.7	6.6	133.2	5.9	135.3	6.2
July ....	129.4	5.1	122.6	4.1	141.2	6.6	131.5	6.1	133.1	6.3
Aug. ....	129.4	5.0	122.4	4.0	141.5	6.6	131.6	6.0	133.3	6.3
Sept. ....	131.9	5.2	125.9	4.7	142.2	6.1	134.0	5.7	136.2	6.0
Oct. ....	132.0	4.7	125.8	3.9	142.6	5.9	134.6	5.4	137.0	5.8
Nov. ....	131.9	4.2	125.5	3.1	142.7	5.9	134.6	5.3	136.9	5.6
Dec. ....	132.5	3.9	125.3	2.7	144.8	5.6	135.2	4.9	137.7	5.1
<b>1999</b> Jan. ....	131.2	3.7	123.1	2.7	145.0	5.2	133.2	4.6	135.2	4.7
Feb. ....	130.5	3.7	122.8	2.9	143.9	4.9	132.5	4.5	134.3	4.6
March ..	133.4	3.4	127.0	2.7	144.5	4.6	135.4	4.0	137.9	4.2
Apr. ....	134.8	2.8	127.7	1.8	147.0	4.3	136.5	3.2	139.2	3.5
May ....	134.7	2.4	128.1	1.1	146.1	4.3	136.2	2.8	138.8	3.3
June ....	134.7	2.1	128.1	0.9	146.3	4.0	136.8	2.7	139.2	2.9
July ....	132.1	2.1	123.6	0.9	146.8	4.0	135.0	2.6	136.7	2.7
Aug. ....	132.0	2.0	123.3	0.7	146.9	3.8	135.1	2.6	136.8	2.6
Sept. ....	134.6	2.0	126.9	0.8	147.7	3.9	137.1	2.3	139.2	2.2
Oct. ....	134.9	2.2	127.5	1.4	147.7	3.6	137.1	1.9	139.5	1.8
Nov. ....	135.3	2.6	128.1	2.0	147.7	3.5	137.2	2.0	139.5	1.9
Dec. ....	136.1	2.7	128.7	2.7	148.9	2.8	137.7	1.8	140.2	1.8
<b>2000</b> Jan. ....	134.6	2.6	126.1	2.4	149.3	3.0	135.8	1.9	137.7	1.9

Source: Calculations based on NSSG data.

**Table 2**  
Wholesale price index: general index and basic sub-indices

Period	General index		Domestic primary products <sup>1</sup>		Domestic industrial products <sup>1</sup>		Exported products		Imported products	
	(1990=100)	Percentage change over previous year	(1990=100)	Percentage change over previous year	(1990=100)	Percentage change over previous year	(1990=100)	Percentage change over previous year	(1990=100)	Percentage change over previous year
<b>1995</b> .....	165.4	7.9	164.0	7.7	166.3	7.9	162.6	10.5	166.3	6.3
<b>1996</b> .....	175.7	6.2	171.2	4.4	180.0	8.3	174.2	7.1	170.3	2.4
<b>1997</b> .....	181.5	3.3	178.3	4.2	187.2	4.0	179.3	2.9	173.9	2.1
<b>1998</b> .....	188.5	3.9	191.7	7.5	192.5	2.8	184.7	3.0	183.4	5.4
<b>1999</b> .....	192.5	2.1	198.3	3.4	199.6	3.7	184.5	-0.1	184.3	0.5
<b>1997</b> IV .....	182.7	3.5	173.4	8.8	189.2	3.0	180.3	3.1	175.4	3.6
<b>1998</b> I .....	184.8	3.5	190.8	11.2	189.0	2.1	180.9	3.1	178.8	4.3
II .....	190.9	5.1	193.1	3.4	193.6	4.1	189.7	5.8	186.4	7.1
III .....	189.3	3.5	184.6	1.7	194.0	3.0	186.6	2.5	184.1	5.4
IV .....	189.0	3.4	198.4	14.4	193.3	2.2	181.6	0.7	184.3	5.1
<b>1999</b> I .....	188.8	2.1	209.9	10.0	193.5	2.3	179.3	-0.9	182.0	1.8
II .....	191.3	0.2	202.3	4.7	197.6	2.0	183.2	-3.4	183.4	-1.6
III .....	193.1	2.0	181.4	-1.8	202.3	4.3	186.0	-0.3	184.9	0.5
IV .....	196.9	4.2	199.7	0.7	205.2	6.2	189.5	4.4	187.0	1.5
<b>1997</b> Jan. ....	177.9	2.7	166.3	0.2	185.3	5.7	174.1	0.2	170.5	-0.5
Feb. ....	178.7	2.5	174.3	3.7	185.2	5.6	175.1	-0.4	171.1	-1.1
March ..	179.4	2.1	174.2	-3.3	184.9	4.3	177.1	1.2	172.7	0.3
Apr. ....	180.9	2.1	183.4	-3.1	185.5	3.4	179.1	2.1	173.6	1.3
May ....	181.7	2.4	187.1	-6.1	186.1	3.7	179.4	2.9	174.4	2.3
June ....	182.1	3.6	189.8	2.0	186.5	4.1	179.6	4.3	174.4	3.0
July ....	182.4	4.6	186.9	13.7	187.1	4.0	180.8	5.1	174.3	3.2
Aug. ....	183.3	4.9	181.3	12.5	188.8	4.7	183.0	6.1	174.6	3.0
Sept. ....	183.1	4.1	176.6	8.8	188.9	3.7	182.3	4.4	175.2	3.3
Oct. ....	182.9	3.6	168.9	5.6	189.2	2.9	182.5	4.0	175.4	3.9
Nov. ....	182.3	3.5	173.0	9.4	188.9	3.0	179.0	2.8	175.4	3.6
Dec. ....	182.9	3.5	178.3	11.4	189.4	3.0	179.3	2.7	175.4	3.2
<b>1998</b> Jan. ....	183.6	3.2	190.7	14.7	188.5	1.7	179.3	3.0	176.2	3.3
Feb. ....	183.4	2.6	190.1	9.1	188.5	1.8	178.2	1.8	176.5	3.2
March ..	187.5	4.5	191.7	10.0	190.1	2.8	185.3	4.6	183.6	6.3
Apr. ....	191.1	5.6	194.1	5.8	192.8	3.9	191.2	6.8	187.4	7.9
May ....	191.6	5.4	197.4	5.5	194.3	4.4	190.0	5.9	186.7	7.1
June ....	189.9	4.3	187.8	-1.1	193.7	3.9	188.0	4.7	185.2	6.2
July ....	188.8	3.5	180.9	-3.2	193.9	3.6	186.3	3.0	183.6	5.3
Aug. ....	188.6	2.9	180.2	-0.6	193.5	2.5	186.5	1.9	183.5	5.1
Sept. ....	190.5	4.2	192.8	6.6	194.6	3.4	187.0	2.7	185.1	6.4
Oct. ....	190.1	3.9	197.1	16.7	194.0	2.5	184.4	1.0	185.5	5.8
Nov. ....	188.6	3.5	194.7	12.5	193.1	2.2	181.8	1.6	183.8	4.8
Dec. ....	188.3	3.0	203.4	14.1	192.7	1.7	178.5	-0.4	183.5	4.6
<b>1999</b> Jan. ....	188.5	2.7	211.3	10.8	192.9	2.3	178.1	-0.7	182.4	3.5
Feb. ....	188.6	2.8	213.3	12.2	193.1	2.4	178.9	0.4	181.5	2.8
March ..	189.3	1.0	205.2	7.0	194.4	2.3	181.0	-2.3	182.0	-0.9
Apr. ....	191.3	0.1	207.6	7.0	197.1	2.2	182.8	-4.4	183.2	-2.2
May ....	191.7	0.1	209.8	6.3	197.4	1.6	183.0	-3.7	183.4	-1.8
June ....	190.9	0.5	189.4	0.9	198.2	2.3	183.8	-2.2	183.6	-0.9
July ....	191.7	1.5	175.8	-2.8	201.0	3.7	185.2	-0.6	184.1	0.3
Aug. ....	192.7	2.2	176.5	-2.1	202.4	4.6	185.8	-0.4	184.7	0.7
Sept. ....	194.9	2.3	191.9	-0.5	203.6	4.6	187.0	0.0	186.0	0.5
Oct. ....	195.5	2.8	196.9	-0.1	203.7	5.0	187.9	1.9	186.3	0.4
Nov. ....	196.5	4.2	196.6	1.0	205.0	6.2	189.1	4.0	186.9	1.7
Dec. ....	198.7	5.5	205.6	1.1	206.9	7.4	191.4	7.2	187.8	2.3

<sup>1</sup> For home consumption.

Source: Calculations based on NSSG data.

Table 3

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

	Billion drachmas	Annual percentage change (at constant prices of year 1995)				
	1995	1996	1997	1998	1999	2000 (forecast)
1.1 Primary sector (agriculture)	2,479.9	-3.3	0.1	2.2	1.0	...
1.2 Secondary sector	5,639.2	2.2	5.0	6.5	4.4	...
1.2.a Mining and quarrying	162.1	-3.0	-0.1	-0.4	-5.0	...
1.2.b Manufacturing	3,261.5	3.9	0.4	4.7	1.5	...
1.2.c Electricity - town gas - water supply	596.6	-2.4	0.1	3.2	6.0	...
1.2.d Construction	1,619.0	1.0	16.8	11.3	9.5	...
1.3 Tertiary sector	17,048.1	2.4	3.2	3.1	3.5	...
1.3.a Trade	3,413.7	5.9	5.8	6.4	6.0	...
1.3.b Hotels - restaurants	1,642.7	4.0	2.6	3.8	4.0	...
1.3.c Transport - communications	1,696.3	-5.6	4.1	2.6	3.0	...
1.3.d Financial intermediaries (banks etc.)	1,060.4	8.2	7.0	3.7	8.0	...
1.3.e Real estate management and other activities	4,285.6	1.7	1.1	2.2	2.0	...
1.3.f Public administration - security	1,808.8	7.0	0.2	-1.7	-1.5	...
1.3.g Education	1,123.8	-1.9	0.9	3.8	4.0	...
1.3.h Health	1,313.7	-3.8	8.0	2.0	3.0	...
1.3.i Miscellaneous services	703.1	3.2	-0.1	2.6	3.1	...
1.4 Gross value added	25,167.0	1.8	3.3	3.8	3.5	...
1.5 Imputed bank services	-741.3	3.3	5.2	4.9	3.0	...
1.6 Gross value added at basic prices	24,425.7	1.8	3.3	3.7	3.5	...
2.1 Private consumption	19,901.6	2.4	2.7	2.1	2.6	3.0
2.2 Public consumption	4,174.1	0.9	1.7	2.0	-0.2	0.5
2.2.a Individual consumption	1,600.7	3.8	-0.5	3.6	0.5	0.8
2.2.b Collective consumption	2,573.4	-0.9	3.2	1.0	-0.7	0.3
2.3 Gross fixed capital formation	5,066.0	8.4	13.1	8.1	8.3	8.6
2.3.a.a By investor: General government	864.0	2.0	11.7	6.7	13.6	4.0
2.3.a.b Other sectors	4,202.0	9.7	13.4	8.3	7.3	9.5
2.3.b.a By type: Construction	3,210.5	1.8	17.3	9.0	7.7	8.2
2.3.b.b Equipment	1,594.5	23.1	8.2	7.2	10.0	10.0
2.3.b.c Other investment	261.0	-0.9	-1.9	1.4	3.0	3.0
2.4 Change in stocks and statistical discrepancies (as a percentage of GDP)	85.7	0.4	0.0	-0.1	0.0	0.0
2.5 Final domestic demand	29,227.4	3.3	4.1	3.2	3.6	3.9
2.6 Exports of goods and services	4,800.2	3.5	7.9	4.2	5.4	6.8
2.6.a Exports of goods	2,843.2	0.6	6.9	1.7	3.8	5.0
2.6.b Export of services	1,957.0	7.7	9.2	7.5	7.5	9.0
2.7 Final demand	34,027.6	3.3	4.6	3.3	3.8	4.3
2.8 Imports of goods and services	6,792.4	7.0	9.5	1.9	5.1	6.1
2.8.a Imports of goods	6,162.2	7.8	8.8	1.2	5.0	6.0
2.8.b Imports of services	630.2	-1.1	16.3	8.9	6.0	7.0
2.9 GDP at market prices	27,235.2	2.4	3.4	3.7	3.5	3.8

Source: Revised data on the basis of the European System of Accounts 1995 (ESA 95).

1995 - 1996: NSSG/National Accounts.

1997 - 1998: NSSG/National Accounts. Provisional estimates.

1999 - 2000: Ministry of National Economy/Directorate of Macroeconomic Analysis (December 1999). Provisional estimates and forecasts.

**Table 4**  
**Drachma exchange rate**

Date <sup>1</sup>	Against the ECU/euro <sup>2</sup>		Against the DEM		Against the USD	
	Drachmas per ECU/euro	Percentage change over the end of previous year <sup>3</sup>	Drachmas per DEM	Percentage change over the end of previous year <sup>3</sup>	Drachmas per USD	Percentage change over the end of previous year <sup>3</sup>
31.12.95 .....	303.760	-3.0	165.490	-6.3	237.040	1.3
31.12.96 .....	306.830	-1.0	158.970	4.1	247.020	-4.0
31.12.97 .....	312.120	-1.7	157.890	0.7	282.610	-12.6
31.12.98 .....	330.010	-5.4	168.500	-6.3	282.570	0.0
30.12.99 .....	330.350	-0.1	168.905	-0.2	328.440	-14.0
31.01.97 .....	304.350	0.8	157.600	0.9	257.120	-3.9
28.02.97 .....	304.360	0.8	156.840	1.4	265.500	-7.0
31.03.97 .....	308.300	-0.5	158.710	0.2	265.870	-7.1
30.04.97 .....	310.200	-1.1	158.900	0.0	274.600	-10.0
30.05.97 .....	311.000	-1.3	159.935	-0.6	271.250	-8.9
30.06.97 .....	309.330	-0.8	157.685	0.8	275.220	-10.2
31.07.97 .....	308.000	-0.4	156.210	1.8	286.460	-13.8
29.08.97 .....	309.200	-0.8	157.330	1.0	282.830	-12.7
30.09.97 .....	309.730	-0.9	158.045	0.6	278.910	-11.4
31.10.97 .....	309.640	-0.9	157.100	1.2	271.320	-9.0
28.11.97 .....	310.980	-1.3	156.930	1.3	277.050	-10.8
31.12.97 .....	312.120	-1.7	157.890	0.7	282.610	-12.6
31.01.98 .....	312.820	-0.2	158.520	-0.4	289.260	-2.3
27.02.98 .....	313.200	-0.3	158.400	-0.3	286.670	-1.4
31.03.98 .....	343.540	-9.1	172.800	-8.6	319.800	-11.6
30.04.98 .....	347.870	-10.3	176.030	-10.3	316.030	-10.6
29.05.98 .....	337.140	-7.4	171.075	-7.7	305.360	-7.5
30.06.98 .....	334.230	-6.6	168.665	-6.4	305.320	-7.4
31.07.98 .....	327.990	-4.8	166.320	-5.1	296.350	-4.6
31.08.98 .....	340.370	-8.3	172.200	-8.3	306.530	-7.8
30.09.98 .....	339.100	-8.0	172.235	-8.3	289.090	-2.2
30.10.98 .....	334.440	-6.7	170.085	-7.2	281.010	0.6
30.11.98 .....	329.730	-5.3	167.800	-5.9	286.180	-1.2
31.12.98 .....	330.010	-5.4	168.500	-6.3	282.570	0.0
29.01.99 .....	321.160	2.8	164.207	2.6	281.470	0.4
26.02.99 .....	321.950	2.5	164.610	2.4	292.050	-3.2
31.03.99 .....	325.950	1.2	166.656	1.1	303.900	-7.0
30.04.99 .....	325.790	1.3	166.574	1.2	307.410	-8.1
28.05.99 .....	325.160	1.5	166.252	1.4	310.240	-8.9
30.06.99 .....	324.720	1.6	166.027	1.5	314.440	-10.1
30.07.99 .....	325.100	1.5	166.221	1.4	303.880	-7.0
31.08.99 .....	326.340	1.1	166.855	1.0	309.800	-8.8
30.09.99 .....	328.600	0.4	168.011	0.3	308.270	-8.3
29.10.99 .....	330.050	0.0	168.752	-0.1	316.040	-10.6
30.11.99 .....	328.850	0.4	168.138	0.2	324.990	-13.1
30.12.99 .....	330.350	-0.1	168.905	-0.2	328.440	-14.0
31.01.00 .....	331.900	-0.5	169.698	-0.5	337.900	-2.8

<sup>1</sup> Last working day.

<sup>2</sup> ECU for 1995-1998 and euro as from 1999.

<sup>3</sup> A negative sign indicates depreciation of the drachma against the respective foreign currency.

Source: Bank of Greece.

Table 5  
Balance of payments  
(Million ECU/euro)<sup>1</sup>

	January – September			September		
	1997	1998	1999*	1997	1998	1999*
<b>I CURRENT ACCOUNT BALANCE (I.A+I.B+I.C+I.D)</b>	<b>-3,719.2</b>	<b>-2,770.0</b>	<b>-2,629.2</b>	<b>-13.7</b>	<b>-236.9</b>	<b>-368.9</b>
<b>I.A TRADE BALANCE (I.A.1-I.A.2)</b>	<b>-11,649.5</b>	<b>-11,231.1</b>	<b>-11,874.9</b>	<b>-1,288.0</b>	<b>-1,398.5</b>	<b>-1,629.2</b>
NON-OIL TRADE BALANCE	-10,190.8	-10,294.3	-11,001.6	-1,189.5	-1,316.2	-1,486.3
OIL TRADE BALANCE	-1,458.7	-936.8	-873.3	-98.5	-82.3	-142.9
I.A.1 Exports of goods	3,809.3	4,202.1	5,819.3	458.0	492.2	675.6
Fuel	370.0	463.7	683.4	67.1	60.2	120.1
Other goods	3,439.3	3,738.4	5,135.9	390.9	432.0	555.4
I.A.2 Imports of goods	15,458.9	15,433.2	17,694.2	1,746.0	1,890.7	2,304.7
Fuel	1,828.7	1,400.6	1,556.7	165.6	142.5	263.0
Other goods	13,630.2	14,032.6	16,137.5	1,580.4	1,748.2	2,041.7
<b>I.B SERVICES BALANCE (I.B.1-I.B.2)</b>	<b>4,632.8</b>	<b>4,963.9</b>	<b>5,491.2</b>	<b>620.6</b>	<b>785.4</b>	<b>808.2</b>
I.B.1 Receipts	6,994.7	7,791.5	11,528.5	919.8	1,167.2	1,649.3
Travel	3,761.6	4,443.4	6,610.7	545.0	755.5	992.2
Transport	1,210.6	1,405.6	3,172.5	136.4	172.7	469.0
Other services	2,022.5	1,942.5	1,745.3	238.4	239.0	188.1
I.B.2 Payments	2,361.9	2,827.5	6,037.3	299.3	381.8	841.1
Travel	849.1	1,168.3	2,656.3	120.0	147.2	371.8
Transport	242.0	281.4	1,490.5	29.6	44.6	249.7
Other services	1,270.8	1,377.8	1,890.4	149.7	190.0	219.5
<b>I.C INCOME BALANCE (I.C.1-I.C.2)</b>	<b>-1,039.5</b>	<b>-1,099.9</b>	<b>-498.4</b>	<b>-118.1</b>	<b>-61.0</b>	<b>2.7</b>
I.C.1 Receipts	858.2	993.6	1,769.2	102.1	142.5	233.1
Wages, salaries	186.9	241.4	445.4	23.9	30.7	47.1
Interest, dividends, profits	671.4	752.2	1,323.8	78.2	111.8	186.0
I.C.2 Payments	1,897.7	2,093.4	2,267.6	220.3	203.5	230.4
Wages, salaries	215.2	243.2	169.5	29.8	30.0	15.8
Interest, dividends, profits	1,682.5	1,850.3	2,098.2	190.5	173.6	214.7
<b>I.D CURRENT TRANSFERS BALANCE (I.D.1-I.D.2)</b>	<b>4,337.0</b>	<b>4,597.0</b>	<b>4,253.0</b>	<b>771.8</b>	<b>437.2</b>	<b>449.3</b>
I.D.1 Receipts	4,366.8	4,851.2	4,800.0	773.8	483.4	530.7
General government (transfers from the EU)	2,469.2	2,774.8	2,945.3	552.9	190.3	274.0
Other sectors (emigrants' remittances etc.)	1,897.6	2,076.5	1,854.7	221.0	293.1	256.7
I.D.2 Payments	29.8	254.3	547.0	2.1	46.2	81.4
General government	10.9	6.3	58.6	0.0	2.2	4.7
Other sectors	18.9	248.0	488.5	2.1	44.0	76.7
<b>II FINANCIAL ACCOUNT BALANCE (II.A+II.B+II.C+II.D)</b>	<b>3,925.4</b>	<b>3,199.2</b>	<b>2,735.5</b>	<b>-60.6</b>	<b>-75.4</b>	<b>729.2</b>
<b>II.A DIRECT INVESTMENT<sup>2</sup></b>	<b>634.7</b>	<b>393.9</b>	<b>294.0</b>	<b>307.2</b>	<b>260.0</b>	<b>-60.4</b>
<b>II.B PORTFOLIO INVESTMENT<sup>2</sup></b>	<b>1,331.1</b>	<b>7,199.3</b>	<b>6,593.0</b>	<b>712.0</b>	<b>494.3</b>	<b>156.2</b>
<b>II.C OTHER INVESTMENT<sup>2</sup></b>	<b>-3,833.1</b>	<b>-408.0</b>	<b>-742.4</b>	<b>-2,277.4</b>	<b>-40.7</b>	<b>58.8</b>
Assets	-4,293.9	-3,007.9	-2,652.9	-944.1	735.2	-809.2
Liabilities	460.9	2,600.0	1,910.5	-1,333.3	-775.8	868.0
(General government loans)	-1,020.1	2,734.2	660.9	-545.0	-33.7	27.6
<b>II.D CHANGE IN RESERVE ASSETS<sup>3</sup></b>	<b>5,792.7</b>	<b>-3,986.1</b>	<b>-3,409.1</b>	<b>1,197.6</b>	<b>-789.0</b>	<b>574.6</b>
<b>III ERRORS AND OMISSIONS</b>	<b>-206.2</b>	<b>-429.2</b>	<b>-106.4</b>	<b>74.4</b>	<b>312.2</b>	<b>-360.3</b>
RESERVE ASSETS				11,495.8	15,083.7	20,711.2

1 ECU for 1997 and 1998 and euro for 1999.

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

3 (+) decrease, (-) increase.

\* Provisional data.

Source: Bank of Greece.

Table 6

Monetary aggregates and liquid assets<sup>1</sup>

(End-of-period balances in billion drachmas)

Period	Currency in circulation	Private deposits in drachmas	Private deposits in foreign currency	Repos	Bank bonds	Money market fund units	Government securities with an initial maturity of up to one year	Liquidity indicator M4N
<b>1995</b> . . . . .	1,863.6	14,736.7	888.5	56.0	539.8	1,258.4	5,509.2	24,852.2
<b>1996</b> . . . . .	1,941.4	16,625.3	1,041.9	60.5	50.0	2,299.1	6,631.1	28,649.3
<b>1997</b> . . . . .	2,182.7	18,322.6	1,383.7	36.7	106.5	4,450.7	4,400.1	30,883.0
<b>1998</b> . . . . .	2,205.9	18,707.9	2,671.0	892.4	115.9	5,986.5	3,341.4	33,921.0
<b>1999*</b> . . . . .	2,671.9	21,233.2	2,934.3	3,035.4	10.6	4,580.4	1,363.1	35,828.9
<b>1998</b> Jan. . . . .	1,947.9	17,346.3	1,355.8	67.5	99.7	4,977.3	4,356.0	30,150.5
Feb. . . . .	1,914.4	17,253.2	1,531.5	40.8	95.8	5,383.4	4,207.4	30,426.5
March. . . . .	1,851.3	17,535.6	1,808.3	82.6	104.7	5,417.2	4,224.6	31,024.3
Apr. . . . .	2,007.8	17,524.7	2,488.1	66.3	87.5	4,986.4	4,240.6	31,401.4
May . . . . .	2,015.9	17,469.5	2,347.7	98.5	107.3	5,014.4	4,393.0	31,446.3
June . . . . .	2,030.9	18,088.7	2,395.3	87.3	116.7	5,143.8	4,192.4	32,055.1
July. . . . .	2,184.6	17,801.8	2,074.4	100.6	124.1	5,506.2	4,209.0	32,000.7
Aug. . . . .	2,061.4	17,838.5	2,633.5	92.8	122.4	5,782.9	4,164.7	32,696.2
Sept. . . . .	1,978.2	17,709.6	2,298.9	220.2	137.3	5,939.8	3,788.6	32,072.6
Oct. . . . .	1,984.9	17,443.5	2,535.0	700.8	141.7	5,619.8	3,869.1	32,294.8
Nov. . . . .	1,902.6	17,120.1	2,443.6	838.7	130.6	5,898.2	3,540.5	31,874.3
Dec. . . . .	2,205.9	18,707.9	2,671.0	892.4	115.9	5,986.5	3,341.4	33,921.0
<b>1999</b> Jan. . . . .	1,986.9	18,473.0	2,571.1	1,220.2	101.3	6,071.7	3,215.8	33,640.0
Feb. . . . .	1,941.4	18,641.7	2,499.3	1,339.8	106.8	6,037.6	3,185.9	33,752.5
March. . . . .	2,030.1	19,062.7	2,563.7	1,398.7	71.6	5,845.2	2,731.5	33,703.5
Apr. . . . .	2,173.2	19,430.7	2,420.7	1,493.2	74.9	5,785.6	2,390.7	33,769.0
May . . . . .	2,130.0	19,353.7	2,465.3	1,569.5	90.2	5,765.6	2,451.4	33,825.7
June . . . . .	2,181.7	20,006.8	2,390.0	1,590.5	89.2	5,741.8	2,228.3	34,228.3
July* . . . . .	2,333.0	19,989.6	2,490.1	1,997.9	57.4	5,618.6	2,046.6	34,533.2
Aug.* . . . .	2,220.4	20,063.5	2,424.6	2,131.2	47.1	5,505.0	2,072.7	34,464.5
Sept.* . . . .	2,176.6	20,496.9	2,785.5	2,072.8	33.3	5,011.0	1,686.4	34,262.5
Oct.* . . . .	2,152.0	19,692.1	2,861.8	2,643.3	40.6	4,856.5	1,763.6	34,009.9
Nov.* . . . .	2,107.0	20,105.7	2,949.1	3,228.8	22.7	4,527.1	1,468.7	34,409.1
Dec.* . . . .	2,671.9	21,233.2	2,934.3	3,035.4	10.6	4,580.4	1,363.1	35,828.9

<sup>1</sup> Monetary aggregates comprise monetary liabilities of banks and money market funds, i.e. of monetary financial institutions (MFIs), to the domestic private sector.

\* Provisional data.

Source: Bank of Greece.



**Table 7**  
**Total bank credit to the private sector**  
*(End-of-period balances in billion drachmas)*

Period	Total	In drachmas	In foreign currency	Branches of economic activity					
				Manufacturing	Trade	Housing	Tourism	Consumer credit	Other
<b>1995</b> . . . . .	8,328.0	6,858.1	1,469.9	2,788.9	1,584.8	1,219.0	398.5	423.1	1,913.7
<b>1996</b> . . . . .	9,676.1	7,362.2	2,313.9	3,028.9	1,890.4	1,554.4	439.1	574.5	2,188.8
<b>1997</b> . . . . .	11,145.8	8,407.5	2,738.3	3,185.4	2,316.9	1,924.4	464.7	731.6	2,522.8
<b>1998</b> . . . . .	12,817.7	9,703.1	3,114.6	3,200.0	2,971.5	2,332.3	513.1	1,000.6	2,800.2
<b>1999*</b> . . . . .	14,658.3	10,784.7	3,873.6	3,636.9	3,162.3	2,915.9	547.0	1,319.5	3,076.7
<b>1998</b> Jan. . . . .	11,256.7	8,423.0	2,833.7	3,228.4	2,350.9	1,953.9	466.1	743.3	2,514.1
Feb. . . . .	11,337.2	8,486.6	2,850.6	3,227.1	2,353.3	1,989.9	471.9	757.8	2,537.2
March . . . . .	11,754.3	8,743.7	3,010.6	3,273.8	2,476.3	1,998.6	497.5	770.9	2,737.2
Apr. . . . .	11,854.4	9,254.8	2,599.6	3,244.2	2,568.1	2,031.0	505.3	777.4	2,728.4
May . . . . .	11,941.8	9,325.5	2,616.3	3,229.3	2,621.6	2,058.6	497.7	800.7	2,733.9
June . . . . .	12,127.2	9,404.6	2,722.6	3,239.1	2,605.2	2,094.2	505.4	820.6	2,862.7
July . . . . .	12,152.7	9,407.1	2,745.6	3,252.2	2,618.5	2,136.3	495.6	844.6	2,805.5
Aug. . . . .	12,260.8	9,360.2	2,900.6	3,249.8	2,613.4	2,168.2	490.0	866.9	2,872.5
Sept. . . . .	12,313.6	9,457.1	2,856.5	3,252.4	2,684.1	2,206.5	484.3	890.5	2,795.8
Oct. . . . .	12,507.3	9,386.3	3,121.0	3,310.5	2,735.6	2,239.0	485.5	912.9	2,823.8
Nov. . . . .	12,542.9	9,447.7	3,095.2	3,323.2	2,714.0	2,274.2	493.2	934.3	2,804.0
Dec. . . . .	12,817.7	9,703.1	3,114.6	3,200.0	2,971.5	2,332.3	513.1	1,000.6	2,800.2
<b>1999</b> Jan. . . . .	12,946.6	9,727.8	3,218.8	3,217.0	2,981.6	2,355.5	509.6	1,019.3	2,863.6
Feb. . . . .	13,010.8	9,693.8	3,317.0	3,210.0	2,944.6	2,386.4	515.4	1,035.0	2,919.4
March . . . . .	13,220.2	9,728.1	3,492.1	3,244.2	2,970.1	2,430.8	527.5	1,108.6	2,939.0
Apr. . . . .	13,307.5	9,750.0	3,557.5	3,243.0	2,984.2	2,471.3	537.3	1,153.0	2,918.7
May . . . . .	13,565.8	9,974.9	3,590.9	3,283.3	3,085.5	2,523.1	540.9	1,184.7	2,948.3
June . . . . .	13,466.5	9,990.5	3,476.0	3,223.1	3,015.0	2,590.5	542.4	1,201.9	2,893.6
July . . . . .	13,819.1	10,189.5	3,629.6	3,357.0	3,106.1	2,664.2	528.1	1,230.9	2,932.8
Aug. . . . .	13,933.7	10,124.6	3,809.1	3,368.6	3,105.0	2,719.7	526.3	1,263.9	2,950.2
Sept. . . . .	14,044.9	10,207.8	3,837.1	3,407.6	3,128.6	2,778.9	520.3	1,242.2	2,967.3
Oct. . . . .	14,462.2	10,474.2	3,988.0	3,502.8	3,292.6	2,841.9	524.2	1,278.1	3,022.6
Nov. . . . .	14,822.7	10,673.6	4,149.1	3,671.7	3,314.4	2,906.1	534.9	1,309.7	3,085.9
Dec.* . . . .	14,658.3	10,784.7	3,873.6	3,636.9	3,162.3	2,915.9	547.0	1,319.5	3,076.7

\* Provisional data.

Source: Bank of Greece.

**Table 8**  
**Interest rates and inflation**  
*(Percentages per annum, period averages)*

Period	Deposit rates			Lending rates				12-month Treasury bill yield <sup>4</sup>	10-year government bond yield	Consumer price index <sup>5</sup>
	Sight deposits	Savings deposits	12-month time deposits	Short-term		Long-term				
				To enterprises <sup>1</sup>	To households <sup>2</sup>	To enterprises <sup>1</sup>	To households <sup>3</sup>			
<b>1995</b> . . . . .	5.8	13.7	15.9	23.1	–	22.1	–	15.5	–	8.9
<b>1996</b> . . . . .	5.9	11.9	13.5	21.0	–	18.9	–	12.8	–	8.2
<b>1997</b> . . . . .	5.4	9.2	10.2	18.9	–	16.8	–	10.4	9.8	5.5
<b>1998</b> . . . . .	5.3	9.0	10.7	18.6	–	16.6	–	11.6	8.5	4.8
<b>1999</b> . . . . .	3.4	8.0	8.7	15.0	20.4	13.5	12.6	8.9	6.3	2.6
<b>1998</b> Jan. . . .	5.7	9.5	11.2	19.5	–	16.9	–	12.4	11.0	4.4
Feb. . . .	5.5	9.5	11.2	19.8	–	17.1	–	12.7	11.0	4.3
March . . .	5.6	9.1	10.9	19.3	–	16.7	–	11.5	9.3	4.6
Apr. . . .	5.3	8.8	10.5	18.7	–	16.7	–	11.1	8.1	5.3
May . . . .	5.3	8.8	10.6	18.5	–	16.5	–	11.3	7.9	5.3
June . . . .	5.2	8.8	10.6	18.6	–	16.6	–	11.7	7.7	5.2
July . . . .	5.2	8.8	10.7	18.3	–	17.0	–	11.5	7.7	5.1
Aug. . . .	5.2	9.0	10.7	18.2	–	16.7	–	13.2	7.6	5.0
Sept. . . .	5.3	8.8	10.7	18.2	–	16.9	–	11.6	8.3	5.2
Oct. . . .	5.2	8.8	10.6	18.0	–	16.6	–	11.0	8.5	4.7
Nov. . . .	5.1	8.8	10.5	18.0	–	16.0	–	10.5	7.7	4.2
Dec. . . .	4.6	8.7	10.1	17.6	–	16.0	–	10.3	7.2	3.9
<b>1999</b> Jan. . . .	3.6	8.4	9.7	15.6	20.3	14.4	13.6	9.5	6.3	3.7
Feb. . . .	3.3	8.1	9.3	14.7	20.4	13.8	13.0	9.2	6.0	3.7
March . . .	3.4	8.0	9.2	14.8	20.5	13.7	12.8	8.8	6.0	3.4
Apr. . . .	3.4	8.0	8.9	14.9	20.3	13.6	12.8	8.7	5.9	2.8
May . . . .	3.3	8.0	8.5	14.9	20.5	13.6	12.4	8.7	5.8	2.4
June . . . .	3.4	8.0	8.5	15.2	20.4	12.9	12.4	8.7	6.0	2.1
July . . . .	3.5	8.0	8.4	15.0	20.3	13.2	12.3	8.9	6.4	2.1
Aug. . . .	3.4	8.0	8.4	15.1	20.4	13.4	12.4	8.8	6.7	2.0
Sept. . . .	3.3	8.0	8.4	15.0	20.5	13.5	12.4	8.7	6.6	2.0
Oct. . . .	3.3	8.0	8.4	15.0	20.6	13.3	12.6	9.1	7.0	2.2
Nov. . . .	3.3	8.0	8.4	15.2	20.5	13.7	12.5	8.9	6.6	2.6
Dec. . . .	3.6*	7.9*	8.1*	14.6	20.3	13.2	12.4	8.3	6.4	2.7
<b>2000</b> Jan. . . .	3.5*	7.5*	7.7*	14.5*	20.1*	13.0*	12.2*	7.5	6.6	2.6

<sup>1</sup> Up to December 1998, the average interest rate concerned all categories of short-term or long-term credit to enterprises and households.

<sup>2</sup> Average interest rate on all types of consumer loans.

<sup>3</sup> Average interest rate on floating-rate housing loans maturing in over 5 years.

<sup>4</sup> Yield at issue. For January 2000, average yield of the month.

<sup>5</sup> Annual percentage change.

\* Provisional data.

Source: Bank of Greece and NSSG.

**Table 9**  
**Interbank market and Bank of Greece interest rates**  
*(Percentages per annum)*

Period	Interbank market rates <sup>1</sup>					Bank of Greece rates <sup>2</sup>			
	Overnight	1-month Athibor	3-month Athibor	6-month Athibor	12-month Athibor	Overnight deposit rate		14-day deposit rate	Lombard rate
						First tier	Second tier		
<b>1995</b> . . . . .	15.9	16.3	16.4	16.5	–	–	–	–	21.5
<b>1996</b> . . . . .	13.3	13.7	13.8	13.9	14.1	–	–	–	21.0
<b>1997</b> . . . . .	12.9	13.4	12.9	12.4	12.1	10.90	9.60	12.75	19.0
<b>1998</b> . . . . .	12.6	14.0	13.9	13.6	13.1	11.60	9.75	12.25	15.5
<b>1999</b> . . . . .	10.4	10.4	10.3	10.0	9.4	10.25	9.00	10.75	11.5
<b>1998</b> Jan. . . .	15.1	18.6	19.0	18.5	17.7	10.90	9.60	19.00	23.0
Feb. . . .	13.0	16.3	16.9	16.8	16.5	10.90	9.60	17.00	23.0
March. . .	13.2	14.4	14.5	14.4	14.1	10.90	9.60	15.50	19.0
Apr. . . .	11.9	13.1	12.9	12.6	12.3	11.50	9.75	14.25	19.0
May . . . .	11.9	13.4	13.2	12.8	12.3	11.50	9.75	14.00	19.0
June . . . .	13.4	13.7	13.4	13.0	12.3	11.50	9.75	13.75	19.0
July. . . .	12.3	13.1	13.0	12.7	12.1	11.90	9.75	13.00	19.0
Aug. . . .	12.4	14.1	13.7	13.1	12.5	11.90	9.75	13.00	16.0
Sept. . . .	11.7	13.9	13.9	13.6	13.1	11.90	9.75	13.00	16.0
Oct. . . .	11.9	12.7	12.7	12.6	12.4	11.90	9.75	12.75	16.0
Nov. . . .	12.3	12.3	12.0	11.7	11.2	11.90	9.75	12.75	16.0
Dec. . . .	11.9	12.2	11.9	11.5	10.9	11.60	9.75	12.25	15.5
<b>1999</b> Jan. . . .	11.4	11.9	11.7	11.3	10.7	11.50	9.75	12.00	13.5
Feb. . . .	10.2	10.7	10.7	10.5	10.1	11.50	9.75	12.00	13.5
March. . .	10.2	10.2	10.1	9.9	9.6	11.50	9.75	12.00	13.5
Apr. . . .	10.2	10.2	10.1	9.8	9.4	11.50	9.75	12.00	13.5
May . . . .	10.4	10.1	10.0	9.6	9.1	11.50	9.75	12.00	13.5
June . . . .	10.4	10.1	10.1	9.7	9.0	11.50	9.75	12.00	13.5
July. . . .	10.3	10.1	10.1	9.7	9.1	11.50	9.75	12.00	13.5
Aug. . . .	10.3	10.1	10.1	9.9	9.3	11.50	9.75	12.00	13.5
Sept. . . .	10.3	10.0	10.0	9.8	9.1	11.50	9.75	12.00	13.5
Oct. . . .	10.6	10.3	10.3	10.0	9.2	11.00	9.25	11.50	13.0
Nov. . . .	10.8	11.2	11.0	10.3	9.4	11.00	9.25	11.50	13.0
Dec. . . .	9.8	10.0	9.8	9.5	8.9	10.25	9.00	10.75	11.5
<b>2000</b> Jan. . . .	9.4	9.5	9.1	8.7	7.9	9.50	8.50	9.75	11.0

1 Period average rates.

2 End-of-period rates.

Source: Bank of Greece.