

BANK OF GREECE

ANNUAL REPORT 2001



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ANNUAL REPORT

2001

PRESENTED TO THE 69th GENERAL MEETING
OF SHAREHOLDERS ON 29 APRIL 2002
BY GOVERNOR LUCAS PAPADEMOS



ATHENS 2002

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I. FINANCIAL RESULTS FOR 2001

The Bank's Profit and Loss Account for 2001 reveals total gross revenue of €803.4 million and total operating expenses of €297.1 million. Therefore, net profits reached €506.3 million, against €490.8 million in 2000.

Out of these net profits, the General Council proposes to the General Meeting of Shareholders that an amount of €6.0 million, corresponding to 12% of the Bank's share capital, be distributed as dividend to shareholders under Article 71 of the Bank's Statute. Under the same Article, the General Council proposes the distribution of €22.9 million as additional dividend. A total of €28.9 million would thus be distributed, compared with €26.2 million last year. According to the above proposals, the total dividend per share comes to €3.23, 10% higher than in 2000. From the balance of net profits after the payment of income tax, an amount of €457.9 million shall be paid to the State, in accordance with Article 71 of the Statute, compared with €446.2 million in 2000.

Total revenue from interest, commission fees and other receipts from domestic and foreign transactions, including transactions with the European Central Bank (ECB) and the European System of Central Banks, net of interest and commission payments, was €5.7 million (or 0.7%) lower than in 2000 and, as mentioned above, came to €803.4 million.

Net interest income from claims against the Greek State and domestic or foreign credit institutions dropped by €167.7 million compared with 2000. This is attributable mainly to the decrease in interest from the investment of foreign exchange reserves in securities and with credit institutions abroad, as well as to the payment of interest (€320.9 million) on the debit balance of the Bank's transaction account with the ECB, which is connected with the operation of the TARGET system. In greater detail, interest income from the investment of foreign exchange reserves dropped by €460.5 million, partly due to the transfer of part of the Bank's foreign exchange reserves to the ECB on 2 January 2001. However, in 2001, the Bank received interest (totalling €38.2 million) on long-term claims in euro, which came from the above-mentioned transfer to the ECB. Additionally, on 2 January 2001, the balance (95%) of the Bank of Greece's participation in the ECB's capital was paid. By contrast, net interest from transactions between the Bank and the Greek State rose by €111.0 million. This development is related to the increase in interest on loans with a foreign currency clause (which rose by €35.7 million due to the higher average weighted rate on the date of payment, on the basis of the initial agreement), as well as to the €81.6 million drop in interest paid on government deposits. Interest on lending to credit institutions rose by €28.0 million, and its largest share comes from liquidity-provision operations. At the same time, interest paid by the Bank on credit institutions' foreign currency redeposits dropped by €277.7 million. This development is related to the release, in 2001, of the total of credit institutions' compulsory redeposits in euro with the Bank of Greece and the largest part (70%) of redeposits in other currencies. Interest paid to credit institutions' reserve requirements in drachmas dropped by €57.7 million; it

should be recalled that the release of this type of deposits started on 3 January 2001 and 40% was released in the course of the year.

The net balance of the Bank's financial operations, after amortisation payments, was positive and stood at €149.8 million in 2001, against €111.2 million in 2000. This €38.6 million increase stems mainly from net profits from foreign exchange operations.

Net profits from commission fees rose by €69.0 million against 2000 and came to €97.2 million. This is related to a €67.6 million decrease in commission fees paid to banks on their foreign currency redeposits, the largest share of which, as mentioned above, was released in 2001. By contrast, commission fees paid to the Bank for administering the government accounts and managing government paper stood at 2000 levels (2001: €75.3 million, 2000: €75.4 million).

Other net revenue rose by €54.4 million, €37.0 million of which represent a dividend received by the Bank for the first time from its participation in the ECB's capital.

The Bank's total operating expenses, excluding amortisation payments and provisions, came to €247.3 million in 2001, i.e. €37.5 million higher compared to 2000. More specifically, outlays for personnel remuneration and pensions rose by €11.8 million or 8.5%, against 9.2% in 2000. The increase in the wage bill was a result of grade and pay advancement and the implementation of the branch and the Bank of Greece wage agreements. Furthermore, it is attributable to the increase in overtime employment, which was necessary for the production of euro banknotes and coins and the timely frontloading of Bank of Greece branches and other credit institutions with euro. Lastly, part of the increase concerns expenditure for the purchase of raw materials for printing euro banknotes, the euro information campaign, as well as expenses incurred by Bank employees who travelled to and from the Bank's head office in order to supply the Bank's branches and credit institutions with euro or be informed on the Bank's new accounting system and its new system of transactions.

In the course of 2001, the Bank of Greece recruited 32 employees, 21 of which were technicians – to cover mainly IETA's needs – 5 translators and 4 lawyers, while 114 employees retired in the same period. Thus, the Bank's staff decreased by 82 persons and on 1 January 2002, after another 4 employees retired as they had reached the age limit, the Bank's personnel came to 3,086 persons.

Required changes in the Bank's organisational structure continued in 2001 in order to enhance the Bank's efficiency as a member of the European System of Central Banks. More specifically, changes concerned the organisational structure of the Economic Research Department, so that it could fully respond to the responsibilities undertaken by national central banks as regards the analysis of current economic developments and the process of preparing economic forecasts. Additionally, changes helped employees of the Economic Research Department to expand their field of research and improve the quality of their analyses. Furthermore, the Counterfeit Centre, for which the Bank of Greece is responsible, was established in the Cash Department.

In order to ensure the smooth conduct of the single monetary policy in Greece, all required changes, which affected a considerable part of the Bank's activities, were suc-

cessfully completed. In particular, all necessary adjustments were effected for carrying out transactions in euro and withdrawing the drachma, while the Bank's IT system for monitoring the circulation of euro banknotes and coins by the Bank's network was expanded and set in full operation. As from 1 January 2002, the Bank's units are using a new computerised system of transactions, which shows in real time the balances of all accounts held with the Bank, including those of the State. This is included in the work undertaken in order to modernise IT infrastructure and software used by the Bank's accounting offices.

As in previous years, maintenance and renovation works in buildings of the Bank continued, in order to improve working conditions and enhance security of transactions. Specifically, the construction of the Bank's new building on Amerikis street, in Athens, is underway, while the construction of the new Cash Sorting and Handling Centre in IETA has commenced. Works in the Bank's building in Patras have been completed, while the restoration and renewal of the Lamia branch is continuing.

The mechanical equipment of IETA and the Cash Department was upgraded with state-of-the-art machinery for counting, sorting and authenticating banknotes, together with machinery for destroying withdrawn coins. The complex venture of producing and distributing euro banknotes and coins was successful and credit institutions were safely frontloaded in good time. The Bank of Greece, in cooperation with the ECB or on its own initiative, helped in offering ample information to the public and preparing it for the introduction of the euro.

In the course of 2001, the Bank's personnel, as well as staff of credit institutions and public and private enterprises were trained on issues concerning the introduction of the euro. Specifically, 500 seminars were held all over the country, in which 6,500 cashiers were trained in recognising the authenticity of euro banknotes. At the same time, training programmes were organised and implemented in the areas of: understanding and using the Bank's new accounting system; effective use of new financial products; e-banking; IT systems.

In the context of further promoting communication and cooperation among central banks of countries in South-Eastern Europe and Asia, the Central Bank Governors' Club, under the presidency of the Governor of the Bank of Greece, met twice in 2001 (May in Athens and October in Rhodes). Distinguished economists and executives of international economic organisations participated as key speakers in these meetings, in which the issues discussed concerned monetary and foreign exchange policies, banking supervision and world economic developments and prospects. Furthermore, in February 2002, the Bank of Greece and the Brookings Institution published a book entitled *Greece's Economic Performance and Prospects*, which includes papers presented at an international conference held in Athens in December 2000. These papers, which were written by Greek and foreign economists, examine the problems faced by the Greek economy, evaluate the performance and the economic policy of the country over the past 25 years and try to determine the most important economic challenges facing the country after its entry into the euro area.

The year 2001 was especially important and productive for the Bank of Greece and its personnel. It was the first year of application of the single monetary policy, the year when euro banknotes and coins were designed, produced and distributed. Furthermore, in the course of 2001, the accounting and technical framework was prepared for the smooth and rapid withdrawal of the drachma as from the beginning of 2002. All the Bank's targets for 2001 were met successfully and strictly on schedule. The Bank's personnel worked meticulously and efficiently, with zeal and a high sense of responsibility for the achievement of these aims. I therefore consider it my duty, also on behalf of the General Council, to congratulate and thank the personnel for its contribution to our common and successful effort.

By a Presidential Decree published in the Government Gazette on 10 April 2002, Mr Nicholas Paleocrassas is re-appointed member of the Monetary Policy Council for a six-year term, after the expiry of his initial four-year term. At today's 69th Annual General Meeting, in accordance with Article 21 of the Bank's Statute, the terms of office of General Council members Mr George Akkas and Mr Iason Stratos expire. Consequently, the General Meeting will be called upon to elect two new General Council members, for a three-year term, i.e. until the Annual General Meeting of 2005.

The outgoing General Council members are eligible for re-election.

II. THE GREEK ECONOMY: DEVELOPMENTS, PROSPECTS AND POLICY ORIENTATIONS

1. INTRODUCTION

The year 2001 was one of major changes, challenges and achievements for the Greek economy and the Bank of Greece. Since Greece joined EMU and adopted the single currency on 1 January 2001, the economy has been functioning in a new monetary environment, which ensures a high degree of price stability and promotes economic growth. The year 2001 was, however, marked by a strong and concurrent slowdown of economic growth in the euro area and worldwide, as well as by increased uncertainty in international capital markets. Global economic developments inevitably had adverse effects on the Greek economy, but their overall impact was relatively limited and was offset by other factors. As a result, the rate of economic growth in Greece during the country's first year of euro area participation remained at the same high level as in 2000.

Last year was also a milestone in the history of the Bank of Greece. As of the beginning of 2001, the Bank is a member of the Eurosystem¹ and implements the single monetary policy in Greece. As a necessary condition for the implementation of this policy, the euro had to be introduced in book-entry form and the domestic money market linked to the corresponding euro area market. This task was successfully accomplished on 1 January 2001, thanks to the systematic preparations and coordinated actions of the Bank of Greece and Greek credit institutions. Meanwhile, in 2001 the Bank completed the multifaceted task of producing euro banknotes and coins and frontloading credit institutions with the new currency. In cooperation with the government, banks and economic and professional organisations, the Bank of Greece played a decisive role in the smooth introduction of the euro banknotes and coins and the gradual withdrawal from circulation of drachma banknotes and coins from 1 January 2002 onwards. The circulation of the euro in physical form marked the completion of the process for the single currency's introduction and the consolidation of the changeover to the new monetary environment.

2. THE GREEK ECONOMY IN 2001

2.1 International and European economic environment

World economic developments were generally unfavourable in 2001. Their main features were a sharp slowdown of economic activity in the advanced economies (where GDP growth fell to 1.2% from 3.9% in 2000), virtual stagnation in the volume of world

¹ The Eurosystem comprises the European Central Bank and the national central banks of the Member States of the European Union that have adopted the euro.

trade (−0.2%, compared with an increase of 12.4% in 2000), as well as a significant – albeit temporary – further deterioration of the international economic climate and a slowdown of economic activity following the 11th September terrorist attack on the USA. An important factor underlying the decline of the GDP growth rate in the advanced economies was the drop in the volume of investment (−0.7% in 2001, compared with the increase at a high average annual rate of 5.5% in the previous five years), while the slowdown of private consumption was less marked. However, there are strong indications that economic recovery has been under way since the end of 2001 in some of the major economies, notably the USA.

The slowdown of economic activity in the euro area was less sharp than in the USA (euro area: 1.6% in 2001 from 3.3% in 2000, USA: 1.2% in 2001 from 4.1% in 2000). In spite of the drop in the GDP growth rate, the steep rise in international oil prices (the average price of Brent in euro terms rose by 43% in 1999 and 81% in 2000) and the strengthening of the dollar in foreign exchange markets in 1999-2000, as well as conjunctural problems that led to a significant rise in the prices of unprocessed food, added to inflation in the euro area until mid-2001. The average annual increase in the HICP reached 2.5% in 2001 (compared with 2.3% in 2000).

As a consequence of the economic slowdown, the fiscal position of most of the major economies deteriorated. Beyond the impact of the slowdown on tax receipts, which was to be expected, in some economies the policies pursued aimed at boosting domestic demand by cutting tax rates and increasing public spending. The monetary policy conducted in 2001 by the central banks of the major economies outside the euro area¹ aimed, among other things, at preventing economic recession and creating conditions for recovery. The US Federal Reserve System followed a more aggressive monetary policy, cutting the federal funds rate eleven times, by a total of 475 basis points (from 6.5% to 1.75%). The Bank of England reduced its basic rate on repos seven times in 2001 (from 6% to 4%). The central bank of Japan cut its already very low rediscount rate three times, from 0.50% to 0.10%.

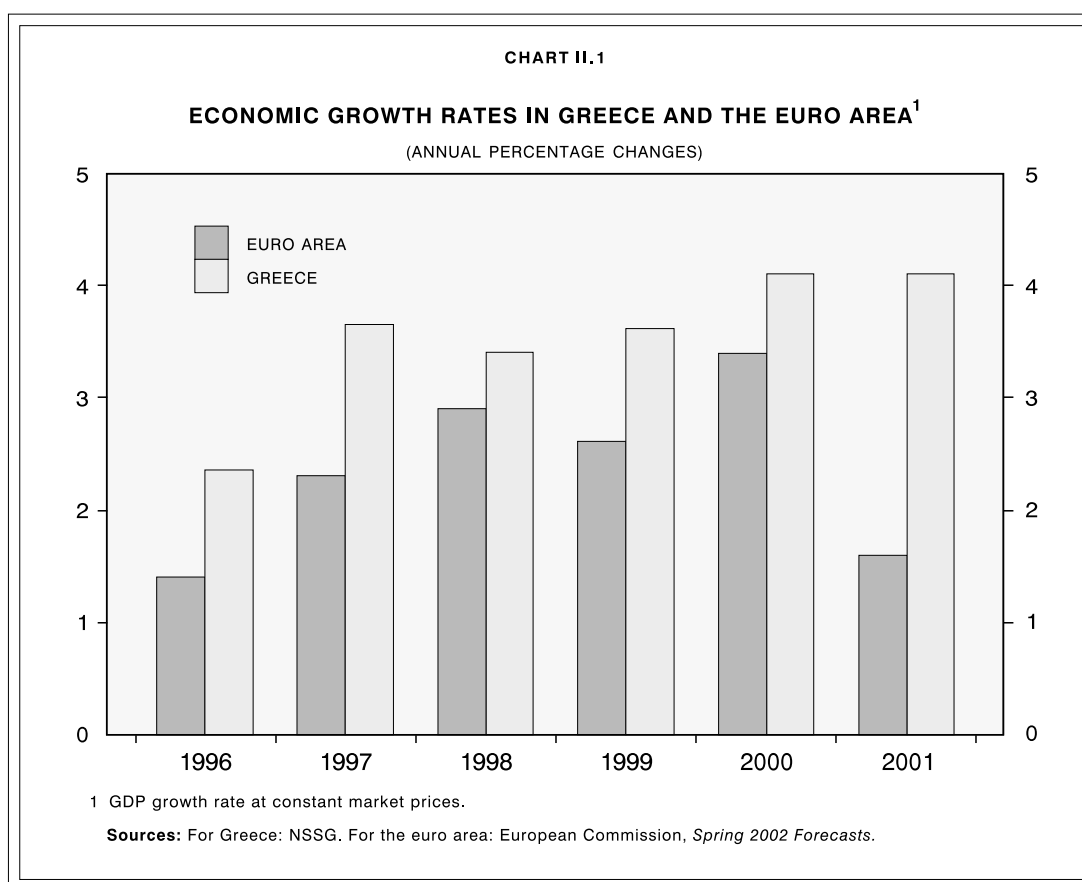
2.2 Economic activity and employment

Developments in the global economy (particularly in Europe) adversely affected some basic aggregates of the Greek economy. Specifically, the growth rates of exports of goods and services, industrial output and private business investment slowed down. However, the growth rate of private consumption remained high, residential investment and construction investment in general increased faster than in 2000 and there was a sharp fall in the growth rate of imports. As a result, real GDP growth was 4.1%, the same as in 2000 (according to the latest provisional estimates of the National Statistical Service of

¹ The monetary policy conducted in the euro area is described in fuller detail in Section 3.

Greece/NSSG – see Chart II.I) and considerably higher than the corresponding growth rate in the euro area.

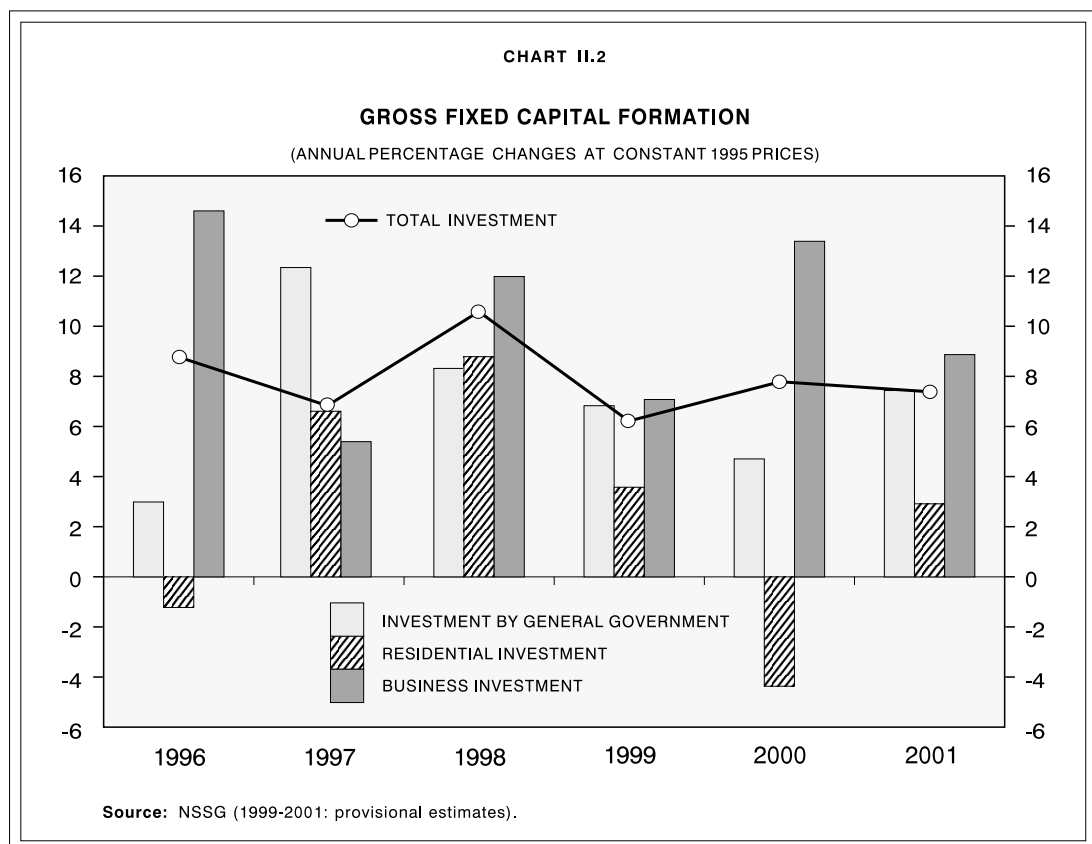
Available data suggest that the annual growth rate of private consumer demand remained high in 2001, although slightly lower than in 2000. In the course of the year, however, the volume of retail sales fell, though from a particularly high initial level, and, after reaching its lowest point in October, recovered in November. The reduction of lending rates and the strengthening of competition between banks led to rapid expansion of consumer credit. The concomitant increase in the borrowed funds of households



helped maintain the high growth rate of consumer demand. Moreover, it is estimated that the continuing rise in the prices of dwellings, which are important household assets, dampened the impact of a fall in share prices. A factor that contributed to the high growth rate of private consumption was the continuing decline of the average propensity to save (see Box III.1). Indeed, it is estimated that the disposable income of households increased in 2001, though less than in 2000 and, furthermore, its growth rate lagged behind that of consumer spending. This development reflected the slowdown of the growth rate of employees' average net earnings, the reduction of household interest

income, the smaller – than in 2000 – increase in distributed profits and the small rise in real agricultural income per employed person.

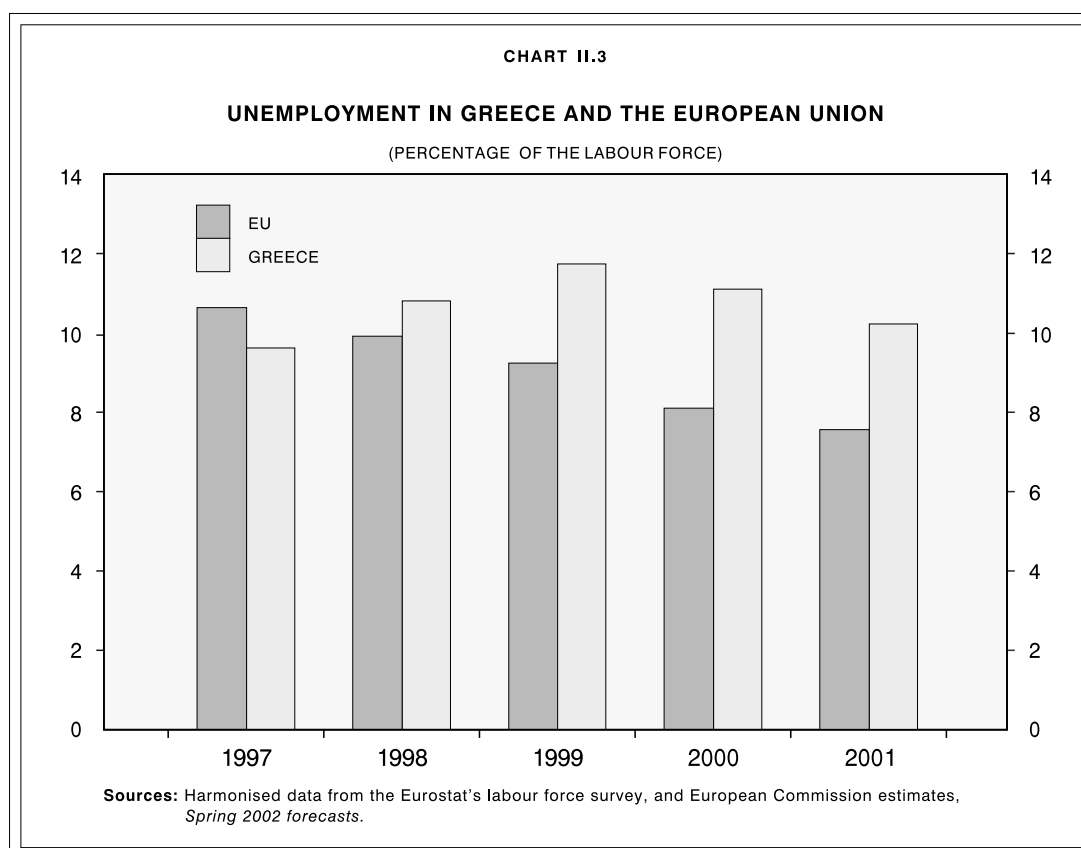
Total investment demand is estimated to have increased at a strong pace in 2001, though slightly less than in 2000. This result reflected the decline in the growth rate of private business investment, which was, to a considerable extent, offset by the faster growth of residential investment and construction investment in general (see Chart II.2). In particular, private business investment was adversely affected – especially in the second half of the year – by growing uncertainty about the course of the world economy, as well as



reduced business profitability.¹ At the same time though, a positive contribution to business confidence was made by (i) the progress noted in the area of structural reforms, such as the deregulation of the fixed telephony market, the opening up of the electricity market and the completion of a number of privatisations, which occurred despite delays due mainly to the adverse climate prevailing in the Greek and foreign stock markets, and (ii) the increase of business mergers and acquisitions (which also led to foreign direct investment

¹ According to the investment survey of the Foundation for Economic and Industrial Research – IOBE (October–November 2001), industrial firms estimated that their current investment expenditure fell in 2001 (see also Chapter III.1).

inflows, whose level, however, remains very low – see Chapter IX). The satisfactory developments in residential investment reflected the fall in interest rates on housing loans and the rapid expansion of housing credit, as well as the rise in dwelling prices (with a positive effect on supply). Finally, public investment on an accrual basis grew as forecast in the government budget, but disbursements rose at a lower pace than in 2000, mainly because of time lags associated with the transition from the 2nd to the 3rd Community Support Framework (CSF). However, the increase in net transfers from the EU was significant; these include the inflow of resources from the Community Structural Funds which co-



finance – together with national public resources – the expenditure for public investment, as well as grants to private investments.¹

Labour market developments were mixed. To start with, the fact that the average annual unemployment rate fell for the second consecutive year (to 10.5% in 2001 from 11.1% in 2000 and 11.9% in 1999) is a positive development, although the rate remains

¹ According to the Community rules, these inflows (i) covered *ex post* investment expenditure that had already been recorded in the disbursements data and (ii) concerned advances for expenses that had not been made yet. This also explains the time lag between inflows and disbursements.

the second highest in the EU (see Chart II.3). The share of the long-term jobless in total unemployment also fell (to 52.8% from 56.5% in 2000), although it was still very high. Moreover, the number of employees increased significantly (by 2.2%). These developments reflect the high growth rate of economic activity in the last few years, in association with the employment promotion programmes and – to a certain extent¹ – the new provisions introduced to enhance the effective functioning of the labour market. In particular, the provisions of Law 2874/2000 came into force in 2001; these aimed at greater working time flexibility, reducing employers' social security contributions for low wage-earners and streamlining legislation on mass dismissals.

Total employment, however, fell by 0.8% in 2001, because the rise in the number of employees was offset by a drop in the number of the self-employed and of family workers, particularly in the agricultural sector (where employment fell by 6.6%). The small fall in employment is not only associated with the continuing reduction of employment in the agricultural sector,² but – as suggested by available data – also reflects the growing participation of young persons (aged 15-29) in education, as well as the increased number of persons aged 45 and over who take early retirement. It is worth noting that in 2001 employment rose only in the 30-44 age group, while the labour force participation rate³ and the employment rate⁴ fell slightly. In the non-agricultural sector of the economy, a considerable rise in employment was recorded in certain areas only (real property management, computer-related services, machinery and equipment leasing, education, construction); in the other areas employment remained unchanged or fell slightly. It should be noted that in 2001 the first phase of the new legalisation process for illegal immigrants was completed (pursuant to Law 2910/2001), during which 351,000 applications for legalisation were submitted. This development will eventually result in increasing officially registered employment⁵ and is expected to lead to a further improvement in labour market conditions. Specifically, the integration of immigrants into the labour market helps to improve their own terms of employment and to deal with the supply shortages in some areas. Also, integration levels the playing field for firms as regards employment and increases the revenue of social security funds.

Furthermore, in 2001 part-time employment as a proportion of total employment fell to 4.0% from 4.5% in 2000 and 5.8% in 1999 (annual averages). This development calls for closer examination, given that part-time employment is a useful form of employment, mainly for three reasons. First, part-time employment can meet the needs of some population

1 The available data do not allow a full evaluation of the effect of the new measures (see also Chapter III.4).

2 Employment in the agricultural sector (including fishing) fell by 41% or 433,000 persons between 1983 and 2001.

3 The share of the population aged 15 or over who are either employed or unemployed (i.e. actively seeking work).

4 Employed people aged 15-64 years as a percentage of the population aged 15-64.

5 As stressed in the press release of the NSSG, the Labour Force Survey seriously underestimates the total number of foreigners in Greece owing to the lack of relevant data and because of the geographical mobility of this population group. With the completion of the processing of the 2001 Population Census data, the overall picture is expected to change and the quality of the survey should improve.

groups, which would otherwise have to stay out of the labour force. Second, it can serve the needs of business for greater flexibility as far as labour is concerned. Finally, under conditions of high unemployment, it can help the unemployed find access to jobs and acquire work experience. Actually, while in 2000 the fall in the number of part-time employees was offset by the rise in the number of full-time employees, in 2001 the number of employees in each category decreased (although the drop in the number of part-time employees was bigger). Available data do not give an answer to the question whether this development is due to factors associated with labour supply or demand or with the institutional framework of the labour market. In any case, according to a survey carried out by the European Commission in 1999, in Greece employees strongly prefer full-time to part-time jobs¹ (although the existence of more opportunities for part-time employment is certainly of interest to those who cannot take up full-time jobs due to family or other obligations). This fact, combined with the rise in the employment of wage-earners in 2001, leads to the conclusion that the fall in the number of part-time employees reflected a shift to full-time jobs in 2001 as well.

2.3 Inflation

In 2001 inflation in Greece followed generally the same course as inflation in the euro area as a whole, although it rose to higher levels. The HICP inflation, which is appropriate for comparisons with inflation in the euro area, accelerated from 3.7% in December 2000 to 4.5% in June 2001, but then fell steadily until November (2.9%), rising because of one-off factors to 3.5% in December (see Chart II.4). The average difference in inflation between Greece and the euro area was 1.2 percentage points during the year.² Average annual CPI inflation reached 3.4% in 2001, i.e. a slightly higher level than in 2000 (3.2%). Core inflation began to decelerate after July (4.1%) and fell to 3.3% in December, the lowest level since November 2000 (see Chart II.5). However, its average annual level rose appreciably in 2001, for reasons explained below.

That inflation in Greece remained relatively high in 2001 was mainly due to the indirect and lagged impact on the prices of goods (excluding fuel) and services of the rise in international fuel prices and the concurrent fall in the exchange rate of the euro against the US dollar and of the drachma against the euro³ during 2000. To a lesser extent, the relatively high rate of inflation was associated with the faster rise of unit labour costs in the business sector to 2.9% in 2001 from 2.5% in 2000. It is worth noting that in 2001 the positive difference between the growth rate of unit labour costs in Greece and that in the euro

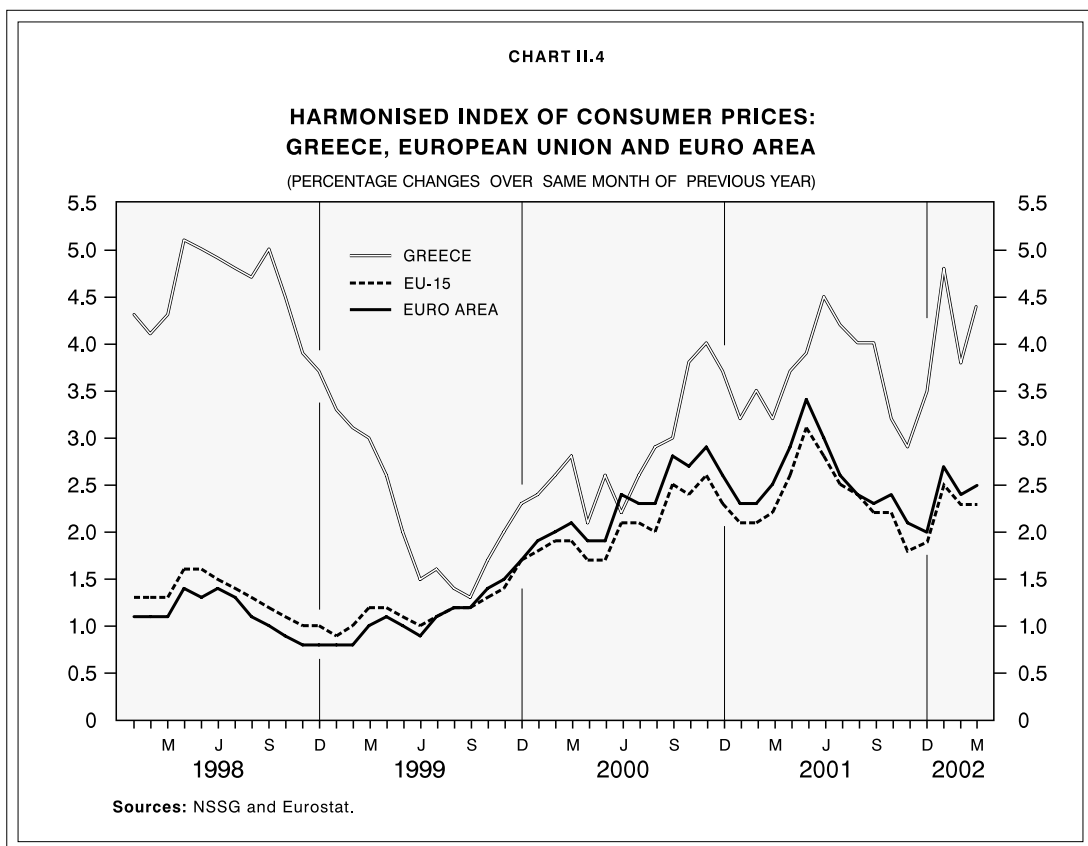
1 See "Ad hoc survey on labour market among employees", *European Economy – Supplement B*, March 2000. According to the survey, in Greece 69% of part-time employees would be willing to work on a full-time basis (against 36% in the EU), while only 12% of full-time employees would be willing to work on a part-time basis (the rate is equal in the EU).

2 In 2001 average annual HICP inflation was 3.7% in Greece and 2.5% in the euro area.

3 This was due to the convergence of the current exchange rate of the drachma towards its central exchange rate against the euro within ERM II.

area was virtually eliminated. This development reflects, on the one hand, the decrease in the growth rate of this aggregate in Greece over the last few years (from around 11% in 1994 to 2.9% in 2001) and, on the other hand, the sharp increase in the growth rate of unit labour costs in the euro area in 2001 (due to a zero change in productivity). However, the growth rate of the average earnings or compensation per employee in Greece was more than twice as high as that in the euro area (5.7% compared with 2.7%).¹

The fall in interest rates due to the changeover to the single monetary policy had a clear expansionary impact on demand. The rise in consumer demand, however, did not

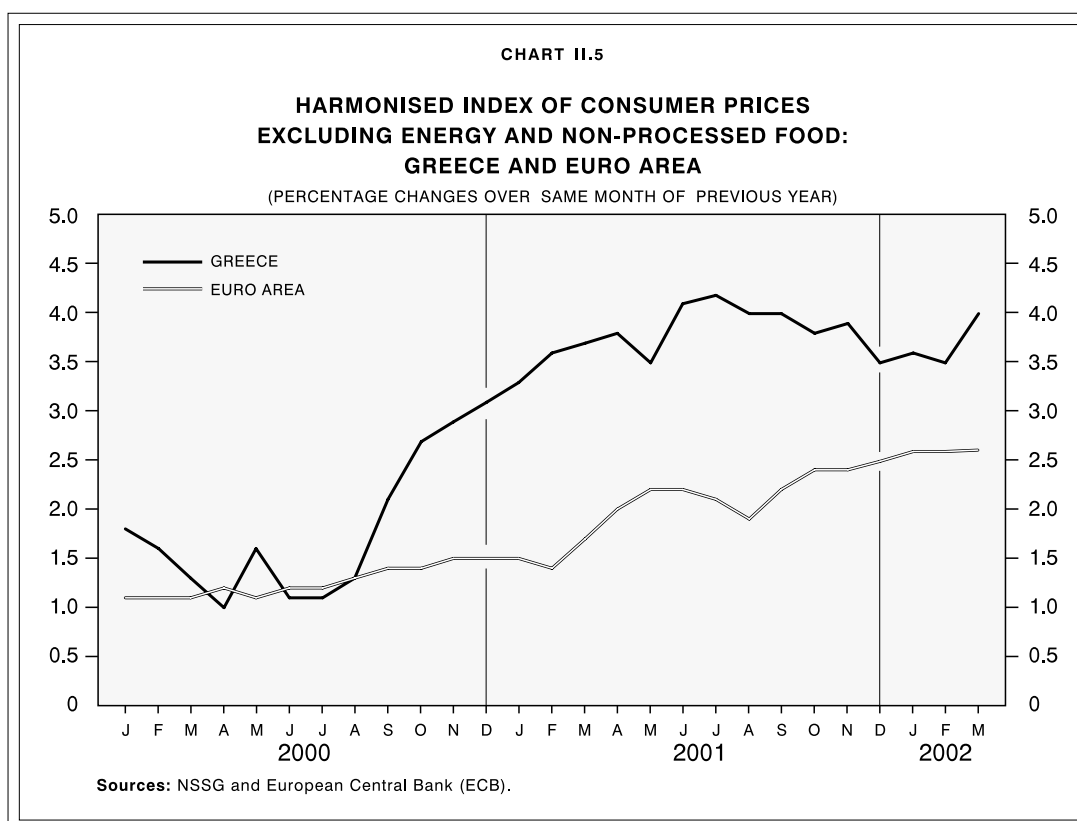


eventually lead to an increase in inflationary pressures (although it may have prevented their reduction), because, on the one hand, a significant part of the rise was channelled to imported products and, on the other hand, intensifying price competition on the import side kept in check profit margins and the rise in the prices of domestic products.

Finally, the actual or prospective deregulation of certain markets (such as telecommunications), as well as the further integration of other markets into the single European

¹ During the three years 1998-2000, the annual growth rate of average nominal earnings in the euro area was between 1.5% and 2.5%, while in Greece it was between 4.5% and 6.5%.

market, have resulted in several goods and services (mainly services) becoming more marketable across borders than in the past. This outcome makes for a faster increase in productivity and for keener competition in parts of the tertiary sector, where in the past the sluggish rise in productivity (in comparison with the rest of the economy) or slack competitive conditions had led to a steeper rise in prices and had thus contributed to Greek inflation being higher than that in other European Union countries. Until 1999, the prices of services included in the CPI were rising faster than the prices of goods. The opposite occurred in



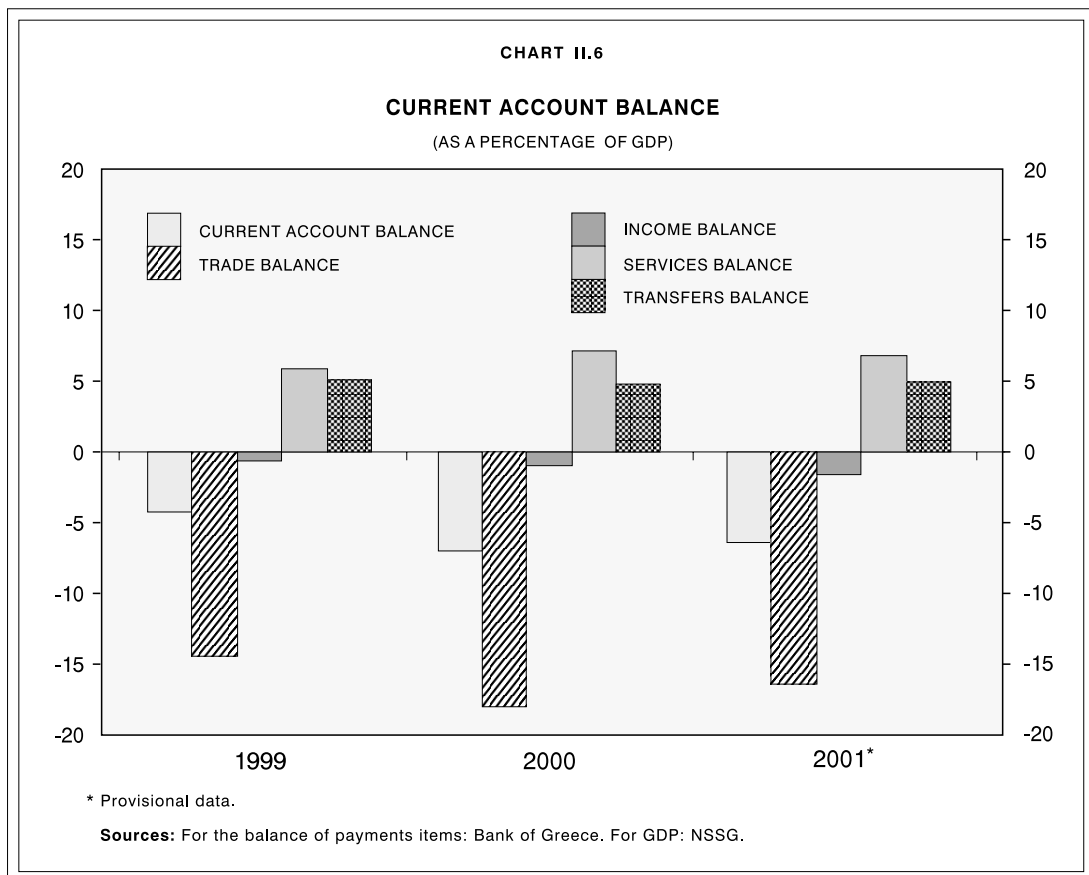
2000. In 2001, however, the prices of services increased at an average annual rate, only slightly higher than that of the prices of goods (3.7% compared with 3.2% – see Chart IV.7).

2.4 The current account balance

The adoption by Greece of the single European currency from 1 January 2001 has significantly reduced the importance of the current account deficit (and its financing) as a constraint on the conduct of economic policy. However, changes in the current account balance continue to provide useful information about the competitiveness of Greek goods

and services both in the domestic and in the world markets and affect GDP growth. Therefore, the fact that the current account deficit was reduced to 6.2% of GDP in 2001, compared with 6.8% in 2000 (i.e. a fall of €303 million), is a positive development (although the ratio is still high). The 2001 outcome was due to the reduction of the trade deficit and to the increase in the surplus in the balances of transfers and services, while the deficit in the income balance doubled (see Chart II.6).

The trade balance deficit fell by €628 million in comparison with 2000, given that the deficit of the oil account and mainly that of the non-oil account were reduced. The fall



in the price of crude oil in the world market, combined with the drop in the volume of oil imports, led to an improvement in the oil account, despite the appreciation of the dollar against the euro over the same period. The improved non-oil trade deficit was due — according to Bank of Greece data — to the sharp increase in export receipts, which more than offset the larger import bill. If the relevant value aggregates are deflated, there results a significant increase in the volume of exports, compared with relative stagnation in the volume of imports. This positive course of goods exports, as recorded by the Bank of Greece in 2001, is partly associated with the overall improvement in price competitive-

ness over the four years from 1998 to 2001. Another positive development was the stronger export orientation of Greek businesses. In recent years, firms have taken advantage of opportunities in several product markets. Hence, products not included in traditional Greek exports have significantly contributed to the increase in exports (see Chapter IX). Furthermore, the composition of Greek exports by destination (mainly the growing share of exports to Balkan, Central European and former USSR countries, where the growth rates of economic activity remained relatively high in 2001) has resulted in exports being affected less than in the past by the slowdown of economic activity in the euro area and the OECD countries. As regards imports, those of consumer goods accounted for two thirds of the total increase, a development associated with the relatively high growth rate of households' disposable resources (borrowed funds in particular).

The balance of services showed a surplus of €8,804 million in 2001, slightly higher (by €93 million) in comparison with the previous year, thereby offsetting a larger part of the trade deficit (41.3%, against 39.7%). This development was due to the increase in net travel receipts (gross receipts grew only slightly, but gross payments decreased appreciably), which more than offset the fall in net receipts from shipping services (due to the fact that the rise in gross receipts was much smaller than the increase in respective payments). The small annual increase in travel receipts mainly reflected the decline of the economic growth rate in the euro area and, to a lesser extent, the impact of the 11 September events on tourist traffic during the last four months of the year, while the significant reduction in the growth rate of transport receipts was associated with the recession in world trade, as well as with the increase in the world merchant fleet, which led to a fall in freight rates.

The deficit in the income balance more than doubled in 2001, compared with 2000. The increase of €1,026 million was mainly due to the large fall in gross receipts from interest, dividends and profits, following the drop in interest rates in international markets. Total payments for interest, dividends and profits showed a small increase, given that – despite the decline in interest rates – investments by non-residents (mainly in Greek government paper) rose significantly.

The surplus in the transfers balance in 2001 was €608 million higher than in 2000, mainly due to the increase in receipts, as well as the decrease in payments. Increased receipts stemmed mainly from net transfers (receipts less payments) from the EU, as well as receipts from the sale of third-generation mobile telephony licences (included in “other sectors”). In 2001, net transfers from the EU rose significantly (by 18.2%), reaching €4,695 million, compared with €3,972 million in 2000. This outcome mainly reflected the increase in inflows from the structural funds under the 3rd CSF,¹ while receipts from

1 Advances from the 3rd CSF started in April 2001, while the collection of the first funds for the implementation of 3rd CSF projects began in December. At the same time, final payments for 2nd CSF projects, as well as inflows from the FEOGA Guarantee Section (within the framework of the Common Agricultural Policy) continue. In the first quarter of 2002, net inflows from the EU amounted to €2,018 million, against €1,499 million in the corresponding period of 2001.

the FEOGA under the Common Agricultural Policy (CAP) were almost at the previous year's level.

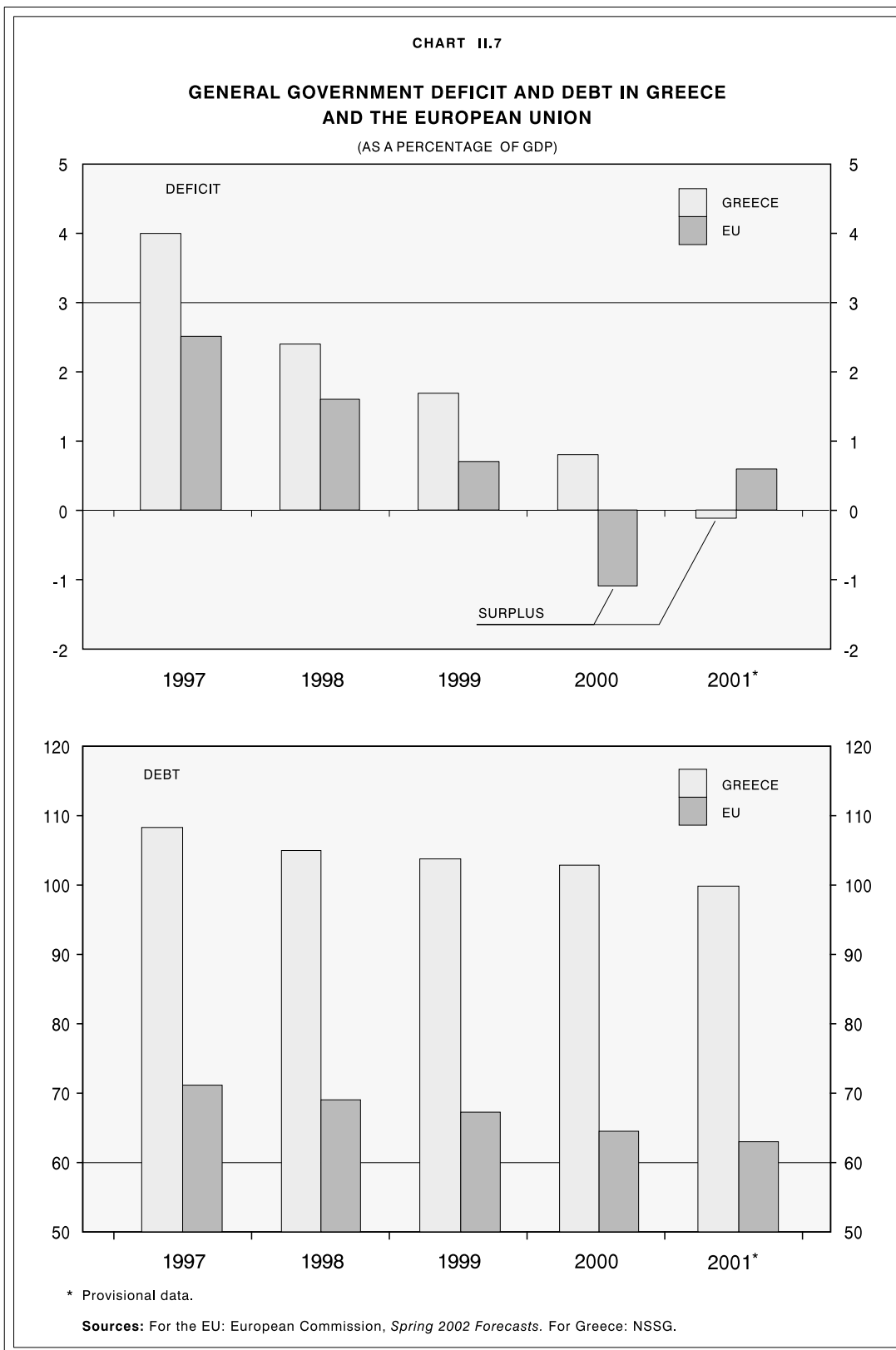
The participation of Greece in the euro area has affected financial transactions positively, since, among other things, it provides conditions of stability, favouring the free movement of capital to and from the country. Thus, despite the recession in the world market in 2001 and the events of 11 September, capital inflows for direct investment continued to show an upward trend (compared with their very low initial level) and reached €1,776 million in 2001, from €1,203 million in 2000 and €527 million in 1999. At the same time, net capital inflows for the purchase of government bonds by non-residents (€8,054 million) remained at the high levels of 2000, despite the further gradual drop in the bond yield differential between Greece and the other euro area countries.

2.5 Public finance

The year 2001 was a landmark in the course of public finance. The systematic effort made over a series of years to reduce fiscal imbalances resulted in a small surplus in 2001, for the first time in about three decades. Specifically, the results of general government, on a national accounts basis, turned from a deficit equal to 0.8% of GDP to a surplus equal to 0.1% of GDP in 2001. Consequently, from the very first year after joining the euro area, Greece met the requirements of the Stability and Growth Pact for a "general government budget close to balance or in surplus". Moreover, the consolidated general government debt was reduced by 3.1 percentage points, from 102.8% of GDP in 2000 to 99.7% in 2001.

The elimination of the general government deficit and the creation of a surplus resulted mainly from the reduction in interest payments (on a national accounts basis) of 0.8% of GDP in 2001 (to 6.2%, from 7.0% in 2000) and, to a lesser extent, from the marginal increase in the primary surplus, from 6.2% of GDP in 2000 to 6.3% in 2001. The small rise in the primary surplus was mainly due to increased capital transfers to general government from the European Union. By contrast, primary expenditure as a percentage of GDP (40.1%) was unchanged between 2000 and 2001, while general government revenue and social security contributions fell from 42.5% of GDP in 2000 to 42.0% in 2001.

The decrease in revenue mainly reflected changes in the ordinary budget revenue, which makes up the bulk of general government revenue. In particular, tax receipts, after three consecutive years of high yields, showed a decelerating growth rate and fell short of budget forecasts. This shortfall, which was mainly recorded in revenues from the taxation of corporate income, interest income and stock exchange transactions, was financed by extraordinary non-tax receipts (not included in the budget). As a result, total receipts rose by 7.1%, compared with a budget forecast of 8.1%. It should be noted that the average annual growth of government revenue in the years 1998-2001



was 11.3%. But for the extraordinary receipts, the growth rate of revenue in 2001 would have been limited to 4.7%. Extraordinary receipts also include the revenue from the sale of third-generation mobile telephony licences. Furthermore, ordinary budget revenue was boosted by the considerably increased dividends distributed by many public enterprises. Overall, as a share in total ordinary budget receipts, non-tax revenue rose to 9.3%, from an average of 6.3% in the three years 1998-2000. In contrast, tax receipts increased by 3% and their share in total ordinary budget receipts decreased. According to OECD data,¹ the total tax burden in Greece in 2000 reached 38.0% of GDP, compared with an average of 39.9% in the European Union and 37.3% in the OECD countries. It is worth noting, however, that in euro area countries whose level of economic development is similar to that of Greece (Spain and Portugal) the tax burden is around 35% of GDP.

Ordinary budget expenditure grew by 4.8% in 2001, compared with an increase of 6.7% in 2000, and there was no significant overrun of the budget forecasts. This restraint reflects a 2.0% reduction in interest payments. By contrast, primary expenditure rose by 7.4% compared with the previous year, while as a percentage of GDP it remained at the 2000 level (around 21.0% of GDP). Although total expenditure did not exceed budget forecasts, some individual categories experienced overruns, which were offset by shortfalls of budgeted expenditure in other categories. The biggest category of expenditure, personnel outlays, exceeded budget forecasts and, as a result, their share in total expenditure rose to 37.7%, from 37.1% in 2000 and 36.5% in 1999. The second biggest category of expenditure, interest payments, fell to 6.2% of GDP, but remained higher than the average in the EU and euro area countries (3.7% and 3.9% respectively).²

The decline of 3.1 percentage points in the debt-to-GDP ratio is significant, though smaller than that corresponding to the total surplus and the high primary surplus recorded in 2001. With a balanced budget, the debt ratio should have fallen in 2001 by 7.6% of GDP (by 6.3% of GDP owing to the primary surplus and 1.3% of GDP owing to the favourable combination of a high growth rate and a cut in interest rates). The fact that the debt ratio fell by only 3.1% of GDP indicates that other liabilities were assumed by government; these liabilities, although not affecting the budget deficit, burden the debt ("deficit-debt adjustment") and make its faster reduction difficult.³ Owing to its relatively slow decline, the general government debt-to-GDP ratio remains much higher (99.7%) than the average in European Union countries (62.8% – see Chart II.7) and euro area countries (69.1%). According to Greece's commitments under the Stability and Growth Pact, debt is expected to fall gradually and steadily to 60% of GDP.

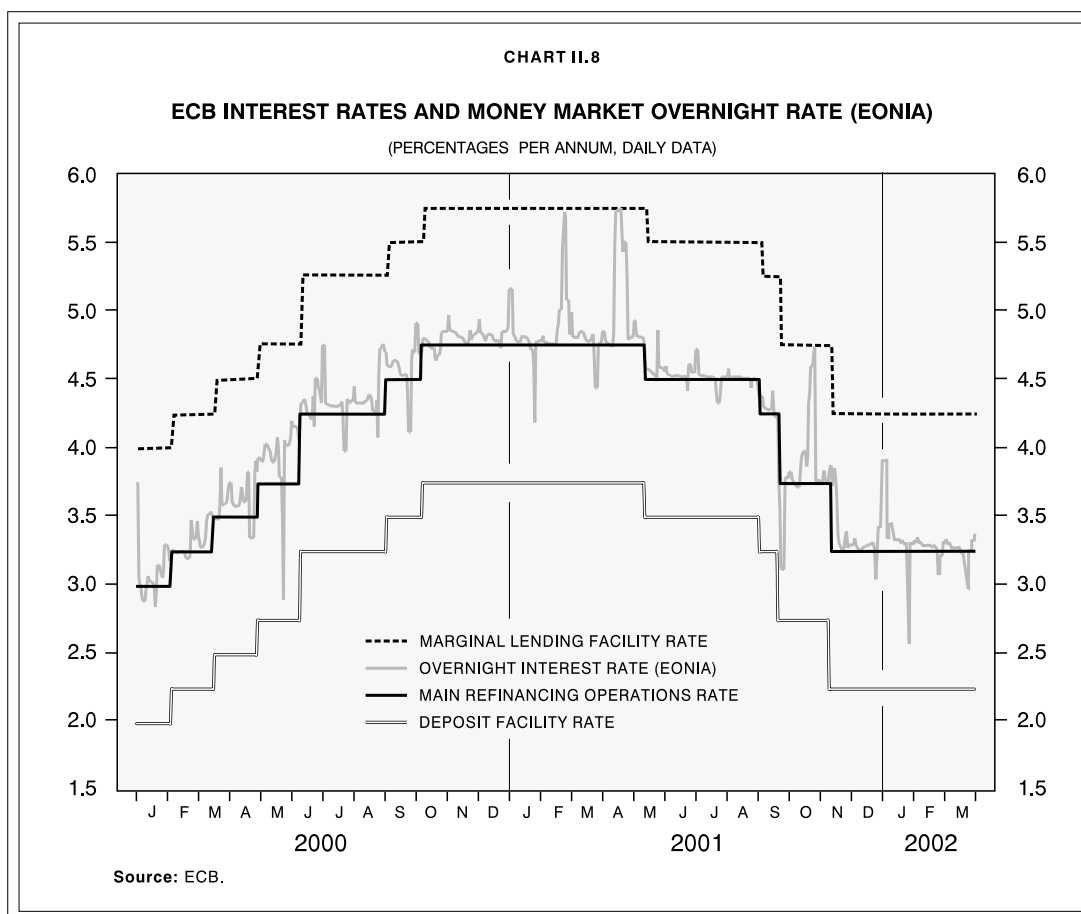
1 See OECD, *Revenue Statistics of OECD Member Countries*, 2001.

2 According to national accounts data and at general government level. European Commission, *Spring 2002 Forecasts*.

3 It should be noted that the "deficit-debt adjustment" is the algebraic sum of the aforementioned liabilities less receipts from privatisations, as well as receipts from privatisation certificates etc., of whose issue the proceeds are used to reduce public debt.

3. MONETARY DEVELOPMENTS IN THE EURO AREA

On 1 January 2001, Greece adopted the euro and since then the Bank of Greece participates in the formulation and conduct of the single monetary policy of the Eurosystem.¹ The primary monetary policy objective is to achieve and maintain price stability in the euro area. Without prejudice to this objective, the Eurosystem supports the general economic policy goals of the European Union. The decisions of the European



Central Bank (ECB) concerning its basic interest rates fit into this framework and serve the Eurosystem's primary objective *par excellence*.

During the first four months of 2001, the ECB did not change its basic rates, since, in the light of the acceleration of inflation, the Governing Council estimated that risks to price stability had not been eliminated. Between early May and early November 2001, the

¹ The single monetary policy of the Eurosystem is formulated by the Governing Council of the European Central Bank (see Glossary).

ECB cut its basic rates four times, by a total of 150 basis points. After the last cut, the minimum bid rate on the main refinancing operations fell to 3.25%, the marginal lending facility rate to 4.25% and the deposit facility rate to 2.25% (see Chart II.8). The Governing Council judged that monetary developments did not pose risks to price stability in the medium term, while inflation had been falling since June and the prospect of a drop below 2% had improved.

The decisions of the ECB to cut its basic rates led to a significant fall in money market rates, bank retail rates and the yields of securities in 2001. However, the downward trend in the yields of long-term securities was reversed after November. As a result, their spread over short-term interest rates increased, since the conditions of uncertainty in the money market in the wake of the 11th September events returned to normal and there were improved prospects of global economic growth.

In the euro area, the annual growth rate of money supply (M3) accelerated significantly after January 2001, reaching 7.6% in the fourth quarter of 2001, from 4.2% in the corresponding quarter of 2000. This acceleration was due to the declining spread between the rate of return on M3 components and the yields on short- and long-term securities not included in M3. Moreover, the increased uncertainty in the stock markets, which rose after the 11th September terrorist attacks, led investors to shift from stocks to lower-risk investments, such as those included in M3. At the same time, price rises at the beginning of the year led to increased cash holding for transactions. However, the reduction of inflation and uncertainty in stock markets, as well as the steepening of the yield curve in the autumn of 2001, contributed to a decrease in the growth rate of M3 from January 2002 and confirmed the ECB's assessment that monetary developments did not signal risks to price stability at the time. This assessment was corroborated by the fact that the annual rate of credit expansion to the private sector decelerated to 6.9% in the fourth quarter of 2001 from 10.4% in the corresponding quarter of 2000.

After cutting interest rates in November 2001, the ECB made no further change in its basic rates until the end of April 2002, since the Governing Council considered their level compatible with the achievement of price stability in the medium term. Specifically, the Governing Council holds that monetary developments continue not to entail risks to price stability, although increased liquidity in the economy could cause concern when the rate of economic growth accelerates. However, since recovery is gradual, it is estimated that the pressure exerted on prices by aggregate demand will be moderate. At the same time, for inflation to fall and stay below 2%, the ECB's Governing Council deems it necessary that the agreements concluded within the framework of collective bargaining should continue to provide for modest wage increases. It also considers that Member States should adhere to the medium-term fiscal objectives to avoid excessive deficits and reduce public debt; achieving these objectives entails that government budgets are balanced or in surplus. Such adherence could enhance confidence and, therefore, the prospects of recovery. Finally, to boost productivity and potential output in the euro area and thus facilitate the maintenance of price stability in the medium term, the ECB's Governing Council stresses the importance of

the fast and decisive promotion – confirmed by the Barcelona European Council of 15-16 March – of structural reforms concerning public expenditure and revenue, the product and labour markets, as well as financial markets.

4. MONEY, CREDIT AND CAPITAL MARKETS IN GREECE

Monetary developments in Greece in 2001 featured a significant deceleration of M3, which is the local component of the euro area's M3. Although the single monetary policy pursued by the ECB takes into account the changes in M3 in the euro area as a whole, the movement of the Greek component of this aggregate provides useful evidence concerning monetary conditions in Greece. The annual growth rate of Greek M3 gradually decelerated to 6.7% in the fourth quarter of 2001 from 12.8% in the same quarter of 2000, while it accelerated to 9.9% in December, as no new bonds were issued and bond redemptions in that month caused an increase in private deposits. In the first two months of 2002, the growth rate of M3 slowed to its pre-December level and was 6% in February. The gradual slowdown in the growth rate of M3 in 2001 is mainly associated with the deceleration of credit expansion both to the private sector and general government. Despite its deceleration, the annual growth rate of Greek M3 remained higher than that of M3 in the euro area until the end of August 2001. This difference reflected faster credit expansion in Greece than in the euro area, but it was also associated with the relatively higher growth rate of nominal GDP in Greece, as well as the shift of savings of the private non-bank sector from items not included in M3 to items that are part of M3 (especially repos, whose yields had ceased to be taxed since September 1998¹). From September to the end of November 2001, the accelerated growth rate of M3 in the euro area, combined with the significant slowdown of credit expansion in Greece, meant that the growth rate of M3 in the euro area was higher than that of the Greek M3. This difference continued in January-February 2002.

Total credit expansion decelerated significantly in 2001, as it came to 15.7%, compared with 20.2% in 2000. This development was mainly a result of the limited growth of credit to general government, while the deceleration of credit expansion to enterprises and households was slower. In particular, general government financing rose by 10.4%, compared with an increase of 15.9% in 2000, while bank credit to enterprises and households rose by 24.8% in 2001, against an increase of 27.6% in 2000. Therefore, although credit expansion to enterprises and households slowed, it still remained high in 2001. Regarding demand for bank loans, the maintenance of high credit expansion is associated with the fall of over 2 percentage points in interest rates during 2001, as well as with the high growth rate of economic activity. As regards the supply of bank loans, high credit expansion is associated with the gradual release of a large amount of bank deposits with

1 These yields have started to be taxed again since 1 January 2002, at a rate of 7%.

the Bank of Greece. These are funds in drachmas and foreign currency held by the Bank of Greece in the form of time deposits, following the harmonisation in 2000 of Bank of Greece reserve requirements with those of the Eurosystem.

The analysis of bank financing by branch of economic activity shows that credit expansion to enterprises in all sectors decelerated significantly (2001: 18.6%, 2000: 24.9%), with the exception of tourist and leasing companies. In contrast, bank financing of households (consumer and housing loans) grew by 40% in 2001, compared with an increase of 34.8% in 2000 and, as a result, the balance of these loans at the end of 2001 was 31.9% of total bank loans to enterprises and households, compared with 29% at the end of 2000 and 27.5% at the end of 1999. Despite this increase, the share of loans to households in total bank loans to enterprises and households remains at a lower level in Greece than in the euro area as a whole. Additionally, although the balance of bank loans to households in Greece, as a percentage of GDP, has increased significantly in the last few years (end of 2001: 18%, end of 2000: 13.8%), it remains at a relatively low level (in the euro area as a whole, loans in this category equalled 50% of GDP in June 2001). It should be noted, however, that the significant rise in loans to households has absorbed in recent years a large proportion of Greek banks' total credit expansion to enterprises and households (end of 2001: 46.8%, end of 2000: 34.6%), with a direct impact on the quality of their loan portfolios. For this reason, the Bank of Greece closely monitors developments in loans to households, especially consumer loans.

In 2001, bank rates in Greece followed a downward path, as they were influenced by ECB rate cuts (total cut of 1.5 percentage points in 2001), but continued to converge further towards euro area rates. In particular, deposit rates almost fully converged to the respective euro area rates and the average weighted rate on deposits and repos fell by 2 percentage points in 2001. Similar reductions were also recorded in lending rates. Specifically, the average rate on short-term loans to enterprises was reduced by around 2.4 percentage points in 2001 and its difference from the respective euro area rate fell to 1.6 percentage points, compared with 2.9 points at the end of 2000. As regards the rates on loans to households, the average rate on consumer loans was reduced to 12.7% in December 2001 from 14.7% in December 2000, while the difference between rates in this category of loans in Greece and the euro area was reduced to 1.8 percentage points at the end of 2001 from 3.6 points at the end of 2000. A fall was also recorded in the rates on housing loans, especially those carrying floating rates, to 5.8% in December 2001, from 8.2% in December 2000. In 2001, the weighted average rate on deposits and repos was reduced by around 2 percentage points, while the weighted average lending rate was lowered by about 2.5 percentage points. Hence, the spread between lending and deposit rates decreased further last year, reflecting keener competition and the greater effectiveness of bank intermediation.

In 2001, capital markets featured a rise in the prices of bonds and an increase in transactions in the secondary market, as well as a significant fall in stock prices and a reduction of trading on, and fund raising from, the stock exchange. In particular, prices and trans-

actions in the primary and the secondary market for government paper were favourably affected by the entry of Greece into the euro area and the upgrading of the country's credit rating. Moreover, the bond market was influenced by adverse developments in the domestic and international stock markets. The decline in the yields of Greek bonds reflects the elimination of the risk associated with the drachma-euro exchange rate, following Greece's entry into the euro area and its participation in the single bond market, as well as the favourable conditions that prevailed in the international fixed-income securities markets, owing to the shift of investors to these securities, especially in the US market.

In the primary market for Greek government paper, fund raising decreased, reflecting the government's relatively slack demand for funds compared with the supply of funds by investors. Such securities were issued through auctions, mainly with the re-opening procedure, and to a lesser extent through new issues. In particular, re-issues made up 87% of the total value of government paper auctioned during 2001. The average maturity of total government paper offered in 2001 rose to 8.5 years, from 8.4 years in 2000 and 6.1 years in 1999.

Transactions in the secondary market increased from the beginning of 2001, though at a particularly fast pace in the last months of the year. The average daily value of transactions was €1,256 million or 428 billion drachmas in 2001, compared with 87 billion drachmas in 2000. The yield of the ten-year Greek government bond fell to 5.28% at the end of December 2001, from 5.47% at the end of December 2000. The differential between the yields of the Greek and the German ten-year bonds declined to 34 basis points at the end of December 2001 from 62 basis points at the end of December 2000 (see Chart VII.2). The yields on the other Greek government bonds also fell in 2001 and continued to converge to the lower yields of the comparable euro area securities. The yield curve of Greek government bonds shifted downwards at the end of 2001, in comparison with the end of 2000, and its positive slope became steeper. Developments regarding yields in the domestic market reflect similar changes in the euro area, confirming the further integration of the Greek into the European bond market.

Share prices on the Athens Stock Exchange (ASE) fell during 2001 for the second consecutive year. Between the end of December 2000 and the end of December 2001, the ASE share price index fell by 23.5%, while transactions declined by 59%. In addition, the conditions that prevailed in the stock market in 2001 led to a significant reduction of fund raising through that market (2001: €835 million or 285 billion drachmas, 2000: 2,994 billion drachmas). The downward trend of stock prices continued during the first quarter of 2002. Developments in the Greek stock market were influenced by the reduced profitability of firms listed on the ASE and the adverse climate that prevailed in international stock markets following the 11th September terrorist attacks in the USA. Thus, between the end of December 2000 and the end of December 2001, the Dow Jones EURO STOXX index in the euro area and the Standard and Poor's index for the USA fell by 19.7% and 13% respectively. The developments observed during the last two years in stock prices and the profitability of firms listed on the ASE resulted in a relatively low average P/E ratio in

the Greek stock market at the end of 2001.

The negative performance of the stock market in 2001 affected the domestic mutual funds market. The fall in the prices and in the number of outstanding mutual fund units led to a decrease in mutual fund asset value in 2001, with a further decline in the first quarter of 2002. This outcome reflects the fall in the asset value of money-market and equity-type mutual funds. In contrast, the asset value of bond-type and mixed-type mutual funds rose, indicating a shift in investors' interest to investments combining relatively low risk with satisfactory yields.

5. THE EURO CASH CHANGEOVER

On 28 February 2002, when the dual circulation period ended, the euro cash changeover was completed in Greece. Thanks to warm public acceptance, the launch of euro banknotes and coins was carried out smoothly and uneventfully. Preparatory work for the cash changeover included the estimation and production of the necessary quantities of euro banknotes and coins, the completion of the legal framework for the euro cash changeover, the practical preparations for the launch of the euro banknotes and coins and the parallel withdrawal of drachmas, information activities, as well as arrangements for the protection of the new currency against counterfeiting.

The Bank of Greece estimated the quantity of euro banknotes and coins that would be needed to replace the drachmas in circulation at the end of 2001; it also provided for the production of logistical stocks (amounting to an additional 20% of the initial quantity) to address any errors in estimates, difficulties in the exchange procedure or other contingencies. In total, it was estimated that 617 million euro banknotes and 1,600 million euro coins of various denominations should be available. Immediately after the decision on the entry of Greece into the euro area, the Bank of Greece Printing Works (IETA) proceeded to the procurement of raw materials and upgraded and completed its machinery. At the same time, IETA stepped up its operation. The bulk of the required quantities of euro banknotes and coins was produced by IETA, while the production of the remainder was assigned to other printing works and mints in the euro area.

The legal framework for the euro cash changeover was based, in addition to the Treaty on European Union, on a number of Council Regulations, which, among other things, specified the rates and rules to be applied to conversions between the euro and the national currencies of participating Member States and determined the denominations and the technical specifications of the euro coins. These regulations provided a general framework for the cash changeover, whereas the details of this procedure were to be set at the national level by each Member State. Moreover, the ECB issued a number of Guidelines and Decisions that concerned the frontloading of euro banknotes and coins or addressed other changeover-related issues. The said Regulations, Guidelines and Decisions were implemented in Greek legislation through a number of laws, ministerial decisions and cir-

culars that laid down the details of the euro cash changeover in Greece (period of dual circulation, the designs of the national sides of euro coins, procedures and timetable of frontloading and sub-frontloading, protection of the currency against counterfeiting).

In Greece the frontloading of euro banknotes to credit institutions started on 1 October 2001, while the frontloading of coins had started earlier, on 1 September. In view of the geography of Greek territory, the Bank of Greece made special efforts to establish an extensive network of distribution centres all over the country. A total of 3,233 branches of credit institutions and post offices throughout Greece were frontloaded. Demand by retailers for sub-frontloading of euro banknotes and coins was much lower than the amount frontloaded to credit institutions. Nevertheless, there were no problems in the smooth operation of the market. Moreover, on 17 December 2001 euro coins began to be frontloaded to the public in the form of starter kits.

The circulation of euro banknotes and coins and the parallel withdrawal of drachmas started on 1 January 2002. Credit institutions ceased to give drachmas in their cash transactions. The rapid conversion of Automatic Teller Machines (ATMs) was particularly important and was completed in just three days' time all over the country. Adaptation of the public and enterprises to the new currency was faster than expected, as evidenced also by the fact that more than 90% of transactions were already carried out in euro by the end of January. The withdrawal of drachmas by the Bank of Greece also progressed at a satisfactory pace. The total value of drachma banknotes and coins that had been withdrawn by 28 February 2002 amounted to 2.7 trillion drachmas or around 90% of the currency in circulation on 31 December 2001.

During 2001 and the first months of 2002, the Bank of Greece conducted an information campaign aimed at the timely preparation of the public for the euro cash changeover. Some of the communication activities of the Bank of Greece were part of the "Euro 2002 Information Campaign" organised by the ECB in co-operation with the national central banks of the Eurosystem; however, independent communication activities were also undertaken. In this context, events were held in Athens and other cities in Greece, brochures were distributed to the public and agencies that would serve as information multipliers, a mass-media campaign was launched and training courses were organised to help cashiers identify euro banknotes and coins. Both the Eurosystem's campaign and the independent initiatives of the Bank of Greece included special projects for children.

The euro banknotes and coins include features that provide maximum security against counterfeiting. To enable the competent services to effectively address any attempt at counterfeiting, it was decided, in addition to strengthening the relevant legislative framework, to create a network of agencies, both centrally and at the regional level, with specific roles and responsibilities, extending beyond the euro area. The Bank of Greece, actively participating in the competent bodies, has taken the necessary steps to establish and operate a National Counterfeit Centre (NCC). At the same time, National Analysis Centres (NAC) and Coin National Analysis Centres (CNAC) have been set up, whose responsibility and operation has been undertaken by the Hellenic Police.

6. THE BANKING SYSTEM AND ITS SUPERVISION

The global economic slowdown and in particular the downturn in international stock exchanges during 2001 had negative repercussions on the performance of credit institutions in all European Union countries. Similarly affected was the profitability of Greek banks, which saw declines in their pre-tax profits (by 13.7%), return on assets (from 1.9% in 2000 to 1.5% in 2001) and return on equity (2000: 20.7%, 2001: 17.9%). Unlike non-interest income, which fell reflecting lower income from financial operations and lower fee and commission income, banks' net interest income increased by 13.9% in 2001 and as a percentage of their average assets remained at about the same level as in 2000. A factor that contributed to this development was the stronger growth of lending relative to that of deposits, in particular a very rapid increase in consumer loans, which involve higher profit margins. The operating costs of banks declined marginally in 2001 as a percentage of total assets (to 2.3% from 2.4% in 2000), mainly due to restrained staff costs. This is seen as an encouraging development, given that banks' administrative expenses in 2001 were further burdened by the cost of the preparation for the euro cash changeover.

The total assets of banks have increased at relatively high rates over the past years, reaching 146% of GDP in 2001, compared with 120% in 1998. However, deposits have risen at a weaker pace and, as a percentage of assets, stood around 62% at the end of 2001, compared with 76% in 1998. On the other hand, mainly reflecting fast credit expansion to households, lending increased considerably its share in bank assets to 46%, from 39% at the end of 1998.

Developments in the European banking sector in 2001 indicate that banks have shifted the focus of their strategic choices from expanding their activities to other euro area countries through cross-border acquisitions and mergers to selective expansion within national markets, as well as to accession countries. By adopting the same strategies (also due to size constraints), certain Greek banks aim primarily to strengthen their position in the domestic market and, in the medium term, to acquire a size that would afford them economies of scale and easier access to international financial markets. Alongside the acquisitions and mergers effected in the last few years, Greek banks are promoting strategic co-operation with strong European credit institutions and expanding their activities to southeastern European countries.

The size of Greek banks is still comparatively small both by international and by European standards. On the basis of total assets, at the end of 2000 no Greek bank was included in the world's 100 biggest banks, while only 2 ranked among the 100 top European banks. Greek banks hold a domestic market share of around 80%, specialised credit institutions around 10%, branches of foreign banks 9.5% and co-operative banks slightly less than 0.5%, while in recent years the market share of credit institutions directly or indirectly controlled by the State has declined appreciably. Following the acquisition of ETBA by the Bank of Piraeus in early 2002, the market share of state-controlled banks has fallen (in terms of total assets) to about 53%, from 63% at the end of 1998, and is expected

to decline further, given the government's expressed intention to further reduce its portfolio of bank stock. It is also worth noting that the share of foreign banks in the domestic market has remained broadly stable or even declined in recent years, in line with similar trends in other European Union countries, indicating the dominant position of domestic banks, especially in the retail segment. Therefore, some initial estimates (that the creation of the single financial market in the euro area would lead to stronger competition from foreign credit institutions opting to have a physical presence in national markets) do not seem to have materialised. On the other hand, foreign multinational banks are increasingly concentrating their treasury functions in international financial centres, leading to economies of scale at group level, which have an impact on competition.

The further development of branch networks is a crucial aspect of the overall strategy of Greek banks. The number of bank branches continues to increase (1998: 2,779, 2001: 3,134), as the Greek banking market is at a different stage of development from most European markets which have reached a stage of maturity. Greek credit institutions, however, should gradually adopt advanced techniques, which enable the operation of low-staffed units or the development of alternative distribution channels, such as remote banking (phone-banking, or e-banking, whose users tripled in number in 2001). In fact, the number of employees per branch has decreased from about 21 in 1998 to 19 in 2001 (in the euro area the respective figure is only 12 employees per branch). Moreover, there has been an impressive rise in the number of ATMs, which almost doubled over the past three years (1998: 2,168, 2001: 4,326). Nevertheless, their ratio to population is well below the euro area average (Greece: 409 ATMs per million inhabitants in 2001, euro area: 609 ATMs in 1999).

Competition in the domestic market is intensifying. The spread between lending and deposit rates has been on a downward path in recent years and narrowed by about 3 percentage points between the end of 1998 and the end of 2001. Competition is particularly strong in the areas of consumer and housing credit, which exhibit the highest rates of credit expansion (about 34% on average in the past three years). Moreover, the recent decision of the Bank of Greece to allow the establishment and operation of Finance Companies, whose main activity would be the provision of consumer and personal loans, is expected to further strengthen competition in that market segment. However, in spite of the strong growth of these types of loans, the indebtedness of Greek households remains relatively low as a percentage of GDP (18% at the end of 2001) compared with a euro area average of 50%. Since the total volume of borrowing is not very high, this could possibly point to a problem with the allocation of credit and to overindebtedness of particular households, as overall indebtedness may not be adequately controlled by banks, owing to delays in the full operation of the Teiresias interbank credit data company as a comprehensive Credit Bureau. Credit institutions therefore need to take special care to prevent a deterioration in the quality of their consumer and personal loan portfolios.

In the area of supervision, the most important issues currently discussed at the European Union level refer to the revision of the capital adequacy framework for credit

institutions and investment firms, the supervisory review process and measures to enhance market discipline. Also included are issues concerning the establishment of a supervisory framework for financial conglomerates and the amendment of the institutional framework for the provision of investment services. These important developments, which should have far-reaching implications for bank regulation, would have to be addressed by Greek legislation. Meanwhile, the Bank of Greece, within the scope of its authorisation under recently enacted legislation, has adopted several measures in this respect, which can be summarised as follows:

(a) The minimum initial capital of credit institutions operating as sociétés anonymes was increased from €11.7 million to €18 million. This increase, eight years after the last adjustment, was considered advisable in view of the need for credit institutions to undertake substantial investment in infrastructure in order to maintain and improve their competitiveness against the background of growing competition.

(b) Further significant adjustments were made in the institutional framework governing the operation of credit and financial institutions. Specifically:

- As already mentioned, enterprises other than credit institutions were permitted to grant loans to households, provided that they are supervised by the Bank of Greece.

- The maximum period allowed for banks to accrue interest on overdue loans is halved from 12 to six months of the principal and/or interest falling in arrears.

- A moratorium has been applied on part or all of the due obligations of credit institutions that face a liquidity shortage possibly entailing capital inadequacy, so as to allow for a reasonable time for remedial action on the part of the illiquid credit institution before more radical corrective measures can be adopted.

- Lastly, the framework of co-operation between the Bank of Greece and the auditing profession was strengthened.

The above arrangements are expected to further improve credit institutions' risk management and to enhance transparency, as a tool supplementary to supervision and conducive to systemic stability. Moreover, the discretionary scope of the Bank of Greece has been expanded in order to better serve the broader goal of financial stability: the Bank may determine capital requirements also at the level of individual institutions, further to general capital requirements.

Furthermore, additional support for a more efficient management of banks' assets should certainly come from the long-delayed (relative to other countries) adaptation of the institutional and tax regime that will enable the securitisation of banks' loans and other claims.

As regards the size of banks' provisions, the Bank of Greece has repeatedly stressed the high importance it attaches to this issue, especially in view of the potential impact of rapid credit expansion on the quality of bank loan portfolios. For this reason, it has established a framework governing the creation of supervisory provisions, which are calculated as a percentage of various classes of overdue loans. This arrangement has ensured a more systematic and reliable evaluation of the degree of coverage, through gen-

eral and specific provisions, of expected losses from bad debts. The current accounting and tax treatment of provisions and, most importantly, the non-availability of a long historical data series have not allowed to date a statistical calculation of the amount of the provisions required and thus the avoidance of cases where bank efficiency is overestimated. A short-term approach of efficiency, which would not take medium-term risk factors into account, would often fail to lead to appropriate and timely adjustments of lending policy. In this particular area, all credit institutions should be encouraged to apply a more dynamic provisioning policy, following the example of those banks that have made provisions beyond the minimum requirements specified by the Bank of Greece, so as to mitigate any pro-cyclical effects on profits.

At the end of July 2001, the overall capital adequacy ratio, for credit and market risks, was 12.6%, having fallen by about 2 percentage points relative to the average of the years 1998-2000. It should be noted that this reduction is associated to a considerable extent with the release by the Bank of Greece of banks' minimum reserve holdings and the use of these funds for granting loans to the economy. By 2 January 2002, €9.6 billion had been released, which correspond to 13% of total bank loans to enterprises and households.

Finally, the Bank of Greece places particular emphasis on measures aimed at preventing the use of the domestic financial system for money laundering. Co-operation of financial institutions in this area is seriously taken into consideration in the evaluation of the adequacy of their administrative organisation and internal control procedures. In 2001 the Bank of Greece issued a specific circular including guidelines for the prevention and suppression of money laundering during the dual circulation period, which, due to an expected increase in cash transactions, was identified as a period of "high risk". Moreover, in the context of international co-operation against terrorism, in particular the recent commitment of the financial system to prevent and suppress the financing of terrorism, the Bank of Greece is monitoring developments and taking the necessary steps to ensure compliance with this commitment by the entities under its supervision.

7. ECONOMIC OUTLOOK AND POLICY ORIENTATIONS

7.1 The short-term prospects of the economy

Greece is already in its second year of euro area participation. After successfully remaining on course towards real convergence in 2001, the Greek economy now faces new challenges in 2002. The recent acceleration of inflation must be halted and conditions of price stability ensured. It is also necessary to secure fiscal stability and substantially improve the country's international competitiveness.

The world economic outlook appears to be much more favourable than it was in December 2001. In fact, in April 2002 the International Monetary Fund revised its forecast for world economic growth in 2002 from 2.4% to 2.8% and that for the US economy from

0.7% to 2.3%.¹ GDP growth in the euro area is projected to pick up gradually in 2002 and approach 2.5% in the last quarter, while average annual growth is expected to reach 1.4%.² It is worth noting that the fundamentals of the European economy have generally remained sound, the conditions for financing households and firms are favourable, and, owing to the deceleration of inflation, the higher rise in real income will support total demand. Indeed, the annual rate of inflation in the euro area is expected to slow down to roughly 2% in the second half of 2002,³ in spite of the faster rise in the annual HICP in the first quarter of 2002,⁴ caused by higher world oil prices and by special factors, the effect of which will be temporary.

The annual rate of inflation is projected to fall in the course of the year in Greece as well, in spite of a rise of one percentage point in the first quarter of 2002.⁵ This acceleration was mainly due to the sharp increase in the prices of fresh fruit and vegetables in December 2001 and January 2002 (not fully reversed in February and March 2002), the rise in world oil prices and the fact that the upward rounding of prices quoted in euro was greater than initially expected.⁶ With regard to the current year as a whole, it is estimated that price developments in Greece will be favourably affected by the deceleration of inflation in the other euro area countries and industrial countries in general. Two additional factors are expected to help reduce inflationary pressures: the waning of the indirect and lagged upward effect on consumer prices caused by the steep rise in 2000 in both oil prices and the dollar/euro exchange rate, and the continued deregulation of the telecommunications market. On the other hand, however, the latest available data seem to indicate that average annual oil prices will decline only slightly this year (and may even remain unchanged) compared with 2001, while the international prices of other imported raw materials will remain stable or increase (after decreasing in 2001). Furthermore, the growth rate of unit labour costs is expected to pick up this year to between 3.0% and 3.5% in the Greek economy as a whole (from 2.9% in 2001⁷), whereas in the euro area it is expected to slow down to 1.8% from 2.4% in 2001. On the basis of these new data, average annual inflation in Greece is projected to be about 3.5% in 2002 (i.e. roughly as much as in 2001). It will therefore exceed the level considered to be consistent with price stability (i.e. a rate of increase not exceeding 2%). In addition, the positive differential from the euro area inflation rate could exceed 1.5 percentage points (based on the HICP); in part,⁸

1 IMF, *World Economic Outlook*, 18 April 2002.

2 European Commission, *Spring 2002 Forecasts*, 24 April 2002. The IMF has also forecast a similar growth rate, whereas the OECD projects a rise of 1.3% in GDP.

3 European Commission HICP forecast. On the basis of this forecast, average annual inflation will reach 2.2% in 2002.

4 To 2.5% in March 2002, from 2.0% in December 2001.

5 The annual rate of inflation in March 2002 picked up to 4.0% based on the CPI and to 4.4% based on the HICP, from 3.0% and 3.5% respectively in December 2001.

6 This impact was limited in January but strengthened in March, i.e. once the dual price display and dual circulation periods had ended (see Box IV.1).

7 Revised estimates.

8 That is, the part which is not due to the faster increase in the prices of certain goods and services not traded internationally, known as the Balassa-Samuelson effect. Of course, based on data for the first quarter of 2002, the steeper rise in the prices of certain services to a significant extent involves commercial services, for instance in tourism.

this differential will entail a loss of international competitiveness. If differentials of this kind were to become more permanent, their cumulative impact on competitiveness would be severe, with negative effects on real incomes and employment.

The adverse developments abroad in 2001 may continue to impact on the growth rate of Greek exports this year, but it is estimated that their effect on the Greek rate of economic growth may be partly offset by the favourable influence of other factors. These factors include the conditions of bank finance to households and firms, the anticipated increase in private and public investment (connected with the inflow of funds from the 3rd CSF and the preparations of the public and private sectors for the Athens 2004 Olympic Games) and, finally, the positive impact that the package of tax measures announced in November 2001 will have on consumption and investment expenditure and on competitiveness. Uncertainty with regard to the external environment has, however, not yet been eliminated. Meanwhile, there are also elements of uncertainty involving internal factors – such as the effect of reduced profitability on the timing and the extent of implementation of private firms' investment programmes, as well as the growth rate of productivity. For these reasons, and based on available data and indications, GDP growth is expected to decelerate to roughly 3.5% in 2002. The latest forecasts by international organisations range between 3.4% and 3.7%.¹

The current account deficit, which – as mentioned above – provides a useful insight into the competitiveness of the economy, will remain high, although it is projected to decrease slightly as a percentage of GDP in 2002 (to around 6.0%, from 6.2% in 2001 and 6.8% in 2000). Specifically, the balances of services and transfers are expected to improve (registering an increase in surplus), owing to forecasts which show that – under certain conditions – travel receipts (which grew at a low rate in 2001) and inflows from the EU will increase. This improvement should more than offset the deterioration of the trade balance, which is anticipated chiefly because the rate of economic growth will continue to be higher in Greece than in the euro area. Indeed, the relatively low average annual growth rate forecast for the euro area (the Member States of which are amongst Greece's major trading partners) and the risk of a fall in the competitiveness of Greek products (mentioned above) may lead to a slowdown in export growth. Meanwhile, it is plausible that the relatively high growth rate forecast for the Greek economy will entail a high rate of increase in imports (both of consumer and investment goods).

7.2 Long-term prospects and challenges

The relatively high growth rates of the Greek economy in recent years² have served to reduce the gap in standards of living between Greece and the EU or the euro area.

1 The GDP growth rate was forecast at 3.4% by the International Monetary Fund (18 April 2002), 3.7% by the European Commission (24 April 2002), 3.5% by the OECD (25 April 2002) and 3.8% by the Greek government in the Updated Stability and Growth Programme (December 2001).

2 Greece's growth rate in 2001 was the second highest in the EU.

According to the latest available data,¹ Greece's GDP *per capita*, measured in purchasing power standards (PPS), rose from 64.1% of EU *per capita* GDP in 1993 to 68.6% in 2001. The elimination of this gap – in other words the achievement of real convergence, which is a basic long-term objective for Greece – presupposes, first, an increase in productivity (i.e. of GDP per worker) and, second, an increase in the employment rate (i.e. the percentage of the population aged 15-64 years in employment) at a faster pace than in the EU. According to the same data, productivity (GDP per worker, in PPS) rose from 74.2% of the EU average in 1993 to 84.5% in 2001,² suggesting that the increase in productivity was faster in Greece than in the EU. During the same period, however, the employment rate increased in Greece (from 53.7% in 1993 to 55.4% in 2001), but less than in the EU (59.9% in 1993, 63.9% in 2001³), and remains the second lowest in the EU.⁴ Furthermore, Greece has the second highest unemployment rate (after Spain) and the third highest long-term unemployment rate. Other structural indicators⁵ also confirm that the gap that needs to be filled to attain real convergence is still wide. Greece ranks last or second to last in the EU with regard to the percentage of adults (aged 25-64 years) attending educational or training programmes,⁶ public expenditure for education as a percentage of GDP,⁷ business and total expenditure for Research and Development as a percentage of GDP, expenditure for information technology as a percentage of GDP, and the percentage of households with Internet access.⁸ Also, as Greece has the third highest public debt as a percentage of GDP in the EU (after Italy and Belgium), the ability of fiscal policy to promote the growth process is constrained by the need to absorb funds for the servicing of public debt. On the other hand, Greece ranks first in expenditure for telecommunications equipment and services as a percentage of GDP⁹ and has seen its percentage of firms with Internet access significantly improve.¹⁰ Finally, Greece's private investment to GDP ratio is higher than the EU average.¹¹

Certain conclusions can be drawn from the selective data presented above. First, any effort to address the central issue of unemployment will have to focus not only on

1 Eurostat (website: www.europa.eu.int/comm/eurostat), Structural Indicators, last updated on 12 April 2002. This statistical series only covers the period from 1993 onwards.

2 As part-time employment is more widespread in the other EU countries than in Greece, comparisons on the basis of productivity per worker are biased in favour of Greece. When productivity is measured on the basis of GDP per working hour (in PPS), the productivity ratio between Greece and the EU is lower (70.2% in 2001, compared with 62.8% in 1992 and 62.2% in 1993).

3 It should be recalled that the EU has set itself the target of raising the employment rate to 67% by 2005 and to 70% by 2010.

4 This is due to Greece's particularly low female employment rate (41.2% in 2000, compared with 54% in the EU). On the other hand, Greece's male employment rate (71.1%) was only slightly below the EU average (72.6%) in 2000.

5 The European Commission monitors the structural indicators of all Member States *so as to* assess progress towards achieving the *goals* set by the European Council of Lisbon (March 2000) and specified by the European Councils of Stockholm (March 2001) and Barcelona (March 2002).

6 1.4% in 2001, compared with 8.4% in the EU.

7 3.5% in 2001, compared with 5% in the EU.

8 9.9% in 2001, compared with 37.7% in the EU.

9 3.8% in 2000, compared with 2.7% in the EU.

10 This percentage rose from 54% in 2000 to 83% in 2001 (compared with 89% in the EU).

11 19.8% in 2000, compared with 18.3% in the EU.

reducing labour market rigidities (which contribute to the persistence of high long-term unemployment), but also on increasing the efficiency of education and training systems and of labour supply and labour demand matching mechanisms. The social infrastructure will also have to be improved in order to foster a rise in the female employment rate. The benefits of an increased employment rate on the course of real convergence will be stronger if the increase in public and private expenditure for education, training and research contributes – together with other factors – to improved productivity. Second, an increase in public expenditure for education and, more generally, for social infrastructure will be feasible so long as the fiscal consolidation process continues at a fast pace, thus making a reduction in public debt and, consequently, in the cost of debt servicing possible. Third, the further enhancement of competitiveness and more efficient operation of markets will obviously have a tangible effect on growth, as already clearly observed in the broader telecommunications market (equipment and services),¹ and an ultimately favourable impact on employment.

Some of the factors that have had a positive influence on economic activity in recent years will continue to do so in the medium term, although for a different length of time in each case. These factors mainly involve inflows from the EU Structural Funds and, generally speaking, from the EU Budget, as well as the expenditure associated with the Athens 2004 Olympic Games.²

Ever since Greece joined the EU, net transfers from the EU budget have represented a significant percentage of GDP, averaging around 4% in the last decade.³ Today, 40-45% of total inflows come from the FEOGA Guarantee Section to support farmers' incomes in accordance with the Common Agricultural Policy (CAP), while the rest comes mainly from the Structural Funds and helps finance programmes under the 3rd Community Support Framework (CSF) for 2000-2006.⁴ EU financing of the 3rd CSF over 2000-2006 is forecast to reach €26 billion (with average annual inflows exceeding €3 billion – see Box IX.2). According to estimates, the contribution of Structural Fund inflows to the average annual growth rate of the Greek economy from 1989 to date is of the order of 1 percentage point.⁵ The upcoming enlargement of the EU with ten new Member States⁶ from 2004 onwards will not immediately (that is, until 2006) affect the prospects of EU fund inflows

1 See also Chapter III.

2 These factors have also been taken into consideration in the Updated Stability and Growth Programme (December 2001), which forecasts an average annual GDP growth rate of 4% over the 2002-2004 period.

3 In the 1995-1999 period, Greece ranked second (with €390.7 per year) in net *per capita* transfers from the EU Budget (after first-ranking Ireland with €622.8 and followed by Portugal with €282.6). Two other countries were "net recipients" of funds: Spain (€172.6 *per capita*) and Denmark (€39.8 *per capita*).

4 See also Box IX.2.

5 According to estimates of the European Commission (Bank of Greece, *Annual Report 2000*, p. 22), community structural funds helped raise GDP by 9.9% in the 1989-1999 period (equivalent to an average annual increase of 0.95%), while the Centre of Planning and Economic Research (KEPE) estimates this contribution at 0.8%-1.2% per year.

6 The European Council of Laeken (December 2001) expected that the following countries will be able to qualify for EU entry in 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia. The entry of Romania and Bulgaria is expected after 2004.

to Greece, as clearly shown in recent European Commission proposals.¹ Furthermore, payments from the Structural Funds under the programmes of the 3rd CSF (which will concern the period through 2006) may actually continue through 2008 (without changes in the total disposable amount).

With regard to the shape of the EU budget beyond 2006, official projections or even general orientations do not yet exist. When seeking to estimate the impact that EU enlargement will have on Greece – and the other Member States – in terms of receipts from and contributions to the EU – it is considered that the new Member States will have a net benefit (owing to their comparatively low *per capita* GDP) and that, based on the current policy framework, the increased funding needs in the enlarged EU will most likely lead to a reform of structural and agricultural policies.² It is therefore fair to assume that those of the present Member States that make a net contribution to the EU Budget (for instance, Germany) will strive to avoid any substantial increase in their burden, whereas those that enjoy a net benefit (including Greece) will strive to maintain current funding levels. On the basis of these data and hypotheses, it is expected that the *per capita* net transfers from the EU to Greece will decrease.³ The evolution of these transfers to Greece, the extent to which they will be reduced and the relative position of Greece as a recipient of funds in the enlarged EU of 25 (and later on 27) members will depend, *inter alia*, on the economy's growth rate, on the changes that will be made in EU structural policy and the CAP, as well as on the transition periods⁴ which will be agreed for both new and present members.

1 See European Commission, (a) *Common Financial Framework 2004-2006 for the Accession Negotiations*, SEC (2002)102 final, 30.1.2002, (b) *First progress report on economic and social cohesion*, COM (2002)46 final, 30.1.2002. More specifically, the fiscal framework adopted by the European Council of Berlin in 1999 (on the basis of which the 3rd CSF for Greece was elaborated) was based on the assumption that the enlargement would take place in 2002 with six new Member States. The new orientations of the Commission take into account the prospect that the enlargement will take place from 2004 onwards with ten new Member States and conclude with funding proposals for the three-year period 2004-2006. The funding forecast for the ten new countries does not exceed the total amount initially forecast for the six Member States. The main reason for this are the transitional provisions expected to come into effect.

2 The reform of the CAP is considered inevitable because of i) the need to increase its effectiveness (the CAP is the only EU policy that does not require national co-financing), ii) the size of the agricultural sector in the candidate countries, and iii) pressure from the World Trade Organisation (which considers that CAP arrangements contravene freedom of trade).

3 According to surveys by the Deutsches Institut für Wirtschaftsforschung (DIW), an independent research institute in Germany, which were commissioned by the European Commission and the German Ministry of Finance and contain alternative forecast scenarios regarding the distribution and levels of community funds in 2007 and 2013, the decrease in *per capita* net transfers to Greece in comparison with the 1995-1999 average will range between 3.1% and 17.5% in 2007 and between 27.9% and 46.5% in 2013, depending on the hypotheses adopted with regard to EU policies. See, *inter alia*, Christian Weise, "EU Eastern Enlargement Can Be Financed – Increased Need for Reforms – Scenarios for the 2007 and 2013 EU Budgets", DIW, *Economic Bulletin*, 10/2001.

4 So far, the prevailing tendency in the EU is that the transition period for transfers from the Structural Funds to the new Member States will be long and end in 2013. In parallel, there will be a transition period for present Member States that will cease to be entitled to a share of structural funds if *per capita* GDP in their regions is no longer lower than 75% of the EU average (as provided for in current rules).

The impact that the gradual decrease in transfers from the EU, expected towards the end of the decade, will have on the growth rate of the Greek economy will depend: First, on the contribution that EU transfers have made so far to strengthening the country's productive infrastructure and increasing potential output. Second, on the way expected inflows –based on the 3rd CSF– will be utilised, as this will determine their effectiveness and the final “multiplier effect”. Third, on the extent to which the Greek economy will take advantage of EU enlargement itself. Ultimately, growth will depend on how effectively Greece will utilise available funds and resources flowing in from the EU, and on its ability –by penetrating new European markets– to reap the benefits of the opportunities offered by the forthcoming enlargement. Thus, while enlargement will entail a decrease in transfers from the EU, which now offset a substantial part of Greece's trade deficit, the ultimate effect of enlargement on the balance of payments will depend on Greece's ability to meet the above challenges. Finally, it is obvious that, as the utilisation of transfers and the enhancement of competitiveness will boost the dynamism of the economy, the need for structural resource inflows will decrease.

With regard to the preparations for the Athens 2004 Olympic Games, it is only normal that there should be increased investment activity both for the construction of sports facilities and for infrastructure projects – mainly roads and communications. These projects, many of which are already under way, are expected to be completed by the summer of 2004, even though some of them, for instance the extension of the underground railway system in Athens, come under an infrastructure modernisation programme which extends into the second half of the decade. Taking these factors into consideration, it is obvious that the direct or indirect benefits of the Athens 2004 Olympic Games on investment demand, GDP and employment will continue to manifest themselves for some time after the Games have ended. Of course, there may be constraints on fiscal policy to the extent that the financing of the projects connected with the Games will require an increase in public sector borrowing. In any case, however, the medium-term benefits from well-organised Games are a function of corresponding infrastructure expansion and human resource upgrading (in tourism, transport and telecommunications). These can contribute to a sustained increase in Greece's share in world tourism (for instance, by attracting new regular visitors, which would require an upgrading of the quality of the country's tourist services). Consequently, the long-term effect of the completion of projects connected with the Olympic Games will depend on the success of the event, on the ability of fiscal policy to act countercyclically, on the overall progress of the Greek economy in terms of competitiveness, and on international economic conditions.

Apart from the above, comfortable financing conditions for households and firms, which are expected to continue in the future, have also served to support economic activity in recent years. This means that they will remain more favourable than they were before Greece joined the euro area, but not necessarily more favourable than they are today (as present conditions reflect an intensification of competition between banks and the substantial interest rate cuts connected with the run-up to EMU). In terms of prospects, it has

already been pointed out¹ that the debt of the private sector and more particularly of households as a percentage of GDP is still low, compared with the euro area as a whole or the US. Nevertheless, while Greek households are not overindebted, on the basis of available data, the persistence of current trends over a number of years may increase their liabilities excessively. This would create problems as far as debt servicing is concerned, with negative effects on consumer spending and economic activity. The Bank of Greece is of course monitoring these developments closely and is striving, as mentioned previously, to increase transparency in the credit market, so as to make credit risk management by banks more efficient and to prevent negative developments of this type. In any case, it should be mentioned that, as shown by the experience of the US economy, it is difficult to foresee the moment in time and the level at which household borrowing will reach saturation.

7.3 Economic policy orientations

The foregoing examination of some major factors that affect Greece's long-term growth prospects leads to the conclusion that their favourable effect will decrease gradually and perhaps considerably after the next five years. The decrease in the beneficial impact of some of these factors may be felt even earlier (for instance, as soon as 2005). Useful conclusions can also be drawn regarding economic policy. First, as suggested above, resources available during the current period must be utilised efficiently, so as to multiply their effectiveness and prolong their beneficial effect. Second, fiscal policy must be able to mitigate the short-term consequences of cyclical shocks due to the decrease in the positive contribution of the above factors and, more generally, the impact of shocks that could cause fluctuations in economic activity. Therefore, the fiscal consolidation effort will have to be sustained, as provided for in the Greek Stability and Growth Programme, so that fiscal surpluses and a drop in the public debt-to-GDP ratio over the coming years will make the conduct of anti-cyclical fiscal policy possible whenever necessary, without impeding the achievement of balanced budgets in the medium term. Third, appropriate conditions must be created and policies formulated in time, in order to help maintain high growth rates, mainly by increasing net exports and by utilising opportunities in the world market. Such policies include those aimed at attracting direct foreign investment. Greece must take advantage of its participation in the euro area and expand its transactions with the other Member States, while particular attention must also be paid to developing trade with the EU accession countries. The expansion of exports presupposes, *inter alia*, that Greece will succeed in utilising its comparative competitive advantages (primarily in the sectors of tourism and shipping, but also in certain branches of agricultural and industrial production). Such advantages also include Greece's position in a region where it is so far the only Member State of the EU.

¹ See Bank of Greece, *Monetary Policy 2001-2002*, pp. 84-86 and Box 1, March 2002 (in Greek).

The question therefore is how Greece can improve the conditions and policies that will provide continued and substantial support to the growth dynamics of the Greek economy over the next ten years. The progress made in recent years in achieving low inflation, an improved fiscal position and both an expansion and upgrading of the productive potential has already created more favourable conditions for speeding up the growth process. Furthermore, the environment of monetary and exchange rate stability secured by the adoption of the single currency is an additional important factor favouring economic growth. Considering of course that the single monetary policy is pursued with the aim of ensuring price stability in the euro area as a whole, the contribution of national fiscal and structural policies is essential in order to establish a high degree of price stability at the national level, so that the economy's competitiveness will not be adversely affected in the years to come.

In order to maintain a high and sustainable rate of economic growth and achieve real convergence, reforms in several sectors will have to be accelerated and widened in scope, so as to increase the efficiency of the economy and improve its competitiveness. Furthermore, the completion of fiscal consolidation, and the steady reduction of the debt-to-GDP ratio will also contribute to the achievement of growth targets and, as mentioned above, enable fiscal policy to help stabilise economic activity in the short term, by playing an anticyclical role.

A major economic policy issue directly related to the prospects of ensuring fiscal stability is the reform of the social security system. This matter is at the heart of the dialogue between the government and the social partners. The need for such a reform is dictated by a combination of factors, such as the upcoming ageing of the population in conjunction with the pay-as-you-go character of the existing social security system, as well as the accumulation of financial burdens from policy choices of the past. The reform is therefore necessary not only to secure the viability of the pension system and the fair distribution of the burden between this and the next generations, but also to ensure fiscal stability in the long run. It should be stressed that, while the viability problem in Greece – as in other countries – will become more acute only after a number of years, it is imperative to start addressing it immediately. Otherwise, the required changes will be more drastic and certainly more painful.

To deal effectively with the problem at the heart of the social security issue, in other words how to secure resources on a sustainable and long-term basis, a global solution must be found. As stressed in last year's Annual Report, the implementation of policies geared towards boosting the employment rate, favouring a rise in productivity and helping to reduce contribution evasion is of particular importance. Efforts in this direction would be facilitated by integrating immigrants into the labour market and the social security system, by eliminating those features of the tax and social security systems that lead to increased employment in the underground economy, and by facilitating employment of workers with family responsibilities. In order to secure the viability of the social security system, it will be necessary to change some of the present system's key parameters (such

as the retirement age, the basis on which pensions are calculated, and the replacement rate), its structural features (e.g. its organisational structure per category of insured persons and sector of economic activity, as well as per level or “pillar” of insurance), as well as the ways of investing resources available to insurance funds. The purpose of these reforms should be —*inter alia*— to strengthen the funded character of the system (i.e. the correspondence between worker contributions and pensioner benefits). Increasing this correspondence as well as transparency could be achieved if the ordinary budget takes up directly the cost of benefits which have a “social welfare” character or are related to choices of social policy; this cost is at present borne by the social security funds. As far as funding is concerned, there is no doubt that the ageing of the population and the costs of the necessary transitional changes during the changeover to the new system will require additional public funds. However, as the budget surpluses expected over the coming years will have to be used, at least in the immediate future, to curtail public debt, the allocation of resources for the financing of the social security system will be subject to constraints. Consequently, an increase in the financing of the social security system would have to be combined with a cutback in other, non-productive, expenditures. An increase in the total tax burden would not be advisable, as this would have a negative impact on competitiveness and the growth prospects of the economy.

Frequent and extensive changes were made to the Greek tax system over the past two decades in order to meet obligations arising from EU membership and to obtain the revenue needed to reduce fiscal deficits. These successive changes, however, have made the tax system extremely complex,¹ while also undermining its internal cohesion. Hence, the existing system obstructs efforts to enhance Greece’s international competitiveness and to promote economic growth and restricts the achievement of fiscal consolidation and the implementation of a stabilising and growth-oriented fiscal policy. At the same time, it does not sufficiently ensure a fair allocation of the tax burden.

The tax reform² is therefore necessary to achieve the following major objectives: First, to simplify and increase the transparency and stability of tax provisions by drastically reducing bureaucracy and promoting equal treatment. This will help cultivate the taxpayer’s sense of social responsibility. Second, to encourage employment and entrepreneurship, by eliminating disincentives, boosting labour demand and supply and facilitating the founding and operation of business firms, regardless of their legal form. This will support a faster rise in GDP and increase the competitiveness of the economy. Third, to restrict tax evasion. This will help improve the country’s fiscal position and reduce public debt without imposing an additional tax burden, and thus create some room for a more efficient management of government spending.

1 Greece’s entry into the EEC, however, helped simplify indirect taxation by introducing the VAT and harmonising other indirect taxes.

2 A committee was set up last year to examine the matter and recently submitted its proposals, which will be discussed by the social partners and the government.

The achievement of the above objectives will not be an easy matter. More specifically, a number of tax-related interventions will be required to enhance competitiveness, such as eliminating taxes and charges imposed only on Greek products, reducing tax rates on corporate profits, reducing employers' contributions to social security funds, cutting down enterprises' obligations to maintain files and constantly submit data, tax returns etc. to the tax authorities, as well as simplifying and stabilising the tax system in general, thus contributing in the medium term to a decrease in the costs assumed by firms. In order to promote economic growth, the tax system must also reduce the negative impact of taxes on the economy and help boost savings and domestic investment, raise employment and attract foreign direct investment. A meaningful tax reform must also be aimed at a fairer allocation of the tax burden. Achieving this objective will be difficult, since shifting the tax burden to others may lead to results contrary to those desired.

A simultaneous achievement of the foregoing tax reform objectives is not always feasible. A careful choice of relevant arrangements is thus warranted, so as to avert situations that could impede tax reform. Difficulties arise from the fact that the tax reform must be effected under specific fiscal constraints, associated with extensive tax evasion, future obligations to finance the social security system and the need to reduce high public debt. The actual allocation of the tax burden cannot be accurately estimated so long as tax evasion remains extensive, while most tax provisions (e.g. tax incentives, exemptions etc.) become pointless when applied to insincere taxpayers.¹ Therefore, the drastic reduction of tax evasion is a prerequisite for achieving a fairer distribution of the tax burden and a simplification of the overall tax system, given that the complexity of the present system is partly a result of efforts to fight tax evasion. Finally, the effective control of primary public expenditure is also a prerequisite for a stable tax system: if spending is not controlled, the need for new revenues will eventually lead to new changes in the tax system.

In recent years many countries – in an effort to control fiscal deficits and achieve sustainable fiscal consolidation – have focused on controlling primary public expenditure, by enacting rules and limits concerning e.g. the annual growth rate of primary expenditure and the level of spending as a percentage of GDP. Three of these rules are of particular interest to our country and call for further examination: (a) the enactment of limits to primary expenditure or certain categories thereof, (b) the accumulation of a social security reserve, to cover the future obligations of the social security system, and (c) the obligation to publish data concerning the net position and the total liabilities of the government sector. These rules should be considered permanent and cover all components of the public sector (not only central government), while specific annual targets should be connected with medium-term targets. The adoption of such rules at the national level would help enhance the credibility and sustainability of fiscal policy, with positive effects on the economic climate and on expectations concerning the completion of fiscal consolidation.

1 The abolition of exemptions tends to hurt sincere taxpayers more than tax-evaders.

Apart from the reforms to the tax and the social security system, announced or ongoing reforms must also be accelerated in other areas and be supplemented in the following four directions: modernising the public administration, improving the functioning of the labour market, strengthening competition in the product markets and, finally, ensuring stability and improving the effectiveness of the banking system.

Specifically, the modernisation of public administration is a prerequisite for the successful implementation of structural reforms in several areas. Moreover, it is crucial for the establishment of an environment that would favour investment and job creation by Greek and foreign firms, both big and small. In addition to the simplification and the rationalisation of the tax system, the systematic eradication of bureaucratic attitudes and the review of administrative procedures *ex nihilo*, with a view to making them as simple as possible, could yield spectacular results in terms of a better investment climate, a measurable curtailment of business operating costs and an increase in worker productivity. Some positive measures have already been taken or are being planned in this direction.

The effective functioning of the labour market should be achieved in such a way as to combine employment flexibility and employment security and should encourage both labour supply and demand. The rigidities of the Greek labour market do not emanate only – or even mainly – from the legal framework governing relations between employers and employees, but rather from shortcomings in the education and training system (which have not been sufficiently addressed, although some progress has been made) and labour market mismatches (although some positive steps were taken during 2001¹). Moreover, the unsatisfactory performance of the Greek economy in terms of job creation is associated with product market rigidities, disincentives contained in the tax and social security legislation and the inadequacy of the infrastructure to facilitate women's participation in the labour force. Hence, full employment, which is a key component of the broader objective of real convergence, requires reforms in all these areas. The fact that discussions on tax reform and the overhaul of the social security system, based on concrete proposals, are currently in progress and that the government wishes to implement these reforms by the end of the year is a positive development in this connection. Meanwhile, an overall evaluation of the results of the labour market reforms enacted since late 2000 would be useful.

The privatisation process during the last few years and the opening up of certain crucial markets, pursuant to provisions of EU law, are a positive first step towards stimulating competition in product markets and strengthening their effective functioning. The continued liberalisation of the energy market, after the successful liberalisation of the telecommunications market,² should play a particularly important part in achieving this goal and have a direct effect on economic growth. Markets that are seemingly less important to growth should not be neglected, since they can – as seen during the last few

1 With the enactment of the law on the restructuring of the Manpower Employment Agency and the conditions of operation of Temporary Employment Agencies (see Chapter IV.4).

2 See Boxes 5 and 6 in Chapter III.

months in the market for fresh fruit and vegetables— adversely affect the economic climate and crucial indicators, such as inflation, owing to the lack of competitive conditions.

The further enhancement of the Greek banking system's efficiency will play an important role in supporting high growth rates of economic activity and investment. A modern and efficient banking system does not limit itself to traditional intermediation between savers and investors, but offers a broad spectrum of financial services, ranging from highly specialised consultancy and investment banking services to innovative combinations of bank products and other retail banking services offered to end-consumers. The degree of efficiency of a banking system depends on its ability to provide optimal quality services at the lowest possible cost. Now that domestic markets are part of the single European financial market, growing competition exerts increased pressure on Greek credit institutions to improve their performance and leaves no room for complacency or inertia: the Greek credit institutions' ability to take advantage of their dominant position in specific segments of the market will be reduced as competition increases. This challenge will have to be met by Greek banks through the further improvement of their efficiency and soundness. The Bank of Greece seeks to maintain the capital adequacy of banks at a high level and to promote consolidation of their loan portfolios and participations in the capital of other business firms. In order to promote these two goals, the Bank of Greece requires credit institutions to increase their own funds whenever the capital adequacy ratio approaches the minimum required levels and particularly whenever they plan to expand their branch network. At the same time, it requires them to make sufficient provisions that would allow them to write off bad debts and thus achieve faster consolidation of their portfolios. Furthermore, it pays particular attention to the upgrading of banks' internal audit and risk management systems, in compliance with the regulatory Acts it has issued. In order to improve their efficiency, credit institutions should include in their strategy a long-term policy geared at reducing their operating costs, based on better management of human resources, adoption of technologically advanced methods of service provision, and optimal utilisation of available information concerning customers and markets.

At the same time, the Bank of Greece gives priority to improving transparency in banks' transactions, which serves their customers' as well as their own interests. The adoption of international accounting standards is expected to contribute substantially to a more accurate recording of the financial position of banks in their financial statements. The government has recently taken some important steps towards abolishing contributions, taxes and other regulations that distorted the entire range of relations between banks and their customers and were the main cause for the loss of business and the transfer of activities outside Greece. It is also necessary to abolish regulations that continue to have a negative effect on the competitiveness of Greek banks, including those concerning the recruitment of skilled staff and, generally, the proper management of human resources. However, in parallel with the adoption of advanced technology and software, banks should allocate additional resources to the continued training of existing staff, since the rate at which new bank products and techniques are introduced makes it difficult even for experienced staff to

adapt. Upgrading human resources is essential if the advantages offered by Greece's entry into monetary union are to be reaped by Greek banks in the field of international activity.

In conclusion, after its full entry in EMU, the Greek economy will continue to grow at a considerably faster pace than the euro area average. Inflation remains relatively low, especially compared with the rates of a few years ago, but markedly exceeds average euro area inflation. Also, the country's fiscal position has significantly improved, as the general government budget was virtually balanced in 2001 and is expected to register a surplus this year. These favourable developments, however, are accompanied by a number of unsatisfactory features. The unemployment rate and the current account deficit as a percentage of GDP remain particularly high despite the improvement recorded last year. These two indicators reflect structural weaknesses of the economy, especially the country's low competitive position in the world market. Although corporate and public investment has grown considerably in the last six years and led to an upgrading of the production base and the infrastructure, the Greek economy has not yet properly utilised its human resources, nor has it improved its export performance to such an extent as to ensure a high and sustainable growth rate over the long term. Moreover, despite a material improvement in the fiscal situation in the last few years, public debt as a percentage of GDP remains very high and thereby constrains the growth process.

The prospects of achieving real convergence and full employment are favourably affected by the adoption of the euro and the monetary and exchange rate stability this entails, as well as by the improvement in basic indicators as a result of nominal convergence. They are also favourably affected by the tangible advantages and the potential benefits of the country's participation in the European Union, particularly in the euro area. The real convergence process is, however, impeded by the constraints imposed by high public debt, low productivity, and the combination of ineffective functioning and insufficient competition in some markets. Consequently, the monetary stability ensured by the adoption of the euro and the protection it provides against the repercussions of the current account deficit should not lead to complacency and a slackening of the efforts to complete fiscal consolidation and improve productivity and the international competitiveness of the economy. Furthermore, the main goal should be to achieve and maintain price stability in our country, which cannot be ensured solely by means of the single monetary policy. The conduct of an appropriate national economic policy is also required, as well as the contribution of the social partners, through the implementation of a prudent pricing policy and agreements on wage increases that match the rise in productivity and ensure price stability. The social partners will thus help safeguard the workers' purchasing power, enhance competitiveness, reduce unemployment and, therefore, promote a faster and steady increase in real incomes.

The objectives of real convergence and full employment will be achieved more securely and rapidly if the appropriate fiscal and structural policies are implemented on a persistent and consistent basis. The implementation of such policies is not an easy matter, as it entails radical changes in the structure and functioning of the economy, as well as in

general attitudes and behaviour. The implementation of such policies is, however, imperative in order to maintain and improve the performance of the economy in the new environment created by the adoption of the euro, growing competition in the single market and the forthcoming EU enlargement. Through a systematic approach, prudence and consensus we can successfully carry out the reforms that will lead to a significant improvement in competitiveness and the completion of fiscal consolidation. These are the two main prerequisites that must be ensured in order to achieve full employment and real convergence and enhance social cohesion.

III. ECONOMIC ACTIVITY AND EMPLOYMENT

1. EXPENDITURE AND NATIONAL INCOME

According to provisional estimates by the National Statistical Service of Greece (NSSG), gross domestic product (GDP) increased by 4.1% in 2001, as much as in 2000. This increase is attributable to domestic consumer and investment demand (including the change in inventories), since the contribution of the real external balance of goods and services was virtually zero (-0,1% of GDP), having been negative (-0,4% of GDP – see Table III.1) in 2000. On the supply side, GDP growth stemmed from the secondary and tertiary sectors, while output from the primary sector decreased (Table III.2).

Private consumption grew in 2001 at a slightly lower rate than in 2000. In particular, the volume of retail sales (NSSG-Eurostat index, excluding cars and motorcycles – see Charts III.1 and III.2) increased at an average annual rate of 4.4% in 2001 (5.4% in 2000). The index rose at a particularly high annual rate during the first two months of 2001, which may be related to the steep fall in interest rates at the end of 2000 and the impact that accession to the euro area had on the economic sentiment. The rate followed an overall decelerating trend from March onwards, dropping by September to 3.1% while in October it fell sharply to 0.3%. This trend was reversed in November (+3.4) and the rate remained at a satisfactory level (1.5%) in December as well. Moreover, in 2001 the number of new passenger car registrations decreased by 4.4% (which was expected following the 12.7% increase in 2000). Considering the evolution of *both* indices,¹ it follows that private consumption of *goods* increased by 3.8% in 2001 (5.9% in 2000). Finally, consumer demand for services grew at a pace which in most categories was slower than in 2000 (see Section 3 below).

The growth rate of consumer demand remained at high levels partly owing to the increase in households' borrowed funds as a result of rapid consumer credit expansion. By contrast, the contribution of certain categories of household income was limited. Specifically:

- The growth rate of an average employee's real take-home pay (obtained after the income tax and social security contributions are subtracted) decelerated from 5.1% in 2000 to 0.9% in 2001 (Chapter IV.2). Taking into account the increased number of employees, it is estimated that the growth rate of total take-home pay decreased to roughly 2.5% in 2001 from about 6% in 2000, in real terms.

- Household income from interest decreased owing to cuts in bank deposit rates and in interest rates on government paper.

- Net business profits increased significantly in 1999, but decreased in 2001. It is therefore reasonable to assume that dividends for 2000, which were *part of household*

¹ Considering that the share of passenger cars in private consumer demand for goods is about 7%.

TABLE III.1
GROSS EXPENDITURE OF THE ECONOMY AND GROSS DOMESTIC PRODUCT
(Constant prices of year 1995)

	Billion drachmas ¹	Annual percentage changes			
	1995	1998	1999	2000	2001
1. Consumption	24,075.7	3.2	2.6	2.9	3.0
1.1 Private	19,901.6	3.5	2.9	3.3	3.2
1.2 Public	4,174.1	1.7	0.9	0.7	1.8
1.2.a Individual consumption expenditure	1,600.7	2.3	-0.4	0.0	0.3
1.2.b Collective consumption expenditure	2,573.4	1.3	1.8	1.2	2.7
2. Gross fixed capital formation	5,066.0	10.6	6.2	7.8	7.4
2.1.a By investor: General government	864.0	8.3	6.9	4.7	7.4
2.1.b Other sectors	4,202.0	11.0	6.0	8.4	7.4
2.2.a By type: Construction	3,210.5	9.2	7.6	2.9	8.6
2.2.b Equipment	1,594.5	16.5	1.0	17.2	5.2
2.2.c Other investment	261.0	-14.0	34.0	0.0	10.6
3. Change in stocks and statistical discrepancy (percentage of GDP)	85.7	0.3	-0.3	0.0	-0.1
4. Domestic final demand	29,227.4	4.6	2.7	4.1	3.8
5. Exports of goods and services	4,800.2	5.3	8.1	18.9	2.3
5.1 Exports of goods	2,843.2	2.7	-4.9	11.8	1.4
5.2 Exports of services	1,957.0	7.7	20.0	24.0	2.9
6. Final demand	34,027.6	4.7	3.6	6.6	3.6
7. Imports of goods and services	6,792.4	9.2	3.6	15.0	1.9
7.1 Imports of goods	6,162.2	9.4	-5.1	15.8	2.9
7.2 Imports of services	630.2	8.5	54.4	12.3	-1.6
8. Balance of goods and services	-1,992.2	...	...	...	...
9. GDP at market prices	27,235.2	3.4	3.6	4.1	4.1
		Contribution to GDP growth (percentage points)			
1. Consumption		2.8	2.2	2.5	2.6
1.1 Private		2.5	2.1	2.4	2.3
1.2 Public		0.3	0.1	0.1	0.3
1.2.a Individual consumption expenditure		0.1	0.0	0.0	0.0
1.2.b Collective consumption expenditure		0.1	0.2	0.1	0.2
2. Gross fixed capital formation		2.1	1.3	1.7	1.7
2.1.a By investor: General government		0.3	0.3	0.2	0.3
2.1.b Other sectors		1.9	1.1	1.6	1.4
2.2.a By type: Construction		1.1	1.0	0.4	1.1
2.2.b Equipment		1.2	0.1	1.3	0.5
2.2.c Other investment		-0.1	0.3	0.0	0.1
3. Change in stocks and statistical discrepancy (percentage of GDP)		0.0	-0.6	0.3	-0.1
4. Domestic final demand		4.9	3.0	4.5	4.2
5. Exports of goods and services		1.1	1.7	4.1	0.6
5.1 Exports of goods		0.3	-0.5	1.1	0.1
5.2 Exports of services		0.8	2.2	3.1	0.4
6. Final demand		6.0	4.7	8.6	4.7
7. Imports of goods and services		-2.7	-1.1	-4.6	-0.6
7.1 Imports of goods		-2.3	1.3	-3.7	-0.8
7.2 Imports of services		-0.4	-2.4	-0.8	0.1
8. Balance of goods and services		-1.6	0.6	-0.4	-0.1
9. GDP at market prices		3.4	3.6	4.1	4.1

Source: National Statistical Service of Greece (NSSG)/National Accounts (provisional estimates for 1999-2001), March 2002.

income in 2001, were reduced compared with the dividends for 1999, which were part of household income in 2000.

– In 2001, real income from agricultural activities per worker increased by 1.5% according to Eurostat estimates.¹ If we take into consideration the estimated –also by Eurostat– 2.9% reduction of employment in the agricultural sector,² then total income from agricultural activities (including income subsidies) declined by 1.4%.

– Data on the income of the self-employed in the urban sector, on the income of those employed in the informal sector, as well as on household income from transfer

TABLE III.2
GROSS VALUE ADDED AT BASIC PRICES

	Billion drachmas	Annual percentage changes (constant prices of year 1995)				
	1995	1997	1998	1999	2000	2001
1. Primary sector (agriculture)	2,479.7	0.4	2.3	3.8	0.4	-3.4
2. Secondary sector	5,639.2	-1.3	7.4	2.5	5.1	5.4
2.a Mining and quarrying	162.1	-3.4	13.0	-1.7	8.8	...
2.b Manufacturing	3,261.5	-3.7	5.3	-1.7	6.0	...
2.c Electricity - Town gas - Water supply	596.6	2.8	6.8	10.8	7.8	...
2.d Construction	1,619.0	2.5	10.6	7.5	2.7	...
3. Tertiary sector	17,048.1	5.2	3.1	3.9	4.7	4.6
3.a Trade	3,413.7	5.0	3.6	4.8	5.8	...
3.b Hotels - Restaurants	1,642.7	14.5	3.7	-3.8	-0.4	...
3.c Transport - Communications	1,696.3	8.4	4.1	19.1	27.9	...
3.d Financial intermediaries	1,060.4	4.3	11.5	7.4	4.3	...
3.e Real estate management and other activities	4,285.6	3.0	2.5	3.5	2.2	...
3.f Public administration - Security	1,808.8	-0.9	-0.6	-0.6	-2.6	...
3.g Health	1,123.8	3.7	-0.8	2.0	1.2	...
3.h Education	1,313.7	7.7	1.2	-0.5	-2.5	...
3.i Other activities	703.1	2.5	6.5	3.8	3.7	...
4. Gross value added	25,167.0	3.3	3.9	3.6	4.4	4.2
5. Imputed banking services	-741.3	3.3	16.4	9.1	12.5	1.9
6. Gross value added at basic prices	24,425.7	3.3	3.6	3.4	4.1	4.3

Source: NSSG/National Accounts (provisional data for 1999-2001), March 2002.

payments (including pensions) are insufficient. While it may be reasonably assumed that the income of these categories increased faster than net income from wages, it is estimated, particularly if the other income categories are also taken into consideration, that the growth rate of the total nominal disposable income of households slowed down in

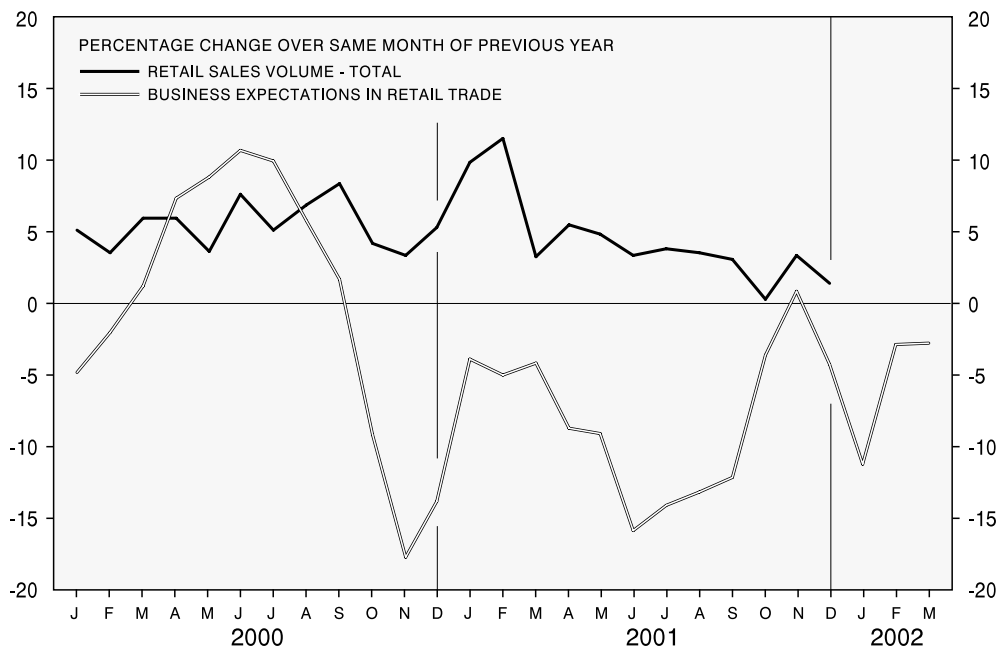
¹ Eurostat, *Statistics in Focus*, Theme 5-9/2002 (April).

² Employment is measured in full-time-employed labour units.

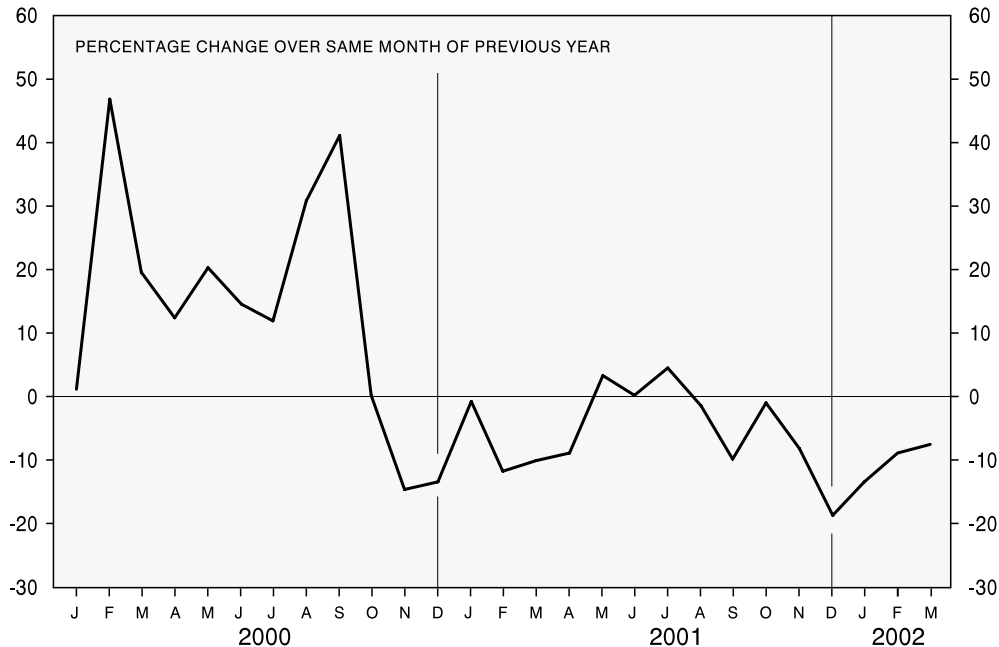
CHART III.1

CONSUMER DEMAND

A. RETAIL SALES VOLUME AND BUSINESS EXPECTATIONS



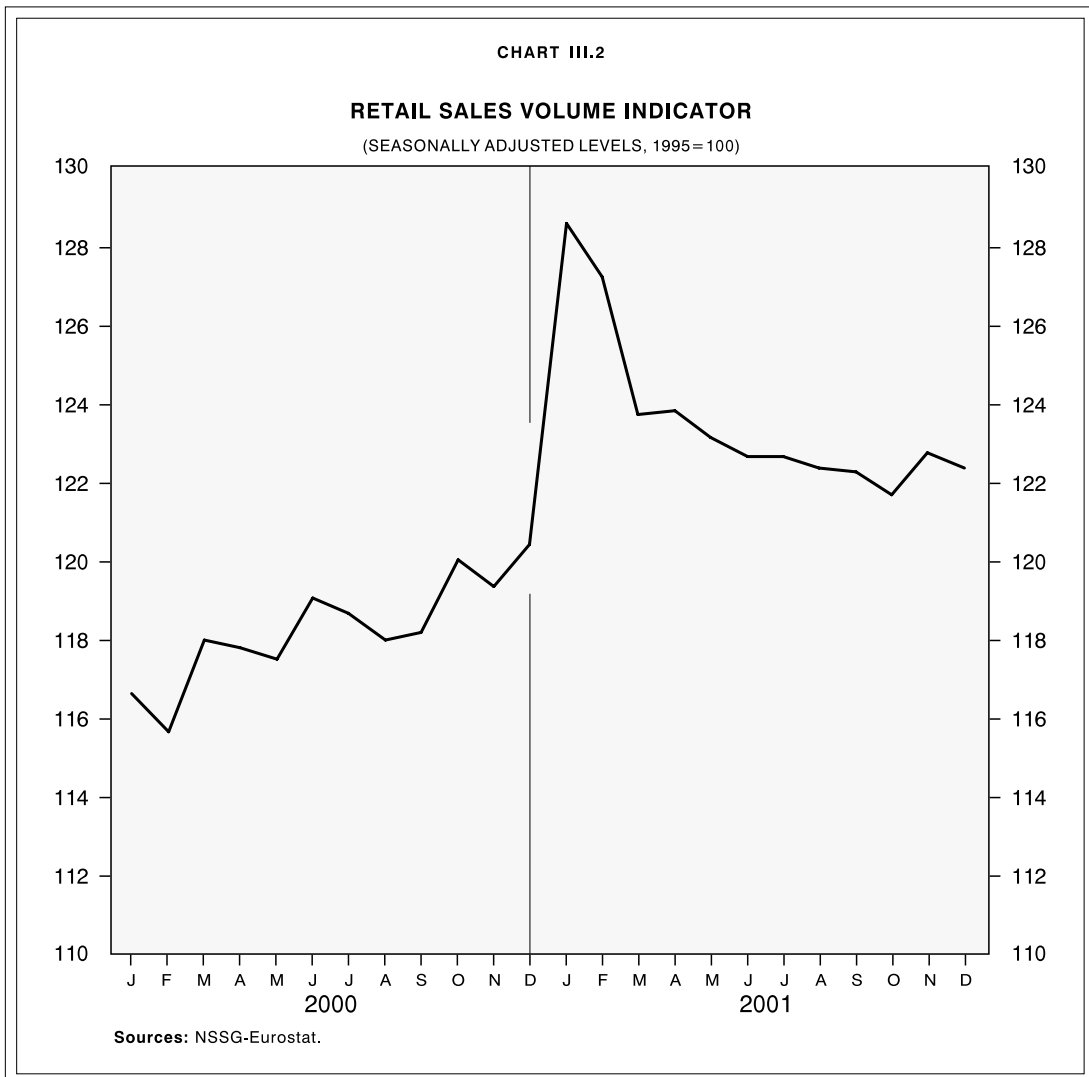
B. NEW PASSENGER CAR REGISTRATIONS



Sources: Calculations based on data from the NSSG-Eurostat (retail sales volume), NSSG (cars) and the Foundation for Economic and Industrial Research (IOBE) (expectations). The index of business expectations is calculated on the basis of business firms' estimates on sales and stocks, as well as of forecasts on business activity over the next 6 months.

2001 and – moreover – was slower than the growth rate of private consumption at current prices.

The above estimate leads to the conclusion that the deterioration of the average propensity of households to save (i.e. the decrease in the percentage of disposable income that appears not to correspond to consumer expenditure) persisted in 2001. It should be



noted, nevertheless, that to a large extent this apparent decline is due to the way in which disposable income and savings are defined and measured. At the same time, the significant reduction of bank deposit rates, the enhanced confidence as to the prospects of the economy and the desire of households to approach the consumer standards of other EU countries have led to a marked drop in the propensity to save, regardless of how it is measured (for more details, see Box III.1).

BOX III.1**Household savings: concept and determinants**

Pursuant to the European System of Accounts (ESA 95) now adopted by all EU countries, savings are the equalizing factor in the disposable income appropriation account. Based on the grouping of individual institutional units into Institutional Sectors or simply Sectors (non-financial firms, financial firms, public sector, households, etc.) and as far as final-consumer sectors are concerned, the disposable income appropriation account shows how disposable income is allocated between final consumption and savings. Consequently, the meaning of “sectoral savings” and of the economy as a whole depends directly on the meaning of “disposable income” and “expenditure”.

The concept of the individual institutional sectors’ disposable income in ESA95 has two different versions, in quantitative terms. According to the first version, gross or net disposable income is defined depending on whether or not it includes depreciation in individual sectors. According to the second, *adjusted* disposable income is defined, whereby final consumption expenditure means the real final consumption of individual units, which includes social transfers in kind from the public sector to households. Taking into consideration the aforementioned alternative definitions of disposable income, we can – on the basis of Greece’s national accounts official data – identify four different ratios of savings to disposable income. Data concerning the institutional sector of households are presented in the Table.

The Table depicts the downward trend of the household savings ratio during the period 1995-2000. Of course, this phenomenon is not restricted solely to the Greek economy. Over the last twenty-odd years and in a number of developed economies – in individual EU countries, in the euro area as a whole and the USA in particular – there was a shortage of private savings, coupled with a downward trend in the share of savings in disposable income. The first Chart depicts relative developments in the euro area during the period 1995-2000. In Greece, the behaviour of savers generally follows the pattern set in developed economies, but the downward trend of the savings ratio is particularly noticeable. In fact, in Greece this ratio – irrespective of the definition adopted – seems to have dropped by almost 5 percentage points during 1995-2000 (from 16.2% to 11.6%); over the same period, the savings ratio in the euro area fell by 2.7 percentage points, from 17.6% in 1995 to 14.9% in 2000.

If we apply a different definition of savings on a national accounts basis, to include savings by *private and public enterprises*, for which long time series are available, the income allocated to savings, expressed as a proportion of the private sector’s disposable income, follows an almost constant downward trend throughout the period from 1975 to the end of 2001. In particular, from 26.8% in 1975, it fell to almost 6.5% in 2001 (if depreciation is excluded from savings and income). Irrespective, nonetheless, of the quantification method applied to private savings and the accuracy of the respective theoretical aggregate, the change in the behaviour of savers is reflected in the pattern followed by the ratio of private consumption to GDP. This ratio, in the period 1975-2001, increased impressively by roughly 15 percentage points (from about 57% in 1975 to 72% of GDP in 2001), following an almost steady upward course and reaching a peak in 1996 (73% of GDP), before declining slightly. This development of the consumption-to-GDP ratio (and of the related savings ratio) marks an all-important structural →

→ change in the Greek economy, which could affect the sustainability of its non-inflationary growth rate in the medium-term.

In fact, related research carried out at the level of individual economies and involving groups of countries, indicated a high correlation between savings and investment, identifying at the same time serious fiscal imbalances as a fundamental cause of flaccid savings levels. These findings seem – if we examine the historical evolution of the relative macroeconomic aggregates in the period after 1974 – valid for the Greek economy as well.

HOUSEHOLD DISPOSABLE INCOME, CONSUMPTION AND SAVINGS
(In billion drs.)

Description	1995	1996	1997	1998	1999 ¹	2000 ¹
Gross Disposable Income	23,650.8	25,553.0	27,894.8	29,983.2	31,420.5	32,540.9
Final Consumer Expenditure ²	19,815.4	21,963.2	23,804.7	25,746.5	27,047.5	28,780.4
Gross Savings	3,835.4	3,589.8	4,090.1	4,236.7	4,373.0	3,760.5
Percentage of Savings on the Gross Disposable Income	16.2	14.0	14.7	14.1	13.9	11.6
Amortization	1,302.2	1,447.0	1,732.0	1,895.0	1,871.0	2,031.0
Net Disposable Income	22,348.6	24,106.0	26,162.8	28,088.2	29,549.5	30,509.9
Net Savings	2,533.2	2,142.8	2,358.1	2,341.7	2,502.0	1,729.5
Percentage of Savings on the Net Disposable Income	11.3	8.9	9.0	8.3	8.5	5.7
Social Transfers in Kind	1,600.7	1,793.0	2,086.5	2,162.6	2,242.6	2,335.9
Gross Adjusted Disposable Income	25,251.5	27,346.0	29,981.3	32,145.8	33,663.1	34,876.8
Percentage of Savings on the Gross Adjusted Disposable Income	15.2	13.1	13.6	13.2	13.0	10.8
Net Adjusted Disposable Income	23,949.3	25,899.0	28,249.3	30,250.8	31,792.1	32,845.8
Percentage of Savings on the Net Adjusted Disposable Income	10.6	8.3	8.3	7.7	7.9	5.3

1 Provisional data. 2001 data are not yet available.

2 Consumer expenditure applies only to the following institutional sectors: the public sector (S.13), households (S.14), non-profit-making foundations serving households (S.15).

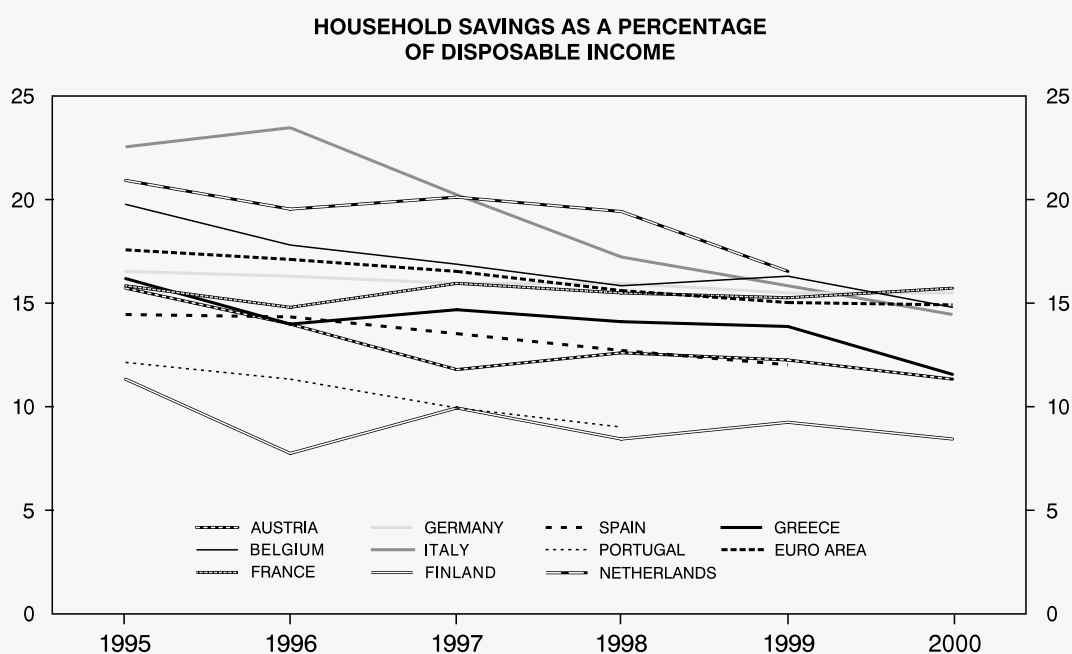
Source: NSSG, National Accounts Dept.

It will now be attempted to (i) identify the main determinants of the gradual decline of the savings ratio in the Greek economy and (ii) support the view that this phenomenon is coming to an end and that possibly a reverse course will follow.

The savings ratio pattern is affected by a broad spectrum of socioeconomic determinants. The downward trend of the savings ratio during the last twenty years is considered chiefly attributable to the following determinants:

– First of all, to the demographic changes that relate to the characteristics and the composition of households (e.g. the accelerated ageing of the population during the last few decades, the increase in the number of one-person households combined with the decrease →

→ in the average family/household members etc.). Indeed, considering that people start saving at relatively younger ages (against future consumption after retirement, when income is usually lower – “life cycle” theory), the ageing of the population has probably contributed of its own accord to the decrease in the household savings ratio: the percentage of over 65 year-old individuals from 12% of the total population at the beginning of the 1980s rose to 28% by the end of the 1990s. During the same period, the increase from 10% to 16% in the percentage of one-person households may have had a similar impact, same as the reduction of the average number of household members (from 3.3 to 2.8). This is connected with the application of economies of scale in household consumption, e.g. a two-person household pays less than double the rent paid by a one-person household.



Source: ECB.

– Secondly, to the changes in real interest rates. The effects of these changes on consumption and on the savings ratio, are both direct and indirect. The direct effects on consumption appear (i) through the “intertemporal substitution result” related to the substitution of present with future consumption owing to the increase in interest rates and (ii) through the impact that the durable consumer goods market has on user cost once interest rates increase. Changes in interest rates also have indirect effects, because they affect the prices of (book-entry or non-book-entry) assets. Changes, however, in the price of assets affect the wealth-to-income ratio, which is decisive for consumption. The effect that changes in wealth have on consumption is uncertain in quantitative terms and in opposite directions and is transmitted through many and diverse channels. It is nevertheless believed that a potential reduction of real interest rates increases the wealth-to-income ratio, raises the value of expected returns →

→ on assets of any type and generally boosts consumption, reducing the savings ratio. In the case of the Greek economy, the steep drop in nominal and real interest rates during the last few years has probably reduced the attractiveness of at least some forms of savings (such as deposits, government securities, etc.). At the same time, easy access to “plastic money” must have boosted consumption, especially by households in the lower income brackets which have an increased propensity to consume. The heightening of competition in the banking sector also led to the rapid expansion of consumer credit. Finally, interest rate cuts, the steady slowdown of inflation over the last five years and the successful convergence of the Greek economy have assisted in shaping favourable household expectations and have limited uncertainty appreciably, boosting consumption.

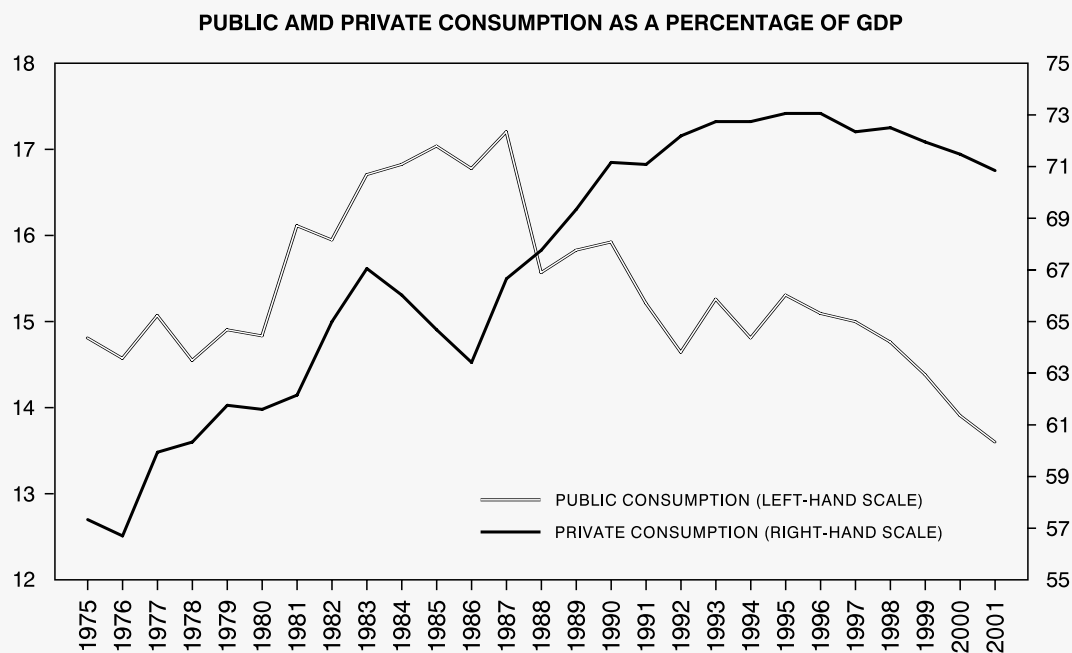
— Thirdly, to the increase in the current value of certain household assets. Most of the research on this issue confirms the existence of a strong inverse relationship between wealth and savings. If the ratio of wealth (value of assets) to the expected life-long household income is high, then a considerably negative effect on the behaviour of savers should be expected (because the need of households to save against future risks or fluctuations in disposable income is significantly reduced). In this sense, the steep rise during the last few years in the prices (and thus in the current value) of dwellings, which are considered key household assets (see Box III.2), may have negatively affected household savings. The sharp increase in equity prices may have had a similar effect.

— Fourthly, to the considerable change in consumer patterns. It seems that younger generations feel less uncertain regarding their financial outlook and are more in a hurry to attain higher standards of living. Although such an allegation requires empirical backing with micro-economic data, it seems to hold true, especially if the recent gradual convergence of living standards between Greece and the other EU countries is taken into consideration.

Finally, it should be noted that to some extent the apparent decrease in the savings ratio in our country is also due to the way in which disposable income and savings are measured. In fact, while disposable income includes interest income (which was severely reduced in the last five years), it does not include, by definition, flows from borrowed resources, which not only grew but also encouraged consumption, since cuts in lending rates entailed a decrease in future household liabilities. Moreover, savings are not included in national accounts directly, but as a difference between disposable income and consumer expenditure, i.e. as a residual.

It is nonetheless estimated that the downward trend of the savings ratio is coming to an end. *First of all*, a satisfactory — on the basis of international standards — level of consumer expenditure has been reached, which does not require further drastic changes in consumption. *Secondly*, fiscal policy has been restrictive in the last few years and it will have to follow a course of austerity in the future, in line with the rules of the Stability and Growth Pact. Thus, the high transfer payments that supported consumption throughout the 1980s are reduced, as well as the complementarity recorded in public and private consumption (see second Chart). This may lead initially to a further reduction of the savings ratio, as households will strive to maintain their former consumption level, without being able to capitalize on the resources from government transfer payments. With time, however, and along with the growing awareness that future income flows will be — *ceteris paribus* — less than in the past, the propen- →

→ sity to consume will decrease and the savings ratio will increase. *Thirdly* (and considering that consumer behaviour has clearly a front-loading character), the same result will be brought about by the households' excessive indebtedness (which will lead to a constraint on consumption), whose prepayment should be scheduled in the medium-term. Generally, however, the deregulation of the credit system and the expansion of consumer credit reduced liq-



Source: NSSG, National Accounts Dept.

uidity restraints for significant segments of the population. This will expand the investment horizon and strengthen the front-loading character of consumer behaviour. The dependence of consumption on income changes will be reduced. Larger and larger segments of the population will have the ability to “smooth out” over time the fluctuations in their consumption levels, taking into account income flows generated by long-term valuations. Thus, the savings ratio will finally be stabilised at levels compatible with long-term real interest rates and the economy’s potential growth rate. *Fourthly*, a comparison of savings ratios between a period of high inflation, such as the 1975-95 period, and a period of rapid deceleration of inflation, such as the recent one, would not be really fair. In fact, during periods of inflation, more savings are added to cover for the loss of real financial capital owing to inflation. In other words, savings are the difference between real and nominal interest rates in periods of inflation. Therefore, the reduction of the savings ratio in the period under review was due, at least in part, to the slowdown of inflation. Since no further *substantial* slowdown of inflation is expected (from the already low level at which it now stands), a further reduction of the savings ratio for this reason should not be anticipated.

Developments in the value of household assets also affect, to some extent, households' attitude towards consumption and savings. In particular, the continued decrease in the current value of equities held by households¹ had a direct negative impact on consumption. This impact, however, was dulled by the sharp increase in the prices of dwellings (see Box III.2), which strengthened household expectations as to future disposable income, thus taking the edge off the negative effects from the decline in equity values and indirectly facilitating consumption (or even recourse to borrowing).

¹ The composite index of the ASE fell by 23.5% between end-December 2000 and end-December 2001.

BOX III.2

The housing market: key features and price development indicators

The housing market is characterised by a number of peculiarities and its impact on the country's macroeconomic and financial stability and growth is significant. During 2001 investment in housing amounted to 20.1% of total investment or 4.8% of the country's GDP. Most households consider dwellings as the most important asset, hence housing loans take the lion's share of their overall debt. On the other hand, housing loans represent a considerable percentage of the loans granted by credit institutions and approximately 2/3 of total loans to households. Therefore, given that the loans in question are mortgage loans, large fluctuations in housing prices are likely to have a significant impact on monetary and financial stability.

Equilibrium in the housing market is brought about by a series of factors that affect supply and demand, determining the level of housing prices. In the literature several factors affecting housing supply are quoted, among which the economic growth level and rate, rental prices, urban planning rules, the existing housing stock and its particulars, the socially-determined preferences and habits related to housing as well as historical factors (wars, calamities, etc). On the side of housing demand, determinants include housing credit, the tax regime applicable to ownership and the transfer of dwellings, culturally-based preferences, expectations as to future housing and rental prices, uncertainty and the available alternatives for insuring against future risks, social habits as to inheritance issues, etc. Apart from the above, the impact of demographic developments on the composition of households and the shifting household needs diversify the features of the housing stock over time; this fact should be taken into consideration when conducting surveys of the housing market. For example, the ratio of detached houses to flats may vary depending on urban planning rules, preferences and zoning limitations, the number of household members etc. It is possible that such changes may affect a composite house price index, since price trends among different house categories vary and the composition and particulars of new housing also differ over time. Moreover, it is possible that changes in market operation as regards lending and brokerage may affect the equilibrium price.

Analysing and understanding the developments in the housing market presuppose, therefore, knowledge of its features and manner of operation. As regards the features of the Greek housing market during the last 15 years, some interesting conclusions may be drawn →

→ on the basis of the data provided by the Household Budget Survey; these data are presented in the first Table. First of all, the percentage of owner-occupied dwellings in Greece rose to 79.6% in 1999 from 78.7% in 1994 and 76.8% in 1988 (including gratis tenure or tenure against token rent). Rural areas show larger percentages of owner-occupied dwellings (97% in 1999)

HOUSEHOLD HOUSING CONDITIONS
(Households or dwellings percentages on the total)

Dwellings particulars	Household Budget Survey 1987/88	Household Budget Survey 1998/99
Type of dwellings:		
Detached house	43.3	35.9
Semi-detached house	18.8	21.9
Flat in block of flats	37.9	42.2
Existence of secondary dwellings	10.0	14.5
Ownership status:		
Owner-occupied or gratis use	76.8	79.6
Rented	23.2	20.4
Year of construction:		
Before 1918		6.2
1918-45	10.1	5.4
1946-60	18.0	13.9
1961-70	28.4	22.9
1971-80	} 37.4	29.7
1981-90		17.4
1991-95	-	5.7
After 1995	-	2.7
Number of available rooms:		
Up to two	14.0	14.9
Three	29.1	31.8
Four	35.1	33.4
Five	16.4	14.7
Six or more	5.4	5.2
Square meters per person:		
Up to 20	25.0	16.6
21 - 40	52.1	50.8
More than 40	22.8	32.6
Facilities:		
Running water, indoors	97.5	99.4
Hot water, indoors	83.7	95.2
Kitchen, indoors	96.6	98.8
WC, indoors	85.2	94.4
Bathroom, indoors	84.4	96.1
Sewerage (network)	59.3	68.3
Garage	2.7	4.7

Sources: NSSG , Household Budget Survey.

than urban areas as a whole (72.8%); it is noteworthy that 10.1% of all owner-occupied dwellings are encumbered with loans, mortgages, etc. Secondly, the significant increase in the percentage of households having ownership of a second or country house from 10.0% in 1988 to 14.5% in 1999 is characteristic. Thirdly, living and housing conditions are set on a course →

→ of remarkable improvement over time. For example, in 1999 there was an average of 36.2 m² of dwellings per person (or 1.57 rooms per person) compared with 31.0 m² (or 1.45 rooms) in 1988. Fourthly, the continued urbanisation of the country's population has obviously brought about considerable changes in the composition of demand for available houses in favour of flats (42.2% in 1999) and semi-detached houses (21.9%) and at the expense of detached houses (35.9%). Finally, a shift in the composition of housing is also evident as far as the number of available rooms is concerned, with a trend to increasing the share of relatively small dwellings, up to three rooms (from 43.1% in 1988 to 46.7% in 1999). It is possible that the corresponding increase, over the same period, in one-person households (from 12.5% to 16.0%) coupled with the decrease in the average number of persons per household from 3.1 to 2.8 has contributed to that.

The development pattern of house prices is particularly useful to the analysis of the general price level dynamics and of the risks to its stability. A number of theoretical and empirical studies have indicated that housing price developments affect the attitude of households towards consuming and saving by modifying their financial position and alleviating their uncertainty about the future, which may have been due to developments in other financial aggregates.

It is also obvious that the housing market is directly related to the rental market. The rental price index – excluding implied rents of owner-occupied dwellings – is heavily weighted (3.7-3.9%) in the composition of the national CPI and the Harmonized Index of Consumer Prices (HICP) and affects general price levels accordingly.

In spite of the above and at least until now, the statistical recording and the monitoring of housing prices in our country and in a number of other EU countries has not been undertaken systematically. The assessments provided by many countries derive at times from non-official sources, for which there are considerable reservations. Therefore, the available data should be carefully interpreted and taken more as an indication of the general course of housing prices rather than as a precise presentation of short-term changes.

Greek data are also rather fragmentary and, most importantly, cover only a fairly recent period. Data sources include: (i) NSSG's *aggregate price index for the "cost" items in the construction of new dwellings*. The index has been compiled and published on a quarterly basis since 1981 and is the weighted average of the monthly price index of materials for the construction of new dwellings (breakdown in individual categories of materials, such as artificial stone products, timber and carpentry, fuel for machinery etc.), the quarterly price index of "labour wages" in the construction of new dwellings (breakdown in 10 individual work stages, such as excavations, reinforced concrete, wall constructions, etc.) and the quarterly index "Other Expenditure" that chiefly quotes engineers' fees. As regards the utilization of this index in the research in new dwellings' prices, it should be borne in mind that this is a cost index and not an end product price index (i.e. it does not include constructor's profits, commercial profit margins etc.). The *general price index of "work categories"* relating to the construction of new dwellings (breakdown in 17 individual work categories, such as excavations, concrete, wall constructions etc), which is compiled by the NSSG on the basis of prices for the performance of such works by sub-contractors, falls under the same index category. (ii) *The rural dwellings' price index*. The primary streams of statistical data have been collected on a quarterly basis since the last quarter of 1993 by the local branches of the Bank of Greece in 17 cities (Athens excluded); the aggregate index is then constructed (and weighted as to the population) by the Regional Economic Conditions Service →

→ of the Economic Research Department. (iii) *Residential and other types of buildings price indices* (“other types of buildings” refer to industrial buildings, warehouses, offices, etc.) *for the various areas of Athens*. The primary data streams are taken from advertisements in the Press, information obtained from real estate agents etc. and have been collected on a monthly basis since January 1997 by Property Ltd. This index provides information by sector (Northern,

REAL ESTATE (DWELLINGS) PRICES: 1994-2001

Year	Athens area		17 provincial cities	
	Percentage change	Deflated change ³	Percentage change ⁴	Deflated change ³
1994	10.2 ¹	-0.8 ¹	8.7	-1.6
1995	8.5 ¹	0.4 ¹	9.4	1.4
1996	10.5 ¹	2.5 ¹	6.8	-0.7
1997	13.7 ¹	8.2 ¹	11.2	6.1
1998	13.0 ¹ -13.7 ²	7.9 ¹ -9.4 ²	10.6	6.1
1999	12.5 ²	9.5 ²	5.4	2.8
2000	15.9 ²	11.5 ²	7.9	3.6
2001	15.1 ²	11.7 ²	10.8	7.9

1 Changes: 2nd year-half on 2nd year-half.

2 December-on-December changes. Data for December 2000 were estimated on the basis of November data.

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

4 Fourth-quarter-on-fourth-quarter changes.

Sources: For provincial cities, weighted change on the basis of quarterly data for the cities of Agrinion, Alexandroupolis (since 1996), Volos, Heraklion, Thessaloniki, Ioannina, Kavala, Kalamata, Xanthi, Patras, Pyrgos, Rethymnon, Rhodes (since 1997), Serres (since 2000), Sparta, Florina (since 2000) and Chania, collected by Bank of Greece branches. For Athens: 1994-1998 period, calculations based on biannual data (collected by “Danos & Associates”) on the prices of new dwellings offered for sale: 1998-2001, calculations based on monthly data (collected by “Property Ltd”) on the prices of dwellings offered for sale.

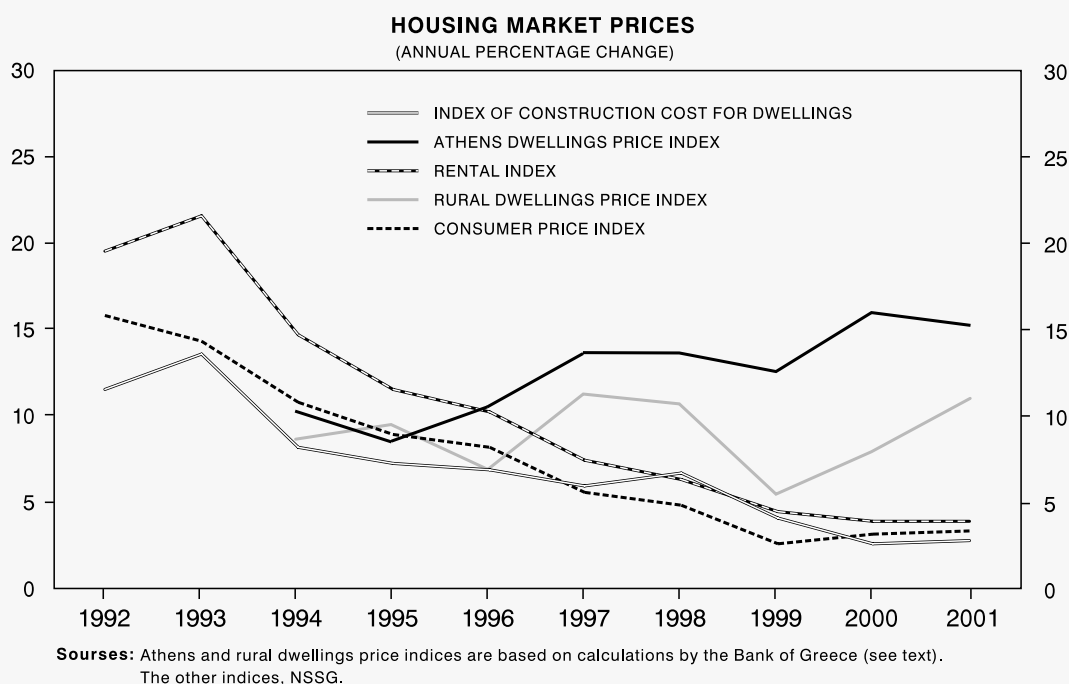
Southern, Eastern and Western Suburbs) and by district of Athens, in terms of both price per square metre and space availability (in square metres) for dwellings and other types of buildings. The Bank of Greece, Economic Research Department, has undertaken the synthesis of individual prices to the general index for the Athens area, as shown in the second Table. Property Ltd. publishes a separate index, called Propindex.

Finally, the volume of private construction activity, which is recorded and published by the NSSG on the basis of new building licences, is another indication of the supply of new buildings – although drawing a distinction between dwellings and other types of buildings is impossible. As far as the rental market is concerned, the NSSG compiles the monthly rental price index for rented houses. This index, as aforementioned, is included in the CPI and the HICP with a weighting of 3.9% and 3.7% respectively.

An analysis of the above data may lead to some interesting conclusions (see Chart).

First of all, housing prices have been increasing during the last five years at a rate higher than inflation (CPI) both in the provinces and – mainly – in the area of Athens. Indeed, →

→ during the last five years (1997-2001) prices increased in both areas at an average annual rate of 9.2% and 14.1% respectively, compared with an average annual rise of 3.9% in the general price level. The rental price index increased over the same period by 5.3%. Conversely, in the immediately preceding period for which data are available —i.e. 1994-96— the increase in housing prices was not as distinctly different from the increase in the general price level. It is worth noting that housing prices rose faster than the HICP, even though to a lesser extent (approximately 1.2 percentage points) in the euro area as a whole, during the period 1997-2001 (see ECB, *Monthly Bulletin*, October 2001, Box 2).



Secondly, the significant rise in nominal and real housing prices during the last five years does not seem to be the result of increased inflationary pressures, in terms of construction cost, in the primary housing market. It need only be noted that in the period 1997-2001 the total construction cost of dwellings followed developments in the general CPI and rose at an average annual rate of 4.4%. This suggests an increase in the profit margins of construction companies in the housing market or of real estate agencies. Construction activity has intensified as the major projects in view of the 2004 Olympic Games are under way, leaving almost no room for new construction companies to penetrate the housing market.

Thirdly, the dynamic rise in housing prices in recent years is related to the rapid expansion of housing credit. Naturally, this expansion was boosted by the gradual deregulation of the banking system and increased competitiveness, along with the concomitant reduction of interest rates. The increase in the ratio of the outstanding balance of housing loans to households (31.2% in 2000 and 38.9% in 2001) is characteristic. This increase contributed significantly →

→ to boosting housing demand and thus raising housing prices, especially in the area of Athens, by 15.9% in 2000 and 15.1% in 2001. The annual rates of increase in provincial towns were 7.9% and 10.8% respectively.

Fourthly, housing supply both in the primary market (new houses) and in the secondary one (purchase and sale of old houses), in spite of its short-term inelasticity, seems to have risen, at least initially, *pari passu* with increased demand, thus preventing a greater increase in prices. The available data for the wider Athens area indicate that the number of supplied dwellings increased by 13.4% in 1998 and by 23.9% in 1999. The corresponding increase in the supplied square meters was 15.2% and 21.4%. The limited supply of houses after 1999 and particularly in 2001, however, may have led on its own to a further rise in housing prices. The decrease in housing supply, expressed either in units or in square meters, of 37.0% or 23.5% respectively in 2001 compared with a slight increase of 5.5% or 5.6% in 2000 is typical. This decrease may, to some extent, be characterised as a downward adjustment, following the large increases of former years; it is also possible that the increase in real estate objective values in March 2001 has had some impact, just as the uncertainty caused in the last two years by the fall in the value of stocks traded on the Athens Stock Exchange.

Finally, throughout the last decade, rental prices for dwellings have increased at rates distinctly higher than the general consumer price index rates, thus producing substantial yields to homeowners. The said yield decreased from an annual 3.9% during the five-year period 1992-96 to 1.4% during 1997-2001 (shrinking to a mere 0.8% and 0.6% in 2000 and 2001 respectively).

In 2001, total investment demand, at 1995 prices, grew at a rapid pace, though slightly slower than in 2000 (2001: 7.4%, 2000: 7.8%). This slowdown of the investment growth rate originated – according to NSSG provisional estimates – in the slowdown of business investment (private investment excluding residential), which is estimated to have risen by 8.9% compared with 13.4% in 2000. Nonetheless, the reduction in the growth rate of investment seems to have had absolutely no impact on its contribution to GDP increase, thus remaining the same as in 2000 (1.7 percentage points). In particular, general government investment increased at a much higher rate in 2001 (7.4% compared with 4.7% in 2000). A breakdown of investment by category points to a further increase in investment in construction (8.6% against 2.9% in 2000), which contributed to GDP growth by 1.1 percentage points, while investment in equipment – a large percentage of which concerns private investment – recorded a smaller rise (5.2%) in 2001, following a significant increase (17.2%) in 2000.

As far as non-residential business investment is concerned, the production of capital goods increased at a high annual rate during the first quarter of 2001 (23%), but decreased in the following three quarters and particularly the last (-7.4%), thus resulting in an overall increase of only 1.6% compared with an 8.2% increase in 2000. Conversely, the industrial capacity utilisation rate in the capital goods sector rose from 80.6 in 2000 to 81.4 in 2001, continuing the steadily upward trend of recent years. According to the Foundation for Economic and Industrial Research (IOBE), business sentiment remained

stable in the course of the year, yet hardly comparable with the euphoria of 2000 when entry into the EMU was imminent.¹ According to the industrial investment survey carried out by the IOBE during October-November 2001, private firms consider that their expenditure on investment (at current prices) weakened considerably (-31.9%) in 2001, as opposed to the robust 30% rise in 2000; on the other hand, they are expecting their investment expenditure to increase by 38.3% in 2002. On the basis of these results, the IOBE believes that the main factor behind the steep fall in estimates for 2001 was exogenous and temporary,² and that the companies participating in the survey expressed a wait-and-see attitude and not a reversal of the upward trend prevailing in the last few years.

As far as the sources of finance for corporate investment are concerned, it should be noted that in 2001 total corporate profits (on the basis of the annual balance sheets of companies quoted in the ASE) decreased. Moreover, raising capital through the ASE also shrank considerably.³

By contrast, the amount of investment programmes approved under Law 2601/98 increased by 11.7% in 2001. Overall, in the four years that this law on development is being enforced, 1,642 investment plans with a budgeted cost of 746 billion drachmas, subsidized for an amount of 251 billion drachmas, have come under this law. At the same time, in consideration of the same economic conditions and particularly after Greece's entry into the EMU, the Ministry of National Economy and Finance updated Law 2601/98 and simplified its implementation, so that fund transfers will not distort healthy competition and will be connected to the profit-making of the companies receiving the funds.⁴

The accelerated growth of construction activity in 2001, based on the provisional estimates of the NSSG, was mainly the result of a 2.9% increase in residential investment (against a 4.3% decrease in 2000). On the other hand, the growth rate of other types of construction gathered pace (12% against 7.5% in 2000). The above estimates are in line with the increase in the output of certain manufacturing sectors that are linked with construction. In particular and according to NSSG data, the output of products from non-metallic minerals increased in 2001 by 2.3%; the production of cement, in particular, increased by 4.6% and of ceramic tiles by 8.3%. Moreover, in accordance with the business survey carried out by the IOBE, in 2001 the industrial confidence indicator for construction remained at high levels, yet lower than in 2000, reduced by 5.6% (see Chart III.3).

1 See *The Greek Economy*, January 2002.

2 In March 2001 the same survey had recorded an assessment-forecast for a 7.4% increase in private investment. According to the IOBE, the considerable downward revision of corporate investment plans is connected with the uncertainty that prevailed in the markets directly after the 11 September terrorist attacks.

3 The funds raised through the ASE by non-financial companies totalled a mere 276 billion drachmas, compared with 2,267 billion drachmas in 2000.

4 In this context, tax exemptions are considered to be the most appropriate incentive for existing enterprises that invest in upgrading and expanding their activities, while the subsidisation of capital for new enterprises is maintained. Incentives will be given for productive investment in manufacturing, tourism as well as actions related to the environment and energy, while the creation of new jobs will also be supported.

In particular, the estimates of construction firms on their current turnover, particularly related to the construction of houses and other buildings, remained positive. By contrast, their prospects seem invariably unfavourable, with the exception of those related to the construction of non-residential buildings. A similar picture emerges from the survey carried out in the first quarter of 2002, although the industrial confidence indicator during that period improved by 1.6% compared with the corresponding quarter in 2001. According to the same survey, construction firms' estimates for the months with secured production were also positive, although somewhat lower in comparison with 2000. Also, another survey (published on 21 February 2002 by the Institute for Economic Studies of the Construction Industry – IOK¹) shows that overall domestic construction activity (public and private projects) is estimated at 4.1 trillion drachmas in 2001, i.e. it increased by 17.4% against 20% in the period 1999-2000.

The recovery of private investment in housing was chiefly due to the continuous expansion of housing credit² and the fact that interest rates on housing loans fell by 3.31 percentage points compared with 2000. Moreover, the significant increase in “objective” house values (set for taxation purposes) as from 5 March 2001 may have led to the issue of licences earlier than originally intended. Indeed, the volume of private building activity, on the basis of licences issued, increased by 12% in 2001 compared with 5.7% in 2000. The construction of dwellings followed an expansionary course which is confirmed by the aforementioned IOBE business survey, on the basis of which the estimates and forecasts of construction firms were positive, while the estimates for the months with secured housing production were particularly favourable.

Disbursements under the Public Investment Programme (PIP) (related mainly to the public sector construction programme) increased at a lower rate (7.3% against 11.3% in 2000). PIP expenditure, however, increased by 9.9% (within budget limits). This was due to the negative annual rate of change in disbursements recorded in the first months of 2001, owing to the transition from CSF II to CSF III and the delay in the approval of co-financed projects that this had caused. Nonetheless, total payments through the PIP for 2002 will be 9.7% higher and will amount to €8,947.9 million.³ According to budget data, a considerable increase of 20.2% (2000: 17.3%), at current prices, was recorded in the investment undertaken by public enterprises, especially in infrastructure projects relating to transportation and energy.⁴

1 IOK was established on 9 February 1998. It is a private legal entity with a registered office in Athens and operates under the supervision of the Minister for the Environment, Planning and Public Works. It enjoys administrative and financial independence and is exempt from the provisions governing the public sector. Its objective is to research issues related to planning, cost accounting, productivity, financing, quality and awarding of construction projects.

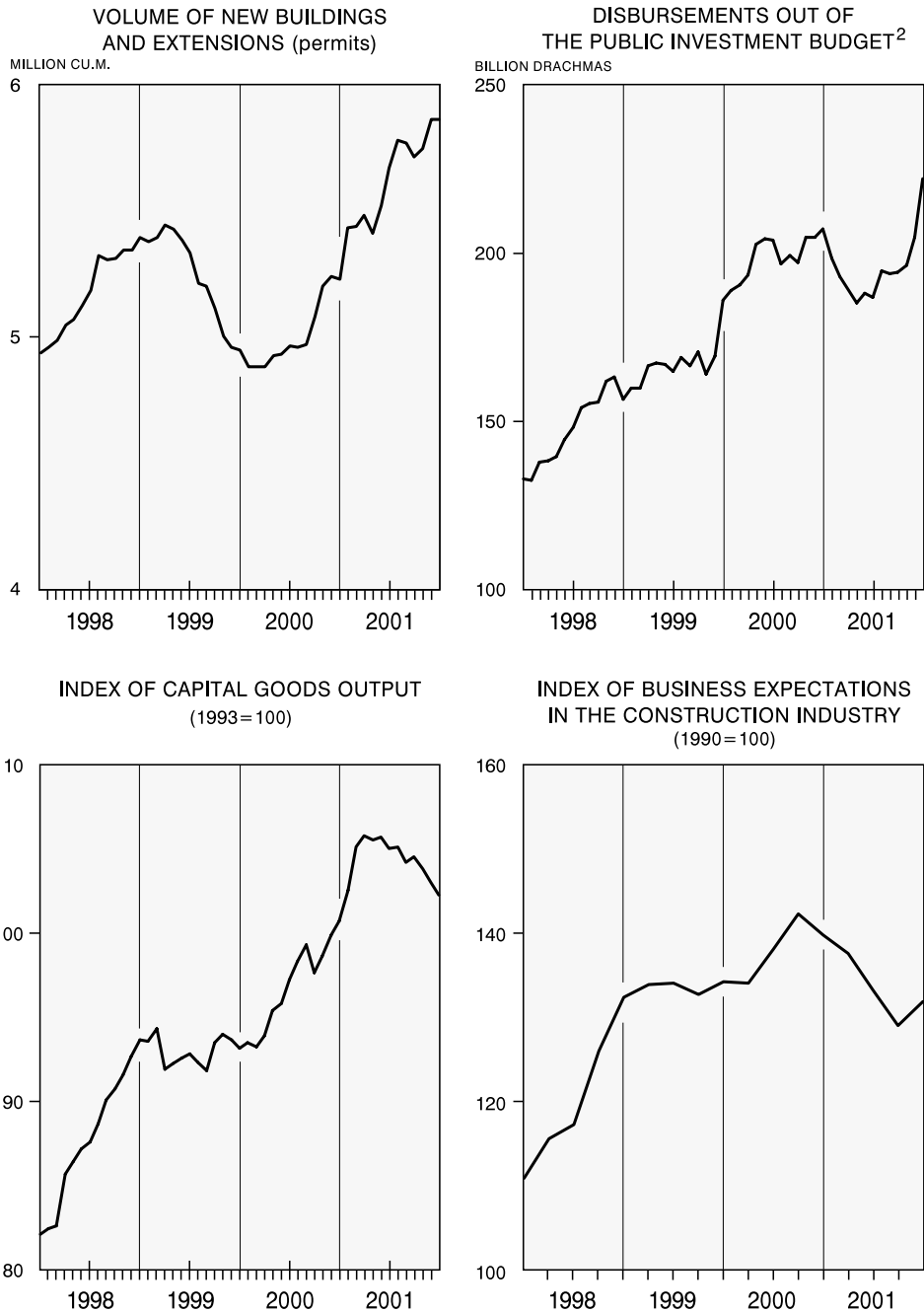
2 According to provisional data, total bank lending for housing in December 2001 increased by 38.9% compared with 31.2% in December 2000.

3 Specifically, an amount of €1,408.66 million against €498.9 million in 2001 (increase of 182.45%) is budgeted for the financing of projects connected with the Olympic Games 2004 through the PIP.

4 For the year 2002, the public investment programme will also be increased by 20.2% and will amount to €6,121.2 million.

CHART III.3

MAIN INDICATORS OF INVESTMENT ACTIVITY¹



1 Twelve-month moving average centred on the last month of the period.
 2 Disbursements to finance the public investment programme (cash basis, current prices).

Sources: NSSG, IOBE and Bank of Greece.

BOX III.3**Construction industry: recent developments and outlook**

In 2001 ASE-listed technical firms increased their turnover and profits considerably; at the same time, they signed many new contracts, thus increasing the volume of projects remaining to be carried out. The stronger groups in the sector were particularly favoured, unlike medium and smaller-sized firms, which saw their profits shrinking.

Passing Law 2940/01 (“Development, tax and institutional incentives for the companies in the construction industry and other provisions”) on the re-evaluation criteria for the classification of contracting companies in the Register of Contracting Companies and on the incentives for mergers between companies, was of particular importance to the industry. This law, according to the Ministry of Environment, Planning and Public Works, aims at restructuring and modernising the industry through sound mergers and collaborations between contracting companies, as well as establishing competitive construction schemes, capable of coping with challenging market conditions internationally. Thus, the incentives given in respect of mergers and acquisitions lead to a decrease in the number of construction companies and an increase in their size.

Of course, as pointed out in a recent IOK survey, Law 2940/01 will not automatically solve the problems that the construction industry is faced with. In particular, considering the ascertained shortage of construction potential, it is necessary to increase the industry’s production capacity, efficiency and competitiveness. This presupposes, apart from the concentration of construction potential as a result of Law 2940/01, the contribution of other factors, such as staff training, employment of state-of-the-art technologies and modern project organisation and management methods, the availability of appropriate equipment, the expansion of companies beyond the domestic market and their participation in investment activities other than public works (such as in energy, tourism, real estate, etc.).

2. PRIMARY AND SECONDARY PRODUCTION*2.1. Overview*

According to provisional NSSG estimates, the gross value added of the primary sector (at 1995 prices) decreased by 3.4% in 2001, compared with a small increase (0.4%) in 2000. By contrast, the gross value added of the secondary sector increased at a high rate (5.4% against 5.1% in 2000 – see Table III.2). The increase in the output of the secondary sector stemmed from the accelerated growth of construction activity, while the growth of mining, manufacturing and electricity-gas-water supply activity slowed down considerably (based on the NSSG industrial production index – see Table III.3).

2.2. Agricultural production

The 3.4% reduction in the GDP of the primary sector estimated by the NSSG reflects – according to provisional data from the Ministry of Agriculture (see Table III.4) –

the decrease in the volume of output of a number of agricultural products (lemons: -32.4%, apples: -27.8%, industrial tomatoes: -12.0%, sugar-beet: -10.2%, cotton: -8.0%, olive oil: -2.8%, soft wheat: -1.7%, durum wheat: -1.4%), as well as livestock products (meat: -1.6%, milk: -0.8%).

TABLE III.3
INDUSTRIAL PRODUCTION (1993=100)

	Weights (1993)	Average annual percentage change					2001 level ¹ (1993=100)	
		1997	1998	1999	2000	2001 ¹		
INDUSTRY	100.0	0.7	6.9	2.8	7.7	0.9	125.4	
1. Mining and quarrying	4.7	100.0	-1.0	-1.5	-6.2	14.0	-1.5	112.9
Coal and lignite extraction		42.2	-1.8	3.6	1.6	5.3	4.4	131.0
Oil wells and extraction of natural gas		9.1	-8.9	-32.3	-94.3	1,470.0	-24.9	36.9
Ores extraction		15.9	0.8	-6.4	-4.8	12.0	6.4	120.6
Other extraction and quarrying activities		32.8	1.1	0.4	-5.4	15.5	-10.5	107.1
2. Manufacturing	76.9	100.0	0.7	5.6	0.6	6.1	1.5	116.8
3. Electricity - natural gas - water supply	18.4	100.0	1.1	13.8	11.6	11.3	-0.3	162.7
Electricity		90.6	0.4	6.7	7.1	8.7	-0.9	140.3
Natural gas		0.2	105.2	1,587.1	79.8	34.3	0.4	9,660.3
Water supply		9.2	15.6	8.4	4.6	8.0	4.4	163.1
INDUSTRY	100.0		0.7	6.9	2.8	7.7	0.9	125.4
Basic categories								
Energy		25.0	0.6	12.8	4.6	13.0	-0.6	157.3
Intermediate goods		29.4	0.6	2.3	1.6	7.9	0.5	117.8
Capital goods		9.8	-2.6	14.0	-0.6	8.2	1.6	102.3
Consumer durables		1.9	4.3	15.7	7.3	15.5	-5.3	162.5
Consumer non-durables		33.9	1.1	3.7	2.5	1.6	3.1	111.2

1 Final data.

Source: NSSG.

Moreover, the producer price index (compiled by the NSSG) rose faster than in 2000 (6.5% instead of 3.9%). This was mainly because the prices of plant products rose more than twice as fast as in 2000 (6.0% against 2.9%). The prices of livestock products increased at a high rate, but it was in line with that of 2000 (7.5% against 6.4% – see Table III.5). By contrast, input prices paid by producers rose at a relatively low rate (2.4% against 5.4% in 2000). This was due to consumables, which increased by 2.1% against 6.2% in 2000. Input prices for fixed capital increased faster than in 2000 (3.8% against 2.3%). These developments led to an improvement in the “terms of trade” as far as producers are concerned.

Finally, in accordance with Eurostat estimates published in April this year,¹ the real gross value added of the Greek agricultural sector at basic prices decreased by 1.7% in

TABLE III.4
PRODUCTION OF BASIC AGRICULTURAL PRODUCTS
(Thousand tonnes)

Products	1996	1997	1998	1999	2000	2001 ¹
Soft wheat	630	580	580	621	408	401
Durum wheat	1,132	1,269	1,300	1,400	1,450	1,429
Maize	1,800	2,050	2,000	1,800	1,850	1,900
Tobacco	126	126	127	127	125	124
Cotton (natural)	962	1,059	1,185	1,320	1,235	1,136
Industrial tomatoes	1,162	1,220	1,226	1,071	1,080	950
Sugar-beet	2,352	3,095	1,933	2,160	3,146	2,825
Olive oil	337	453	466	421	422	410
Lemons	161	166	150	135	139	94
Oranges	979	1,001	801	1,040	903	955
Apples	335	324	332	336	309	223
Peaches	897	273	472	1,002	990	993
Meat, total	525	522	493	490	492	484
Milk, total	1,786	1,821	1,821	1,838	1,931	1,915

1 Provisional data.

Source: Ministry of Agriculture.

TABLE III.5
PRODUCER PRICES AND INPUT PRICES* (1995=100)

	Weights	1993	1994	1995	1996	1997	1998	1999	2000	2001
		Percentage changes in producer prices (output prices)								
Plant production	69.132	10.8	12.8	11.9	10.2	1.7	-2.4	0.6	2.9	6.0
Livestock production	30.868	8.6	0.6	16.0	-0.6	3.5	3.4	0.0	6.4	7.5
<i>General producer price index</i>	<i>100.000</i>	<i>10.1</i>	<i>9.1</i>	<i>13.0</i>	<i>6.9</i>	<i>2.2</i>	<i>-0.8</i>	<i>0.6</i>	<i>3.9</i>	<i>6.5</i>
		Percentage changes in input prices								
Consumables	81.217	11.2	6.9	5.7	7.7	2.1	0.9	1.9	6.2	2.1
Fixed capital	18.783	14.1	7.8	11.2	7.1	3.0	6.5	1.9	2.3	3.8
<i>General input price index</i>	<i>100.000</i>	<i>11.8</i>	<i>7.1</i>	<i>7.0</i>	<i>7.6</i>	<i>2.2</i>	<i>2.0</i>	<i>1.9</i>	<i>5.4</i>	<i>2.4</i>

* As from 1995, output prices do not include subsidies on products.

Source: NSSG.

2002. If, however, intermediate consumption, capital consumption and production taxes are deducted and subsidies are added, real agricultural income fell by 1.4%. Since, how-

¹ Eurostat, *Statistics in Focus*, Theme 5-9/2002.

ever, employment (measured in annual full-time-employed labour units) declined further (by 2.9%), it results that *real agricultural income per labour unit* increased by 1.5%.

2.3. Manufacturing

The relevant NSSG index shows that total industrial output grew in 2001 at a much lower rate (0.9%), compared with that (7.7%) recorded in 2000. Such a development reflects the decline in energy and durable consumer goods output, as well as the slackening in the growth rate of both intermediate and capital goods production. The production of non-durable consumer goods, however, grew almost twice as fast compared with 2000, thus contributing decisively (by 90 basis points) to the increase in total industrial output (see Table III.3).

The growth rate of manufacturing production decreased markedly in 2001 (to 1.5% from 6.1% in 2000), affected by adverse international economic conditions and particularly by the slowdown in European economic activity.¹ Nevertheless, the index remained at high levels, since from 1995 onwards its annual rate of change has been positive, especially in 1998 (5.6%) and 2000 (6.1%). Specifically, the annual rate of change in manufacturing output was both positive and high during the first two months of 2001 (6.8%), but fell to lower levels in the months that followed (average annual rate January-November: +2.1%) and turned negative in December (-5.2%),² mainly reflecting exceptionally bad weather conditions that hindered production. The index of business expectations in industry followed a similar course (see Chart III.4). By contrast, the industrial capacity utilisation rate remained at a satisfactory level, with only a slight decline of 40 basis points (see Chart III.5), while the months of secured production increased (from 5.7 in 2000 to 6.0 in 2001). The Purchasing Managers' Index (PMI) compiled by NTC Research also recorded a slowdown in manufacturing production; thus, the PMI fell to the average level of 51.2 in 2001 from 56.2 in 2000. The index bottomed out (slightly below 50, i.e. below the value that draws the line between a rise or a fall in production – see Box III.4) in August (49.8) and November (49.2), while from December 2001 and during the first quarter of this year, the PMI was continuously rising. In March, the PMI reached its peak (53.7) for the period starting November 2000 (see Chart III.6).

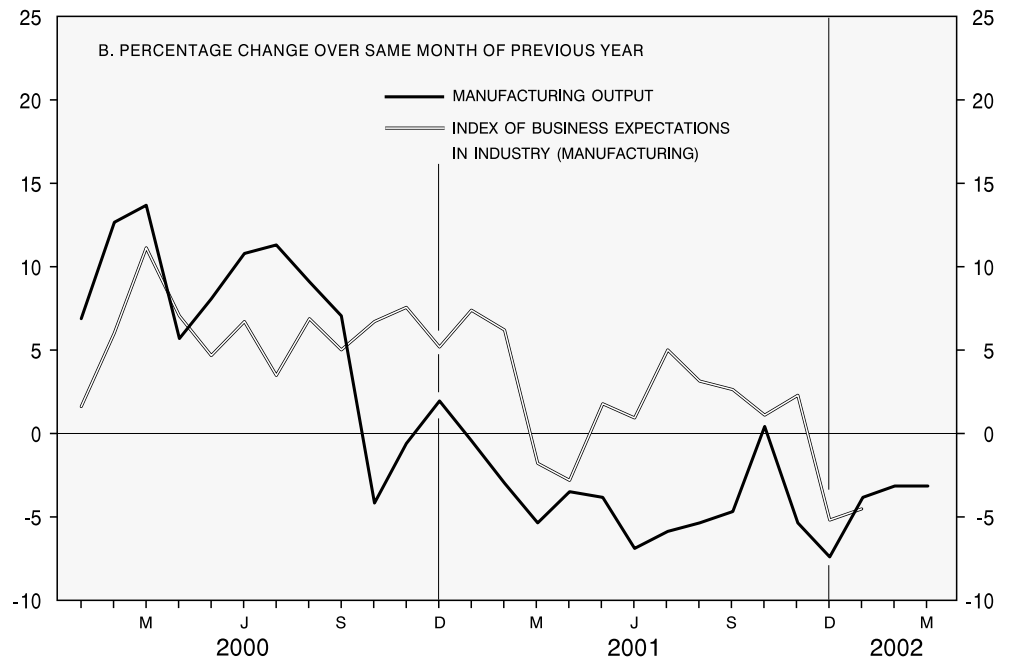
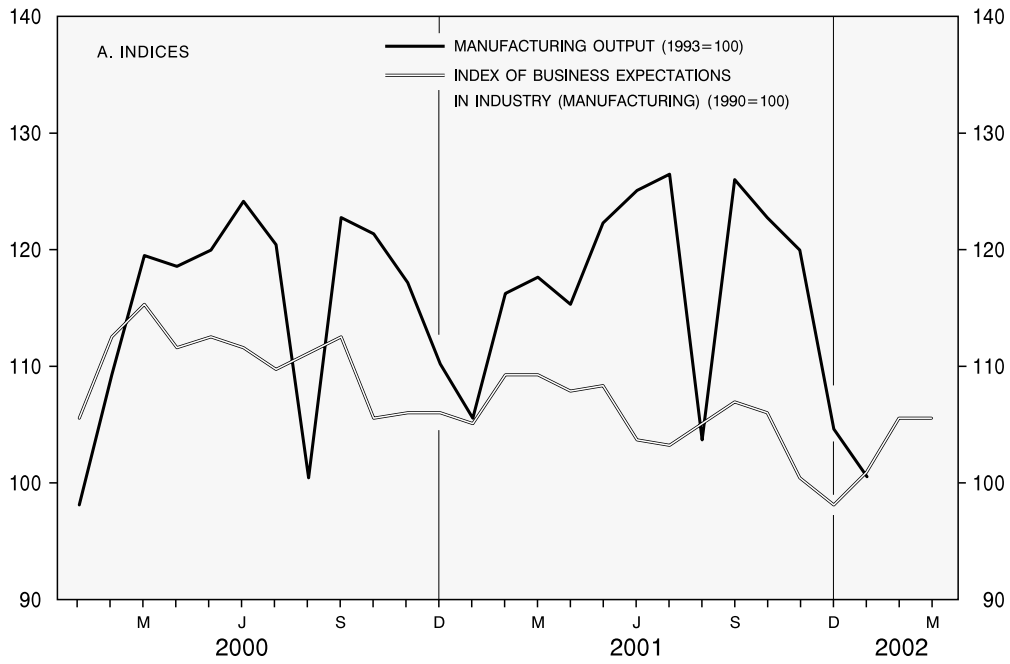
It is worth noting that out of a total of 22 manufacturing industries, 12 recorded an upswing and 10 a decline in terms of output. Moreover, the production levels of 16 industries out of 22 (i.e. over 2/3) exceed those of the base year (1993), with a cumulative growth rate of 29.3%. Among the industries with a rise in output during 2001, the following rank first: radio sets, TV sets and communication equipment (16.8% against 30.5% in 2000), basic metals (7.4% against 12.5% in 2000), chemicals (7% against 1.7% in 2000),

¹ The industrial output index in the euro area fell by 4.5% between December 2000 and December 2001.

² According to provisional NSSG data, the decline in manufacturing output continued in January 2002 (-4.6%).

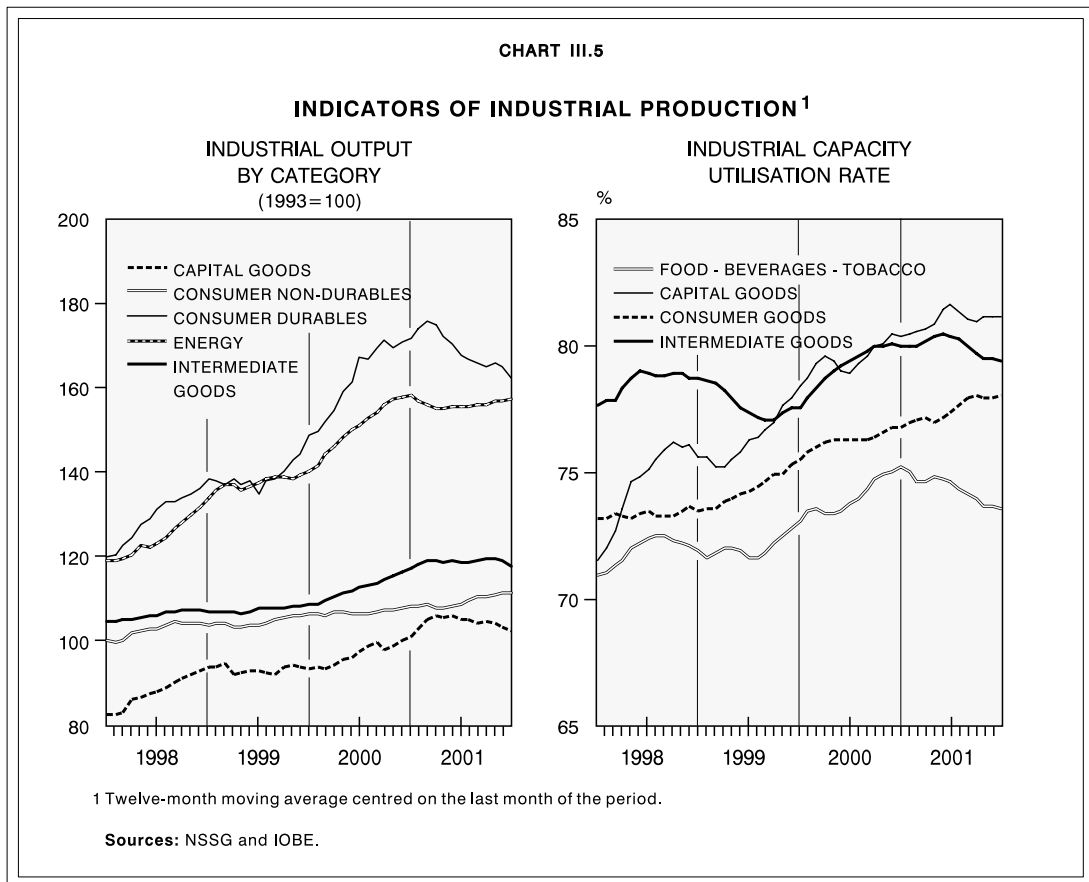
CHART III.4

OUTPUT AND BUSINESS EXPECTATIONS IN MANUFACTURING



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

tobacco (3.3% against -1.5% in 2000), rubber and plastic products (3.8% against 0.6% in 2000) and foodstuff and beverages (2.8% against 3.5% in 2000). Out of the remaining 6 industries that recorded a smaller increase than the aforementioned ones, it is worth mentioning the further increase in non-metallic minerals and metallic end products (2.3% and



BOX III.4

Conjunctural indicators

A systematic monitoring of economic developments is extremely useful to the daily assessment of the economic climate and therefore to the decision-making process of economic agents (the public sector, firms, households). The basic source of information on the course of the economic cycle has traditionally been the short-term (monthly, quarterly) chronological indicators that draw upon real and detailed quantitative data originating in sampling surveys or the census data of various, mainly central, statistical services. Since, however, such indicators are published with a time-lag regarding the period they actually refer to, their usability in the prompt decision-making of economic agents is limited. This “information gap” is covered →

→ by business surveys (monthly, quarterly) over a sample of firms and consumers, the findings of which are released virtually without a time-lag.

1. Business Surveys

The objective of business surveys is to collect information on the estimates, assessments and confidence of businesses (on sales, inventories, prices, etc.) and consumers (on income, employment, unemployment, inflation, consumption, etc.), which relate to the recent past, the present and the imminent future. In these surveys, the subjective estimates of economic agents, in aggregate, yield the business indicators, the quantitative result of which is the difference between the weighted percentages of positive and negative answers to the questionnaires. The importance of business surveys is continuously growing, since the information they offer is becoming a more and more useful tool for policy-makers (e.g. the European Central Bank and other banks in the formulation of monetary policy).

The contribution of the EU in the conduct of business surveys is important, since from the beginning of 1960 the European Commission conducts, with the participation of research institutions from member countries, business surveys related to both industry and consumers. The oldest survey, conducted since 1962, is the industrial business survey. In Greece, IOBE is responsible for such surveys, the findings of which are published on a monthly basis under the title “Business Survey”. The consumer survey is conducted as a telephone survey by Pan Mail on a monthly basis. The results of all surveys are published in: *European Economy, Supplement B: Business and Consumer Survey Results* of the European Commission, wherein the corresponding conjunctural indicators for all EU countries are presented.

IOBE conducts the following business surveys: (i) the monthly industrial (manufacturing) survey, at a sectoral level, since 1981, which since 1985 has been integrated in the EU’s Harmonized System of Business Surveys, (ii) the construction survey (since 1990 on a quarterly basis and since 1998 on a monthly basis), (iii) the retail trade survey (since 1993 on a quarterly basis and since 1998 on a monthly basis), (iv) the bi-annual survey on the investment activity of industrial firms (since 1990) and (v) the services survey.

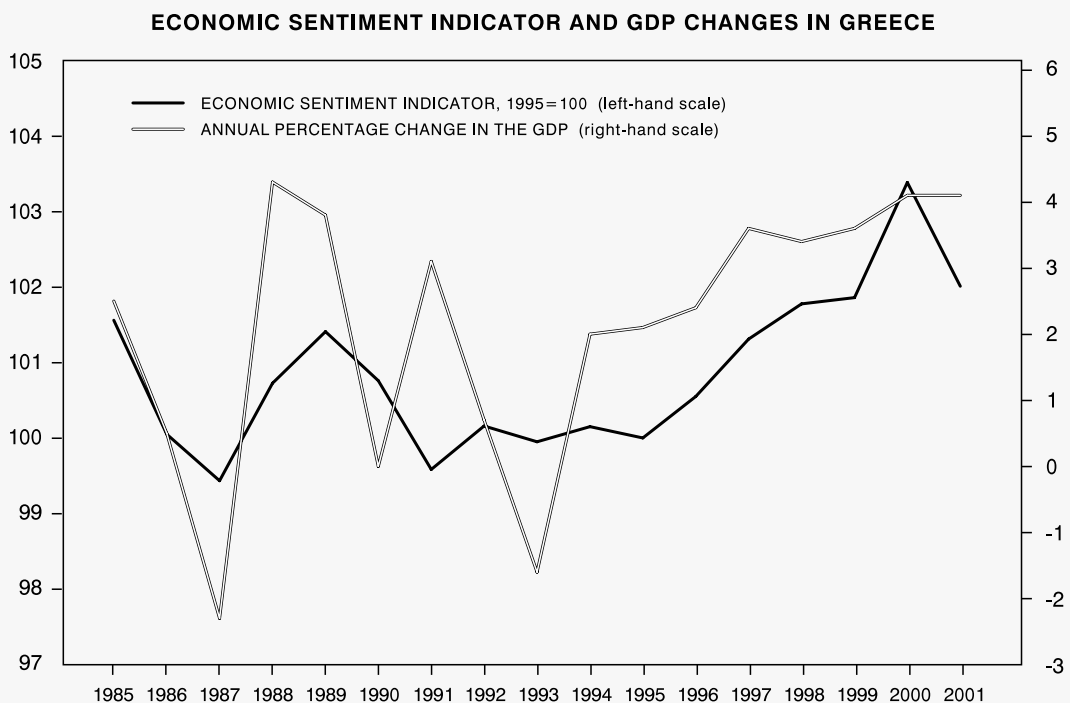
2. Business Surveys on Services

As from September 2002, IOBE publishes the results of its survey on services, which has been conducted since 1997 on a quarterly basis and since January 2002 on a monthly basis. The survey is based on a stratified sample of 1,600 enterprises active in a large number of services-related sectors (transportation, communication, financial intermediaries, real estate management, IT, health, education, entertainment), with the exception of retail trade, for which a separate survey is conducted and the banking system, for which a separate survey is also to be conducted. Similarly, the survey on services is also included in the European Commission’s Harmonized System of Business Surveys, which are conducted in all member-states by means of a common questionnaire and their results are presented in the aforementioned publication. →

→ This survey partly covers the need for short-term monitoring in the services sector, since the statistical information on services is inadequate and fragmentary, and in many cases a considerable time-lag is observed in the publication of the relevant indicators.

3. Industrial Confidence Indicators – Economic Sentiment Indicator

On the basis of the results of business surveys, composite indicators recording the economic sentiment are drawn up. These indicators include confidence indicators in industry, construction and retail trade, which are calculated on the basis of output prospects, estimates on the



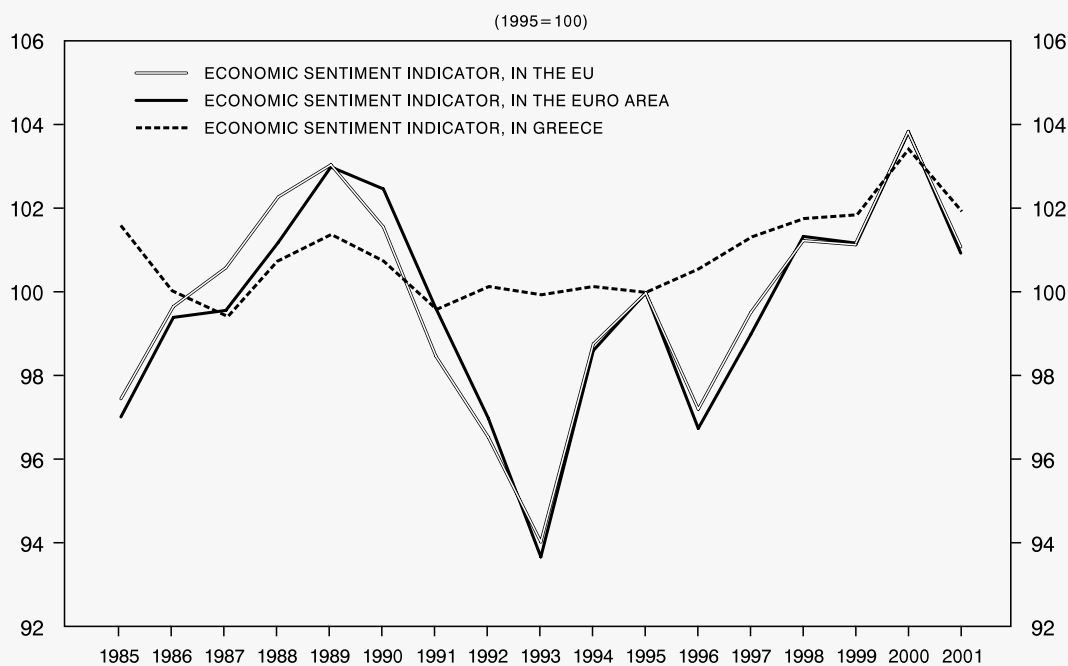
Source: European Commission, *Business and Consumer Survey Results*.

size of inventories and aggregate demand, as well as the consumer confidence indicator, which summarises household estimates and expectations. The Economic Sentiment Indicator (ESIN) is the result of the weighted sum total of confidence indicators in industry (40%), construction (20%), retail trade (20%) and the consumer confidence indicator (20%).

The ESIN attempts to depict the current status of total economic activity and to indicate its turning points. As illustrated in the first Chart, the ESIN in Greece monitors the course of GDP to a satisfactory extent. The usefulness of the Economic Sentiment Indicator rests in the fact that it constitutes an indicator of total economic activity, which is compiled and published at least one quarter before the publication of the official GDP data. This particular indicator has been compiled by the European Commission since 1985 and published every month in →

→ the Business and Consumer Survey Results Bulletin of the European Community. It concerns all member countries as well as the euro area and the EU as a whole (see second Chart).

ECONOMIC SENTIMENT INDICATORS IN THE EU, THE EURO AREA AND GREECE



Source: European Commission, *Business and Consumer Survey Results*.

4. The Purchasing Managers' Index (PMI)

As from March 2001 a second survey on manufacturing is published in Greece. This survey is conducted by NTC Research in collaboration with the Greek Institute of Purchasing and Supply. The survey has been conducted since May 1999 and is based on answers to questionnaires handed out to the executives of approximately 300 manufacturing firms. It differs from the business surveys carried out by the IOBE, since it draws on hard facts and not on personal estimates.

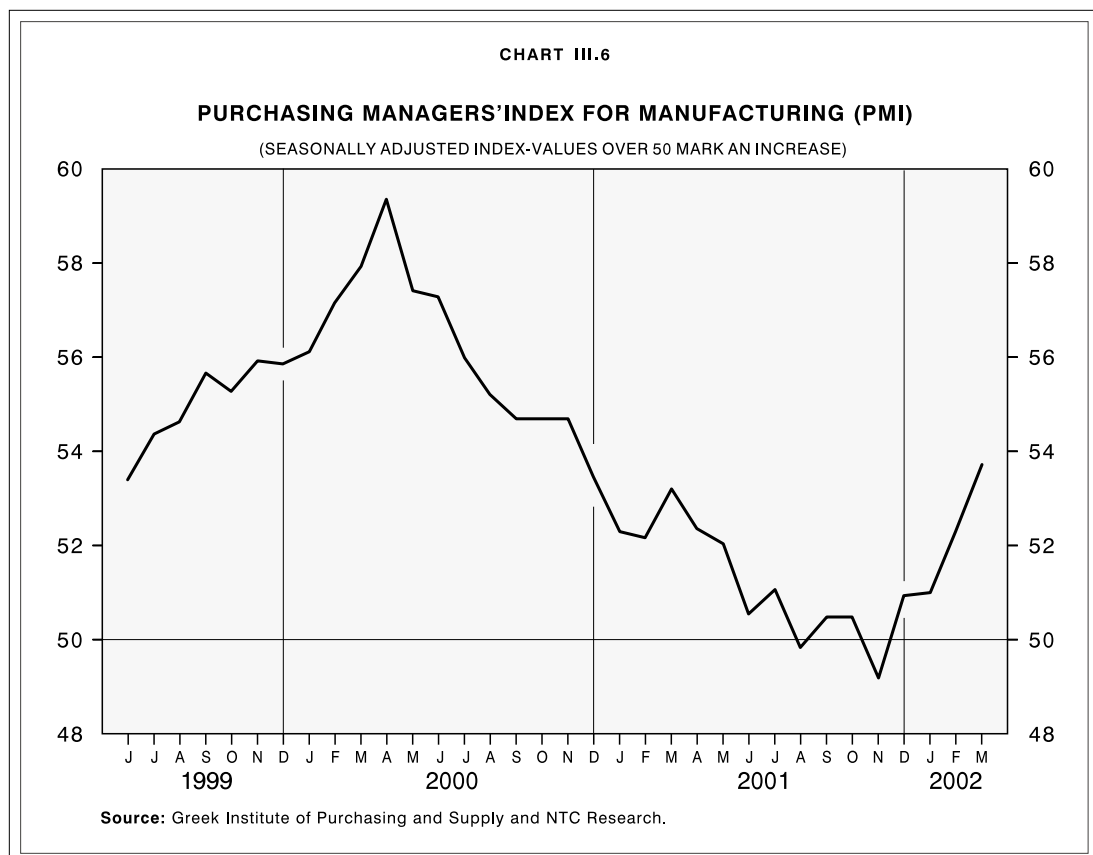
Participants in the survey are asked whether the business conditions for a series of economic variables have improved, deteriorated or remained unchanged compared with those of the month before and are required to give reasons for any changes. The Purchasing Managers' Index (PMI) is the result of the weighted sum total of subindices that relate to output, orders, employment and prices. These indices range from 0 to 100 points. A value of 50.0 means that the index remained unchanged in relation to the previous month. A value in excess of 50.0 units implies an upward change in the index compared with the previous month, while a value below 50.0 points means a downward change, respectively. The greater the deviation from 50.0, the higher the rate of change. Moreover, the indices are seasonally adjusted, so that they will not be affected by seasonal deviations.

→

→ The method of compilation applied to this particular index is common for all countries covered by the survey. PMIs are being drawn up for all euro area countries and out of them a single PMI is composed for the euro area as a whole, which is closely monitored by analysts (from the European Central Bank). PMIs are published on the first day of the month following the conduct of the survey and are therefore used widely for monitoring economic developments in quasi “real” time.

1.6% against 2% and 1.2% respectively, in 2000) as well as the recovery in the production of other transport equipment (0.4%) following a long recession (see Table III.6).

A sharp decrease, on the contrary, was characteristic of industries making office appliances and computers (−58.3% against 107.7% in 2000), vehicles (−27.3%, 9.9% in



2000), precision medical instruments (−16.4%, 29.7% in 2000), clothing (−4.9%, −1.7% in 2000), paper and paper products (−4.8%, 15.1% in 2000) and textile materials (−4.4%, 8.9% in 2000). It should be noted, however, that all the aforementioned industries, with the exception of clothing and paper, had recorded significant increases in the previous year.

Companies involved in oil refining recorded a slight decline (−1%) in output after the considerable increase (18.3%) in 2000. It should be noted, however, that the output of

TABLE III.6
MANUFACTURING PRODUCTION (1993=100)

	Weights (1993)	Average annual percentage changes					2001 ¹ Level (1993=100)
		1997	1998	1999	2000	2001 ¹	
Manufacturing	100.0	0.7	5.6	0.6	6.1	1.5	116.8
Food-beverages	22.4	7.2	3.0	0.8	3.5	2.8	122.8
Tobacco	1.7	-2.9	-13.5	7.7	-1.5	3.3	111.3
Textiles	8.4	-9.7	-2.2	-1.2	8.9	-4.4	80.8
Clothing	6.8	-3.8	-2.7	-4.3	-1.7	-4.9	63.7
Leather-footwear	1.8	-16.4	-18.4	5.4	0.9	-2.1	65.8
Wood and cork	2.0	-22.7	-17.3	-0.5	63.1	1.4	101.8
Paper and paper products	3.1	-13.1	50.7	1.1	-15.1	-4.8	110.9
Printing and publishing	3.4	-8.4	-4.7	10.6	11.9	1.7	114.5
Petroleum and coal products	5.6	2.2	13.8	-15.2	18.3	-1.0	160.7
Chemicals	9.1	4.6	5.5	3.7	1.7	7.0	137.9
Rubber and plastics	3.7	-3.2	31.7	7.9	0.6	3.8	154.3
Non-metallic minerals	7.1	5.4	0.8	0.3	2.0	2.3	118.1
Basic metals	4.9	12.6	-5.9	7.8	12.5	7.4	147.8
Metallurgical products	4.1	0.1	1.3	16.8	1.2	1.6	123.2
Machinery and equipment	3.5	3.9	5.8	-6.2	18.3	-3.1	147.4
Office appliances – PCs	0.1	722.0	-60.4	-22.9	107.7	-58.3	16.0
Electrical machinery, appliances etc.	2.4	0.1	5.2	3.9	12.7	0.7	123.0
Radio, TV and telecommunication devices	2.1	4.2	138.9	-12.2	30.5	16.8	141.7
Medical tools and precision instruments	0.3	8.0	-16.2	-3.0	29.7	-16.4	131.9
Vehicles	0.7	1.8	70.7	46.4	9.9	-27.3	81.7
Other transport equipment	4.7	-10.6	-5.1	-5.5	-5.4	0.4	69.5
Furniture – other industries	2.0	6.9	17.9	7.2	8.0	-3.0	121.4

Contributions by branch to changes in total
manufacturing production (in percentage points)

Manufacturing	<i>0.70</i>	<i>5.57</i>	<i>0.64</i>	<i>6.08</i>	<i>1.54</i>
Food-beverages	1.64	0.73	0.20	0.85	0.66
Tobacco	-0.06	-0.27	0.12	-0.03	0.05
Textiles	-0.71	-0.15	-0.07	0.53	-0.27
Clothing	-0.19	-0.13	-0.19	-0.07	-0.20
Leather-footwear	-0.27	-0.25	0.06	0.01	-0.02
Wood and cork	-0.44	-0.26	-0.01	0.73	0.03
Paper and paper products	-0.41	1.37	0.04	-0.58	-0.15
Printing and publishing	-0.29	-0.15	0.30	0.38	0.06
Petroleum and coal products	0.17	1.09	-1.29	1.30	-0.08
Chemicals	0.46	0.57	0.39	0.19	0.71
Rubber and plastics	-0.13	1.19	0.37	0.03	0.18
Non-metallic minerals	0.40	0.07	0.02	0.15	0.16
Basic metals	0.65	-0.34	0.40	0.68	0.43
Metallurgical products	0.00	0.05	0.65	0.06	0.07
Machinery and equipment	0.17	0.26	-0.27	0.76	-0.14
Office appliances – PCs	0.04	-0.03	0.00	0.01	-0.02
Electrical machinery, appliances etc.	0.00	0.12	0.09	0.31	0.02
Radio, TV and telecommunication devices	0.04	1.29	-0.26	0.56	0.38
Medical tools and precision instruments	0.04	-0.08	-0.01	0.11	-0.07
Vehicles	0.01	0.21	0.22	0.07	-0.20
Other transport equipment	-0.45	-0.19	-0.19	-0.17	0.01
Furniture – other industries	0.12	0.33	0.15	0.17	-0.07

1 Provisional data.

Source: Calculations based on NSSG data.

this industry during 1995-2000 increased at an average annual rate of 7.3%, which improved its share in total manufacturing output. At the same time, mergers and acquisitions among oil refineries continued (with the participation of foreign firms), since the companies are called upon to realize major investments over the coming years, in order to meet EU fuel quality specifications and take advantage of opportunities for exports, when the oil pipelines start operating, after stability is restored in the Balkans.¹

The following industries contributed the most to the growth of manufacturing production: chemicals (71 basis points), foodstuff and beverages (66 basis points), basic metals (43 basis points), radio sets, TV sets and communication equipment (38 basis points).

In the chemical industry, pharmaceuticals led the round of increases in output (33.8% against 22.2% in 2000). As far as foodstuff is concerned, the growth recorded by meat production and processing was significant (17.1% against 2.3% in 2000). In basic metals, the increase in pipe production (39.8%) was considerable, as well as in the industries concerned with iron and steel primary processing (22.5%) owing to strong demand for these products from the construction industry, which is growing at high rates (both buildings and infrastructure projects). It should also be noted that – with the deregulation of the electricity market – the energy-consuming metallurgical companies will be able to reduce production costs, by establishing their own power plants.²

Bank of Greece balance-of-payments statistics (see also Chapter IX), show that receipts from exports of manufactures (except fuel) increased by 10.6%, thus confirming the existence of a dynamic business sector, which has lately boosted its export orientation, taking advantage of opportunities in individual markets and products. Specifically, the office equipment group (computers, machines, electric machines and devices and radio-TV-communication equipment) improved its exports by 65.4% in 2001. This was accompanied by an increase in production (with the exception of the office equipment-computers, whose output dropped). Non-metallic minerals (with a 39.2% rise in exports), rubber/plastic products, foodstuff and beverages, tobacco, wood and cork and publishing-printing also improved their export performance and bolstered their position in the domestic market. An increase in exports and a corresponding decrease in domestic production was recorded in the manufacture of means of transport, clothing, paper and paper products, as well as furniture-other industries. By contrast, a fall in exports in spite of a rise in output was recorded in chemicals and basic metals, while a fall in both exports and output occurred in oil and coal derivatives, medical instruments, machinery, equipment and textile materials.

1 The Thessaloniki-Skopje and Aspropyrgos-Spata Airport pipelines are under construction, as well as the logistics area in Alexandroupolis. At the same time, the dispute among Greece, Bulgaria and Russia is approaching final settlement. The dispute had arisen in relation to the three countries' share in the Trans Balkan Oil Pipeline company, which will build and manage the Burgas-Alexandroupoli pipeline, with an annual throughput capacity of 35 million tons of crude oil.

2 The "Aluminium of Greece" company, having obtained the necessary approvals, is expected to proceed within 2002 with the construction of a gas-fired electricity generating plant with a capacity of 210 MW, which will allow it to meet two thirds of its power needs. The company aims to acquire yet another energy source by 2006, given that the special agreement with the PPC, on the basis of which "Aluminium of Greece" is supplied with low-price electricity, will expire in that year.

2.4. Mining and quarrying

Following the upturn recorded in 2000 (14% against -6.2% in 1999, -1.5% in 1998 and -1% in 1997), mining and quarrying production declined by 1.5% in 2001. NSSG data (see Table III.3) show that the drop in mining activity was mainly due to the reduced output of stone aggregate, industrial minerals and crude oil. Conversely, the production of coal, lignite and metallic minerals recorded an upswing.

In detail, coal and lignite mining carried forward to 2001 the upswing of the previous three years, which is connected with the increased demand for lignite intended for electricity generation by the PPC's lignite-fired power plants. Crude oil and natural gas production recorded a decrease (-24.9%) in 2001, following the sharp increase of the previous year, when exploitation of the Prinos oil well was resumed in December 1999.¹

Mining of non-ferrous metals (especially bauxite, chromite, nickel and precious metals²) continued to follow an upward path in 2001. Foreign demand for some of these products seemed to be reduced. Meanwhile, major mining companies took a strong interest in acquiring equity in mining concerns being privatised in neighbouring Balkan countries.

A decline relative to 2000 was recorded according to the NSSG index in the output of quarry products. In particular, the extraction of two industrial minerals, clay and kaolin, fell considerably (-16.4%) in contrast to the 79.7% increase in 2000, while foreign demand for aluminium was also reduced. Moreover, a further decline in activity was recorded during 2001 by marble and other stone quarries (-9.1%), continuing the downward trend of the preceding two years (2000: -0.3%, 1999: -2.3%). Foreign demand for marble (with the exception of EU countries) seems to be reduced. It should be noted, however, that during 2001 the industry's presence abroad was further enhanced through the expansion of the activity of other major companies.³ In addition, the concentration of the industry continued, through the acquisition of smaller by bigger companies and through mergers. At the same time, bigger companies have already proceeded with the vertical integration of their production or have begun to be active in other fields, such as real estate. Reduced, although to a lesser extent, was also the extraction of limestone and gypsum (-0.6%). By contrast, the output of gravel and sand quarries increased (3.8%), though at a markedly

1 Kavala Oil is the company developing the Prinos deposit (as from 17 December 1999). The oil pumped out (over 5,000 bpd) is absorbed exclusively by "Hellenic Petroleum SA" (ELPE). Moreover, in the beginning of 2000, a new exploitable hydrocarbons deposit was located by Kavala Oil in the Northern Aegean (Mount Athos area), which could yield up to 15,000 bpd over the next 15 years. As for collaborations in pumping out crude oil from deposits in other countries, which ELPE is promoting with a view to increasing its output, it should be noted that the company already has a 30% stake in a joint venture for the exploitation of oil deposits in Iran and is entering into agreements for the expansion of its activities to other countries.

2 Regarding TVX HELLAS investment for gold mining in the area of Olympias in Chalkidiki, it should be noted that the State Council decision Nr. 613/2002 published on 1 March 2002 considered the operation of this mine hazardous and detrimental to the environment, owing to the use of cyanide and arsenic, and its construction has therefore been discontinued.

3 It should be recalled that as from October 2000 a marble-processing plant is operating in China under the title "Cosmos Building Materials Shanghai Co Ltd", a joint venture of exclusively Greek interests. Another major company of the industry (Iktinos SA) has entered the Chinese market with the aim of trading marble and other types of stone.

lower rate than in 2000 (14%). These minerals are used chiefly in building road surfaces/roads and increased demand is connected with the construction of major motorways and other projects for the 2004 Olympic Games. Finally, a steep fall was recorded in the production of magnesite, asbestos, perlite, etc., together with a decline in foreign demand.

2.5. *Electricity – natural gas – water*

According to the NSSG index, the output of the electricity-natural gas-water industries, having recorded high growth rates in the previous three years, declined slightly (–0.3%) in 2001 (see Table III.3). This was the result of the limited demand for electricity. The natural gas distribution index rose, although at a decelerating pace. This index has risen almost 100-fold since 1997, as use of the new fuel is constantly growing. The water treatment and distribution index also rose, although at a rate lower than in 2000. Hence, the total output of electricity-natural gas-water made a slightly negative contribution (–0.1 percentage point) to the increase in industrial production as a whole (0.9%).

According to the Public Gas Corporation (DEPA) data, the quantities of natural gas distributed in 2001 totalled 1,880.9 million Nm³, slightly (–1.3%) less than in 2000 (1,906 million Nm³). This reduction was mainly due to the roughly 50% fall in demand from the chemical industry and was intensified by the slightly reduced demand for gas used in electricity generation, as compared with 2000. In 2001, however, 76.1% of total gas consumption was absorbed by power stations, while the industrial sector (including chemicals) absorbed 19.5%. Small industrial and trading companies, together with households, doubled their share (3.9% in 2001, 1.9% in 2000), absorbing 73.3 million Nm³ of natural gas; this quantity is expected to more than double in 2002, with the continuous expansion and operation of urban gas networks.¹ Finally, in 2001 another 7.1 million Nm³ were sup-

1 On 25.7.2001 the agreement between DEPA and the joint venture Cinergy and Shell was finally signed. This agreement concerned the establishment of the Attica Gas Supply Company (Attica EPA), which started operating on 27 November 2002, as soon as the joint venture paid DEPA the amount of 57.93 billion drachmas. The joint venture took hold of 49% of the gas supply company and its management and is obliged to complete the construction of a 2,000-km-long, low-pressure network within seven years. Attica EPA took over the old network in the area of Attica, with a length of 550 km and about 9,000 customers. When fully developed, the network will supply natural gas to 810,000 households in Attica and sales will reach 1.1 billion cubic metres annually. Moreover, Attica EPA is expected to supply natural gas to a number of Olympic projects within Attica. Apart from the above, the Thessaloniki pipelines started operating in June 2001, supplying through the existing 86km-long, medium pressure network, to 15 manufacturing plants and through the 185km-long, low pressure network, to commercial enterprises and small handicraft establishments. The network is supplied by the Thessaloniki EPA, which was established in June 2000. Regarding the construction of new pipelines, it is worth mentioning that 360 km of low-pressure and another 30 km of medium-pressure distribution network is being planned. Finally, it should be noted that the plan to lay a submarine pipeline to connect Greece with the Italian natural gas system (under the agreement between DEPA and the Italian ENI) was abandoned, because the project was not viable owing to high cost. The project is now being re-examined in the light of the possibility that gas pipelines will pass through Greece with a view to shipping gas from the Caspian Sea to European countries. A decisive step in this direction was taken with the signing of a memorandum between DEPA and the Turkish VOTAS (29 March 2002) for the construction of a 285km-long (200 km within Turkish and 85 km within Greek territory) natural gas pipeline running from Ankara to Komotini. This memorandum is the continuation of a previous agreement (18 January 2001) and concerns negotiations for the purchase by DEPA of an initial quantity of 500 million cu.m. of gas as from 2005, when the interconnection is expected to go on stream.

plied to thermal buses and the Athens International Airport absorbed a further 1.7 million Nm³.

Net electricity production, according to Public Power Corporation (PPC) provisional data, decreased slightly (−0.9%) to 48,073 GWH in 2001. The decrease stemmed, for the most, from the continuous fall in power output from hydroelectric stations (2001: −34.3%, 2000: −15.5%), as well as the decline in power produced by oil-fired stations (−4.9%). By contrast, gas-fired stations continued to increase their power output (albeit at a slower pace than in the previous four years), owing to the preference for this new fuel. As a result, the share of gas-fired stations rose to 12% of total power production in 2001. The contribution of lignite-fired power production facilities, whose output increased by 3.6%, was also positive (2.3 percentage points). The output of PPC renewable energy sources (RES) recorded an upswing compared with previous years, to 103 GWH, without an increase in capacity (37 MW). The significant increase in the generating capacity of private RES stations operating pursuant to Law 2244/1994 is expected to continue, owing to both the deregulation of the energy market¹ and the pertinent EU directives for a larger share of RES in total electricity output.²

On the demand side, electricity consumption grew by 3.6% in 2001 relative to 2000. This was chiefly due to increased demand for commercial, industrial and household use, whereas demand for agricultural use decreased. In particular, agricultural use fell (−4.5%) after a significant rise (16.9%) in 2000. Commercial use grew considerably faster (8.5%) than in the previous two years (2000: 6.7%, 1999: 6.5%), while the growth rate of household use slowed (2.4%), a fact related to the 4.2% increase in the household electricity tariff as from July 2001.³ Industrial demand for electric power increased, though at a slower pace (2.5%) than in 2000 (4.8%), reflecting the slackened growth of manufacturing output in 2001. This increase was chiefly the result of stronger demand for low and medium voltage electricity (3%), while the increase in industrial demand for high voltage electricity was smaller (2.1%). Finally, electricity consumption for other uses, mainly in the public sector, continued to grow at a high rate (5.2%).

The gap between generated and required energy led to a sharp increase in energy imports, which caused the net imports to sales ratio to climb to 5.6% in 2001, from zero in 2000. Thus, the expansion of the country's energy potential, in spite of continuous increases

1 According to data from the Ministry for Development, 17 new operating licences were issued in 2001 for power stations with a capacity of 98.25 MW. The installed capacity of RES power stations, which are operating under Law 2244/1994 comes to 246.58 MW while the capacity of all stations operating since 1927 totals 314.33 MW. Following an assessment by the Regulatory Authority for Energy (RAE), the Ministry for Development issued licences for RES power plants with a total capacity of 1,800 MW.

2 According to the Directive 2001/77/EC of 27 September 2001, Greece aims at a 20% share of RES stations in the country's electricity generation by 2010. It should be noted that this target corresponds to 3000 MW compared with today's 314.33 MW. In this context, a bill will be enacted in the second half of 2002 with provisions relating to the further development of geothermal energy, as well as provisions that will enable the development of all types of renewable energy sources.

3 Increases in tariffs for household electricity consumption were progressive. Thus, for consumption up to 800 KWH the increase was 3.5% and for over 801 KWH 5%.

in installed power during the four-year period 1996-1999, was not enough to ensure the national economy's self-sufficiency in 2001.¹ Nonetheless, it should be noted that the total installed power of the PPC increased slightly (by 156 MW) in 2001, owing to an improvement in existing lignite- and oil-fired production facilities and to the integration of a number of small hydroelectric plants into the system, which raised installed power to 11,146 MW from 10,990 MW in 2000. At the same time, the PPC is carrying out a series of other projects,² which are expected to become operational over the coming years.

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- 1 The Greek energy authorities have expressed concern regarding the need to secure sufficient quantities of electric power in the year 2004, not only because of fast growing demand, but also because the next Olympic Games will be held in Athens. A committee of RAE, PPC and DESMHE officials reported on 30 August 2001 that to meet power demand in 2003 and 2004 (estimated at 53,360 GWH) it will be necessary to increase installed power generating capacity by another 600 MW, in addition to the power stations that PPC plans to build over the next few years. It will also be necessary to utilise interconnections and speed up the process of issuing licences for setting up power stations owned by private interests. Nevertheless, the Ministry for Development argues that the investment projects planned by the PPC for the next five years will fully satisfy the country's needs, as well as those that will arise during the Olympic Games. As regards the interconnection between the Greek and the Italian power systems, it is worth mentioning that the required submarine cable has already been laid and the regulatory authorities of both countries are soon expected to agree on the terms on which the system manager will operate. This cable (156 km long with a capacity of 500 MW) is in effect the only link between the Greek and the West European power systems; it should therefore play an important role in electric energy imports in the context of the deregulated market. On 28 March 2002, following the completion of the study concerning the connection with the 400 KV power transmission line (Philippi – Babaeski), the PPC and the Turkish firm TEIAS signed a memorandum of understanding to speed up the interconnection and carry out preliminary compatibility tests with the Turkish and the Balkan systems.
 - 2 These projects mainly include the 492 MW plant of natural gas combustion combined cycle in Komotini (inaugurated on 29 September 2001 and undergoing trial runs at reduced capacity), that will become fully operational within 2002 and is expected to shield the Macedonia-Thrace network. Furthermore, during the first half of 2004, the 330 MW lignite-fired plant in Florina and the 176.5 MW hydroelectric facility in Mesochora, Trikala will go on stream. Moreover, with the construction of the Atherinolakkos installation and the wind turbine plant at Lassithi, which are expected to start operating in 2003 and 2002 respectively, the energy problem in Crete will be solved.

BOX III.5

Developments following the deregulation of the electricity market

1. Overview

As from February 2001, the electricity market in Greece has been formally deregulated and is governed by Law 2773/99, which is compatible with EU Directive 96/92. Regulations have been applied and the interest of investors in private energy generation was keen immediately after the deregulation. (As per the Regulatory Authority's for Energy (RAE) consultation archive, up to 1 February 2002 and out of all the applications submitted for a production licence, 376 applications corresponding to 5315 MW received a favourable consultation. Out of the applications submitted for a supply licence, 6 firms corresponding to 1693 MW received a favourable consultation (i.e. 258 applications for a production licence were rejected but none for a supply licence). Nonetheless, competition is still not the name of the game, both in the *production* and in the *supply of electricity to "choosing customers"*. Out of the investments →

→ approved, none proceeded during 2001 nor were there any new suppliers involved, since none of the 7,500 high and medium voltage consumers – the “choosing customers” – opted for a supplier other than the PPC.

During the current year, however, the market is starting to move, since the first agreements related both to the generation and the import of electricity were signed in March. (On 20 March 2002 an agreement was signed between HELLENIC PETROLEUM, the international power company TRACTEBEL and the construction company AEGEK. The aim of this agreement was the establishment of the first private company for the generation of electricity by using natural gas (a 390 MW power plant). Moreover, on 8 March 2002 the first agreement on the import of electric power (40 MW) was signed between DESMHE and ATEL HELLAS SA, an independent trading company).

Thus, competition in the *production* of electricity is not expected to start before 2004, when construction of new plants of non-PPC ownership should be completed. By contrast, competition in the *supply* of electricity is expected to start earlier with suppliers importing electricity, but should remain low at first, owing to the limited capacity of available interconnections. Imported electric power will therefore be only a small fraction of total consumption.

2. Problems and prospects

The Regulatory Authority for Energy (RAE) in its review of the progress of the electricity market's deregulation and of the PPC's adaptation to the new framework, concluded that significant steps were taken during 2001 (*The Deregulation of the Electricity Market in Greece, An Evaluation of its Course and Suggestions*, 27 February 2002). At the same time, however, the RAE points out certain problems and delays, since it was impossible within just one year to address all issues related to the transition to a deregulated market, given that the energy sector was monopolistically organised for decades. In particular:

- The “unbundling” of the PPC by activity has not yet been completed. “Unbundling” would allow the publication of a balance sheet and a P&L account for each activity separately.

- In the new institutional framework, new investments depend solely on private entrepreneurs undertaking business risks and on the securing of financing according to private business criteria. However, the financing of these investments is sometimes postponed, mainly because they are considered high business risks. This inevitably leads to delays in the completion and start-up of new production facilities.

- The fact that the institutional framework for the deregulation of the natural gas market is not clear (particularly as regards issues related to the tariffs and adequacy of this fuel), makes it very difficult to determine the new plants' operating costs.

According to the European Union, the criterion for the deregulation of the electricity market is no longer the percentage of *theoretically choosing customers* but the percentage of *customers who have actually chosen another supplier*. On the basis of this criterion, the PPC should assume a leading role in ensuring that a reasonable percentage of consumers will be supplied by other suppliers. At the same time, the establishment of flexible and multiple mechanisms pertaining to a structured market (such as the deferred market, the active involvement of energy →

→ wholesalers, etc.) will also offer the PPC the opportunity to participate in future wholesale transactions and to buy and sell shares in new energy firms, thus improving its costs and consolidating its portfolio.

Finally, the aim of the EU is to create a single regional energy market in the wider area of Southeastern Europe. According to RAE, the development of new operating mechanisms for the domestic market will first of all facilitate the strengthening of competition within the country; in a second stage, it will contribute to Greece's becoming the hub of the new single regional energy market, in which the PPC will be able to play a major role.

3. SERVICES

According to provisional NSSG estimates, services industry output grew by 4.6% in 2001 (4.7% in 2000).¹ This increase stemmed mainly from trade, transport-communications, management of real estate and other activities, education and health.

Specifically, the increase in trade is related to the growth of retail sales (see Section 1 of this Chapter), although it is noteworthy that the confidence indicator of retail trade dropped.

The increase in transport-communications stemmed largely from road and sea transport² (owing to the growth of foreign trade) and from continuously stronger demand in telecommunications (mobile telephony in particular). Indeed, according to Piraeus Port Authority (OLP) data, passenger traffic to and from the port of Piraeus increased by 7.9% and cargo traffic by 4.4%. Moreover, according to data from the Ministry of Economy and Finance, revenue from mobile telephony increased by 48.2% in 2001. Mobile telephony subscribers numbered 7.94 million, of which 2.93 million were Cosmote subscribers (36.9% market share),³ 2.88 million Panafon-Vodafone subscribers (36.3% market share)⁴ and 2.13 million Stet Hellas subscribers (26.8% market share). The rate of population penetration by mobile telephony in Greece stands at 72.6%. As far as Internet penetration is concerned, Greece is still lagging behind considerably. According to a survey carried out by "Eurobarometer", at the end of 2001 the percentage of households with an Internet connection was 9% (compared with 36% in the EU). Moreover, Internet users amounted to approximately 12% of the population (against the EU's 38%).

1 According to the new IOBE services industry survey (which covers private firms offering services, apart from retailers and banks), corporate estimates were positive until September 2001, but a considerable decrease was recorded in the last quarter.

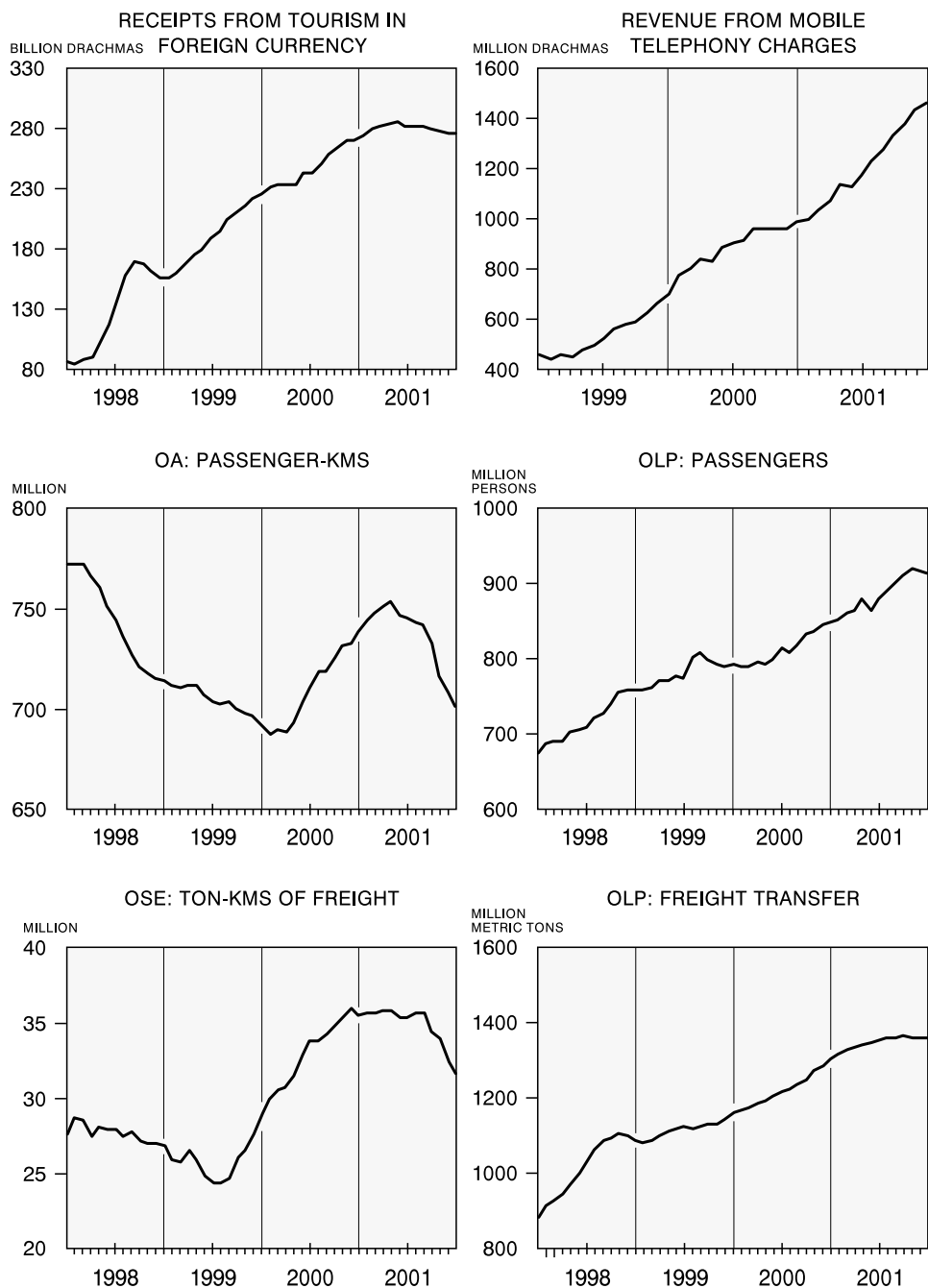
2 According to Olympic Airways data, passenger transport decreased by 5%. A considerable drop in the number of passengers was recorded on both domestic and international flights of all airlines after the events of 11 September. The global crisis in air transport affected Greek airlines as well, reducing their turnover and generating losses. A 10.9% drop was also recorded in the Hellenic Railways Organisation's cargo transport.

3 According to Cosmote data, pre-tax earnings in 2001 increased by 197% and turnover by 53% as compared with 2000.

4 The company announced that approximately 77% of its subscribers in 2001 are active. According to Vodafone, active subscribers are those who have placed at least one call during the last three months.

CHART III.7

ACTIVITY INDICATORS FOR SERVICES¹



¹ Twelve-month moving average centered on the last month of the period.

Sources: Bank of Greece, Ministry of Economy and Finance, Olympic Airways (OA), Piraeus Port Organisation (OLP), Hellenic Railways Organisation (OSE).

BOX III.6**Developments in the telecommunications sector***1. Fixed telephony*

The deregulation of the fixed voice telephony market as from 1 January 2001 (Law 2867/2000) has become noticeable since early 2002 and it is expected that by the end of this year fixed voice telephony users in Athens and Thessaloniki will be able to choose between the Greek Telecommunications Organisation (OTE) and at least 14 new private telecommunications companies. (On 6 December 2000 the tender for fixed wireless access licences was carried out. OTE has already signed eight agreements for the interconnection of its network with special licences offering fixed voice telephony services: Europrom, Quest Wireless, Forthnet, Lannet, Teledome, Cosmoline, Starcom and Vivodi). It is therefore expected that the activity of OTE competitors will enhance competition, broaden the spectrum and improve the quality of products and services offered, thus leading to tariff cuts.

2. Mobile telephony

In July 2001 the tender for the issue of third generation mobile telephony licences was concluded (Universal Mobile Telecommunications System – UMTS) and the licences were awarded by the National Telecommunications and Post Commission (EETT) to Cosmote, Panafon and Stet Hellas against a total price of 165 billion drachmas. Panafon paid 45 billion drachmas, Cosmote 40 billion drachmas and Stet Hellas 35 billion drachmas. The remaining 45 billion drachmas – 15 from each company – will be paid in installments by the end of 2005. The development of UMTS systems is expected to start in 2003, allowing mobile telephony companies to meet their commitments for the 2004 Olympic Games.

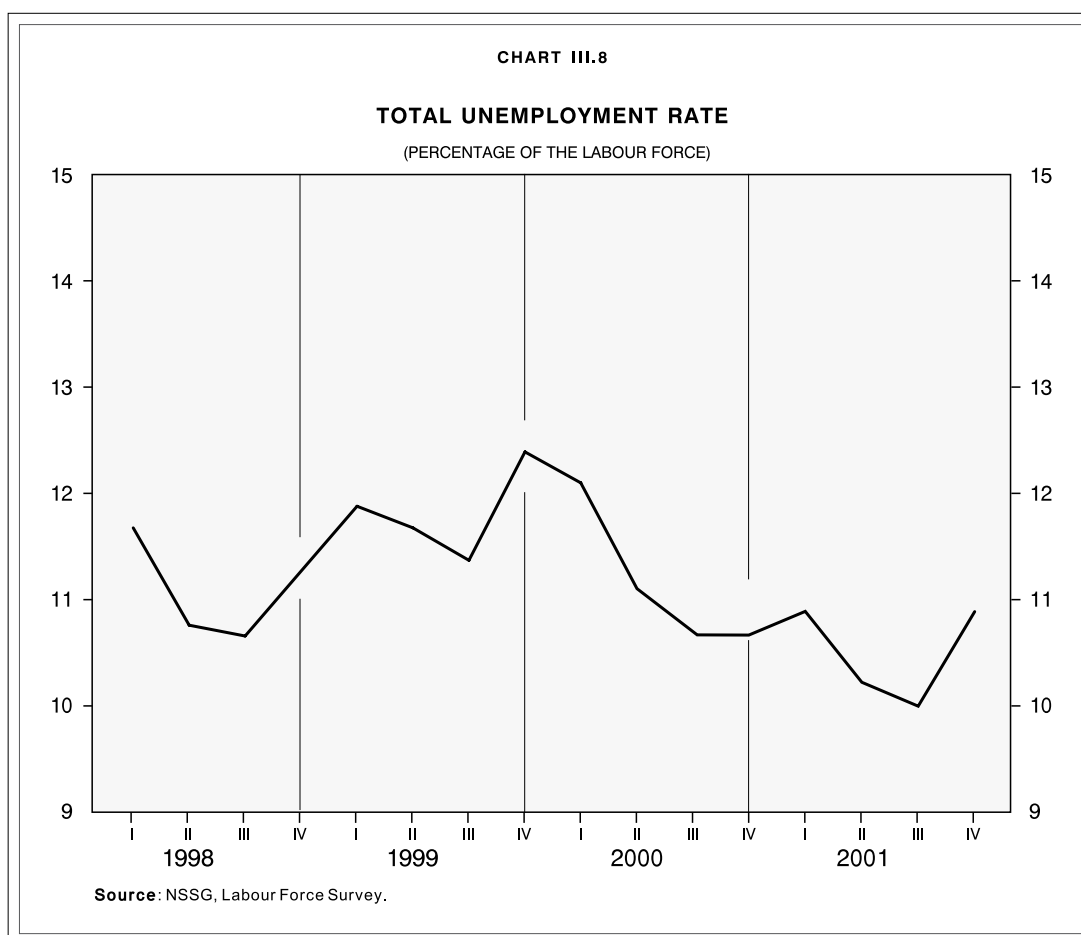
Increased activity in *real estate and other business management* is connected with the growth of the volume of rented and owner-occupied dwellings, which are a source of income (in the form of rent or imputed income from owner occupation), and with the activities of companies offering computer services and the leasing of machinery and equipment.

Developments in tourism and banking are reviewed in Chapters IX and X respectively.

4. EMPLOYMENT–UNEMPLOYMENT

The labour force survey conducted by the NSSG shows that the decrease in the rate of unemployment, which had begun in the second quarter of 2000, continued into 2001. Thus, the average annual unemployment rate was reduced to 10.5% (from 11.1% in 2000 and 11.9% in 1999 – see Chart III.8) and the number of jobless fell by

37,000.¹ It is particularly encouraging that this decrease represents *in its entirety* a reduction in long-term unemployment (i.e. the total number of people who remain unemployed for more than 12 months, which fell by 38,000). Therefore, the share of the long-term unemployed in total unemployment dropped to 52.8% from 56.5% in 2000. It is also



encouraging that the female unemployment rate declined at a relatively fast pace, although it still remained high (15.6% in 2001 against 16.8% in 2000 and 18.0% in 1999). Appreciably lower was the rate of male unemployment, which was also reduced to 7.0% (from 7.3% in 2000 and 7.9% in 1999). The unemployment rate of young people between the ages of 15 and 24 also dropped from 29.5% in 2000 to 28.1% in 2001 (see Table III.7²).

- 1 It should be noted, however, that in the last quarter of 2001, the unemployment rate increased not only in comparison with the third quarter (as is usually the case for seasonal reasons) but – albeit slightly, to 10.9% from 10.7% – also in comparison with the last quarter of 2000. This development is considered to be linked with the slower growth of economic activity in the last quarter of the year, as well as the particularly bad weather conditions in December.
- 2 It should be pointed out that the data in the table refer to the second quarter of each year, for reasons of comparability with the data published in previous reports for the period prior to 1998 (when the labour force survey was compiled only for this quarter), while the text refers to average annual levels.

TABLE III.7
POPULATION, LABOUR FORCE, EMPLOYMENT AND UNEMPLOYMENT: SECOND QUARTER

(Thousand persons)

	Population (1,000)			Labour force			Employed			Unemployed			Unemployment rate (%)							
	1998	1999	2000	2001	1998	1999	2000	2001	1998	1999	2000	2001	1998	1999	2000	2001				
Men and women																				
- total (aged 15 or more)	8,720	8,803	8,876	8,954	4,445	4,463	4,437	4,362	3,967	3,940	3,946	3,918	478	523	491	445	10.8	11.7	11.1	10.2
- 15-64 years old	6,933	6,922	6,875	6,860	4,331	4,356	4,330	4,258	3,854	3,835	3,840	3,815	477	521	490	444	11.0	11.9	11.3	10.4
- 15-24 years old	1,419	1,406	1,363	1,336	567	553	520	483	399	377	366	348	169	175	153	136	29.8	31.6	29.4	28.2
- 25 years or more	7,301	7,397	7,513	7,618	3,878	3,910	3,917	3,879	3,568	3,562	3,580	3,570	309	348	338	309	8.0	8.9	8.6	8.0
Men																				
- total (aged 15 or more)	4,208	4,222	4,259	4,280	2,693	2,668	2,650	2,607	2,504	2,467	2,457	2,431	188	202	193	175	7.0	7.6	7.2	6.7
- 15-64 years old	3,387	3,371	3,339	3,325	2,613	2,591	2,573	2,533	2,425	2,391	2,380	2,359	187	200	193	174	7.2	7.7	7.5	6.9
- 15-24 years old	699	688	667	654	304	284	274	252	239	219	213	199	65	65	60	53	21.4	22.8	21.9	21.0
- 25 years or more	3,510	3,534	3,592	3,626	2,389	2,384	2,377	2,355	2,265	2,247	2,244	2,232	123	136	133	122	5.1	5.7	5.6	5.2
Women																				
- total (aged 15 or more)	4,512	4,581	4,617	4,674	1,753	1,795	1,787	1,756	1,463	1,473	1,489	1,486	290	321	298	269	16.5	17.9	16.7	15.4
- 15-64 years old	3,546	3,551	3,536	3,535	1,719	1,765	1,757	1,725	1,429	1,444	1,460	1,455	289	321	297	270	16.8	18.1	16.9	15.7
- 15-24 years old	720	718	696	682	264	269	246	231	160	158	153	149	104	110	93	82	39.4	40.9	37.8	35.5
- 25 years or more	3,791	3,863	3,921	3,992	1,489	1,526	1,540	1,525	1,303	1,315	1,336	1,337	186	212	205	187	12.5	13.9	13.3	12.3

Source: NSSG, Labour force survey, 1998-2001.

The average total employment on a year-on-year basis, however, fell by 0.8% (or by 33,000 people) in 2001. This drop is the end result of the developments reviewed below:

– Employment in the agricultural sector (farming and fisheries) fell by 6.6%, faithful to its long-term trend. This fall was not offset by the slight increase (practically stand-still) in employment in the secondary sector (+0.1%) and the small increase in the services sector (+0.4%). In these two sectors, a noteworthy increase in employment was recorded only in companies concerned with real estate management, provision of computer services, machinery and equipment leasing, education and construction (see Table III.8).

– The number of employed people aged 15-29 and 45 and older fell (by 3.3% and 0.6% respectively), which is probably connected in the first case with the rise in the number of young people participating in education and training, and in the second case with the increase in the number of prematurely retiring workers.¹ This reduction was *also* not offset by the 0.3% increase in the number of workers aged 30-44. A result of this development, which concerns both male and female workers (fall in male employment by 19.5 thousand men and in female employment by 13.5 thousand women), was the slight drop in the employment rate (i.e. employees aged 15-64 as a percentage of the population aged 15-64) from 55.7% in 2000 to 55.4% in 2001.²

– The number of self-employed (including employers) declined by 3.1%, while particularly significant was the 12.5% decrease in the number of “family assistants”. These two categories are dominant in the agricultural sector, where – as already mentioned – employment decreased. By contrast, the number of employees in the economy as a whole rose by 2.2% or 51,000 people.

The increase in employees – in absolute figures and as a share in total employment – has continued over the last twenty years. In particular, between 1983 and 2001 (a period for which there are comparable data), employees increased by 650,000 or at an average annual rate of 1.8%³ and their share in total employment climbed from 48.4% to 60.2%. This development, therefore, reflects not only a shrinking in agricultural employment, but also a gradual modernisation of other industries, which resulted in an increase in dependent labour.

Also of interest are the developments in part-time employment, which decreased as a percentage of total employment, from 5.8% in 1999 to 4.5% in 2000 and 4.0% in 2001. While in 2000 the fall of 51,000 in the number of part-time workers was more than offset by the rise of 54,000 in the number of full-time workers, in 2001 the numbers of both part-time and full-time workers fell by 20,000 (or 11.1%) and 13,000 (or 0.4%) respectively.

1 See also Chapter VIII on the early retirement of civil servants (in anticipation of the changes in the social security system).

2 The respective percentages were for men 71.1% in 2000 and 70.9% in 2001 and for women 41.2% in 2000 and 40.9% in 2001.

3 During this period, 1991 was the only year in which a small decrease was recorded in salaried employment.

Since data relating to the breakdown of part-time employment in 2001 are not yet available, it is impossible to draw final conclusions on the causes of this decrease. The following may, however, be observed: (a) As already mentioned, the number of employees increased

TABLE III.8
POPULATION, LABOUR FORCE AND EMPLOYMENT

	2001 (thous. persons)	Annual percentage changes							
		1994	1995	1996	1997	1998	1999	2000	2001
Population									
aged 15 or more ¹	8,954	1.4	0.9	1.0	1.2	0.0	1.0	0.8	0.9
Population aged 15-64 ¹	6,860	0.5	0.1	0.3	-0.1	2.1	-0.2	-0.7	-0.2
Labour force ¹	4,362	2.2	1.1	1.9	-0.5	4.3	0.4	-0.6	-1.7
Employment: ¹	3,918	1.9	0.9	1.2	-0.4	3.0	-0.7	0.2	-0.7
– Primary sector ¹	627	-0.4	-1.0	0.5	-2.4	-8.0	-5.0	0.2	-6.5
– Secondary sector ¹	894	-0.6	-0.9	-0.1	-2.1	5.5	-1.3	-1.5	0.7
– Tertiary sector ¹	2,396	3.8	2.4	2.1	1.1	5.7	0.8	0.8	0.4
Rate of participation in the labour force ^{1,2}		(49.1)	(49.2)	(49.7)	(48.8)	(51.0)	(50.7)	(50.0)	(48.7)
Employment rate ^{1,3}		(54.1)	(54.5)	(54.9)	(54.8)	(55.6)	(55.4)	(55.8)	(55.6)
Unemployment (as a percentage of the labour force) ¹	445	(8.9)	(9.1)	(9.6)	(9.6)	(10.8)	(11.7)	(11.1)	(10.2)
Employment in:									
– Manufacturing ¹	557	-0.3	0.0	-0.3	-2.8	3.4	-1.6	-2.1	0.0
– Construction ¹	285	0.0	-3.4	0.0	-1.2	13.3	-3.2	1.2	2.9
– Banks ⁴	62	5.3	4.0	2.8	1.0	1.8	1.1	2.3	-0.9
– Civil service ⁵	346	-2.0	2.2	2.3	1.0	0.9	2.4	1.9	1.0
– Public enterprises and entities ⁶	137	4.4	0.2	-0.3	-1.5	-2.6	-1.9	-4.3	-3.9

1 NSSG, Labour Force Surveys: changes from second quarter to second quarter. Revised data on the basis of Eurostat's definitions, New Cronos database and NSSG.

2 Participation rate of population aged 15 or more in the labour force.

3 Employed aged 15-64 as a percentage of population aged 15-64.

4 Data obtained from banks: December-on-December changes.

5 Ministry of Economy and Finance: December-on-December changes. *Average annual* employment is estimated to have increased by 2.2% in 1994, 1.4% in 1995, 2.5% in 1996 and 1.1% in 1997 and to have decreased by 1.1% in 1998. In 1999 average annual employment increased by 2.1% (if the personnel of public hospitals is counted in and the fluctuation of the number of substitute teachers in secondary schools is normalised), in 2000 by 1.8% and in 2001 by 0.6%.

6 Ministry of Economy and Finance: December-on-December changes. Average annual employment increased by 0.6% in 1994, or by 4.8% taking into account the reincorporation of the Athens bus system into the public sector. In 1995 average annual employment increased by 1.5%, in 1996 it remained unchanged, while it fell by 0.6%, 2.9% and 1.6% in 1997, 1998 and 1999, respectively, by 3.9% in 2000 and by 4.1% in 2001. If *only public enterprises* are taken into account, the corresponding rates are: +0.6%, -1.3%, -1.2%, -3.4%, -1.9%, -4.2% and -4.6% for 1995, 1996, 1997, 1998, 1999, 2000 and 2001, respectively.

satisfactorily in the same year, (b) in 2000 the decline of 23,000 in part-time employees was accompanied by an increase of 32,000 in full-time employees. On the basis of the above, it is considered possible as far as employees are concerned that the reduction in the number of part-timers reflected for 2001 as well a shift to full-time jobs, which – as already

known from a previous survey¹ – are preferred by Greek employees. (This of course does not imply that the unemployed – particularly women – would not be interested in opportunities for part-time employment, considering that full-time jobs are not compatible with family or other obligations, e.g. education).

The data from the 2001 labour force survey do not reflect an important development, i.e. the completion of the first phase of the new process for the legalisation of economic immigrants streaming in illegally from non-EU countries. In particular, within the period covered by Law 2910/2001² (5 June-2 August 2001) 351,000 applications for legalisation were submitted (and temporary 6-month stay permits were issued simultaneously). The soonest possible completion of this procedure,³ with the issue of regular stay and work permits and the integration of this new group of immigrants into the social security system will undeniably contribute to an improvement in labour market conditions. A similar procedure applied in 1998⁴ resulted in a significant increase in NSSG-recorded total employment, particularly as far as wage earners were concerned. In 2001, however, according to a NSSG press release, in the labour force survey the number of foreigners is underestimated, but the overall picture is expected to change and the quality of the survey upgraded, once the processing of the 2001 Population Census data is completed (thus allowing a better planning of the survey sample).

During 2001, employment in the public sector (including hospitals) increased at an average annual rate of 0.6%, while in public enterprises it declined by 4.6% (see Chart III.9). In the banking system, employment decreased by 0.9% between December 2000 and December 2001.

As far as the non-bank private sector is concerned, IOBE monthly business surveys are a useful source of information on developments in employment. In the course of 2001, business estimates/forecasts (see Chart III.10) suggested that employment showed a marked increase in construction, a rise in retail trade and a slight recovery in manufacturing. Besides, according to the PMI survey carried out by NTC Research, employment in manufacturing rose steadily during 2001 (with the exception of November), although at a slower pace than in 2000.

Finally, in 2001 recruitments announced by private firms to the Greek Manpower Employment Organisation (OAED) rose by 5.6%, terminations of labour contracts (lay-

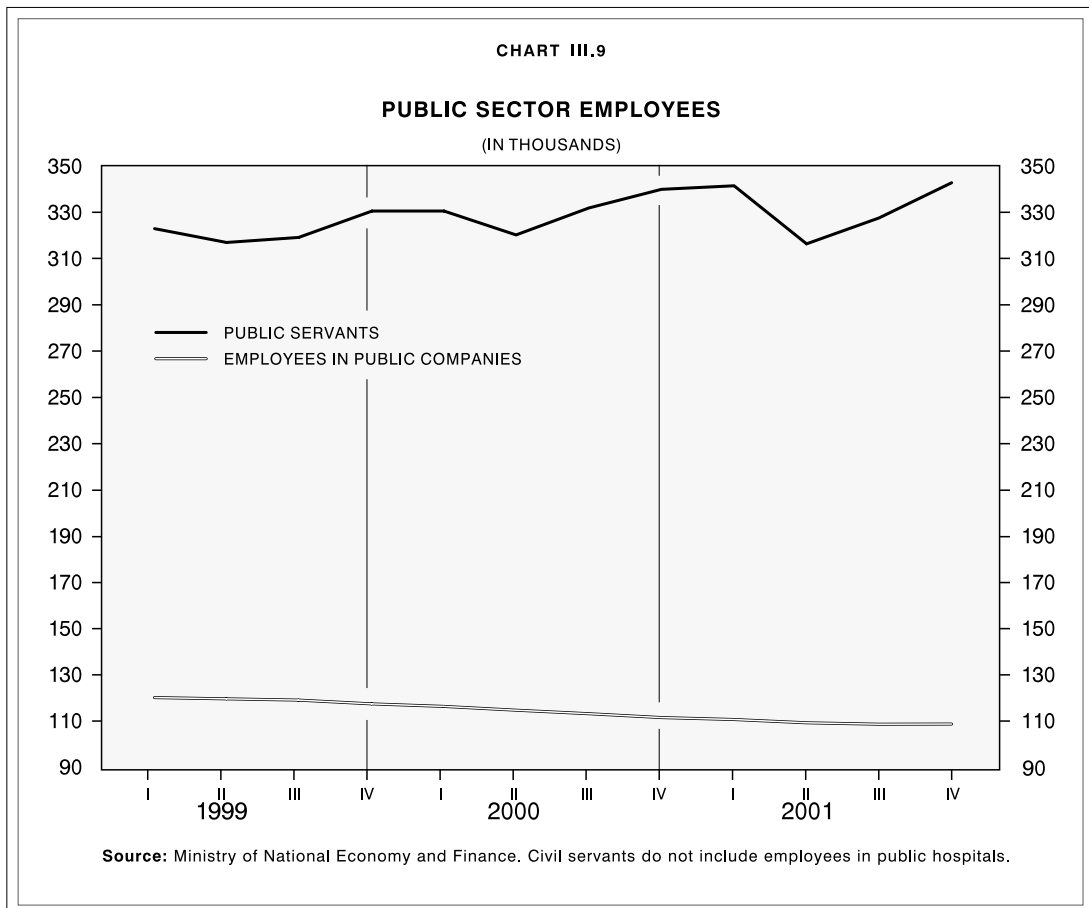
1 See European Commission, "Ad hoc survey on labour market among employees", *European Economy – Supplement B*, March 2000. According to this survey, 69% of part-time employees in Greece are willing to work full-time (against the EU's 36%), while only 12% of full-time employees are willing to work part-time (the same as in the EU).

2 This law, passed in March 2001, includes fixed regulations for economic immigrants, as well as provisional regulations relating on the one hand to the issue of a temporary (6-month) stay permit to immigrants staying in Greece illegally at least since April 2000 and on the other hand to the automatic renewal for 6 months of "green cards" expiring at the end of 2001 (see next note).

3 Delays are due to the fact that prefectures, municipalities and the Social Security Institution (IKA) are unable to handle in time the applications of such large numbers of economic immigrants.

4 According to Presidential Decrees Nr. 358 and 359/1997, which were issued by virtue of Law 2434/1996 and were later amended by Presidential Decrees Nr. 241 and 242/1998, Article 73 of Law 2676/1998 and Article 20 of Law 2736/99. This procedure led to the submission of applications by 373,000 immigrants, the submission of a full set of supporting documents by 225,000 and the issue of "green cards" to more than 170,000 immigrants.

offs) by 11.7% and voluntary quits by 13.1%. These figures imply increased mobility in the labour market (see Table III.9). In absolute figures, during 2001 new recruitments in the private sector exceeded the sum of lay-offs and voluntary quits by 49,467, which implied first of all an equal increase in vacancies.¹ Nonetheless, according to the same

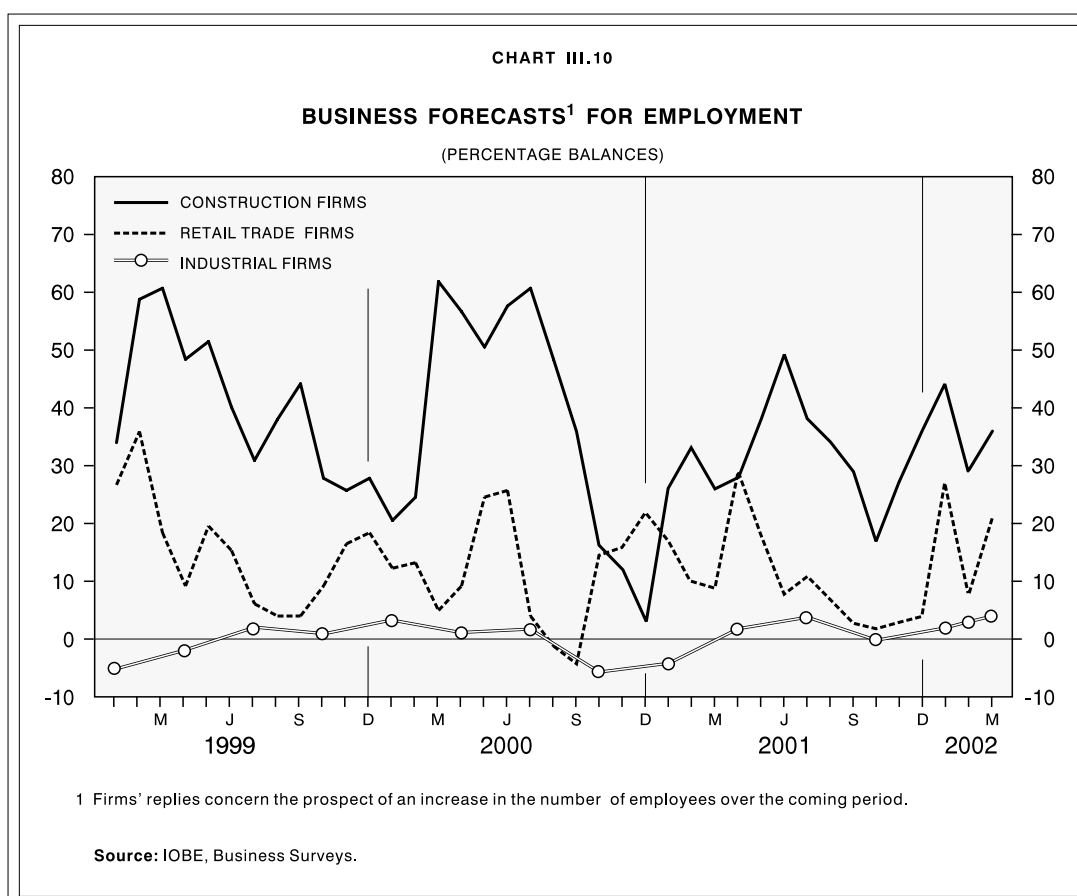


data, the increase in vacancies was smaller than in the previous two years (2000: +102,266, 1999: +131,227).²

- 1 Data from the Labour Inspection Corps point to an increase in private sector employment in 2001 (published by the Ministry of Labour on 9 October 2001). According to these data, the number of employees in a sample of relatively large companies has increased by 1.9% compared with 2000.
- 2 It is worth pointing out that these data do not fully correspond to the NSSG employment survey data. In particular, the analysis of employment flows in the private sector shows that 131,000 jobs were created in 1999, 102,000 in 2000 and 49,000 in 2001. Based on the NSSG labour force survey, during 1999 (i.e. between 1998 Q4 and 1999 Q4) the number of employees (in both the private and the public sector) increased by only 14,000, during 2000 by 74,000 and during 2001 by 19,000 (even though the average annual growth in 2001 was 51,000 employees). It is considered possible that the net increase in jobs indicated by flow data is an overestimation (or at least was so until 2000), considering that data on recruitments and discharges are more reliable than those on quits (the latter may not be fully recorded).

The drop in the rate of unemployment, the increase in salaried employment and the growing participation of young people in training programmes, combined with the programmes for promoting employment and – to a certain extent – with the implementation of new regulations towards a more efficient operation of the labour market, reflect the high rates of economic growth recorded in the past few years.

First of all, the implementation of Law 2874/2000 began in 2001. This law mainly relates to: (a) a more flexible working time arrangement and the encouragement of companies to increase employment (rather than resorting to overtime) during periods when



demand for their products increases, (b) reduction of employers' social security contributions for low wage earners, (c) rationalisation of rules related to the control of mass layoffs and (d) boosting of the labour *supply* by offering the unemployed financial incentives to move to part-time jobs. Available data do not yet permit a full assessment of the impact of these new measures. It is nonetheless interesting that in July 2001, according to the PMI survey in manufacturing, purchase managers reported that "the new rules on the reduction of paid overtime that were put into effect as from April forced them to increase employment levels in order to maintain production". Besides, by October 2001, the case

of three companies had already become widely known (a flour mill, a paper manufacturer and a garment manufacturer, employing between 100 and 320 workers).¹ These companies concluded agreements with their staff for the arrangement of working time on an annual basis and the reduction of average weekly working hours.

In November 2001, Law 2596/2001 on the restructuring of OAED was passed. OAED remains a legal entity under public law, and its aims are unchanged. All the same, its aims relating to (a) services for the support of human resources and their integration in the labour market (especially after the application of personalised intervention), (b) the upgrading of qualifications and skills and their adaptation to modern requirements and (c) the collection, statistical monitoring and processing of recorded unemployment data and the study of employment conditions and opportunities are promoted by three new, flexible, non-profit companies (in which OAED is the sole shareholder): the company “Manpower Support Services S.A.”, the main responsibility of which will be to operate Employment Promotion Centres, the company “Vocational Training S.A.”, which will be responsible in the fields of initial and continuing vocational training as well

TABLE III.9
PRIVATE SECTOR EMPLOYMENT FLOWS

	1999	2000	2001
New Job Registrations	886,168	978,266	1,033,085
Labour Contract Terminations	477,166	534,805	597,575
Voluntary Resignations	277,725	341,195	386,043
Net balance (new jobs)	131,277	102,266	49,467

Source: Ministry of Labour – Greek Manpower Employment Organisation (OAED).

as life-long learning (Initial Training Centres-IEK, Continuing Training Centres-KEK, etc.) and, finally, the company “Employment Observatory Research-IT SA”, which stemmed from the National Employment Observatory and the National Labour Institute (already merged).

The same law (2596/2001) also includes provisions that set out the terms for the operation of Temporary Employment Agencies,² the existence of which was not provided for by law before (with the exception of the “private employment Councillings Offices” stipulated by Law 2639/98, which also covered limited cases of intervention between labour supply and demand, but not necessarily for temporary employment). These agencies’ activity will be centered on the temporary employment of their own workers by other employ-

¹ National Labour Institute “Three agreements on working time arrangement in the framework of Law 2874/2000”, 1 October 2001.

² The details for the implementation of these provisions were set out in the ministerial decision issued on 6 March 2002.

ers (indirect or interim employers) for a period of eight months (renewable for another eight months).¹ The law protects the rights of temporary employees and is expected to contribute to the increase in the flexibility of the labour market: (a) it will provide the unemployed initially with working experience and access to the market and finally with increased opportunities for more permanent employment and (b) it will enable companies to adjust employment faster to short-term fluctuations in the demand for their products.

During 2001, the implementation of the policy on employment continued, on the basis of the annual “National Action Plan for Employment” (ESDA – April 2001). Particular emphasis was placed on the planning of vocational training programmes for the three-year period 2001-2003, so that they can better match the needs of the labour market.² For the current year, the main directions of ESDA 2002 have been announced. ESDA 2002 will basically seek to facilitate penetration into the labour market (which, among other things, will make it easier for women to find jobs and will generate part-time jobs). The new subsidisation programmes announced by OAED (4 March 2002) include for the first time the subsidisation of recruitments for part-time jobs.

Finally, under a recent ministerial decision, the basic daily unemployment benefit was raised as from 1 January 2002 by 5%, standing now at €10.58 (i.e. an amount equal to 48.2% of the minimum wage).³

1 If the wage earner is still employed after the end of the extension and for a period longer than two months, the contract signed between this temporarily employed person and the company will be converted into a labour contract of indefinite duration with the interim employer.

2 The findings of the large-scale survey “Connection of the specialised continuing training of the unemployed with the needs of business firms” were utilised to this end. The survey was conducted by Metron Analysis for the Ministry of Labour and covered a sample of 6,228 companies in February-April 2001 (the results were published in July 2001).

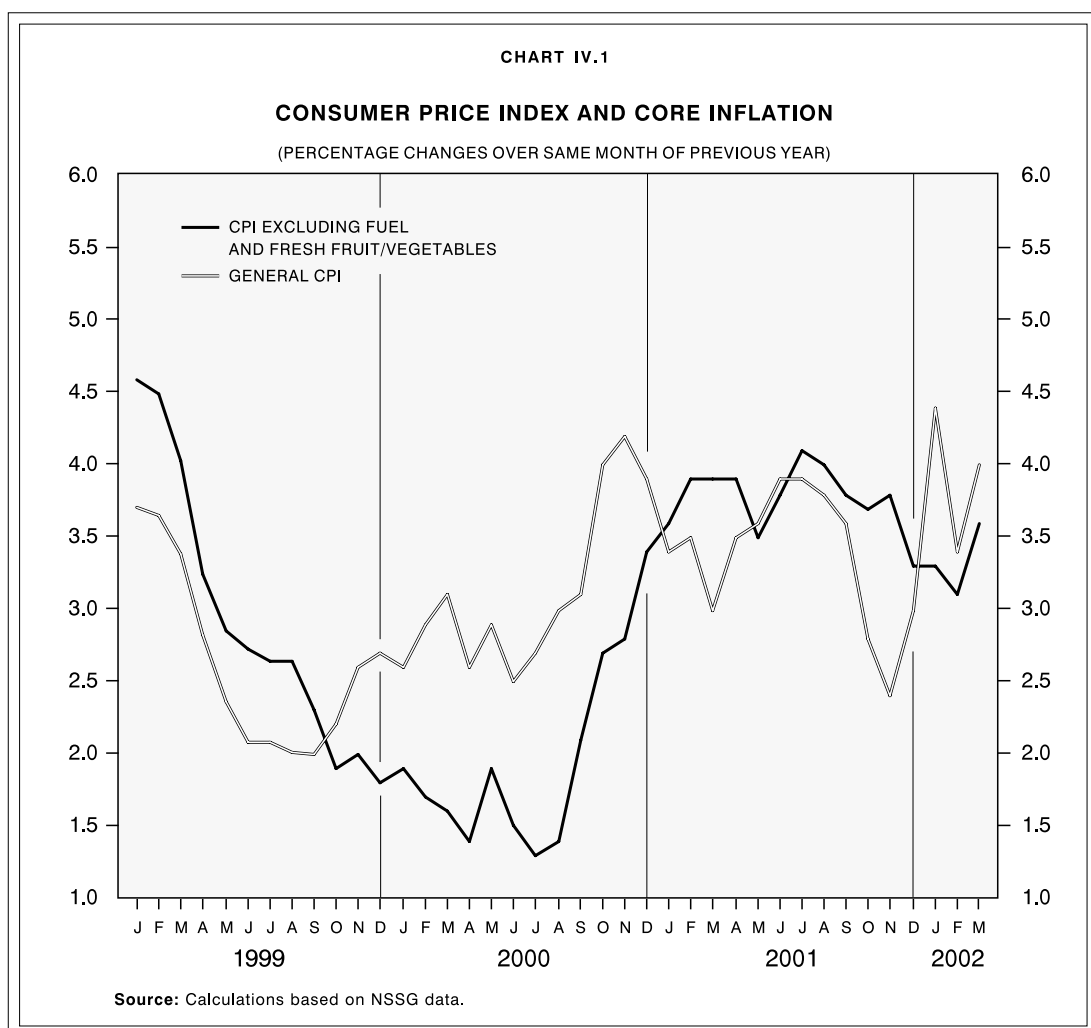
3 The maximum unemployment benefit was also raised by 5% to €11.19 per day.

IV. PRICES, WAGES AND BUSINESS PROFITS

1. PRICE DEVELOPMENTS

1.1 Overview

In 2001 inflation in Greece followed a similar course to that of inflation in the euro area as a whole. However, the rate of price increase was higher than in the euro area and the inflation differential widened. Specifically, inflation (as measured on the basis



of the HICP) accelerated to 4.5% in June 2001 from 3.7% in December 2000, but then slowed steadily through November (2.9%), before picking up again to 3.5% in December for reasons detailed below (see Chart II.4). The differential between Greece and the euro area ranged from 0.5 to 1.7 percentage points in 2001 (averaging 1.2 percentage

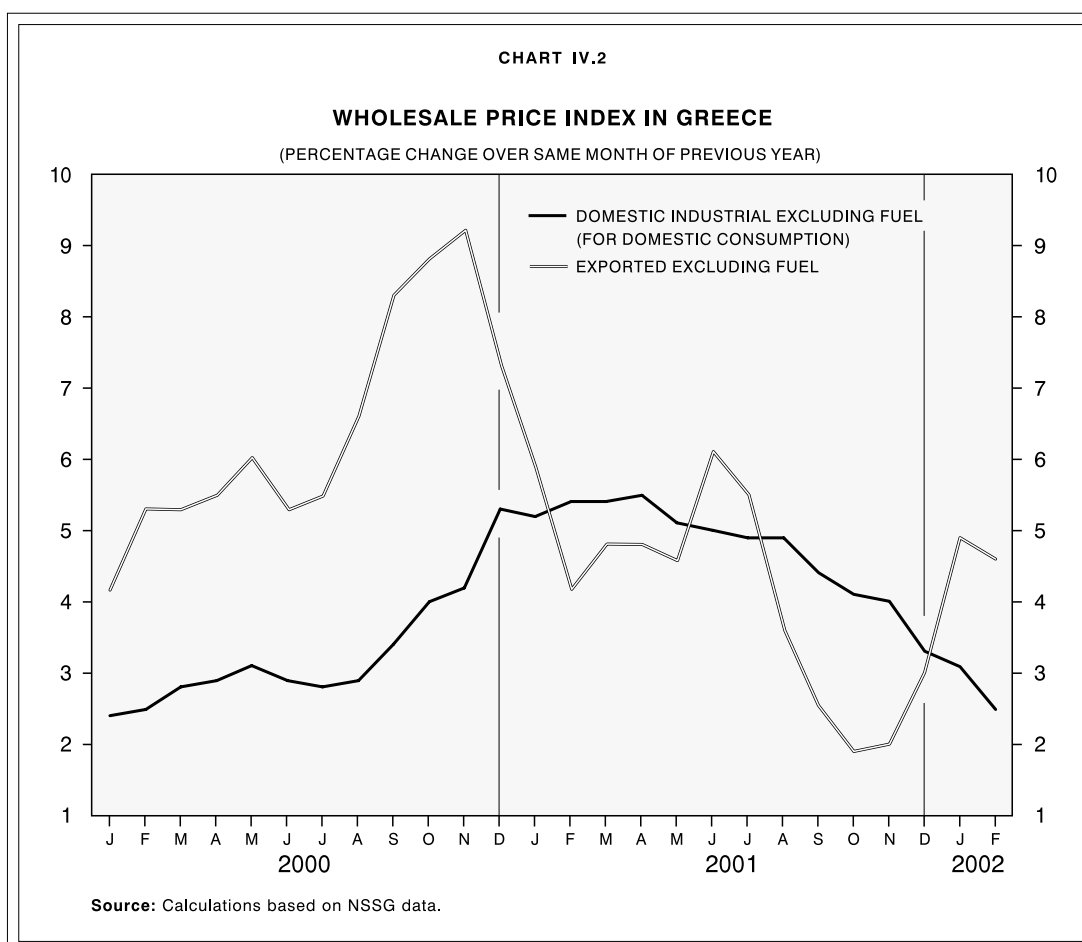
TABLE IV.1
INFLATION INDICATORS
(Annual percentage changes)

Year or quarter	Consumer Price Index										Wholesale Price Index					
	Sub-indices										Sub-indices					
	General index	Goods	Services	CPI excluding fresh fruit/ vegetables & fuel	CPI excluding food & fuel	Food and non-alcoholic beverages	Fresh fruit and vegetables	Fuel	General index	Primary	Industrial	Industrial excluding fuel	Exported products	Imported products		
1993	14.4	11.9	19.0	14.8	15.0	12.7	1.5	16.8	11.9	5.4	13.5	...	11.3	12.2		
1994	10.9	10.9	10.9	11.0	10.8	12.9	24.8	2.7	8.7	13.7	7.4	8.5	8.7	9.2		
1995	8.9	7.5	11.4	9.4	9.6	8.4	8.2	2.8	7.8	5.1	8.1	8.7	10.2	7.0		
1996	8.2	7.2	9.9	8.1	8.4	7.0	8.4	10.2	6.1	8.9	7.1	6.1	5.6	1.6		
1997	5.5	3.7	8.4	6.0	6.8	4.1	11.0	-4.9	3.3	4.2	4.0	3.8	2.9	2.1		
1998	4.8	3.9	6.2	5.3	5.7	4.4	7.0	-5.9	3.9	7.5	2.8	4.3	3.0	5.4		
1999	2.6	1.7	4.0	2.9	3.0	2.4	1.8	-1.7	2.1	3.4	3.7	2.6	-0.1	0.5		
2000	3.2	3.4	2.8	2.0	2.0	1.9	1.4	26.9	7.8	3.0	8.4	3.3	10.5	6.1		
2001	3.4	3.2	3.7	3.8	3.7	5.1	9.2	-4.8	3.5	10.8	3.1	4.7	2.5	3.0		
1998																
Q ₁	4.4	3.4	6.0	4.5	5.0	4.9	16.8	-4.7	3.5	11.2	2.1	3.4	3.1	4.3		
Q ₂	5.3	4.5	6.5	5.7	6.0	4.6	5.4	-2.2	5.1	3.4	4.1	5.0	5.8	7.1		
Q ₃	5.1	4.3	6.4	5.9	6.2	3.8	-0.8	-3.4	3.5	1.7	3.0	4.6	2.5	5.4		
Q ₄	4.3	3.2	5.8	5.2	5.5	4.4	6.8	-13.3	3.4	14.4	2.2	4.1	0.7	5.1		
1999																
Q ₁	3.6	2.8	4.9	4.4	4.5	4.3	6.4	-11.9	2.1	10.0	2.3	3.7	-0.9	1.8		
Q ₂	2.4	1.3	4.2	2.9	3.2	1.7	1.7	-6.1	0.2	4.7	2.0	2.0	-3.4	-1.6		
Q ₃	2.0	0.8	3.8	2.5	2.5	1.2	-4.6	-2.1	2.0	-1.8	4.3	2.2	-0.3	0.5		
Q ₄	2.5	2.0	3.1	1.9	1.8	2.4	2.9	14.9	4.2	0.7	6.2	2.4	4.4	1.5		
2000																
Q ₁	2.9	3.0	2.8	1.7	1.6	1.9	0.3	29.0	7.0	1.0	8.2	2.6	9.6	4.9		
Q ₂	2.7	2.7	2.6	1.6	1.5	1.8	0.0	25.8	7.6	2.7	8.2	3.0	10.0	6.0		
Q ₃	3.0	3.2	2.7	1.6	1.7	2.4	9.9	23.8	8.3	9.0	8.4	3.0	10.6	6.2		
Q ₄	4.1	4.7	3.2	2.9	3.0	1.5	-2.8	28.9	8.4	0.2	8.9	4.5	11.7	7.4		
2001																
Q ₁	3.3	2.9	3.9	3.8	3.8	1.9	-5.7	3.4	4.7	-0.6	5.4	5.3	4.7	5.0		
Q ₂	3.7	3.7	3.7	3.8	3.6	4.6	7.4	2.4	5.3	11.0	5.3	5.1	5.0	3.8		
Q ₃	3.8	3.9	3.6	4.0	3.9	6.2	14.0	-4.4	3.1	11.7	2.4	4.8	2.1	2.8		
Q ₄	2.7	2.2	3.6	3.6	3.4	7.8	23.7	-18.7	1.0	21.7	-0.5	3.8	-1.3	0.3		

Source: Calculations based on NSSG data.

points¹). In December, when the differential came to 1.5 percentage points, Greece ranked fourth in the euro area (behind the Netherlands, Ireland and Portugal).

Based on the national CPI, inflation peaked in June and July, without exceeding its December 2000 level (3.9%). It then decelerated to 2.4% through to November (largely on account of the decrease in fuel prices), but it rose again in December (3.0%), mainly because of the steep rise in the prices of fresh fruit/vegetables caused by exceptionally harsh weather conditions. Core inflation (based on the national CPI excluding fuel and



fresh fruit/vegetables) also peaked in July (4.1%) but then decelerated steadily to 3.3% in December (see Chart IV.1 and Table IV.1). The average annual rate of increase in the national CPI was 3.4% in 2001, i.e. slightly higher than in 2000 (3.2%). Average annual core inflation (CPI excluding fuel and fresh fruit/vegetables) nearly doubled to 3.8% (from 2.0% in 2000).

¹ Average annual HICP inflation in 2001 was 3.7% in Greece and 2.5% in the euro area.

In wholesale terms, the year-on-year rate of change in the main indicator, i.e. the prices of domestic industrial products for home consumption, slowed significantly to 0.3% in December 2001 from 7.0% in December 2000, mainly owing to favourable fuel price developments. Excluding fuel, these prices registered a roughly steady rate of increase in the first four months of 2001, which was almost double the rate over the same period of

TABLE IV.2
EXPORT PRICE INDEX AND
EFFECTIVE EXCHANGE RATE OF THE DRACHMA:¹ 1999-2000
(Annual percentage change over same month of previous year)

	Effective exchange rate of the drachma	Wholesale export prices			
		Total		Excluding fuel	
		In drachmas	In foreign currency	In drachmas	In foreign currency
2000 Jan.	-5.6	8.1	2.0	4.2	-1.7
Feb.	-6.4	10.3	3.2	5.3	-1.5
March	-6.6	10.6	3.3	5.3	-1.7
Apr.	-6.1	9.1	2.4	5.5	-1.0
May	-7.1	10.5	2.7	6.0	-1.5
June	-6.1	10.4	3.7	5.3	-1.1
July	-6.0	9.2	2.7	5.5	-0.8
Aug.	-6.4	9.7	2.7	6.7	-0.2
Sept.	-6.6	12.8	5.4	8.3	1.2
Oct.	-6.7	13.7	6.0	8.8	1.5
Nov.	-6.2	12.8	5.8	9.2	2.5
Dec.	-4.6	8.6	3.7	7.3	2.4
2001 Jan.	-3.1	6.1	2.8	5.8	2.6
Feb.	-2.5	4.2	1.6	4.3	1.7
March	-1.7	3.8	2.1	4.8	3.1
Apr.	-1.0	5.3	4.2	4.8	3.7
May	-0.7	4.8	4.1	4.6	3.9
June	-1.9	4.9	2.9	6.1	4.1
July	-1.5	4.2	2.7	5.5	4.0
Aug.	0.1	2.3	2.3	3.6	3.7
Sept.	1.1	-0.1	1.0	2.4	3.5
Oct.	1.8	-2.2	-0.5	1.9	3.8
Nov.	1.4	-2.1	-0.7	2.0	3.4
Dec.	0.9	0.5	1.5	3.0	3.9
2002 Jan.	-0.3	3.6	3.3	4.9	4.7
Feb.	-0.2	2.8	2.6	4.6	4.4

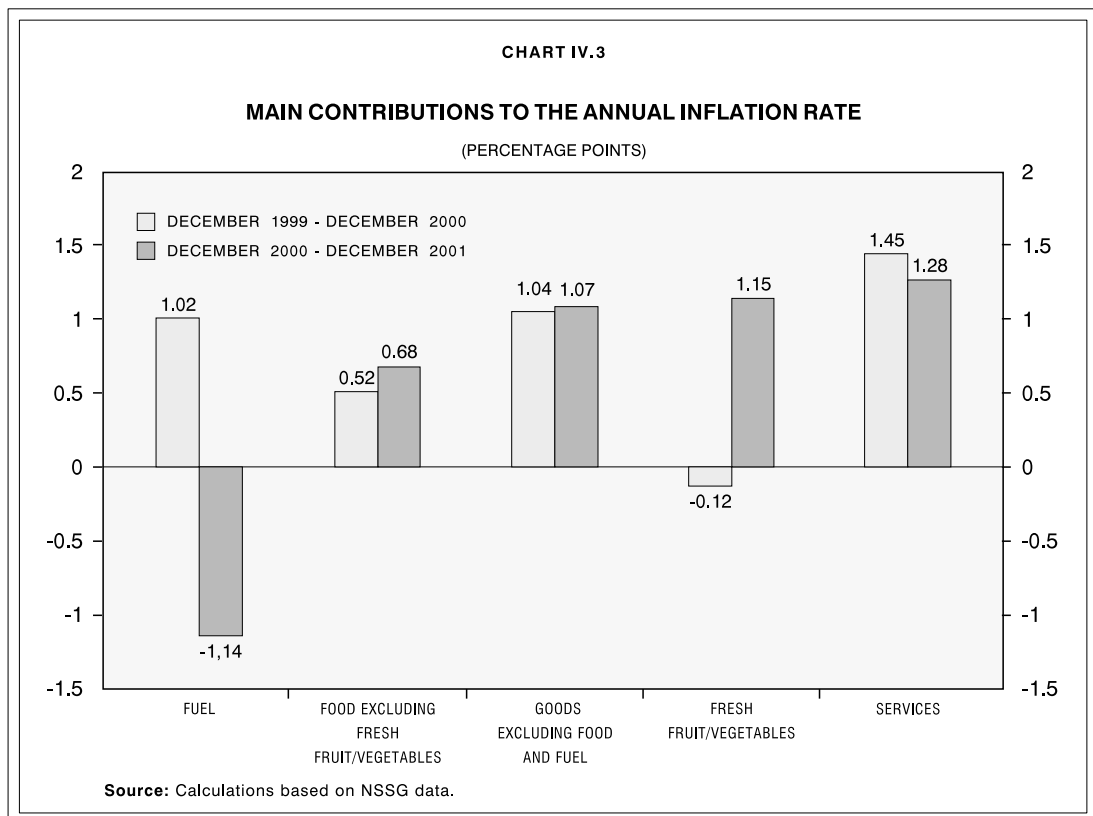
¹ For the meaning of the term, see footnote 5 on page 111.

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

2000. The rate of increase gradually decelerated afterwards and came to 3.3% in December (compared with 5.3% in December 2000 – see Chart IV.2). The slowdown in the rate of increase in the drachma prices of exported goods excluding fuel (from 7.3% in December 2000 to 3.0% in December 2001) was even more pronounced, even though the rate of increase in these prices in foreign currency terms accelerated from 2.4% to 3.9% respectively (see Table IV.2).

1.2 Inflation determinants

The fluctuations of CPI inflation in 2001 mainly reflect fluctuations in the rates of change in domestic retail prices of fuel and fresh fruit/vegetables. The direct contribution of prices of individual categories of products and services to the overall CPI increase between December 2000 and December 2001 (as well as in the previous 12 months) is shown in Chart IV.3.



More significant, however, was the increase in core inflation in 2001. This was mainly due to the indirect and lagged effects of the increase in world fuel prices and the depreciation of the euro (and to a lesser extent, the depreciation of the drachma against the euro) on the prices of domestically produced and imported end products and services in 2000. (These same factors also account for the acceleration of the average annual rate of increase in the wholesale prices of domestic industrial products excluding fuel to 4.7% on average in 2001 from 3.3% in 2000, as well as the relatively small slow-down in the rate of increase in the wholesale prices of imported end products excluding fuel from 5.0% in 2000 to 3.3% in 2001.) These indirect effects gradually began to abate

after July.¹ In contrast, the generally downward trend of the world prices of oil and other raw materials in 2001 (see Chart IV.4),² the limited (in relation to 2000) fall, in average annual terms, of the exchange rate of the euro vis-à-vis the US dollar³ and the irrevocably fixed drachma/euro conversion rate that came into effect on 1 January 2001 contributed directly to the containment of domestic oil prices⁴ and of CPI inflation in 2001.

It should be recalled that from 1 January to 31 December 2001 the central exchange rate of the drachma with ERM II (1 euro=340.75 drachmas) became the stable drachma-to-euro conversion rate, as fixed irrevocably by the ECOFIN Council decision of 19 June 2000. As a result, the course of the exchange rate of the drachma against other currencies except the euro mirrored the course of the exchange rate of the euro against these currencies. Differences were, however, recorded during 2001 in the *annual rates of change* owing to the deviation of the drachma from its central exchange rate in the year 2000. Developments in the bilateral exchange rates of the euro against the non-euro area currencies resulted in a decline of the average annual “effective exchange rate of the drachma”⁵ of 0.6% in 2001, compared with a corresponding depreciation of 6.2% in 2000 (See Chart IV.5).

The growth rate of unit labour cost, which is also a key inflation determinant slowed slightly in the whole of the economy and, according to revised estimates, reached 2.9% (compared with 3.1% in 2000 – see Table IV.4). It is, however, estimated that the growth rate in the business sector (i.e. private and public enterprises and banks) accelerated to 2.9% from 2.5% in 2000, contributing, albeit to a limited extent, to the acceleration of average annual inflation.

The impact on inflation of total domestic (consumer and investment) demand is particularly important to examine, in relation to supply developments, considering that

1 The intensity of competition in the liberalised telecommunications market caused the rates of mobile telephony services to fall. The decrease in these prices in July and August 2001 and in the first two months of 2002 served to restrict the increase in core inflation by 0.2 percentage point.

2 The price of Brent-type oil was €21.5 in December 2001, compared with €28.8 in December 2000. The prices of raw materials excluding fuel (in euro) were decreasing at an annual rate of 12.3% in December 2001, whereas in December 2000 they were increasing at a rate of 6.1%. See ECB, *Monthly Bulletin*, April 2002, Table 4.2, p. 43*.

3 The average annual US dollar/ euro exchange rate was 1.066 in 1999, 0.924 in 2000 and 0.896 in 2001. See ECB, *Monthly Bulletin*, April 2002, Table 10, p. 68*.

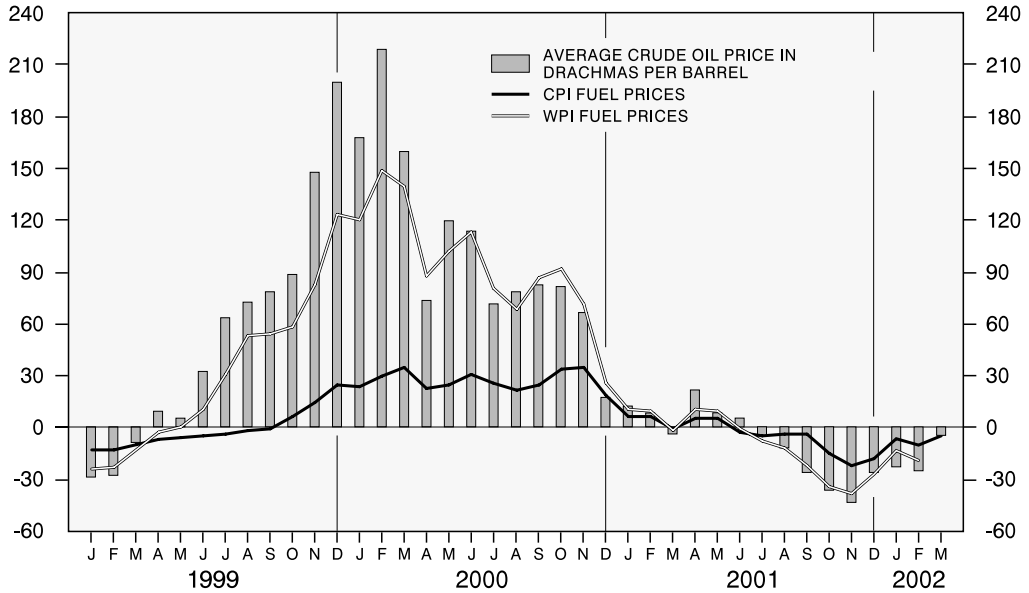
4 The prices of fuels included in the CPI fell at an average annual rate of 4.8% in 2001, after rising by 26.8% in 2000. The prices of fuels included in the WPI fell at an average annual rate of 11.2% in 2001, after increasing by 87.0% in 2000.

5 The nominal effective exchange rate is the rate of a representative basket of foreign currencies, each one of which is weighted on the basis of its importance in the country's external trade. Until end-2000, the effective exchange rate of the drachma was obtained by weighting the bilateral exchange rates of the drachma against the other currencies, as they evolved on the foreign exchange market. As of 1 January 2001, the drachma is a subdivision of the euro and its relation to the other currencies is obtained by combining the irrevocable drachma/euro conversion rate (1 euro = 340.75 drachmas) with the bilateral exchange rates of the euro with non-euro area currencies. These relationships of the drachma against other currencies continued to be weighted on the basis of Greece's external trade (trade transactions, excluding oil). According to the above, it would have been more correct from the beginning of 2001 to use the term “national competitiveness indicator in nominal terms” instead of the “nominal effective exchange rate of the drachma”.

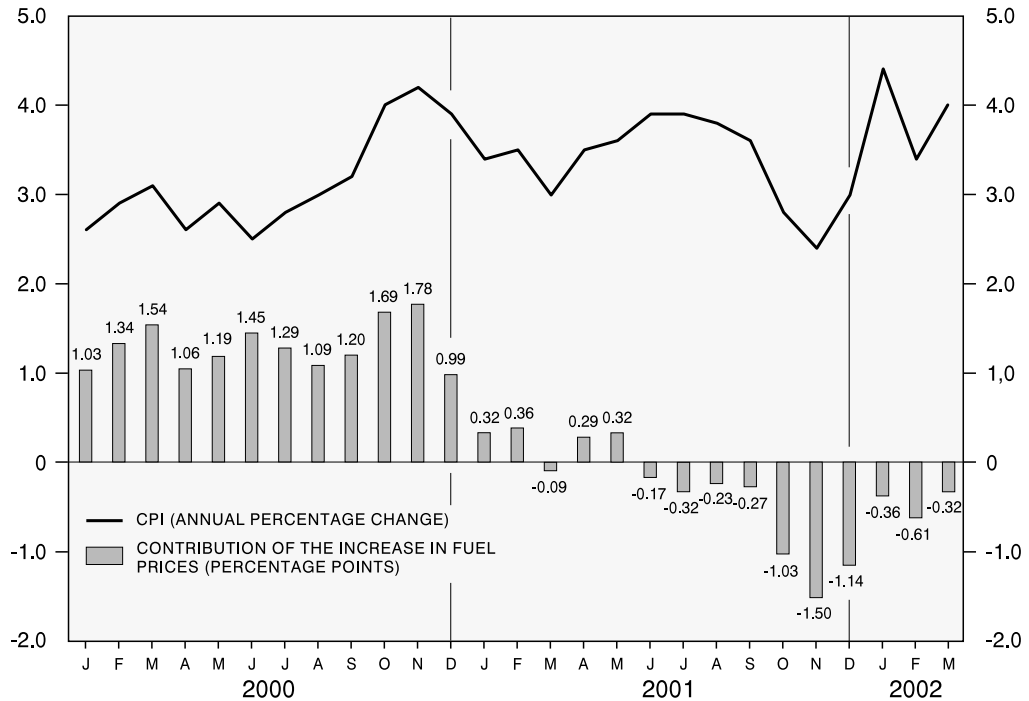
CHART IV.4

A. EVOLUTION OF CPI AND WPI FUEL PRICES AND OF THE AVERAGE DRACHMA PRICE OF BRENT CRUDE OIL

(PERCENTAGE CHANGES OVER SAME MONTH OF PREVIOUS YEAR)

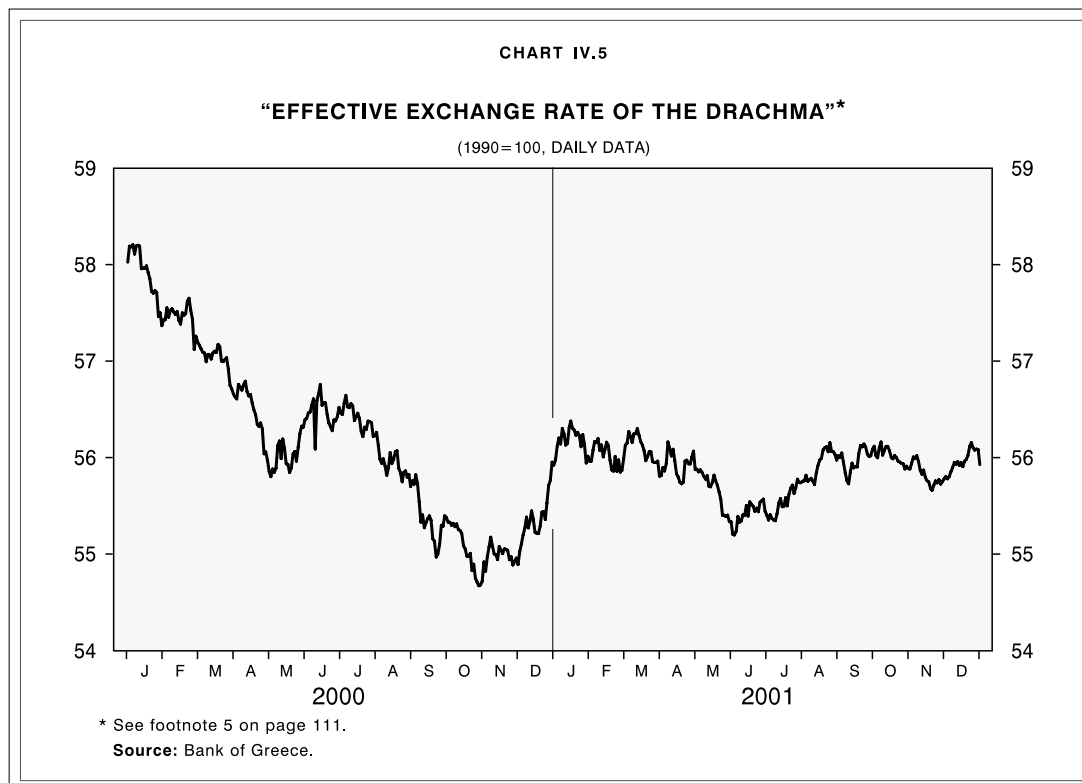


B. INFLATIONARY CONTRIBUTION OF THE INCREASE IN FUEL PRICES



Source: Calculations based on NSSG data, as well as on US Department of Energy data on crude oil prices (average of Brent, Arab light and West Texas Intermediate).

2001 was a year of transition to the single monetary policy and was characterised by a substantial decrease in interest rates and an increase in liquidity. Specifically, private consumer demand rose at a high average annual rate in 2001, but at a lower rate than in 2000 (see also Chapter III). This development was largely due to the increase in bank lending to households, owing to the rapid expansion of consumer credit, which in turn was mainly due to the drop in lending rates and stronger competition between banks. Increased private consumer demand was, to a substantial extent, channelled towards imported goods. In fact, the volume of imported consumer goods rose faster than domestic production (see

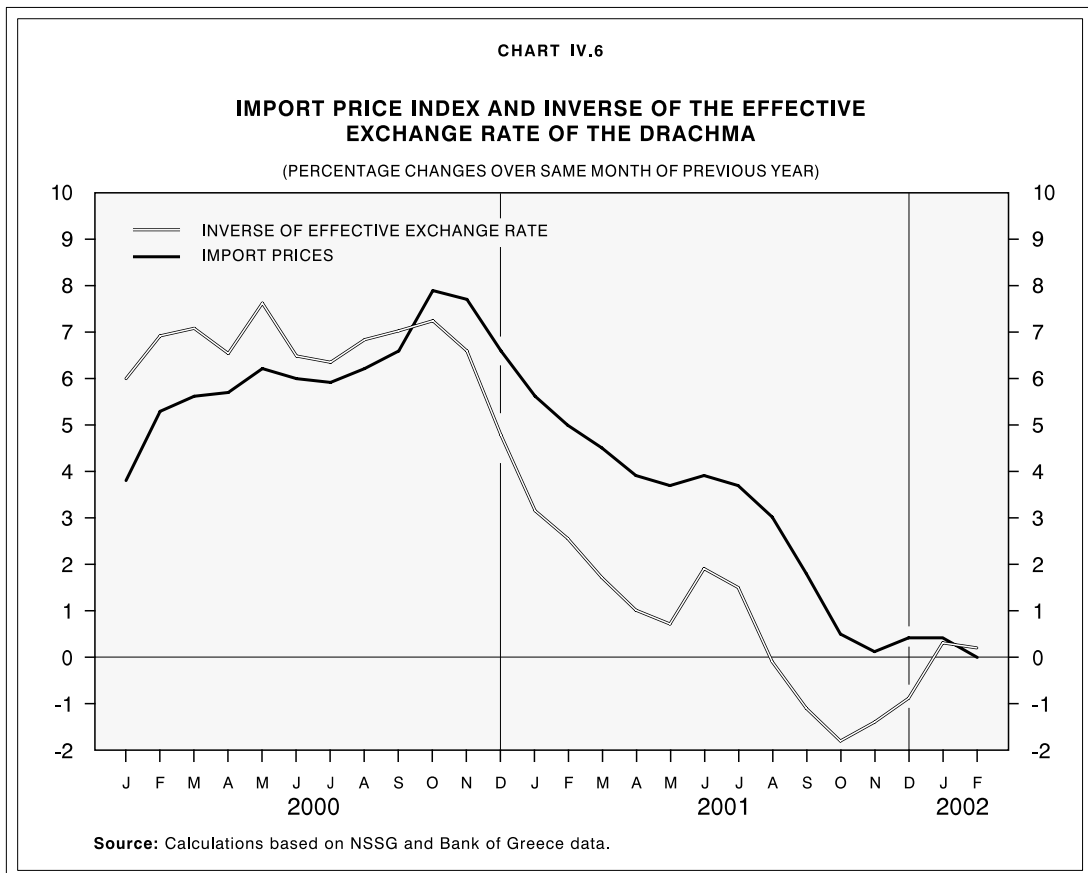


Chapters III and IX for a more detailed discussion of the factors that affected demand and import developments).

The high growth rate of domestic demand, if maintained, could lead, under certain circumstances, to a widening of profit margins of enterprises. However, operating profit margins fell in 2001, mainly — according to estimates — because of increased price competition from imports (see Chart IV.6 and Section 3 of this chapter). Thus, while the drop in lending rates and faster credit expansion supported the high growth rate of demand, a substantial portion of this increase was channelled towards imported goods. Furthermore, the impact of high demand on domestic inflation was partly offset by the pressure of competition on the pricing policy of the firms producing and marketing domestic goods.

Obviously, without the drop in interest rates and high credit expansion, inflationary pressures might have subsided (instead of simply not increasing).

It should also be pointed out that the deregulation of certain markets or progress towards integrating some of them into the single European market has resulted in particular for goods and, especially, services becoming more tradeable across borders. This has contributed to a faster increase in productivity and to keener competition in services where the growth in productivity lagged behind that in other sectors of the economy or slack competitive conditions led to faster price increases and thereby contributed mark-



edly to the upward deviation of Greece's rate of inflation from that of the country's European partners.¹ While the prices of services included in the CPI rose faster than the prices of goods until end-1999, the opposite happened in 2000, and in 2001 the prices of services increased at an average annual rate only slightly higher than that of the prices of goods (3.7% compared with 3.2% – see Chart IV.7 and Table IV.3).

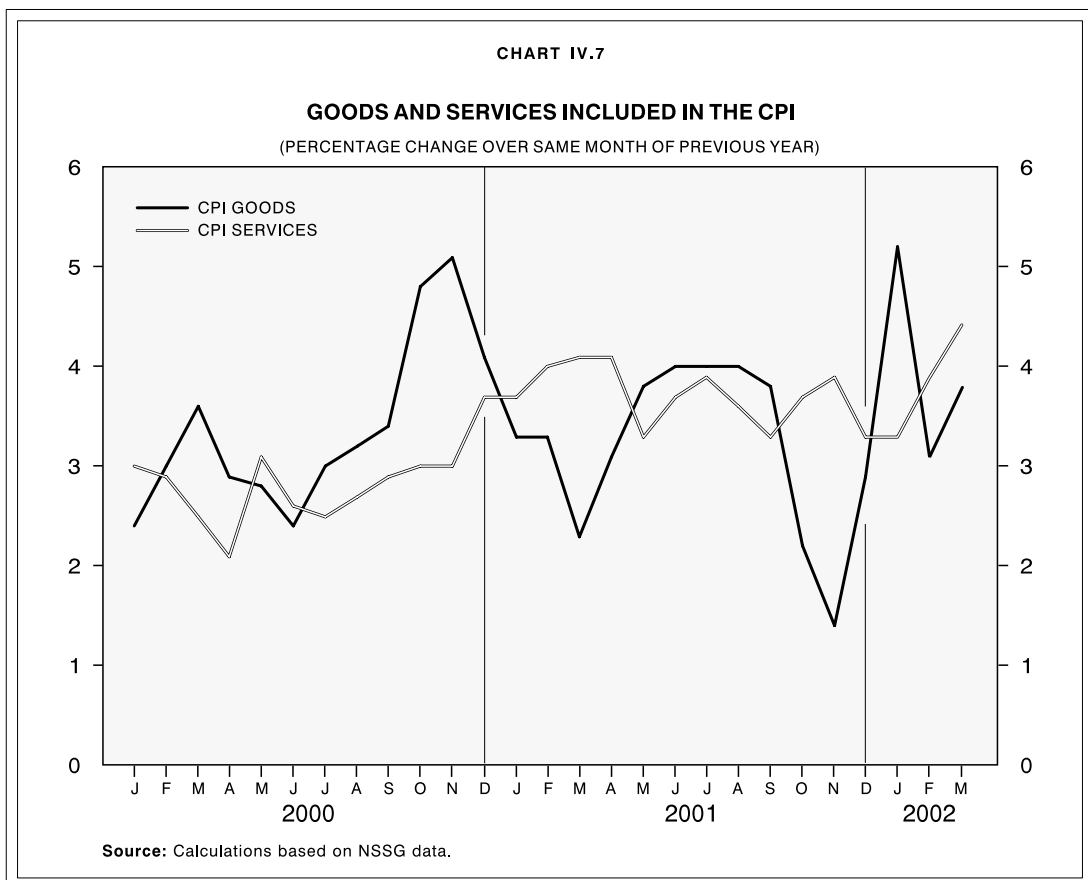
¹ Known as the Balassa-Samuelson effect. See also Bank of Greece, *Monetary Policy 2001-2002*, March 2002, footnote 29.

TABLE IV.3
THE EVOLUTION OF PRICES AND COSTS IN GREECE AND THE EURO AREA
 (Annual percentage change)

	1999	2000	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2002	2002	2002	2002	2002			
				Q1	Q2	Q3	Q4	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March												
Euro area																											
Harmonised Index of Consumer Prices (HICP) and its components																											
<i>General index</i>	1.1	2.3	2.5	2.3	3.1	2.5	2.2	2.4	2.3	2.4	2.1	2.0	2.7	2.4	2.5	2.7	2.4	2.1	2.1	2.0	2.7	2.4	2.5	2.5	2.5	2.5	
of which:																											
<i>Goods</i>	0.9	2.7	2.5	2.4	3.5	2.4	1.8	2.4	2.1	2.1	1.6	1.7	2.5	2.1	2.1	2.5	2.1	1.6	1.7	2.5	2.5	2.1	2.1	2.1	2.1	2.1	
Food	0.6	1.4	4.6	3.3	5.0	5.2	4.8	5.1	5.1	5.2	4.6	4.7	5.6	4.7	5.2	4.9	4.7	4.6	4.7	5.6	4.9	4.9	4.9	4.9	4.9	4.9	
Processed food ¹	0.9	1.1	2.9	1.9	2.8	3.4	3.5	3.4	3.5	3.5	3.5	3.5	3.8	3.5	3.5	3.3	3.5	3.5	3.5	3.8	3.3	3.3	3.3	3.3	3.3	3.3	
Non-processed food	0.0	1.7	7.2	5.3	8.5	8.0	6.9	7.7	7.7	7.7	6.4	6.5	8.4	6.5	7.2	7.2	7.2	6.4	6.5	8.4	7.2	7.2	7.2	7.2	7.2	7.2	
Industrial goods	1.0	3.4	1.5	2.0	2.7	1.0	0.3	1.0	0.6	0.5	0.1	0.2	0.9	0.8	0.5	0.8	0.5	0.1	0.2	0.9	0.8	0.8	0.8	0.8	0.8	0.8	
Industrial goods without energy	0.7	0.7	1.1	0.5	1.4	1.0	1.6	0.7	1.2	1.5	1.6	1.7	1.7	1.9	1.5	1.9	1.5	1.6	1.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9	
Energy	2.4	13.3	2.8	7.2	7.3	1.2	-4.1	2.1	-1.3	-2.7	-5.0	-4.5	-1.7	-2.8	-2.7	-2.8	-2.7	-5.0	-4.5	-1.7	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8	
<i>Services</i>	1.5	1.7	2.5	2.2	2.5	2.5	2.8	2.5	2.6	2.8	2.7	2.8	3.0	3.0	2.8	3.0	2.8	2.7	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Unit labour costs²	1.3	1.1	...	2.1	2.5	2.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oil prices (euro per barrel)³	17.1	31.0	27.8	28.4	31.7	29.0	22.4	28.7	28.8	23.8	21.7	21.5	22.6	23.5	22.6	23.5	22.6	21.7	21.5	22.6	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Greece																											
Harmonised Index of Consumer Prices (HICP) and its components																											
<i>General index</i>	2.1	2.9	3.7	3.3	4.0	4.1	3.2	4.0	4.0	3.2	2.9	3.5	4.8	3.8	4.4	4.8	3.8	2.9	3.5	4.8	3.8	4.4	4.4	4.4	4.4	4.4	
of which:																											
<i>Goods</i>	1.4	3.1	3.5	3.0	4.1	4.1	2.8	4.1	4.1	2.7	2.1	3.6	5.4	3.5	4.2	5.4	3.5	2.1	3.6	5.4	3.5	4.2	4.2	4.2	4.2	4.2	
Food	2.8	2.3	5.7	2.8	5.3	7.3	7.5	7.0	7.3	6.5	6.7	9.2	11.1	8.2	8.3	11.1	8.2	6.7	9.2	11.1	8.2	8.3	8.3	8.3	8.3	8.3	
Processed food ¹	3.1	2.7	5.1	4.4	4.8	6.3	4.7	6.4	6.3	4.7	4.5	4.9	4.8	4.3	5.1	4.8	4.3	4.5	4.9	4.8	4.3	5.1	5.1	5.1	5.1	5.1	
Non-processed food	2.4	1.7	6.7	0.5	6.1	8.8	11.8	7.9	8.9	9.4	10.1	15.7	20.9	13.9	12.8	20.9	13.9	10.1	15.7	20.9	13.9	12.8	12.8	12.8	12.8	12.8	
Industrial goods	0.5	3.6	2.0	3.1	3.3	2.0	-0.3	2.1	2.0	0.2	-1.0	-0.2	1.8	0.6	1.4	1.8	0.6	-1.0	-0.2	1.8	0.6	1.4	1.4	1.4	1.4	1.4	
Industrial goods without energy	1.2	0.6	2.9	2.7	3.1	2.9	2.9	2.8	3.0	3.1	2.9	2.8	3.3	2.7	2.6	3.3	2.7	2.9	2.8	3.3	2.7	2.6	2.6	2.6	2.6	2.6	
Energy	-2.5	17.3	-1.7	4.3	4.0	-1.5	-12.5	-0.6	-1.7	-10.5	-15.2	-11.8	-3.7	-6.6	-3.0	-3.7	-6.6	-15.2	-11.8	-3.7	-6.6	-3.0	-3.0	-3.0	-3.0	-3.0	
<i>Services</i>	3.8	2.6	3.9	3.8	3.9	4.0	4.0	3.9	3.9	4.1	4.5	3.5	3.6	4.1	4.7	3.6	4.1	4.5	3.5	3.6	4.1	4.7	4.7	4.7	4.7	4.7	
Unit labour costs²	2.6	3.1	2.9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

1 Including alcoholic beverages and tobacco.
 2 Whole economy. For Greece, Bank of Greece estimates.
 3 Brent blend (delivery after one month).
Source: Calculations based on ECB and NSSG data.

From the above, it can be concluded that the persistence of a relatively high rate of inflation in 2001 was mainly due to the indirect impact on the prices of goods (excluding fuel) and services of the rise in international oil prices and the concurrent depreciation of the euro and the drachma in the course of 2000.¹ To a lesser extent, the relatively high level of inflation is related to the acceleration of unit labour cost growth in the business sector (which was limited, however). In addition, while the drop in interest rates, owing to the transition to the single monetary policy, had a clearly expansionary impact on



demand, it does not seem to have contributed to a rise in inflationary pressures, although it may have prevented their abatement.

In the first quarter of 2002, the average rate of inflation rose to 4.0%² (contributing to a rise in inflationary expectations – see Chart IV.9), for three reasons: First, the sharp increase in the prices of fresh fruit and vegetables that continued into January 2002,

¹ The conjunctural increase in the prices of fresh fruit and vegetables also contributed to the relatively high rate of inflation at the end of 2001.

² 4.4% in January 2002, 3.4% in February and 4.0% in March.

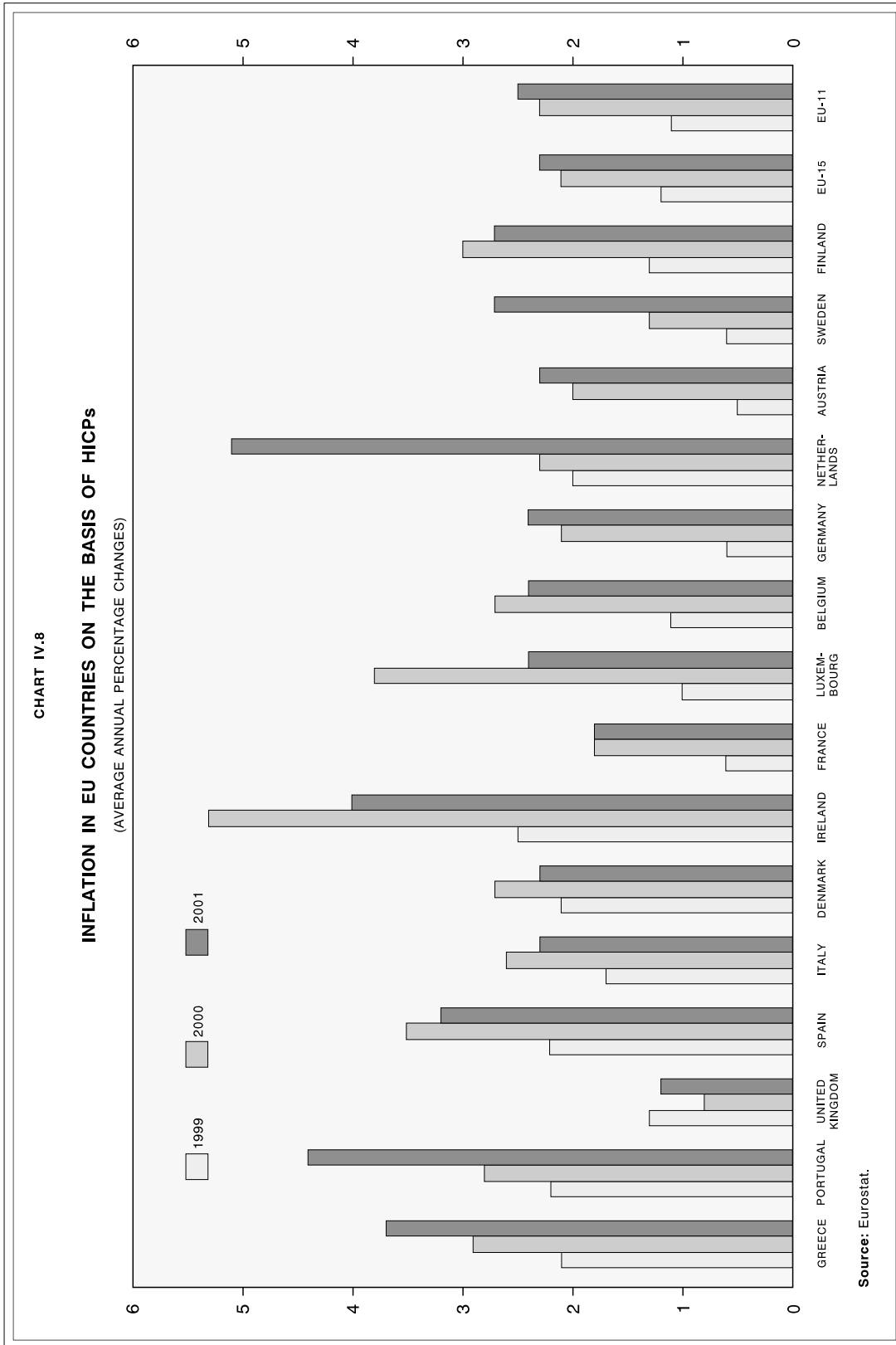
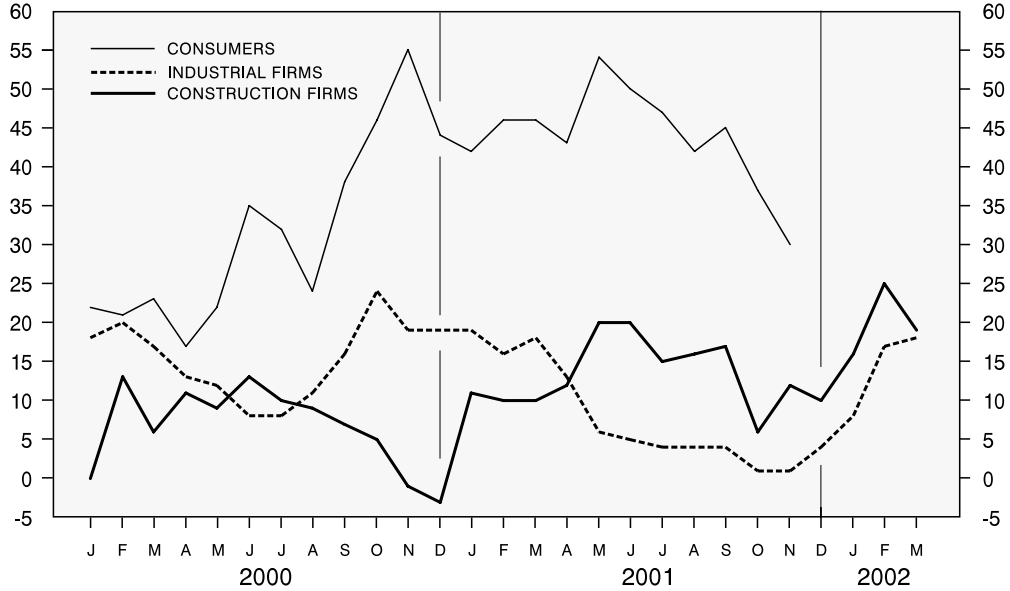


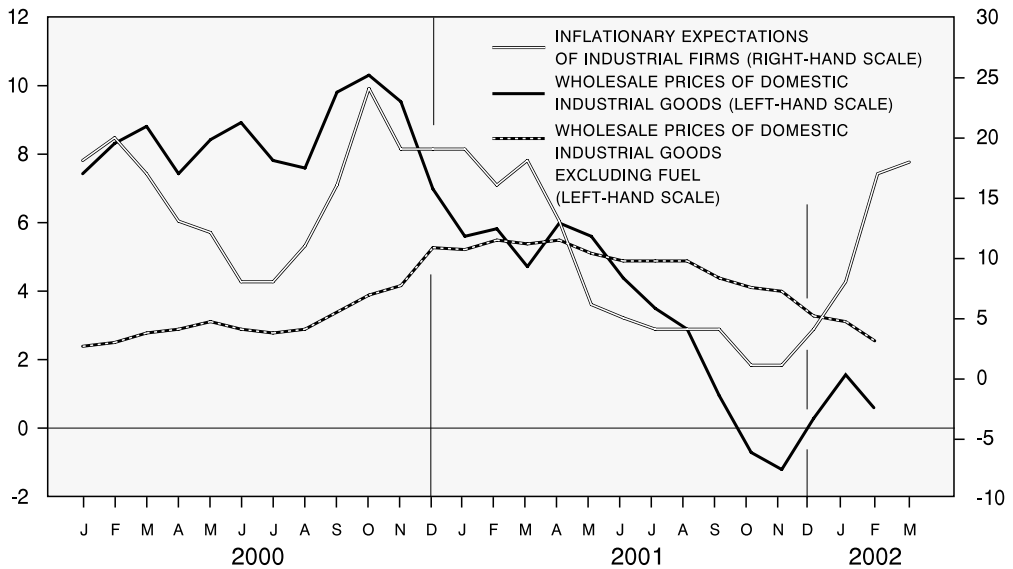
CHART IV.9

A. INFLATIONARY EXPECTATIONS* OF CONSUMERS AND BUSINESS FIRMS

(PERCENTAGE BALANCES OF POSITIVE AND NEGATIVE RESPONSES)



B. WHOLESALE PRICE INDEX FOR DOMESTIC INDUSTRIAL GOODS, AND INFLATIONARY EXPECTATIONS* OF INDUSTRIAL FIRMS**



* Expectations: Percentage balances of responses of (a) business firms on the prospects, over the next 3-4 months, of price increases for the goods they produce and (b) consumers on the prospects of a faster increase in consumer prices over the next 12 months.
 ** Prices: Annual percentage changes.

Source: Calculations based on NSSG, IOBE and European Commission (*European Economy, Supplement B*) data.

which was — as in December 2001 — mainly due to harsh weather conditions, but was not fully reversed in February and March 2002. Second, the stabilisation of international oil prices and the reemergence of upward trends. Third, the effect of the euro cash changeover and in particular of pricing consumer goods and services in euro (see Box IV.1). The impact of these three special factors should be temporary and the rate of inflation is gradually expected to decelerate over the coming months.

BOX IV.1

The impact of the euro cash changeover on price developments in the first quarter of 2002

1. Analysis based on Consumer Price Index data

The analysis of available data concerning the first quarter of 2002 makes possible the completion and revision of initial estimates¹ (concerning January only). According to these initial estimates, the circulation of euro banknotes and coins as of 1 January 2002 and the pricing of goods and services in euro had little impact on price developments in Greece. In fact, on the basis of detailed data from the national CPI for the first quarter of 2002, the more-than-usual or more-than-expected increases in the prices of certain goods and services from January through March 2002 had an upward effect on the rate of change in the CPI, estimated at about 0.5 percentage point. Therefore, if these increases had not taken place, the year-on-year rate of CPI increase would have been 3.5% instead of 4.0%.

This estimate was made using a method similar to the one used by Eurostat in its efforts to estimate the possible impact of the circulation of the euro on the monthly rate of change in the HICP of the euro area in January 2002 (see the Annex to Press Release No. 23 dated 28 February 2002).² According to Eurostat, the expansionary effect is likely to have ranged from 0.0% to 0.16%. This means that the estimate made for Greece solely for January (that the effect did not exceed 0.2 percentage point) was almost equivalent to that made for the euro area as a whole.

In estimating this impact, the changes in the prices of fuel and fresh fruit/vegetables during the period under review were not taken into account. On the other hand, consideration was given — on the basis of the most detailed data available, and not on the data aggregated per large category — to the differentials between price increases for all other goods and services during the first quarter of 2002 and increases (or decreases) over the first quarter of 2001 and with expected price increases per category (as projected statistically on the basis of trends in recent years). The contribution of these differentials to the CPI increase was then estimated, by weighting it on the basis of the participation of the said goods in the consumer basket. The differentials found by using this method cannot of course be attributed exclusively to the euro cash changeover, as they may be due to other factors (e.g. to a greater increase in the cost components of one category in the first quarter of 2002 or to the adoption of a different price →

1 See Bank of Greece, *Monetary Policy 2001-2002*, March 2002, Box 5.

2 Eurostat has not yet released estimates of this impact for the period after January.

→ adjustment time profile by a firm in 2002, compared with 2001). Thus, the estimate suggests merely the maximum effect (during the quarter reviewed) and not necessarily the true effect.

The categories that presented a higher price increase in the first quarter of 2002, compared with the first quarter of 2001, were mainly services – such as served foods, soft drinks and beverages, health services, hotel expenses, house repair and maintenance expenses, personal grooming (barbershops and beauty salons), leisure activities, clothing alterations, household services, transport services (provincial city transport, other automobile expenses). A slightly greater increase in prices was recorded for some goods – such as processed foods, clothing, footwear and household goods, LPs-cassettes-CDs, certain personal items, etc. – but their effect on inflation was much smaller than that of services. In most cases, these goods and services are sold by self-employed or by family businesses. In other cases, however, (e.g. processed food, soft drinks and beverages) there are indications that the increases are related to the pricing policies of major firms.

The impact on price increases of the circulation of the euro was obviously reduced by the measures taken (rounding off to the lower digit of fees collected by the general government, the freezing and exact conversion or rounding downwards of public utility rates during the changeover to the new currency, gentlemen's agreements with business and professional associations to avoid price increases during the said period, etc. – for details, see Bank of Greece, *Monetary Policy, Interim Report 2002*, November 2001). More specifically, the exact conversion and/or the downward rounding of euro prices (by the public sector and by certain large private enterprises) partly offset the impact of the upward rounding (or in some cases of the opportunist price hikes) attributable mainly to small businesses and to the self-employed.

Moreover, it is worth examining to what extent firms had in fact adjusted their drachma prices in advance during the closing months of 2001, i.e. immediately prior to the circulation of the euro. On the basis of data collected by the Bank of Greece, between end-September and end-December 2001, there were increases in the prices of certain goods (excluding fuel and fresh fruit/vegetables) which accounted for roughly 20% of the CPI basket, whereas the prices of these same goods during the corresponding period of 2000 had increased less, decreased or remained unchanged. It is impossible of course to ascertain whether these increases took place in anticipation of the euro cash changeover. It seems in any case that their effect on the CPI was more than offset by the impact – in the opposite direction – of changes in the prices of other goods. Indeed, the CPI excluding fuel and fresh fruit/vegetables rose by 1.2% between September and December 2001, i.e. less than in the corresponding period of 2000 (1.7%).

2. *Special survey of commercial firms*

The results of a special survey carried out for the Bank of Greece by the ICAP company on a sample of 461 small, medium, and large commercial firms throughout Greece from 12 to 21 March 2001 were of particular interest.¹ The objective of this survey was to investigate the behaviour →

¹ More specifically, the survey covered Athens, Thessaloniki and other major urban centres.

→ of commercial enterprises immediately before the circulation of the euro as well as during the first three months of its circulation. The main findings of the survey were the following:

- 42% of the firms adjust their selling prices once a year, while 22% do so twice a year. 68% of the firms adjust their prices regularly during the first quarter of the year (28% in January) . A significant number (19%) adjust their prices in September.

- 38% of the firms state that adjustment to the euro did not entail any cost for them. Of the remaining firms, the overwhelming majority (96%) maintains that it did not pass the adjustment costs on to prices. Moreover, a vast majority of firms (over 80%) had used dual pricing from 2001 onwards, as had been legislated,¹ and in fact 60% had done so from the first quarter of 2001.

- Only 33% of the firms sell products at “attractive” prices (for instance, at 199 drachmas or €1.99, etc.). Two thirds of these firms adjusted their euro prices in order to make them more attractive as soon as the dual pricing period started.

- Only 29% of the firms claimed to have adjusted their euro prices to facilitate transactions. 59% of these firms made this type of adjustment in 2002 (42% in January, 6% in February and 11% in March).²

- Finally, 75% of the surveyed firms in the sample state that they did not raise their selling prices between 1 January 2002 and the time at which the survey was conducted (mid-March). 15% of the firms increased their prices by 1-5%, 4% of the firms by 6-10%, and only 1% say they have raised their prices by more than 10%. For all firms combined, the average selling price increase amounted to 1.1%. For smaller firms (with an annual turnover of up to 100 million drachmas) the average price increase was greater (around 2%). As for the reasons advanced for these price increases, most of the firms (82%) mentioned the higher prices they had to pay to their suppliers. Only 10% mentioned price-rounding to make euro prices more attractive, 7% mentioned the costs of adjusting to the euro and 8% the increase in labour costs.

The findings of this survey confirm that the main impact of the circulation of the euro on inflation did not stem so much from increases in the prices of consumer *goods* (sold by firms) as from increases in the prices of *services*.

3. Comparative data from the Eurobarometer consumer survey

Apart from the opinion of enterprises, the opinion of consumers is also interesting. It is worth noting the latest findings (concerning the period from 8-18 March 2002) of the large Flash Eurobarometer survey commissioned by the European Commission and conducted by the companies collaborating with EOS Gallup Europe in all the euro area countries (ICAP in Greece), on a sample of 6,000 consumers (500 in Greece). Specifically, when asked whether they had the impression that during the changeover to the euro, (a) prices were generally rounded upwards, (b) prices were usually rounded downwards, (c) upward and downward price roundings →

1 8% of the firms had applied it since 2000.

2 To have made this adjustment in 2001.

→ offset each other, the answers given were distributed as shown in the table below (compared with the distribution obtained for January 2002).

This survey shows that Greece's performance as regards price rounding does not differ significantly from the euro area average. The countries which registered the highest percentages (in

CONSUMER ESTIMATES FOR PRICE ROUNDING
(Per cent of total)

	Greece		Euro area	
	January	March	January	March
Upward rounding	62.4	75.0	67.3	74.0
Downward rounding	3.2	3.0	1.9	1.0
Counterbalance	29.6	18.0	28.5	23.0
Did not answer	4.8	4.0	2.3	2.0
TOTAL	100.0	100.0	100.0	100.0

March) of upward rounding were the Netherlands (82%), Germany (79%), Ireland (78%) and France (77%). As shown in the table, the percentage of upward rounding (on the basis of answers given) increased from January to March in the euro area as a whole (slightly more in Greece).

2. WAGES AND SALARIES

In 2001 the growth rate of unit labour costs slowed slightly in the economy as a whole and – according to revised estimates based on the most recently available data – fell to 2.9% (from 3.1% in 2000).¹ On the other hand, in the business sector (where labour cost developments affect inflation more directly) the rate of increase in unit labour costs registered a limited acceleration to 2.9% from 2.5% in 2000. The growth rate of unit labour costs in the total economy remains slightly higher in Greece than in the euro area, where it accelerated markedly from 1.1% in 2000 to 2.4% in 2001.

Average gross earnings (pre-tax) in the economy as a whole are estimated to have increased by 5.7% in 2001, compared with 6.5% in 2000. This development mainly reflects the substantial slowdown in the rate of increase in compensation per employee in public enterprises, whereas in the other sectors of the economy the rate of increase in average earnings did not vary markedly in comparison with 2000. Meanwhile, the take-home pay of an average employee (as estimated if income tax and social security contributions are subtracted from gross earnings) increased in real terms by only 0.9%, compared with 5.1%

¹ Unit labour costs are defined here as the ratio of total workers' wages to GDP at constant prices. These estimates differ from those of the NSSG and of the Macroeconomic Analysis Department of the Ministry of Economy and Finance.

in 2000, mainly because the impact of income tax relief in 2001 was much smaller than in 2000.¹

In 2001, the increases in earnings of a significant number of employees in the private sector were determined by the collective two-year agreements signed in 2000. Thus, the number of collective agreements signed in the year 2001 was relatively small.² According to the Ministry of Labour, 263 collective agreements were signed in the course of the year (compared with 297 in 2000) and 40 arbitration decisions were issued by the Mediation and Arbitration Agency (OMED) (compared with 42 in 2000).³

Developments in wages and salaries by category of employees in 2001 were as follows (see Table IV.4):

Under Law 2873/2000, civil servants' basic salaries increased by 2.2% from 1 January 2001, but their total regular salaries rose by 3.5% owing to the increase in certain allowances. According to *ex post* estimates contained in the Introductory Report on the Budget for 2002, total central government outlays for salaries and pensions (excluding health care) increased by 6.9% in 2001 (compared with 8.5% in 2000) while outlays only for salaries grew by 7.9% (compared with 9.0% in 2000). As average annual employment in central government increased by 0.6%,⁴ per capita outlays for salaries rose by 7.2%, i.e. by as much as in 2000 (7.1%).

In public enterprises, according to estimates by the Ministry of the Economy and Finance,⁵ the wage bill increased by 3.2% (compared with 8.9% in 2000), while average annual employment fell by 4.6% (compared with a 4.2% decrease in 2000). Compensation per employee therefore rose by 8.2% compared with 13.7% in 2000. In the major public enterprises two-year collective agreements (2001-2002) were signed, which provided for increases of the order of 4.5% in two equal installments for 2001, as from 1 January and 1 July (and similar increases for 2002).

In banks, the annual branch-level agreement signed on 19 June 2001 provided for an increase of 4.2% as from 1 January 2001. This increase was supplemented by considerable increases granted in accordance with the provisions of the collective agreements at enterprise-level, while in one bank a negative "wage-drift" continued to be recorded (i.e. a decrease in average compensation owing to the departure of a significant number of high-salaried employees after a merger). These developments resulted in a 6.4% increase in total compensation of employees (including employers' social security contributions and other items, while outlays for salaries only increased by 5.4%, according to estimates based on the annual income statements of the largest banks. Given that employment in

1 See Bank of Greece, *Annual Report for the year 2000*, April 2001, page 105, footnote 3.

2 This holds for branch-level and national agreements, while the number of enterprise-level agreements signed in 2001 increased relative to 2000.

3 According to the OMED, the number of arbitration decisions was 43 in 2001 and 49 in 2000.

4 See Chapter III.4.

5 As these estimates no longer include the Telecommunications Company, relevant data have been added for the purpose of comparability.

TABLE IV.4
EARNINGS, UNIT LABOUR COSTS AND PRODUCTIVITY: 1994 - 2000
(Annual percentage changes)

	1994	1995	1996	1997	1998	1999	2000	2001
WHOLE ECONOMY								
– Average gross earnings ¹ (nominal)	13.0	11.9	11.5	10.5	6.3	4.5	6.5	5.7
– Average gross earnings ¹ (real)	1.9	2.8	3.0	4.7	1.4	1.9	3.2	2.2
– Employees' average take-home pay ¹ (nominal)	11.5	10.3	9.7	10.7	5.7	3.6	8.5	4.3
– Employees' average take-home pay ¹ (real)	0.5	1.3	1.4	4.9	0.9	1.0	5.1	0.9
– Total compensation of employees ^{1,2}	13.7	12.6	12.5	10.7	7.7	6.3	7.3	7.1
– Unit labour costs ^{1,3}	11.4	10.3	9.9	6.9	4.2	2.6	3.1	2.9
– Consumer price index ⁴	10.9	8.9	8.2	5.5	4.8	2.6	3.2	3.4
– Gross domestic product ⁵	2.0	2.1	2.4	3.6	3.4	3.6	4.1	4.1
BUSINESS SECTOR ⁶								
– Total compensation of employees ¹	14.7	12.4	10.9	9.4	6.8	6.4	6.7	7.2
– Unit labour costs ¹	12.4	10.1	8.3	5.6	3.3	2.7	2.5	2.9
CIVIL SERVICE ⁷								
– Average gross earnings of employees	9.4	12.3	14.9	13.5	9.2	3.5	7.1	7.2
– Total outlays for salaries and pensions	11.3	13.1	16.4	13.3	9.9	6.1	8.5	6.9
– Total outlays for salaries (excluding pensions)	11.8	13.9	17.8	14.7	8.0	5.7	9.0	7.9
PUBLIC ENTERPRISES								
– Average gross earnings of employees ⁸	18.8	10.9	14.1	11.0	5.7	5.1	13.7	8.2
– Total compensation of employees ⁸	25.3	11.6	12.6	9.7	2.1	3.1	8.9	3.2
– Monthly earnings of white-collar workers in electricity-water supply ⁴	11.0	11.2	14.0	9.9	8.9	...	...	...
– Hourly earnings of blue-collar workers in electricity-water supply ⁴	16.1	15.8	8.7	10.4	11.4	...	...	...
BANKS								
– Average gross earnings of employees ¹	14.4	15.4	13.4	9.7	4.0	13.1	6.8	6.3
– Total outlays for salaries ⁹	20.5	20.0	16.6	10.8	5.9	14.3	9.3	5.3
– Total compensation of employees ⁹	18.2	17.3	16.0	9.8	6.6	12.7	9.4	6.4
– Monthly earnings of employees ^{4,10}	17.5	13.1	12.7	9.4	8.6	...	...	...
NON-BANK PRIVATE SECTOR								
– Minimum earnings ¹¹ (nominal)	12.6	9.4	8.2	8.0	5.4	3.5	4.2	3.5
– Minimum earnings ¹¹ (real)	1.5	0.5	0.0	2.4	0.6	0.9	1.0	0.1
– Average contractual earnings ¹²	12.5	10.1	8.6	8.2	5.7	3.9	4.2	4.2
– Average gross earnings ¹	12.9	11.2	8.8	8.8	5.8	4.4	5.0	5.3
– Total compensation of employees ¹	12.6	12.2	10.2	9.3	7.6	6.5	6.0	7.9
– Hourly earnings of blue-collar workers in manufacturing ⁴	13.1	13.2	8.6	8.9	4.7	4.4*	5.5*	5.5*
– Monthly earnings of white-collar workers in manufacturing ⁴	13.0	13.2	9.4	9.8	5.9	...	...	...
– Output per hour worked (manufacturing) ⁴	3.9	2.0	1.1	4.4	4.4	1.9*	3.2*	2.5*
– Unit labour costs (manufacturing) ⁴	8.7	11.0	7.5	4.4	0.2	2.5*	2.2*	2.9*
– Weekly earnings of blue-collar workers in mining ⁴	15.3	14.0	12.7	12.2	5.2	...	...	...
– Monthly earnings of white-collar workers in mining ⁴	12.9	11.3	11.7	14.3	13.7	...	...	...
– Monthly earnings of employees in retail trade ⁴	13.3	12.8	9.7	12.0	9.6	...	...	...
– Monthly earnings of employees in wholesale trade ⁴	15.3	15.3	9.9	10.5	6.3	...	...	...

1 Bank of Greece estimates.

2 NSSG and Ministry of Economy and Finance estimates on the growth in total compensation of employees (March 2001): 1994: 12.9%, 1995: 15.3%, 1996: 8.8%, 1997: 13.6%, 1998: 10.4%, 1999: 5.2%, 2000: 6.4% and 2001: 7.8%

3 NSSG and Ministry of Economy and Finance estimates on the rate of increase in unit labour costs (as defined by the Ministry of National Economy): 1994: 10.7%, 1995: 11.6%, 1996: 5.9%, 1997: 9.1%, 1998: 6.1%, 1999: 1.0%, 2000: 2.0% and 2001: 1.9%.

4 Calculations based on NSSG survey data.

5 NSSG and Ministry of Economy and Finance estimates (March 2002).

6 The business sector comprises public enterprises, banks and private business firms.

7 Estimates based on data from the Ministry of Economy and Finance and Introductory Reports on the Budget. Data for 1997 have been adjusted to ensure comparability. For the calculation of expenditure growth in 1998, 1999, 2000 and 2001, health care outlays were not counted in.

8 Calculations based on Ministry of Economy and Finance data.

9 Data from annual profit and loss accounts (1994-2001).

10 October-on-October rates of change.

11 National General Collective Labour Agreement.

12 Calculations based on data from collective labour agreements at branch or occupational level.

* Provisional estimates.

the entire banking sector decreased by 0.9%, average gross earnings are estimated to have increased by 6.3% (compared with 6.8% in 2000).

Finally, in the non-bank private sector, in most branches/industries and for the minimum earnings of unskilled workers, two-year collective agreements (2000-2001) had been signed in 2000. According to the National General Collective Agreement minimum earnings were raised by 1.8% as from 1 January 2001 and by 1.5% as from 1 July 2001, while branch-level two-year agreements signed in 2001 provided on average for increases of 2.6% as from 1 January 2001 and 1.3% as from 1 July 2001. The average annual increase in minimum earnings is estimated at 3.5% (compared with 4.2% in 2000) and of sectoral contractual earnings at 4.2% (just as in 2000). The average annual increase in actual earnings in the non-bank private sector is estimated at 5.3%, compared with 5.0% in 2000.

Particularly in manufacturing, it is estimated that the hourly earnings of workers increased by 5.5%, as much as in 2000.¹ The rate of increase in unit labour cost, according to revised data rose to 2.9%, from 2.2% in 2000. This conclusion is based on the estimate that the growth rate of productivity (output per hour of work) in manufacturing decelerated to 2.5% in 2001 from 3.2% in 2000.² Owing to this development, in conjunction with the 0.6% drop in the average annual level of the nominal effective exchange rate³ (compared with 6.2% in 2000), the real exchange rate of the drachma (as estimated on the basis of unit labour cost in manufacturing) fell only slightly in 2001 (by 0.2%, compared with a decrease of 2.0% in 2000), resulting in a slight improvement in competitiveness.

In 2002, the growth rate of unit labour costs in the whole economy will accelerate, but it is estimated that it may remain at a level slightly higher than 3% but lower than 3.5%, while in the euro area it is expected that the corresponding rate will decelerate from 2.5% to 1.8%.⁴ The expected evolution of unit labour costs will reflect mainly the acceleration of the growth rate of average pre-tax earnings, which is estimated to reach slightly higher than 6% (compared with 5.7% in 2001). Specifically, in central government regular salaries will increase by 2.5%-3.2%, while compensation per employee is estimated to increase by

1 It should be recalled that following the expansion and restructuring of sample surveys on earnings, conducted by NSSG, new data are only available for the first quarter of 1999. These data, are not however, comparable with those for the 1961-1998, owing to the difference in definitions and coverage. As a result rates of change cannot be estimated.

2 It is pointed out that, while the growth rate of manufacturing production decelerated from 6.1% in 2000 to 1.5% in 2001, the number of employees in manufacturing increased by 2.1% in 2001, while it had decreased by 0.5% in 2000 (according to a NSSG workforce survey). This development is at first sight paradoxical and leads to the conclusion that output per employee had increased by 6.6% in 2000, while it declined by 0.6% in 2001. It should, however, be taken into account that average weekly hours of work, which are estimated to have increased by 3.3% in 2000, decreased notably since April 2001, owing to the provision of Law 2874/2000 in force, on the basis of which extra work ("over-work") was drastically limited from 8 to 3 hours a week, while its cost, just as the cost of overtime, increased considerably. Based on the assumption that average hours of work decreased by 3% in 2001, it is estimated that employment, measured in total person/hours, which had increased by 2.8% in 2000, decreased by 1.0% in 2001. The estimate for the evolution of output per hour of work is based on this result.

3 See footnote 5 on page 111.

4 See European Commission, *Spring 2002 Forecasts*, April 2002.

around 7%, just as much as in 2001.¹ In the business sector, as shown by the National General Collective Labour Agreement which was signed by the social partners on 26 April 2002,² the average annual increase in minimum earnings will be larger than in the previous year and will come to 5.4% (compared with 3.5% in 2001), as will also the increase in contractual earnings at branch-level (these had increased by 4.2% in 2001). This acceleration reflects, on the one hand, the corrective increase granted as from January 2002³ as well as the fact that recent developments led to a revision of the projections concerning inflation in the current year which were taken into account by the social partners. Collective bargaining at the sectoral or enterprise level is continuing for the employees of public enterprises and banks, as well the non-bank private sector. It is worth pointing out that the acceleration of the growth rate of average earnings in the business sector will be partly offset by the reduction of non-wage labour cost, as a result of the abolition of stamp duties which until end-2001 were calculated on outlays for salaries (0.6%) and were borne by employers in the business sector. The abolition of this charge will reduce the rate of increase in unit labour cost in the business sector by 0.5 of a percentage point in 2002. Besides, the take-home pay of an average employee is estimated to increase by 2% in 2002 in real terms (compared with 0.9% in 2001). It is estimated that the acceleration of the growth rate (by 0.9 of a percentage point) is due to tax cuts included in the package of tax measures announced on 15 November 2001.⁴

3. BUSINESS PROFITS

Data concerning the evolution of profits in 2001 based on annual income statements of all businesses are not yet available. However, the annual income statements of companies listed on the Athens Stock Exchange (ASE) (with the exception of investment companies and banks),⁵ show that total profits (net pre-tax profits), which also reflect losses from stock market transactions, decreased. Operating profits increased in 2001, but

1 The estimate takes into account budgetary projections for outlays for earnings, as well as the act providing for the increases in regular earnings.

2 The agreement, concerning the minimum earnings of unskilled workers, is of a two-year duration and provides for increases of 2.5% as from 1 January 2002, 1.8% as from 1 July 2002 and 3.9% as from 1 January 2003. The corrective increase 1.1% (on the basis of the relevant clause of the previous agreement) has already been granted as from 1 January 2002. According to the new agreement if the average annual inflation exceeds 3.3% in 2002, then as from 1 January 2003 a corrective increase equal to the deviation will be granted, but not larger than 1%.

3 According to two-year (2000-2001) collective agreements, there was no corrective increase to private sector wage earners at the beginning of 2001, but such an increase was to be granted in the beginning of 2002 if average annual inflation in 2001 (on the basis of the CPI) topped 2.3% or 2.5%. So, in effect, the corrective increase of January 2002 was mainly attributable to the rise in fuel prices in the last few months of 2000, the direct and indirect result of which was the faster increase in the average annual level of the CPI in 2001.

4 Mainly the abolition of stamp duty (0.6%) on wage earners' income and the increase in non-taxable limits.

5 Companies listed on the ASE are not fully representative of the total (although they have become more representative than in the past, precisely as a result of the listing of many important companies on the ASE).

less than the value of sales, resulting in a reduction of the operating profit margins of businesses in most industries (including manufacturing), with the exception of firms taking advantage of the excess demand conditions (such as construction companies and those producing building materials).

The reduction of operating profit margins is partly associated with the effort made by Greek firms to retain their share of the domestic market,¹ in the face of mounting competition from imported final products.² Besides, in certain cases, it seems that the considerable increase in sales allowed businesses to realise satisfactory profits, even with a reduced profit margin.

Regarding profits in manufacturing industry, of particular interest is a survey³ conducted by ICAP in cooperation with the Federation of Greek Industries in February and March 2002, on a sample of 300 industrial firms.⁴ According to the survey, in 2001 aggregates per firm evolved as follows:

- In all industries, the value of sales increased by 5.1%, gross profits decreased by 2.0% and pre-tax profits fell by 9.2%.
- If oil-product firms are excluded, the picture is clearly more positive, given that the value of sales grew by 8.9%, while profits also increased (gross profits by 2.4% and pre-tax profits by 2.2%).

Although the fall in profit margins (namely the profits/value of sales ratio) is confirmed in both cases, it is evident that the negative performance of oil-product firms (which is partly linked with the drop in oil prices) adversely affected the aggregates of the whole industrial sector. It is characteristic that, if oil-product firms are excluded, exports (per firm) increased by 5.2%. Because, however, oil-product exports decreased (as shown by the balance of payments statistics of the Bank of Greece), the exports of all industries remained virtually unchanged (+0.3%).

1 These shares were threatened, at least as regards industrial consumer goods, once imports increased faster than the domestic production destined for the domestic market.

2 In 2001 the average annual rate of increase in wholesale prices of imported end products (excluding fuel) was 3.3%, namely lower than the corresponding rate of domestic industrial products (excluding fuel) for home consumption (4.7%).

3 Comprehensive results will be published at the beginning of May.

4 The sample was stratified by branch and size. 273 of the businesses surveyed answered to the questionnaire.

V. MONETARY POLICY AND MONETARY AND CREDIT DEVELOPMENTS IN THE EURO AREA

1. THE SINGLE MONETARY POLICY IN 2001

In 2001, the monetary policy of the Eurosystem¹ faced great challenges, the most important of which was the careful assessment of changing growth prospects in the euro area. In the first four months of the year, the European Central Bank (ECB) kept its key interest rates unchanged, taking into consideration the short-term inflationary pressures resulting from the lagged effects of increases in import prices during 2000, as well as the impact of livestock diseases in some countries. However, between early May and early November 2001, the ECB lowered its key interest rates four times, based on the assessment that monetary developments did not signal risks to price stability in the medium term and that the outlook for a deceleration of inflation had improved. In the last month of 2001, the Governing Council of the ECB did not change its key rates, which were considered to be consistent with price stability in the medium term.

The Governing Council's interest rate decisions aimed at maintaining price stability in the medium term. Price stability has been defined by the ECB as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%. The Eurosystem's assessment of risks to price stability is organised on the two "pillars" of its monetary policy strategy. The first pillar involves the analysis of monetary and credit developments, in particular the growth of broad money (M3)² against a reference value, which for 2001 was set at 4.5% (as was also the case in the previous two years). Under the second pillar, inflation prospects are assessed on the basis of a wide range of economic and financial variables, such as economic activity, wages, the yield curve etc.

As mentioned above, the ECB lowered its key rates four times in 2001 – on 10 May, 30 August, 17 September and 8 November – by a total of 150 basis points.

In the first months of 2001, the key ECB interest rates remained unchanged at the level they had reached after their last increase on 5 October 2000. This increase had been decided in the face of accelerating inflation in the euro area and on the basis of the assessment that risks to price stability in the medium term had not been eliminated, although they had receded. The pickup of inflation at the time had stemmed from various factors,

1 The Eurosystem comprises the ECB and the National Central Banks of those European Union Member States which have adopted the euro (see Glossary).

2 M3 is defined by the Eurosystem as currency in circulation plus outstanding amounts of certain liabilities of euro area monetary financial institutions that have a high degree of "moneyiness" vis-à-vis euro area residents (other than central government), i.e. overnight deposits, deposits with an agreed maturity of up to two years, deposits redeemable at notice of up to three months, repo agreements, money market fund shares/units, money market paper and debt securities with maturities of up to two years.

including increases in unprocessed food prices due to livestock diseases in some countries, the lagged effects of higher oil prices and the depreciation of the exchange rate of the euro in 1999 and 2000 that fed through producer prices.

However, from early May 2001 onwards, there were increasing indications that inflationary pressures were abating and better prospects for a drop in inflation to below 2% prevailed. At the same time, economic growth decelerated considerably, while wage moderation continued. Against this background, the Governing Council at its meeting on 10 May 2001 decided to lower the key ECB interest rates by 25 basis points and, as a result, the minimum bid rate on the main refinancing operations came to 4.5% (see Chart II.8 and Table V.1). Furthermore, the Governing Council assessed that monetary developments did not signal risks to price stability in the medium term, as the three-month moving average of the annual growth rate¹ of M3 for the January-March period (4.8%²) was quite close to the reference value. Additionally, in the context of the first pillar, the deceleration of credit expansion was also taken into consideration.

It should be noted that up to May 2001 the Governing Council focused on M3 data that were partly distorted upwards by non-euro area residents' purchases of negotiable instruments issued by Monetary Financial Institutions (MFIs), i.e. money market fund units, money market paper and securities maturing in up to two years. The Governing Council repeatedly stressed the need to eliminate such distortions. As from its meeting on 7 June 2001, the Governing Council started making clear reference to M3 corrected for non-euro area residents' holdings of money market fund shares/units and stressed the need for further adjustment that would also take into account their holdings of money market paper and securities with a maturity of up to two years. Starting from its meeting on 6 December, the Governing Council now refers to M3 corrected for all marketable instruments held by non-euro area residents.

On 30 August 2001, the ECB lowered its key interest rates by another 25 basis points. As a result the minimum bid rate on the main refinancing operations came to 4.25%. The M3 growth rate continued to accelerate (the three-month moving average of its annual growth rate reached 5.9%³ for the May-July period), but the Governing Council did not interpret this development as posing risks to price stability. Rather, it considered this acceleration to be temporary and attributable to the narrowing of yield spread between long-term securities and short-term assets included in M3, which led to the relative flattening of the yield curve and encouraged investors' shift to deposits and

1 The annual rate of change in a monetary aggregate for a given month is defined as the percentage change in its outstanding balance in the twelve months ending in that month. The ECB monitors the average of the annual rate of change for three consecutive months.

2 In making this assessment, the ECB took into consideration evidence of increased holdings of marketable instruments by non-euro area residents. These holdings lead to an increase in M3 but do not affect aggregate demand in the euro area. The M3 growth rate was later revised to 3.8%, corrected for non-residents' holdings of money market fund shares/units, money market paper and debt securities with a maturity of up to two years issued by MFIs.

3 Corrected for non-residents' holdings of money market fund shares/units. Corrected also for non-residents' holdings of money market paper and debt securities issued with a maturity of up to two years, this figure was revised to 5.2%.

short-term securities. The accelerated growth of M3 was also seen as a consequence of the increased need for transaction balances, owing to previous rises in energy and food prices. Furthermore, the continuing decline in stock prices and the higher uncertainty in stock markets made short-term deposits and marketable instruments included in M3 relatively more attractive. Besides, the annual rate of credit expansion to the private sector, although it remained relatively high, continued to moderate (September 2000: 10.9%, July 2001: 8.1%) in the months prior to the ECB's decision to lower its key interest rates.

In its analysis of economic developments under the second pillar, the Governing Council took into consideration the deceleration of inflation observed since June 2001. The decline in inflationary pressures was mainly attributable to the economic slowdown in the euro area and the rest of the world. Specifically, it was noted that external demand

TABLE V.1
ADJUSTMENT OF KEY ECB INTEREST RATES
(Percentages per annum)

Date of interest rate change ¹	Deposit facility	Main refinancing operations	Marginal lending facility
1 Sept. 2000	3.50	4.50	5.50
6 Oct. 2000	3.75	4.75	5.75
11 May 2001	3.50	4.50	5.50
31 Aug. 2001	3.25	4.25	5.25
18 Sept. 2001	2.75	3.75	4.75
9 Nov. 2001	2.25	3.25	4.25

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

Source: ECB.

turned out to be lower than expected, owing to weak growth in the United States, the ongoing worsening of the Japanese economy and the appreciation of the euro (in the July-September 2001 period). Additional factors that contributed to reducing domestic inflationary pressures in the first months of 2001 were the slower growth of private consumption and continued wage moderation.

The terrorist attacks of 11 September 2001 constituted a major shock to consumer and business confidence and put the smooth functioning of financial markets at risk. On 12 September, with a view to limiting the impact of the attacks and restoring normal conditions in euro area financial markets, the Eurosystem conducted open market operations, whereby it injected liquidity into the banking system. In addition, through a 30-day foreign exchange swap agreement with the US Federal Reserve, the Eurosystem helped European banks to meet their immediate liquidity needs in US dollars.

In response to the exceptional circumstances following the events of 11 September, the Governing Council also decided, on 17 September, to reduce¹ the key ECB interest rates by 50 basis points, and the minimum bid rate on main refinancing operations was set at 3.75%. The terrorist attacks increased uncertainty worldwide, which, combined with the global economic slowdown, had negative repercussions on consumer and business confidence and on the recovery prospects of the European economy. Concomitantly, as the effects of previous increases in energy and food prices lessened, inflationary pressures declined further, supporting wage moderation.

Regarding the first pillar, the continuing acceleration of M3 was attributed to massive shifts from equity and related assets to short-term assets included in M3, as a result of increased uncertainty in financial markets and the flattening of the yield curve. The Governing Council assessed that this acceleration was rather temporary and did not imply inflationary pressures in future. This assessment was also supported by the continuing deceleration of credit expansion to the private sector.

At its meeting on 8 November, the Governing Council decided to lower the key ECB interest rates, for the last time in 2001, by 50 basis points. Thus, the minimum bid rate on the main refinancing operations was set at 3.25% and the rates on the marginal lending facility and the deposit facility at 4.25% and 2.25% respectively. Furthermore, it was estimated that the objective of price stability would be attained in 2002. Finally, the Governing Council decided that it would henceforth – as a rule – examine monetary developments and take monetary policy decisions only at its first meeting of each month. However, it can still decide to change the key ECB interest rates whenever necessary.

At its meeting on 6 December 2001, in the context of the monetary policy strategy of the Eurosystem, the Governing Council set the reference value for M3 growth in 2002 at 4.5%, i.e. the same as in the preceding three years. This decision was based on ECB's definition of price stability (i.e. an annual inflation rate of below 2%) and on unchanged assumptions for trend potential output growth of 2-2.5% per annum and a trend decline in M3 income velocity² of 0.5-1% per annum. Regarding the first assumption, the Governing Council estimated that the structural reforms undertaken so far were not sufficient to bring about lasting increases in productivity in the euro area that would warrant an upward revision of the former assumption. Provided that such reforms are stepped up, along with a more widespread use of new technologies, there would be much room for an acceleration of the rate of increase in productivity and potential output in the euro area. Regarding the assumption about the trend decline in M3 income velocity, it should be noted that a simple trend estimate suggests that the historical decline is at or close to 1% per annum. However, as interest rates and inflation cannot demonstrate any further considerable drop in the euro area, it is reasonable to assume that the upward trend in

1 The US Federal Reserve made a similar decision on that same day, lowering its target rate for federal funds by 50 basis points to 3%.

2 Income velocity of money is defined as the ratio of nominal GDP to money stock.

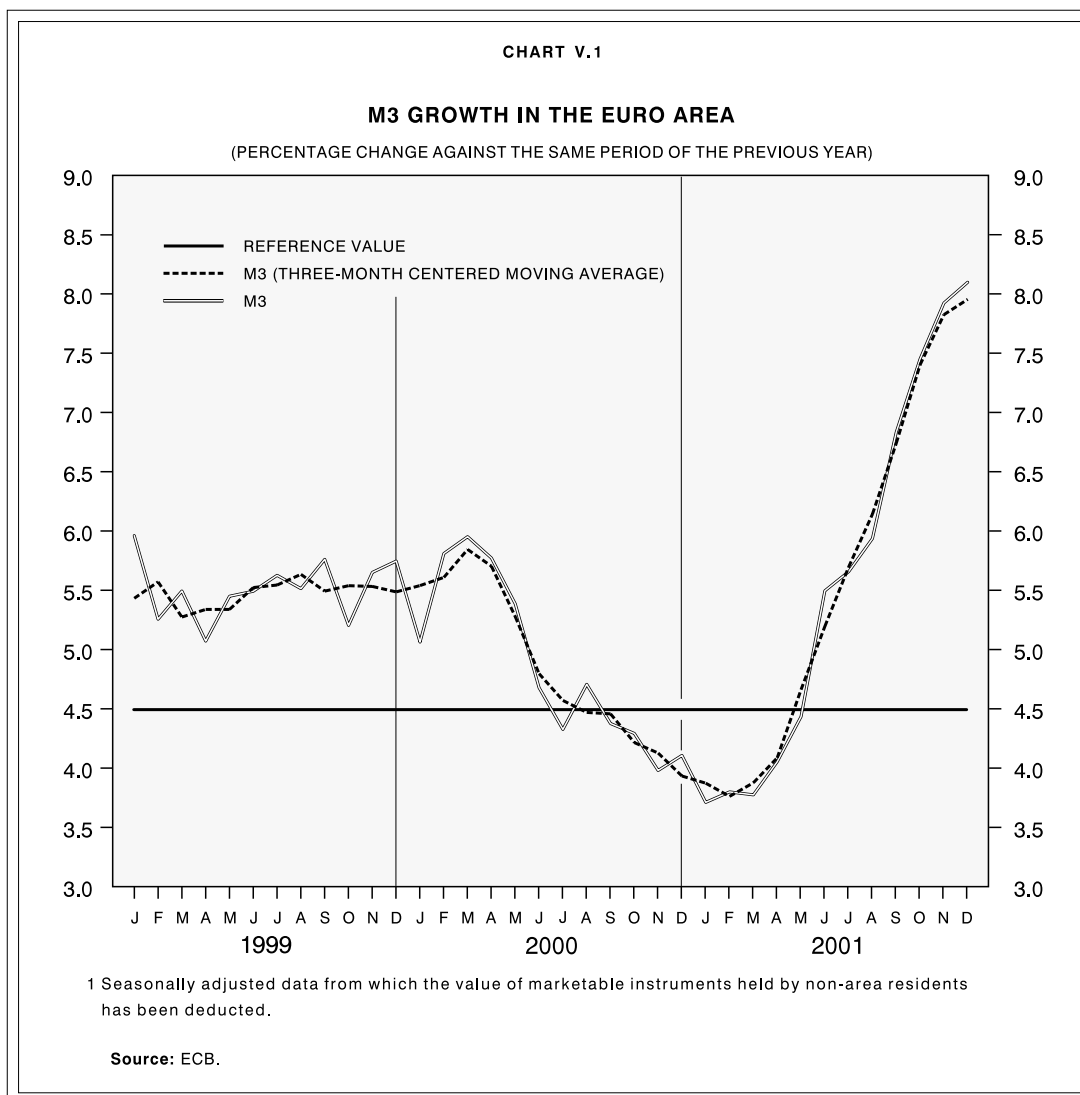
demand for money in relation to GDP observed in past years should not continue at the same pace. On the occasion of its regular review of the reference value for M3 growth, the Governing Council recalled that the announcement of this value does not imply any commitment on the part of the Eurosystem to mechanically correcting deviations of monetary growth from the reference value. Rather, the reference value is a medium-term concept and short-run movements do not necessarily imply inflationary effects. Any deviation of the three-month average of the annual rates of M3 growth from the reference value should induce a more thorough analysis of current economic conditions and of risks to price stability.

At its meeting on 6 December 2001, as well as at its subsequent meetings up to mid-April 2002, the Governing Council did not change the key ECB interest rates. Having examined the data available from the two pillars of its monetary policy strategy, the Governing Council assessed that the current level of key ECB rates was appropriate for the maintenance of price stability over the medium term. At its meeting on 4 April 2002, the Governing Council concluded that the relatively strong growth of M3 (the three-month average of the annual growth rates in the December 2001-February 2002 period stood at 7.8%) continued to reflect the portfolio shifts to more liquid assets observed in autumn 2001, amid heightened uncertainty in financial markets. Yet, the moderation of M3 growth confirmed that monetary developments did not imply inflationary risks, since they were accompanied by a continued weakening of credit expansion to the private sector (its average annual rate fell to 6% in February 2002, from 9.7% in February 2001). However, as uncertainty would subside and economic activity would gradually start recovering in the euro area, the ECB would closely monitor the evolution of M3, in order to assess in time whether excess liquidity could constitute a risk to price stability.

On the other hand, recent statistical data suggest that the slowdown in economic activity may have ceased at the end of 2001, while there are favourable prospects for recovery in 2002, as a reversal of the past inventory drawdown is under way, disposable income is recovering owing to low inflation and financing conditions are improving, reflecting lower uncertainty. Furthermore, the expected upturn in world economic activity should support external demand and economic growth in the euro area. In early 2002, the annual rate of inflation was higher than expected, reflecting the substantial past increases in oil prices, but was not substantially affected by the euro cash changeover on 1 January 2002, thanks to competition, the vigilance of consumers and the commitment of governments not to raise the average level of administrative prices. However, inflation is projected to resume a downward path and drop to below 2% later in the year, with positive effects on disposable income and domestic demand. The Governing Council stresses the importance of wage moderation, in order to contain upward pressures on prices and foster employment growth. Finally, the ECB states that it is vital that euro area Member States adhere to their commitment to achieving balanced budgets by 2003-4, with a view to ensuring non-inflationary economic growth.

2. THE EVOLUTION OF M3 AND ITS COMPONENTS

The annual growth rate of M3 averaged 5.5% in 2001, compared with 4.9% in 2000. After a substantial slowdown between March 2000 and January 2001, M3¹ growth accelerated significantly in the course of the year, from 3.7% in January to 7.6% in the



fourth quarter of 2001 (see Chart V.1 and Table V.2). Since May,² the three-month moving average of the annual growth rates of M3 has remained above the reference value of

1 This figure refers to M3 corrected for non-euro area residents' holdings of money market fund shares/units, money market paper and debt securities of up to two years' maturity issued by euro area MFIs.

2 The three-month moving average of the annual growth rate for May is derived from the average of the annual growth rates in April, May and June.

4.5%. The acceleration of M3 can be partly seen as a gradual adjustment of M3 to its medium-term desired level (in real¹ terms), following the subdued monetary growth at the end of 2000 and the beginning of 2001. It also reflects increased needs of economic agents for transaction balances, owing to higher energy and food prices. Furthermore, the relative flat yield curve (i.e. the narrow spread between long- and short-term interest rates) encouraged shifts from longer-term assets to short-term securities through August. Thereafter, the narrowing of the spread between the interest rate on short-term assets not included in M3 and the weighted yield of M3 components led to increased demand for money, in spite of the gradual steepening of the yield curve. Finally, the uncertainty that prevailed in stock markets after the events of 11 September strengthened demand for low-risk assets included in M3, such as deposits and marketable instruments.

However, as uncertainty began to subside in December and the slope of the yield curve continued to increase, investors shifted back away from M3 components. This dampened the annual growth rate of M3 from 8.1% in December 2001 to 7.4% in February 2002.

The annual growth rate of M1,² after a slowdown in the first quarter of 2001 (2.5%) relative to the fourth quarter of 2000 (5.7%), resumed its upward path after the second quarter of 2001 to stand at 5.4% in the last quarter (see Table V.2). This development reflected an acceleration in overnight (retail) deposits,³ which more than offset the weaker growth of currency in circulation. The slowdown in currency in circulation reflected the fact that households and businesses (including non-euro area residents) held lower amounts of cash in legacy currencies, with a view to minimising the cost of exchange with euro cash as from 1 January 2002, and deposited any cash surpluses with banks. These deposits, in conjunction with the high volatility of stock prices, led to an acceleration of the rate of increase in overnight deposits, which are used by investors as an instrument for temporarily “parking” money resulting from the liquidation of shares or intended for the purchase of shares. However, in December 2001 currency in circulation recorded a steep drop of 32.3% year-on-year, which was not offset by an increase of 13% in overnight deposits. As a result, the growth of M1 stood at 5.4% in that month. The downward trend in currency in circulation moderated when the dual circulation period started in January 2002, which required higher cash holdings, especially by retailers. Thus, the annual growth rate of M1 rose to 6.4% in that month. This acceleration was also due to the fact that, although euro banknotes and coins would only be legal tender as from January 2002, in

1 The medium-term equilibrium real level of money stock denotes the level that nominal M3 would have reached, if it had increased at an annual rate equal to the reference value (4.5%) since December 1998 and if the price index by which nominal M3 is deflated had risen at an annual rate consistent with the definition of price stability (see ECB, Monthly Bulletin, May 2001). Furthermore, there is strong evidence that M3 growth in 2001 can be interpreted as a convergence to the desired level, even if the latter is determined as a projection from econometric functions of money demand, where the independent variables (GDP, interest rates, price level) are based on their historical values.

2 M1 comprises currency in circulation and overnight deposits.

3 This category includes those sight deposits that are fully transferable (e.g. through cheques), as well as non-transferable deposits that can be converted into cash upon demand or by the end of the next working day.

some cases sub-frontloaded banknotes and coins were debited to the accounts of economic agents as early as in December 2001, while additional cash was spent by consumers in December for the purchase of starter kits. In February, the growth rate of M1 fell to 6%.

The annual rate of increase in other short-term deposits, which constitute the bulk of M3¹ (in fact, the balance between M2 and M1), picked up gradually and stood at 5.8% in the fourth quarter of 2001, compared with 2.2% in the corresponding quarter of 2000.

TABLE V.2
COMPONENTS OF M3 IN THE EURO AREA
(Annual percentage change; seasonally adjusted data, unless otherwise indicated, quarterly averages²)

	2000		2001			
	Q ₄	Q ₁	Q ₂	Q ₃	Q ₄	December
M1	5.7	2.5	2.5	3.8	5.4	5.4
Currency in circulation, M0	1.9	-1.2	-3.2	-7.5	-18.5	-32.3
Overnight deposits	6.4	3.4	3.7	6.1	10.3	13.0
Other short-term deposits (=M2-M1)	2.2	3.4	4.4	4.9	5.8	7.2
Deposits with an agreed maturity of up to two years ³	12.6	15.3	13.9	10.9	6.9	6.1
Deposits redeemable at notice of up to three months ³	-4.9	-4.7	-2.6	0.5	5.0	7.6
M2	3.8	3.0	3.5	4.4	5.7	6.3
Marketable instruments (=M3-M2)	6.5	9.4	10.3	16.3	20.9	19.7
Repurchase agreements ³	10.3	20.7	15.5	20.5	19.7	12.8
Money market fund shares/units ^{3,4}	1.8	5.4	11.2	20.5	30.1	34.0
Money market paper and debt securities with a maturity of up to two years ^{3,4}	12.1	6.3	1.3	1.3	2.6	-1.6
M3	4.2	3.8	4.4	5.9	7.6	8.1

1 Annual rate of change in the respective index, which is calculated on the basis of the balance of the relevant aggregate in December 1998 and the accumulated monthly flows, corrected for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

2 The quarterly average is derived from the arithmetic mean of the average monthly rates (calculated as the average of the two monthly rates at the end of the reference month and the end of the previous month) and is not the average of the monthly rates at the end of each of the three months.

3 Not seasonally adjusted data.

4 Adjusted for non-euro area residents' holdings.

Source: ECB.

This acceleration stemmed mainly from the stronger growth of deposits redeemable at notice of up to three months² (Q4 2001: 5%, Q4 2000: -4.9%), which more than offset the weaker growth of deposits with an agreed maturity of up to two years (Q4 2001: 6.9%, Q4

1 At end-2001, currency in circulation represented 4% of total M3, overnight deposits 37%, deposits redeemable at notice of up to three months 25%, deposits with an agreed maturity of up to two years 20% and marketable instruments 14%.

2 These are short-term savings deposits for which the holder must respect a period of notice of up to three months before withdrawing the funds.

2000: 12.6%). These developments reflected the narrowing of the positive yield spread of deposits with an agreed maturity of up to two years over deposits redeemable at notice of up to three months, as the interest rates on the former instrument followed more closely the gradual decline in money market rates in the course of 2001. However, in January 2002, the annual growth rate of other short-term deposits started to slow down, in line with the noticeable deceleration in the growth rate of deposits with an agreed maturity of up to two years, and stood at 6.4% in February 2002.

The annual growth rate of marketable instruments increased considerably in 2001 (Q4 2001: 20.9%, Q4 2000: 6.5%). The large shifts into marketable instruments were due to the fact that, although they entail low risk, their remuneration was comparatively high, considering the downturn in global stock markets and the relatively flat yield curve for most of 2001. However, from December 2001 onwards, as uncertainty subsided and the yield curve continued to steepen, the annual growth rate of marketable instruments began to decelerate and fell to 14.8% in February 2002.

3. THE COUNTERPARTS OF M3

Among the counterparts of M3, credit expansion to the private sector weakened to 6.9% in the fourth quarter of 2001 from 10.4% in the corresponding quarter of 2000, but it remained strong (see Table V.3). The economic slowdown and worsening business and consumer confidence in the course of 2001, together with the lagged impact of higher lending rates in particular for business loans in 2000, resulted in a deceleration of credit expansion to the private sector. A deceleration was also recorded in bank loans to non-financial corporations, partly because of the increased recourse of firms to the issuance of securities rather than to bank loans and partly because of a base effect, given that in 2000 special factors, such as the financing of mergers and acquisitions and purchases of mobile telephony licences had led to a considerable increase in the outstanding balance of loans. Specifically, the annual growth rate of loans to non-financial corporations fell to 6.3% in the fourth quarter of 2001, from 10.9% in the corresponding quarter of 2000. The annual rate of increase in consumer credit slowed down to 3.7% in the fourth quarter of 2001 from 7.8% in the fourth quarter of 2000, while the respective rate for housing loans dropped from 8.6% to 6.6%, reflecting the relative sluggishness in real estate markets in some euro area countries. The slowdown of credit expansion to the private sector continued into early 2002, to stand at 6% in February.

The annual rate of change in credit to general government accelerated considerably in the course of 2001 (Q4 2001: -0.5%, Q4 2000: -7%), reflecting an increase in the public sector borrowing requirement. Economic slowdown in the euro area implied lower revenues and higher expenditure for general government, and dampened the effect on revenue from the sale of UMTS licences. The annual rate of change in credit to general government turned positive in December 2001 and stood at 2.2% in February 2002.

The annual growth rate of longer-term financial liabilities¹ of the MFI sector dropped from 6.0% in the fourth quarter of 2000 to 2.6% in the third quarter of 2001, owing to private portfolio reallocations into shorter-term assets included in M3 and to the relatively flat yield curve during that period. However, in the last quarter of 2001, the annual rate of increase in this aggregate reached 3.2%, reflecting the gradual reduction in financial market uncertainty and the steepening of the yield curve following the declines in short-term interest rates (see below, Section 6). This rebound continued into the first months of 2002 and the rate of increase in MFI's longer-term financial liabilities came to 4.6% in February 2002.

TABLE V.3
COUNTERPARTS OF M3 IN THE EURO AREA
(Annual percentage change; not seasonally adjusted data; quarterly averages²)

	2000		2001			
	Q ₄	Q ₁	Q ₂	Q ₃	Q ₄	December
Longer-term financial liabilities	6.0	4.5	3.8	2.6	3.2	4.6
Deposits with an agreed maturity of over 2 years	0.9	-0.1	-0.1	-0.4	-0.2	-0.3
Deposits redeemable at notice of over 3 months	10.9	12.2	8.2	1.2	-5.7	-8.5
Debt securities with an agreed maturity of over 2 years	5.2	6.3	5.2	4.3	5.8	7.2
Capital and reserves	14.2	6.9	6.1	3.9	4.3	8.5
Credit to euro area residents	6.0	5.6	5.4	5.6	5.2	5.3
Credit to general government	-7.0	-7.4	-5.3	-1.9	-0.5	0.1
Securities (other than shares)	-10.5	-12.3	-8.2	-2.3	-0.5	1.0
Loans	-1.9	-0.1	-1.3	-1.4	-0.8	-1.1
Credit to other euro area residents	10.4	9.8	8.8	7.8	6.9	6.8
Securities (other than shares)	17.8	18.7	23.4	24.3	24.0	23.8
Shares and other equity	17.6	13.7	8.0	4.5	3.1	5.9
Loans	9.6	9.1	8.2	7.4	6.5	6.1

1 Annual rate of change in the respective index, which is calculated on the basis of the balance of the relevant aggregate in December 1998 and the accumulated monthly flows, corrected for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

2 The quarterly average is derived from the arithmetic mean of the average monthly rates (calculated as the average of the two monthly rates at the end of the reference month and the end of the previous month) and is not the average of the monthly rates at the end of each of the three months.

Source: ECB.

In the first five months of 2001, both the direct investment account and the portfolio investment account of the euro area recorded net outflows, mainly to the United States. As a result, the net external position of the euro area MFI sector was negative. However, from June through November 2001 this trend was reversed, owing to a decline in residents' purchases of foreign equity and the liquidation of past equity investments by euro area residents. This development was associated with the stronger reduction in US short-term interest rates relative to the respective euro area rates and to portfolio shifts

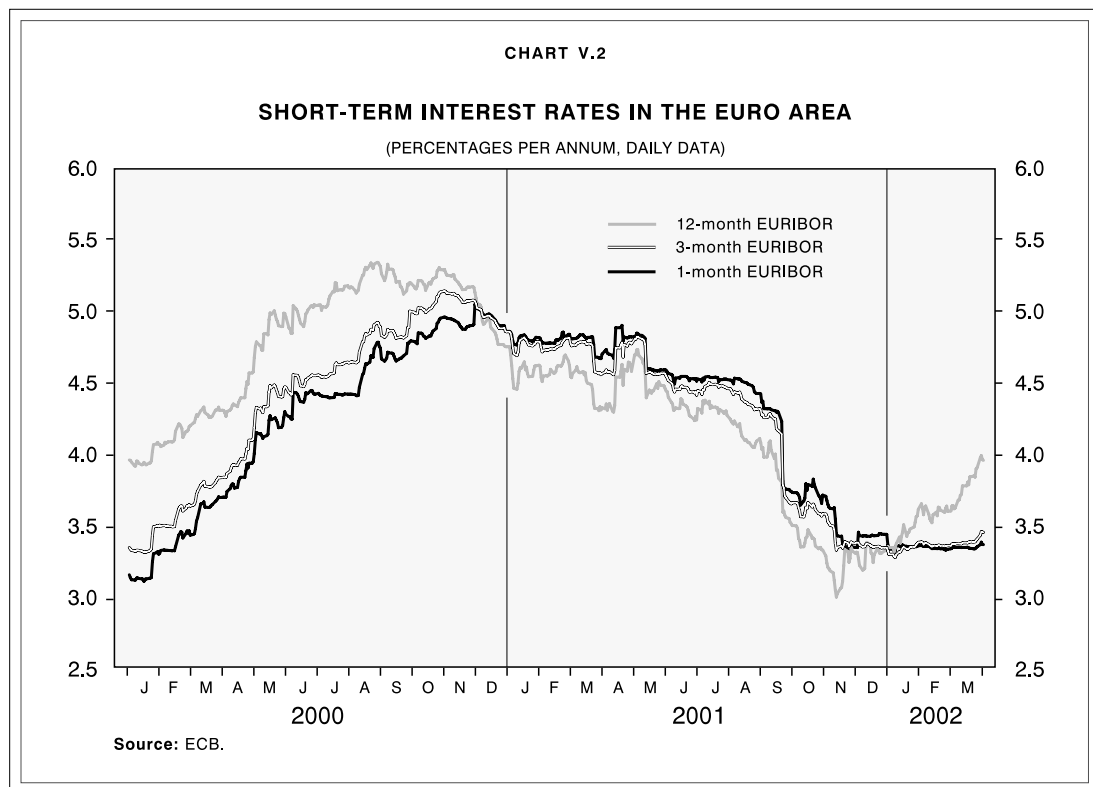
1 These comprise deposits with an agreed maturity of more than two years, deposits redeemable at notice of more than three months, debt securities of more than two years and MFI's capital and reserves.

from equity to assets included in M3 (as already mentioned). Thus, the net external position of euro area MFIs improved by €1 billion in the course of 2001.

To sum up, the growth of M3 in 2001 can be attributed both to the slowdown of the rate of increase in longer-term financial liabilities of MFIs, owing to portfolio restructuring, and to the improvement in their net external position. This corroborates the assessment that the overshooting of the reference value (4.5%) for M3 growth does not imply immediate risks to price stability.

4. MONEY MARKET INTEREST RATES

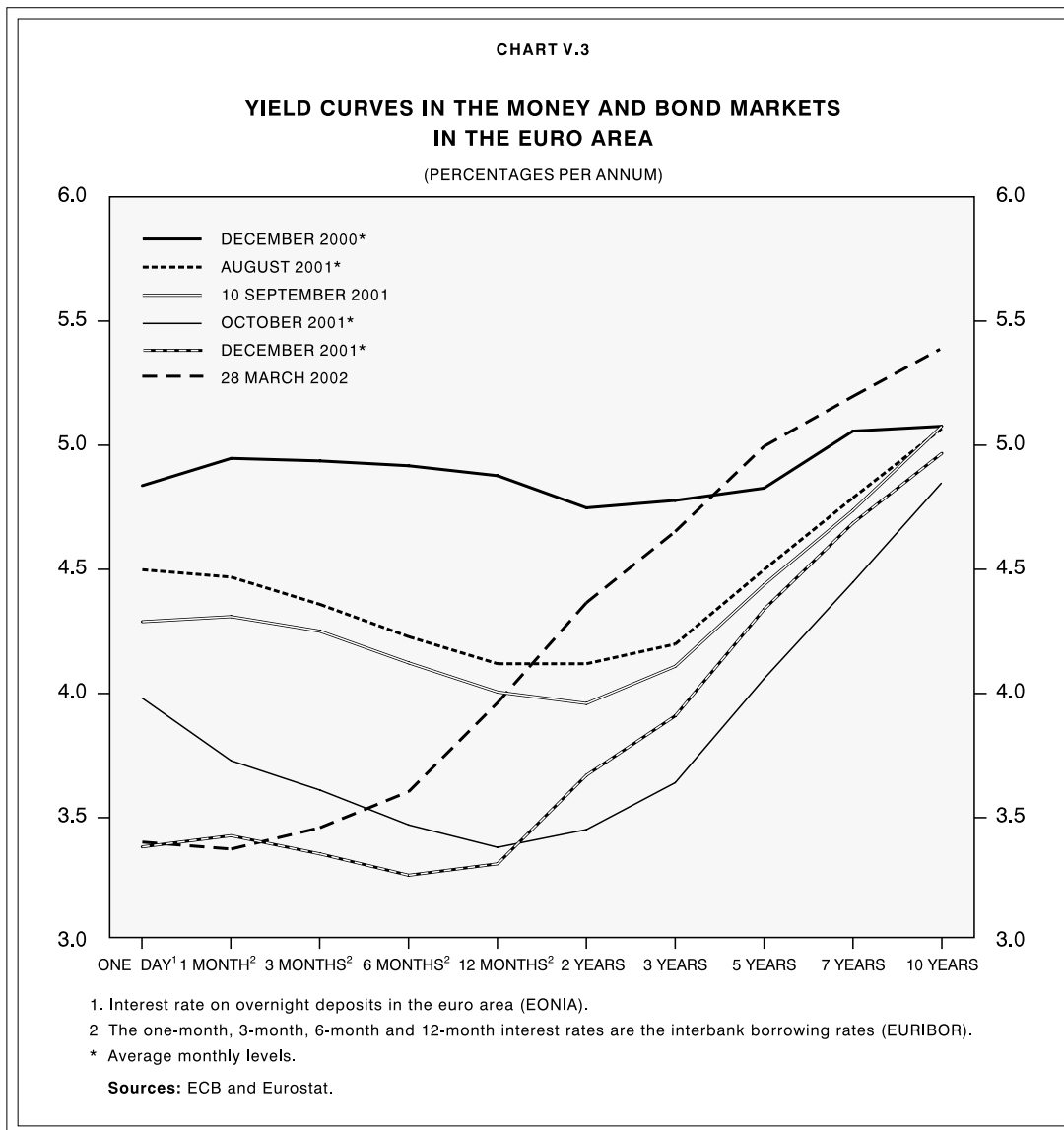
The reduction of key ECB interest rates by a total of 150 basis points in 2001 had an impact on the interest rates prevailing in the single money market of the euro area, which broadly followed a downward path during the year (see Chart V.2).



In 2001, the overnight interest rate, as measured by the EONIA,¹ mirrored the path of the minimum bid rate in the main refinancing operations of the Eurosystem. More

¹ The EONIA (Euro OverNight Index Average) is calculated by the ECB as the weighted average of the interest rates of a representative sample of banks for overnight uncollateralised transactions in the interbank market.

specifically, the EONIA declined by a total of 149 basis points and averaged 3.34% in December 2001 (see Chart II.8). At the beginning of the day following the terrorist attacks, the EONIA rose temporarily above the minimum bid rate. However, on that same day the Eurosystem conducted fine tuning operations and restored normal market condi-



tions. The EONIA diverged considerably from the minimum bid rate at the end of each reserve maintenance period and, additionally, at the turn of the year (28 December 2001: 3.91%), in response to increased demand for liquid assets by financial institutions. In early January 2002, there was a shortage of liquidity, owing to increased demand for euro banknotes and slower than expected withdrawal of national banknotes. Once more, the

Eurosystem conducted liquidity-providing fine tuning operations, and conditions in the interbank market came back to normal: the EONIA gradually declined and stabilised slightly above the minimum bid rate in main refinancing operations (March 2002: 3.26%).

EURIBOR rates at all maturities followed a downward trend in the course of 2001. The three-month EURIBOR, which is representative of short-term interest rates in the money market, dropped by 159 basis points between December 2000 and December 2001, to stand at 3.34% on average in December 2001 (see Chart V.2). In January 2002, it stabilised and rose marginally in the following months. At longer maturities, EURIBOR rates declined more and thus the spread between the 12-month and the one-month EURIBOR, as reflected in the slope of the money market yield curve, turned negative already from the beginning of 2001 and averaged -12 basis points in December (see Chart V.3). Later on, the declining trend of longer-term rates was reversed and since January 2002 the yield curve has had an upward slope (average spread between the 12-month and the one-month EURIBOR in March 2002: 47 basis points).

Developments in money market rates were driven by decisions on the key ECB rates, as well as by market expectations about the evolution of short-term interest rates, which, in turn, are linked to inflation prospects.¹ Forward interest rates in the euro area money market suggest expectations of higher, yet less volatile, interest rates in the course of 2002.

5. RETAIL BANK INTEREST RATES

Short-term retail bank interest rates declined throughout 2001. In particular, the interest rate on overnight deposits dropped by 27 basis points to 0.74% in December, while the interest rate on deposits redeemable at notice of up to three months fell by 32 basis points and stood at 2.17% in December. Similarly, the average short-term lending rate to enterprises declined by 94 basis points in 2001 (December 2001: 6.24%). This decline is considerably smaller than that of interbank rates (the 3-month EURIBOR dropped by 159 basis points over the same period), which may be due to an increase in credit risk associated with the general economic downturn in 2001.

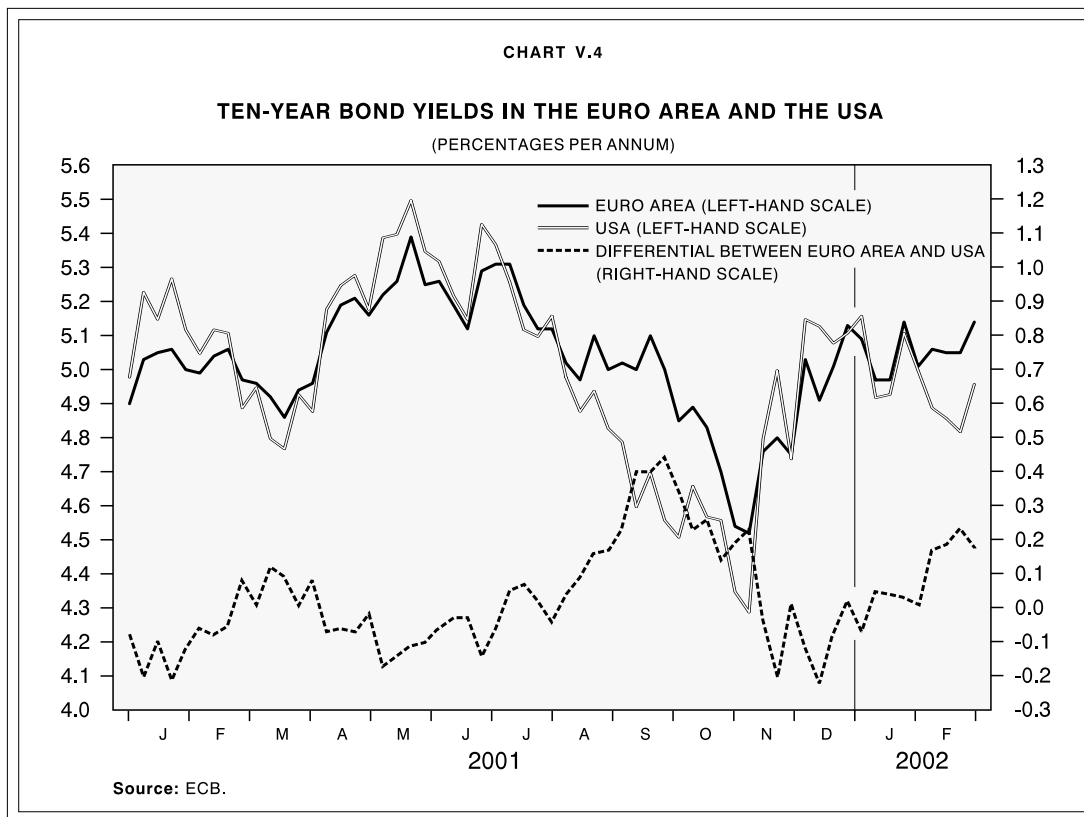
Long-term retail bank interest rates also declined in the course of 2001, in line with the decline of the yields of medium-term government bonds, the five-year bond in particular. The average interest rate for deposits with an agreed maturity of more than two years dropped by 81 basis points in the course of the year and came to 3.77% in December 2001. The average interest rate for housing loans declined by 91 basis points during the same period, standing at 5.52% in December, while the average interest rate for consumer loans

¹ For example, the 3-month EURIBOR and other short-term interest rates decreased markedly in the September-November 2001 period. This reflected large downward revisions of expectations about the evolution of money market rates after the terrorist attacks of 11 September in the United States.

dropped by 38 basis points to 9.81% in December 2001. However, from December 2001 onwards, this downward trend seemed to be reversed, reflecting a similar pattern in the yields on medium-term government bonds.

6. YIELDS ON LONG-TERM GOVERNMENT BONDS

The average monthly yield on euro area government bonds broadly followed a declining path between January and November 2001 (for the 10-year maturity, December 2000: 5.07%, November 2001: 4.67%). This development is mainly associated with the economic slowdown, as well as with investors' shift to bonds in the face of unfavourable



conditions in the stock markets. The yields on comparable US bonds moved in the same direction, but exhibited more intense changes. Hence, the 10-year bond yield spread between the United States and the euro area fluctuated in the course of the year, reflecting revisions of market expectations about the euro area growth outlook relative to the United States. In particular, this spread, after being generally negative in the first half of 2001 (December 2000: -16 basis points), turned positive in mid-July and came to 6 basis points in November (see Chart V.4).

Later on, long-term bond yields in the euro area began to increase and the average 10-year bond yield reached 5.32% in March 2002, up from 4.67% in November 2001. This increase was due to the recent partial reversal of portfolio shifts from equity to bonds, as the market, after the initial response to the events of 11 September, came back to normal and the outlook for global economic recovery improved. The decline in the average yield on 10-year US bonds was also reversed, albeit at a slower pace, and the spread over comparable euro area bond yields was generally in favour of the latter, reaching 4 basis points in March 2002.

The slope of the yield curve, as measured by the difference between the 10-year government bond yield and the 3-month EURIBOR rate, increased significantly in the course of 2001 (see Chart V.3); from 14 basis points in December 2000, it came to 162 basis points in December 2001 and to 193 basis points in March 2002. The slope of the long-term yield curve and the implied future level of short-term rates reflect stronger expectations of economic recovery and higher interest rates during 2002.

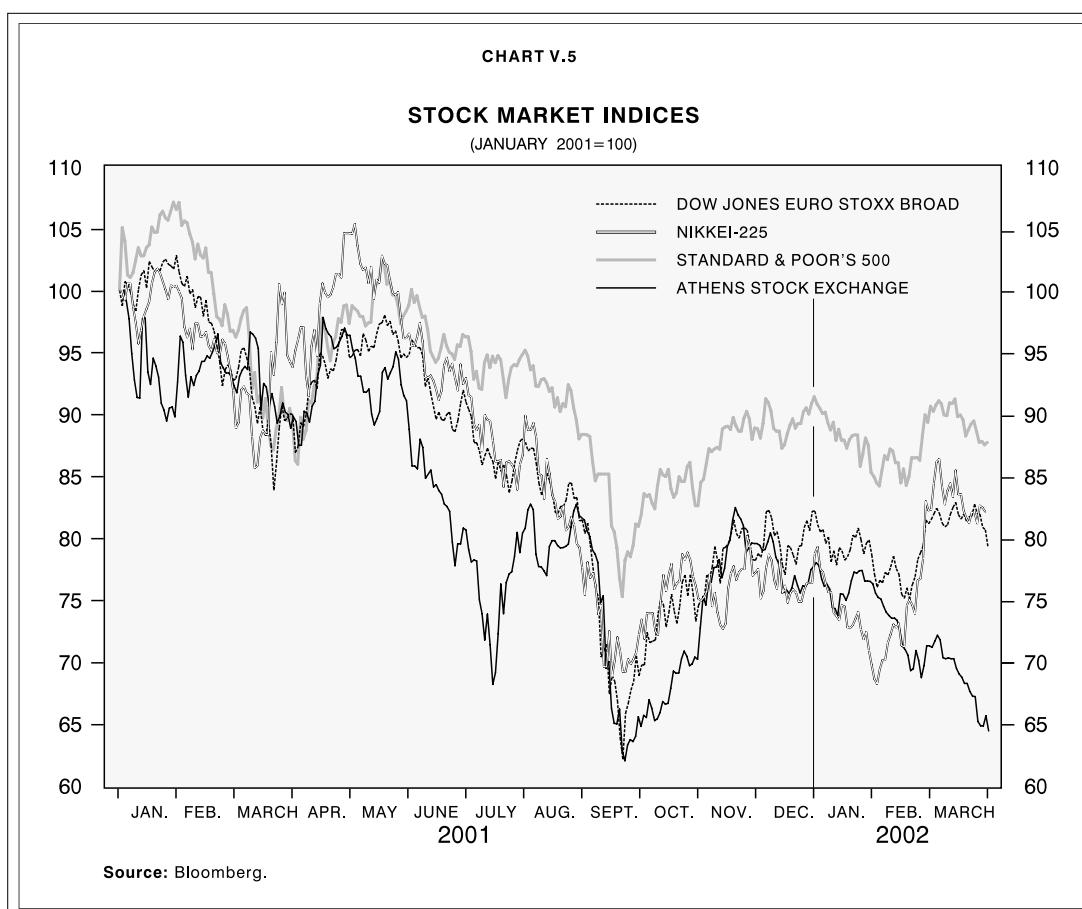
7. ISSUANCE OF BONDS AND OTHER DEBT SECURITIES

The net issuance of euro-denominated debt securities by banks and other MFIs in the euro area grew by 5.6% year-on-year in the fourth quarter of 2001, compared to 7.5% in the fourth quarter of 2000. This deceleration was due to lower demand for credit by the private non-financial sector and to an increase in deposits with MFIs, against the background of economic slowdown and heightened uncertainty in the aftermath of 11 September 2001. The annual rate of increase in securities issued by non-financial corporations moderated to 18.6% in the fourth quarter of 2001 from 18.9% in the respective quarter of 2000, but remained strong. This strength reflects the restructuring of the corporate sector, lower corporate earnings and lower fund-raising from the stock markets, as a result of uncertainty and high stock price volatility, as well as the deepening of the capital market following the introduction of the euro. On the other hand, the annual growth of debt securities issuance by the general government in the euro area accelerated from 2.9% in the fourth quarter of 2000 to 3.3% in the fourth quarter of 2001, owing to increased public sector borrowing requirements.

8. STOCK MARKET DEVELOPMENTS

Except for the April-May period and the last quarter of 2001, stock prices in the euro area followed a downward course (see Chart V.5). The decline was most pronounced in the technology and telecommunications sectors. The Dow Jones EURO STOXX broad index, which comprises a wide range of euro area stocks, dropped by 19.7% between end-

December 2000 and end-December 2001, reflecting the global economic slowdown and downward revisions of expected corporate earnings. Telecommunications companies, in particular, incurred increased liabilities owing to the purchase of UMTS licences in 2000 and the necessary investments in technology. As a result, their profits declined and so did the respective stock prices (−28.3% between end-2000 and end-2001). Over the same period, the stock prices of the technology sector dropped by 37.2%.



The events of 11 September in the United States gave rise to concerns in world stock markets and had a direct impact on European stock exchanges. As a consequence, stock prices in the euro area, as measured by the Dow Jones EURO STOXX index, fell by 17.3% between 11 and 21 September 2001. The highest volatility and the steepest drop were witnessed in the hotel, airline and insurance sub-sectors, which were seen to be the most affected by the terrorist attacks. However, from 21 September to the end of the year, stock price volatility decreased and the Dow Jones EURO STOXX recovered by 31%. Underlying this development was the fact that uncertainty in stock markets subsided, confidence was restored (thanks to measures taken by the monetary authorities of the euro

area and the United States) and the impact of the terrorist attacks on economic growth and business activity was perceived to be temporary.

The latest data on corporate earnings and macroeconomic developments in the euro area suggest that market expectations have not changed in the first months of 2002. In line with this assessment, the Dow Jones EURO STOXX index rose marginally by 1.6% between the end of 2001 and 28 March 2002.

APPENDIX TO CHAPTER V

CHRONOLOGY OF MAIN MONETARY POLICY MEASURES OF THE EUROSISTEM

4 January 2001

The Governing Council of the ECB decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2001. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2001 and the desire of the Eurosystem to continue to provide the bulk of refinancing of the financial sector through its main refinancing operations. The Governing Council may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

4 January, 18 January, 1 February, 15 February, 1 March, 15 March, 29 March, 11 April, 26 April 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

10 May 2001

– With effect from the operation to be settled on 15 May 2001, the minimum bid rate on the main refinancing operations of the Eurosystem is lowered by 0.25 percentage point to 4.50%.

– With effect from 11 May 2001, the interest rate on the marginal lending facility is lowered by 0.25 percentage point to 5.50%.

– With effect from 11 May 2001, the interest rate on the deposit facility is lowered by 0.25 percentage point to 3.50%.

23 May, 7 June, 21 June, 5 July, 19 July, 2 August 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.50%, 5.50% and 3.50% respectively.

30 August 2001

– With effect from the operation to be settled on 5 September 2001, the minimum bid rate on the main refinancing operations of the Eurosystem is lowered by 0.25 percentage point to 4.25%.

– With effect from 31 August 2001, the interest rate on the marginal lending facility is lowered by 0.25 percentage point to 5.25%.

– With effect from 31 August 2001, the interest rate on the deposit facility is lowered by 0.25 percentage point to 3.25%.

13 September 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.25%, 5.25% and 3.25% respectively.

17 September 2001

– With effect from the operation to be settled on 19 September 2001, the minimum bid rate on the main refinancing operations of the Eurosystem is lowered by 0.50 percentage point to 3.75%.

– With effect from 18 September 2001, the interest rate on the marginal lending facility is lowered by 0.50 percentage point to 4.75%.

– With effect from 18 September 2001, the interest rate on the deposit facility is lowered by 0.50 percentage point to 2.75%.

27 September, 11 October, 25 October 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

8 November 2001

– With effect from the operation to be settled on 14 November 2001, the minimum bid rate on the main refinancing operations of the Eurosystem is lowered by 0.50 percentage point to 3.25%.

– With effect from 9 November 2001, the interest rate on the marginal lending facility is lowered by 0.50 percentage point to 4.25%.

– With effect from 9 November 2001, the interest rate on the deposit facility is lowered by 0.50 percentage point to 2.25%.

6 December 2001

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

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

3 January 2002

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

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

7 February, 7 March, 4 April 2002

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

VI. MONETARY AND CREDIT DEVELOPMENTS IN GREECE

1. MONETARY DEVELOPMENTS

Since the beginning of 2001 the Bank of Greece has been compiling, on the basis of a uniform ECB definition, the Greek monetary aggregate M3, which, added to the respective aggregates of the other countries in the euro area, constitutes the total money quantity M3 of the euro area.¹ Although in the framework of the first pillar decision-making related to the single monetary policy of the ECB takes account of M3 changes in the entire euro area, instead of changes in national components, the evolution of the Greek component of M3 provides useful evidence regarding monetary conditions in Greece.

The annual growth rate of Greek M3 decelerated significantly in the course of 2001. Specifically, it fell to 6.7% in the fourth quarter of 2001, from 12.8% in the last quarter of 2000 and 8.4% in the third quarter of 2001 (see Table VI.1). The deceleration was gradual during the year (see Chart VI.1), but it was particularly notable in the September-November period.² For specific reasons, the rate accelerated to 9.9% in December. This reflects the high liquidity of the private sector in December, in which there were no new Greek government bond issues, only redemptions, leading to an increase in private deposits. However, in the two-month period January-February 2002 the growth rate of M3 was reduced once again to pre-December levels and came to 6% in February.

The gradual decline of the growth rate of M3 in 2001 is associated with the slowdown of credit expansion to the private sector, as well as to general government, particularly in the August-December period. It is also associated, however, with the increase, in the same period, of the long-term liabilities of the monetary financial institutions (mainly time deposits maturing in more than 2 years), which are excluded from M3.

Until the end of August 2001, the annual growth rate of Greek M3 decelerated, but was still higher than the growth rate of total M3 in the euro area (see Chart VI.1). On the supply side, this deviation between the growth rates of the two monetary aggregates reflected the considerably higher credit expansion in Greece, compared with the euro area, both to businesses and households as well as to general government. On the demand side, the faster growth rate of Greek M3 was linked not only to the higher growth rate of nominal GDP in Greece, but also to the shifts of savings of the private non-bank sector from items excluded from M3 to items included in M3 (mainly repos, whose yields had ceased to be taxed since September 1998). From September until end-November 2001, the continued acceleration of the growth rate of M3 in the euro area (for the reasons analysed in Chapter V) and the faster deceleration of credit expansion in Greece helped raise the growth rate of total M3 in the euro area above the growth rate of Greek M3.

1 For the definition of M3, see footnote 2 on the first page of Chapter V.

2 In October, this rate dropped to the lowest level since the beginning of the year (5.6%).

TABLE VI.1
GREEK CONTRIBUTION TO THE MONETARY AGGREGATES OF THE EURO AREA
(Data not seasonally adjusted)

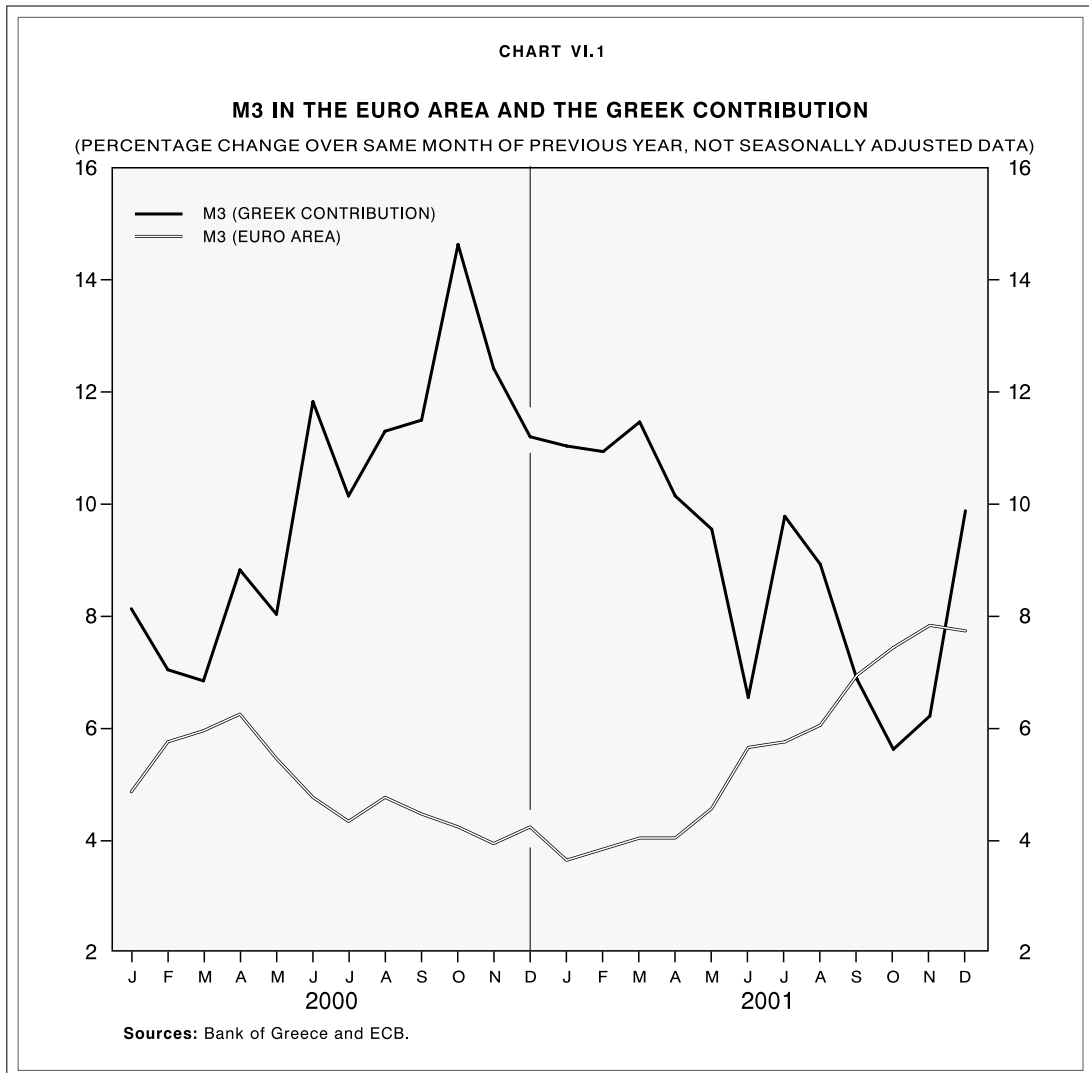
	Outstanding balances on 31 December 2001		Annual percentage change, ¹ quarterly average ²									
	(million euro)	(billion drs)	2000				2001					
			Q ₄	Q ₁	Q ₂	Q ₃	Q ₄	Q ₁	Q ₂	Q ₃	December	
1. Currency in circulation, M0	7,180	2,447	2.6	1.8	1.2	4.0	0.4	-7.2				
2. Overnight deposits	16,145	5,501	-6.6	-7.7	-8.8	-9.7	5.1	21.0				
3. M1 (1+2)	23,325	7,948	-3.7	-4.6	-5.5	-5.1	3.5	10.6				
4. Savings deposits and deposits redeemable at notice of up to 3 months	57,184	19,485	2.7	5.8	6.8	8.4	12.7	14.7				
5. Deposits with an agreed maturity of up to 2 years	33,314	11,352	6.6	-3.1	-16.0	-15.1	-17.4	-7.8				
6. M2 (3+4+5)	113,823	38,785	2.7	0.6	-3.6	-2.3	0.4	6.3				
7. Repurchase agreements	26,086	8,889	113.9	98.3	106.4	69.4	36.3	28.6				
8. Debt securities maturing in up to 2 years	136	46	-42.8	-21.0	-7.3	2.7	-1.4	-9.1				
9. M3 (6+7+8)	140,045	47,720	12.8	11.1	9.5	8.4	6.7	9.9				

1 Annual rates of change in the corresponding index, which is compiled on the basis of the balance of the corresponding monetary aggregate in December 1998 and the accumulated monthly flows, adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

2 The quarterly average is derived from the arithmetic mean of the average monthly rates (calculated as the average of the two monthly rates at the end of the reference month and the end of the previous month) and is not the average of the monthly rates at the end of each of the three months.

Sources: Bank of Greece and European Central Bank (ECB).

As regards the key aggregates that make up M3, the annual growth rate of currency in circulation was limited to 0.4% in the fourth quarter of 2001, compared with 2.6% in the last quarter of 2000, while in December 2001 the quantity of money in circulation was 7.2 per cent lower than in December 2000¹ (see Table VI.1). The latter development is directly associated with the introduction of the euro in physical form on 1 January 2002,



as the public reduced their holdings of drachma banknotes and coins and increased their deposits, in order to facilitate the conversion of drachma banknotes and coins into euro.

¹ The quantity of currency in circulation was lower in December 2000 in relation to December 1999. This, however, reflects the large amounts of cash held by the public in December 1999 to deal with potential problems in the operation of information systems in the transition to year 2000.

The quantity of currency in circulation decreased further in the first two months of 2002 and in February it was less¹ than in February 2001, because, it seems, pending the changeover to the euro, the public reduced the quantity of currency held inert and increased their deposits.

Overnight deposits (sight deposits and current account deposits) recorded negative growth rates until the end of September 2001, reflecting to a considerable degree the large drop in the value of transactions in the stock exchange, but between October and end-2001 overnight deposits recovered, because, as mentioned above, they absorbed part of the currency in circulation. Their annual growth rate in the fourth quarter of 2001 rose to 5.1% from -6.6% in the last quarter of 2000, owing to the very large rise it recorded in December (December 2001: 21.0%, November 2001: 5.4%). Also, the annual growth rates in the two-month period January-February 2002, although lower than in December, remained at relatively higher levels (February 2002: 11.8%). Savings deposits and deposits redeemable at up to 3 months' notice also recorded a large increase (the growth rate of which accelerated in 2001) and came to 12.7% in the fourth quarter, compared with 2.7% in the last quarter of 2000. The highest annual growth rates were observed in the third and especially the fourth quarter and are associated, as mentioned above, with the reduction of holdings of currency in circulation. Savings deposits and deposits redeemable at up to 3 months' notice grew further in the two-month period January-February 2002 and their annual growth rate reached 17.2% in February. In contrast, time deposits with a maturity of up to two years decreased gradually in the course of the previous year. As a result their outstanding balance in the last quarter was 17.4% lower than in the same quarter of 2000. The highest negative rates were recorded in the September-November 2001 period, but in December the negative growth rate of these deposits fell sharply (December 2001: -7.8%, November 2001: -18.6%). This was due to the shift of funds from repos to time deposits following the announcement, through the Introductory Report on the State Budget for 2002 (published in November 2001), that repo yields would be taxed at the rate of 7% in the case of repos concluded from January 2002 onwards. Time deposits in the two-month period January-February 2002 also remained at a lower level than in the same period of 2001 and their annual growth rate fell to -6.9% in February.

Repo holdings increased considerably also in 2001, but their increase was smaller than in 2000 (2001: €5,805 million or 1,978 billion drachmas, 2000: 3,096 billion drachmas) and their annual growth rate fell to 36.3% in the fourth quarter of 2001 from 113.9%

¹ The annual rate of change in currency in circulation in February, on the basis of non-seasonally adjusted data, is estimated at -19.5% for Greece (compared with -28.4% for the euro area). However, it should be taken into account that, owing to the possibility of transfer of banknotes from one country to another in the euro area mainly because of tourism, but also owing to the holding of euro banknotes by third country residents, currency in circulation in individual countries and in the entire euro area is very hard to measure. That is why, currency in circulation in the various countries of the euro area is estimated on the basis of each country's subscription key in ECB capital. This method of measurement of currency in circulation causes concern as to whether reference to the national components of this aggregate is meaningful.

in the same quarter of 2000. The announcement that their yields would be taxed influenced considerably these holdings, which decreased by €5,691 million or 1,939 billion drachmas in the last quarter of 2001. As a result their annual growth rate dropped to 28.6% in December 2001. The fact that repo yields had not been taxed was a strong comparative advantage in relation to alternative holdings. The holdings of repos continued to decelerate in the first two months of this year and in February it fell to 5.2%. The increase in repos until end-September 2001 was fed by time deposits and items not included in M3. Total holdings of the domestic private non-bank sector in Greek Treasury bonds fell by €4,340 million or 1,479 billion drachmas in 2001 (2000: reduction of 2,218 billion drachmas). Furthermore, holdings in equity-type mutual fund units (following the adjustment for the change in the prices of shares listed on the ASE) decreased by €1,100 million or 375 billion drachmas in 2001 (2000: reduction of 937 billion drachmas).

Greek residents' (households and businesses) total deposits in drachmas and other currencies increased in 2001 at about the same rate as in 2000 (2001: 8.2%, 2000: 8.1%). This development, however, of the rate of change in the various components differs, depending on the currency in which the deposits are held. Specifically, deposits in euro/drachmas increased by 11.5% in 2001, compared with an increase of 5.1% in 2000. By contrast the outstanding balance of deposits in other currencies at the end of 2001, was 2.6% lower than at end-2000, compared with an increase of 18.6% in 2000. This development is mainly associated with the fact that in 2001 interest rates on deposits in US dollars declined much more than the rates on deposits in euro/drachmas.¹

It should be pointed out that M3 components can be readily substituted for each other, but that they differ as to the degree of liquidity and the extent to which they are influenced by changes in interest rates in the money markets and by changes in the taxation of their yields over time. Since the early 1990s noticeable changes have occurred in the share of these components in M3 (see Chart VI.2). Indeed, in the 1990-2001 period the share of currency in circulation gradually decreased by 4.4 percentage points and at end-2001 fell to 5.1%, as the use of credit cards and the growing numbers of automatic teller machines (ATM) reduced cash holdings considerably. Overnight deposits (sight deposits, current account deposits), unlike time and savings deposits, recorded an upward trend over the same period and their share increased by 5.4 percentage points to 11.5% at the end of 2001. Deposits in this category increased as a result of the wider use of current accounts for the payment of wages, as well as the linking of these accounts to the provision of new services by certain banks.

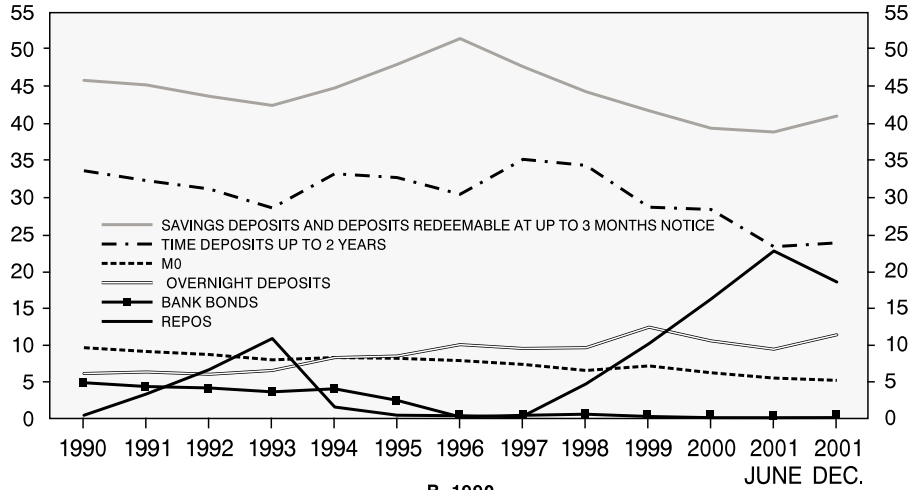
Savings deposits and deposits redeemable at up to 3 months' notice recorded an increase in their share in M3 until the middle of the period 1990-2001 (1996: 51.3 percentage points). Subsequently, their share gradually fell and was 40.9 percentage points at end-2001. Besides, fluctuations were observed in the share of time deposits in M3, which,

¹ The spread between interbank interest rates for deposits with a maturity of three months in dollars and euro turned from positive (96 basis points) in January 2001 to negative (-141 basis points) at end-December of the same year.

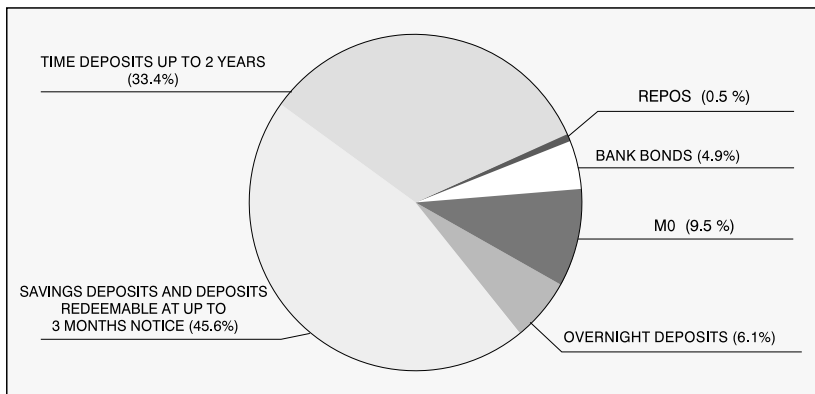
CHART VI.2

PERCENTAGE BREAKDOWN OF THE GREEK COMPONENT OF M3
(END-OF-PERIOD DATA)

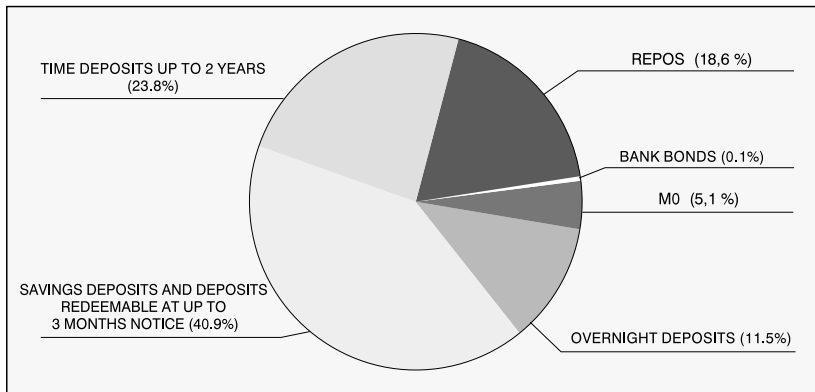
A. DEVELOPMENTS IN THE 1990-2001 PERIOD



B. 1990



C. 2001



Source: Bank of Greece.

from 33.4 percentage points at end-1990, fell to 23.8 percentage points at the end of 2001. These developments were considerably influenced by policy changes concerning the taxation of interest income from government paper and repo yields. Indeed, interest income from government securities, unlike that from deposits (which were taxed at a rate of 10% since January 1991 and 15% as from September 1992), was not taxed until the end of 1996 and only from the beginning of 1997 was subject to a 7.5% rate, which rose to 10% as from January 1998.

The taxation of repo yields also recorded fluctuations. These yields were taxed for the first time in May 1994 at the rate of 15%. This tax was abolished in September 1998 and has been re-introduced with a lower rate (7%) since the beginning of 2002. Because of these changes, the share of repos in M3 recorded large fluctuations. At end-1993 this share had reached 10.9 percentage points, from 0.5 percentage points at end-1990. Following the taxation of repo yields in May 1994, the private non-banking sector had turned to holdings with higher yields (government paper and derivative financial instruments). As a result, the share of repos in M3 was almost zero (0.1 percentage points) at end-1997. As from September 1998, however, when the taxation of their yields, was abolished, holdings of repos recovered and in June 2001 had risen to 22.9% of M3. The share of repos fell again (18.6%) at end-2001 following the announcement that their yields would be taxed from the beginning of 2002. Finally, bank bonds constituted 4.9% of total M3 in 1990. The taxation of interest income from bank bonds (as well as deposits), in conjunction with the increased competition from government paper (whose yields were not taxed until the end of 1996), reduced to a marginal level the share of bank bonds in M3 in 2001 (0.1%).

2. CREDIT DEVELOPMENTS

2.1 Total credit expansion and bank lending to general government

Total credit to general government, businesses and households increased by €24,666 million or 8,405 billion drachmas in 2001, compared with 9,042 billion drachmas in 2000. In fact, total credit expansion decelerated to 15.7% in 2001 from 20.2% in 2000. This was mainly due to the limited increase in credit to general government, while the deceleration of credit expansion to businesses and households was smaller (see Table VI.2).

More specifically, bank lending to general government grew by 10,315 million euro (3,515 billion drachmas) or 10.4%, compared with an increase of 4,775 billion drachmas or 15.9% in 2000, in spite of the fact that its borrowing requirements, on a cash basis, increased in 2001 and came to 5,817 million euro or 1,982 billion drachmas, compared with 1,650 billion drachmas in 2000. Bank lending to general government, mainly in the form of banks' holdings of government paper, is associated with the banks' and the public's investment behaviour. In recent years, the public proceeded to net liquidations of government paper (2001: 1,533 billion drachmas, 2000: 3,125 billion drachmas, 1999: 1,750

billion drachmas), much of which ended up in banks' portfolios. Reduced liquidation of government paper by the public in 2001 resulted in a smaller increase in the respective

TABLE VI.2
TOTAL CREDIT EXPANSION IN GREECE
(Annual percentage change in outstanding balances)

	December		
	1999	2000	2001*
1. Total credit expansion	12.2	20.2	15.7
2. Credit expansion to general government	11.0	15.9	10.4
3. Credit expansion to business firms and households	12.7	27.6	24.8
3.1 Credit expansion to firms	8.0	24.9	18.6
3.2 Credit expansion to households	27.3	34.8	40.0

* Provisional data.

Source: Bank of Greece.

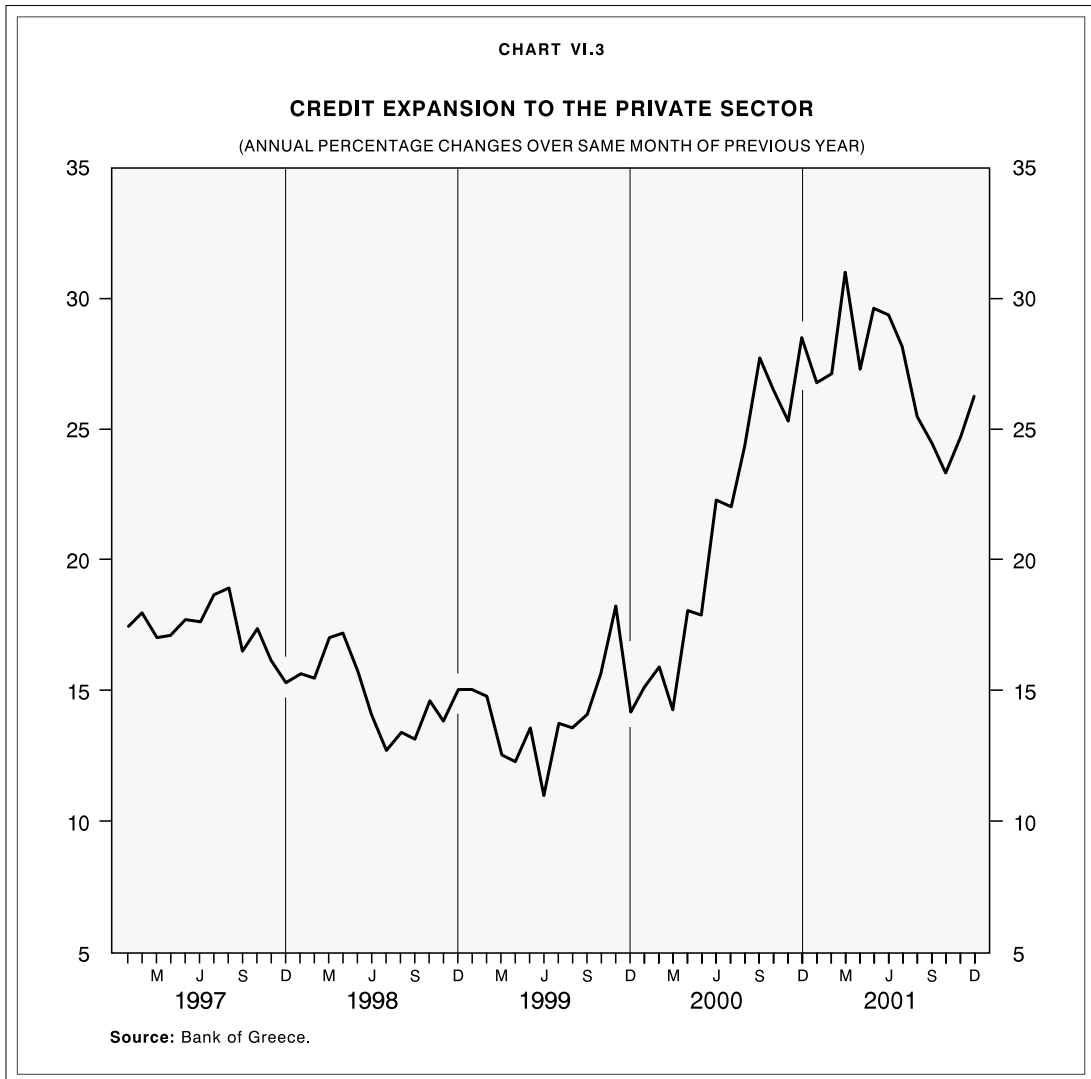
portfolios of banks compared with the previous year and thus caused a deceleration of credit expansion to general government in 2001.

2.2 Bank lending to businesses and households

Bank lending to businesses and households increased by €14,351 million (4,890 billion drachmas) or 24.8% in 2001, compared with an increase of 4,267 billion drachmas or 27.6% in 2000 (see Table VI.2). Consequently, although credit expansion decelerated, it remained high in 2001. The slowdown of credit expansion was observed mainly from June 2001 (see Chart VI.3) and was due to the relatively restrained increase in short-term loans, the growth rate of which fell to 20.5% in 2001 from 27.6% in 2000. In contrast, long-term lending continued to increase at a high rate (December 2001: 31%, December 2000: 27.7%), mainly because of the faster rise in housing loans. The increase in bank lending stemmed entirely from loans in euro/drachmas, while loans in other currencies decreased further in 2001. Hence, their share in total lending dropped to 9.5% at end-2001 from 13.5% at end-2000. In spite of this decrease, the share of loans in other currencies in Greece remains one of the highest in the euro area, where it averaged 4.6% at end-2001.

The maintenance of credit expansion at a high level is associated, as regards the demand for bank loans, with the relatively large drop in interest rates, which on average fell by more than 2 percentage points during 2001 (see Chart VI.6). Increased demand for bank loans is related to the continued high growth rate of economic activity, as GDP grew by 4.1% in 2001. As regards the supply of loans, the maintenance of credit expansion at a

high level was attributable, to some extent, to the gradual release of banks' deposits with the Bank of Greece. The amount released came to €8,091 million or 2,757 billion drachmas and concerned sums of drachmas and foreign exchange held by the central bank in the form of time deposits, following the harmonisation, in 2000, of the minimum reserves system of the Bank of Greece with that of the Eurosystem.



2.3 Breakdown of credit to businesses and households

The analysis of bank lending by economic activity sector shows that credit expansion to businesses decelerated (2001: 2,600 billion drachmas or 18.6%, 2000: 2,792 billion drachmas or 24.9%), while credit expansion to households accelerated (2001: 2,290 billion drachmas or 40.0%, 2000: 1,475 billion drachmas or 34.8%).

Specifically, loans to private firms increased by €7,783 million (2,652 billion drachmas), compared with an increase of 2,699 billion drachmas in 2000, while loans to public enterprises decreased by €153 million (52 billion drachmas) compared with an increase of 93

TABLE VI.3
CHANGE IN CREDIT TO THE PRIVATE SECTOR BY BRANCH OF ECONOMIC ACTIVITY

	Outstanding balances on 31 Dec. 2001* (million euro)	Outstanding balances on 31 Dec. 2001* (billion drachmas)	Changes in outstanding balances					
			Billion drachmas			Percentage points		
			1999	2000	2001*	1999	2000	2001*
1. <u>Agriculture</u>	3,724	1,269	104	92	-55	9.2	7.5	-4.1
Long-term loans	2,279	776	19	56	-3	2.7	7.7	-0.4
Short-term loans	1,445	493	85	36	-52	20.1	7.1	-9.5
2. <u>Manufacturing¹</u>	12,615	4,299	372	457	270	11.6	12.8	6.7
Long-term loans	2,997	1,022	71	111	129	10.0	14.2	14.5
Short-term loans	9,618	3,277	301	346	141	12.1	12.4	4.5
3. <u>Trade</u>	15,524	5,290	170	1,075	1,073	5.7	34.2	25.5
4. <u>Housing</u>	15,652	5,333	596	913	1,493	25.5	31.2	38.9
5. <u>Consumer credit</u>	7,852	2,676	315	562	798	31.5	42.7	42.5
– Credit cards	3,726	1,270	160	260	489	44.1	49.8	62.7
– Against documents	1,956	667	7	156	173	2.3	46.4	35.1
– Personal loans	2,170	739	148	146	136	47.9	31.9	22.4
6. <u>Other</u>	15,816	5,389	262	1,075	1,363	12.0	43.9	38.7
– Tourism	2,171	740	35	71	122	6.8	12.9	19.7
– Shipping	3,766	1,283	40	143	48	7.3	24.4	6.6
– Leasing companies	1,535	523	-73	109	337	-48.4	140.2	181.1
– Other	8,344	2,843	260	752	856	26.8	60.9	43.1
<u>Total</u>	71,183	24,256	1,819	4,174	4,942	14.2	28.5	26.3
Long-term loans	30,622	10,434	759	1,612	2,493	15.0	27.7	33.5
Short-term loans	40,561	13,822	1,060	2,562	2,449	13.7	29.1	21.5

1 Including mining and small-scale industry.

* Provisional data.

Source: Bank of Greece.

billion drachmas in 2000. The restrained increase in loans to firms in 2001 is associated with the very large amounts of funds raised through the stock exchange in 2000. Stock market data on the use of these funds indicate that businesses had unused funds totalling 300 billion drachmas at the end of 2000, which reduced the demand for loans in 2001.

The slowdown of credit expansion to private firms concerns all sectors of the economy, with the exception of tourism and leasing companies. Specifically, the increase in

credit to industry was limited to €792 million (270 billion drachmas) or 6.7% in 2001 (see Table VI.3), compared with 457 billion drachmas or 12.8% in the previous year. This deceleration was due to the very small increase in short-term loans (2001: 4.5%, 2000: 12.4), which is mainly linked to the decline of the growth rate of industrial production (2001:0.9%, 2000:7.7%), while the growth rate of long-term loans was slightly higher than in the previous year (2001: 14.5%, 2000: 14.2%). The share of short-term lending in the total balance of bank lending to industry was therefore limited to 76% in 2001, from 78% in 2000. The share of credit expansion to industry in total credit expansion to the private sector (26.3%) was limited to 1.4 percentage points, compared with 3.1 points in 2000, when total credit expansion reached 28.5% (see Chart VI.4).

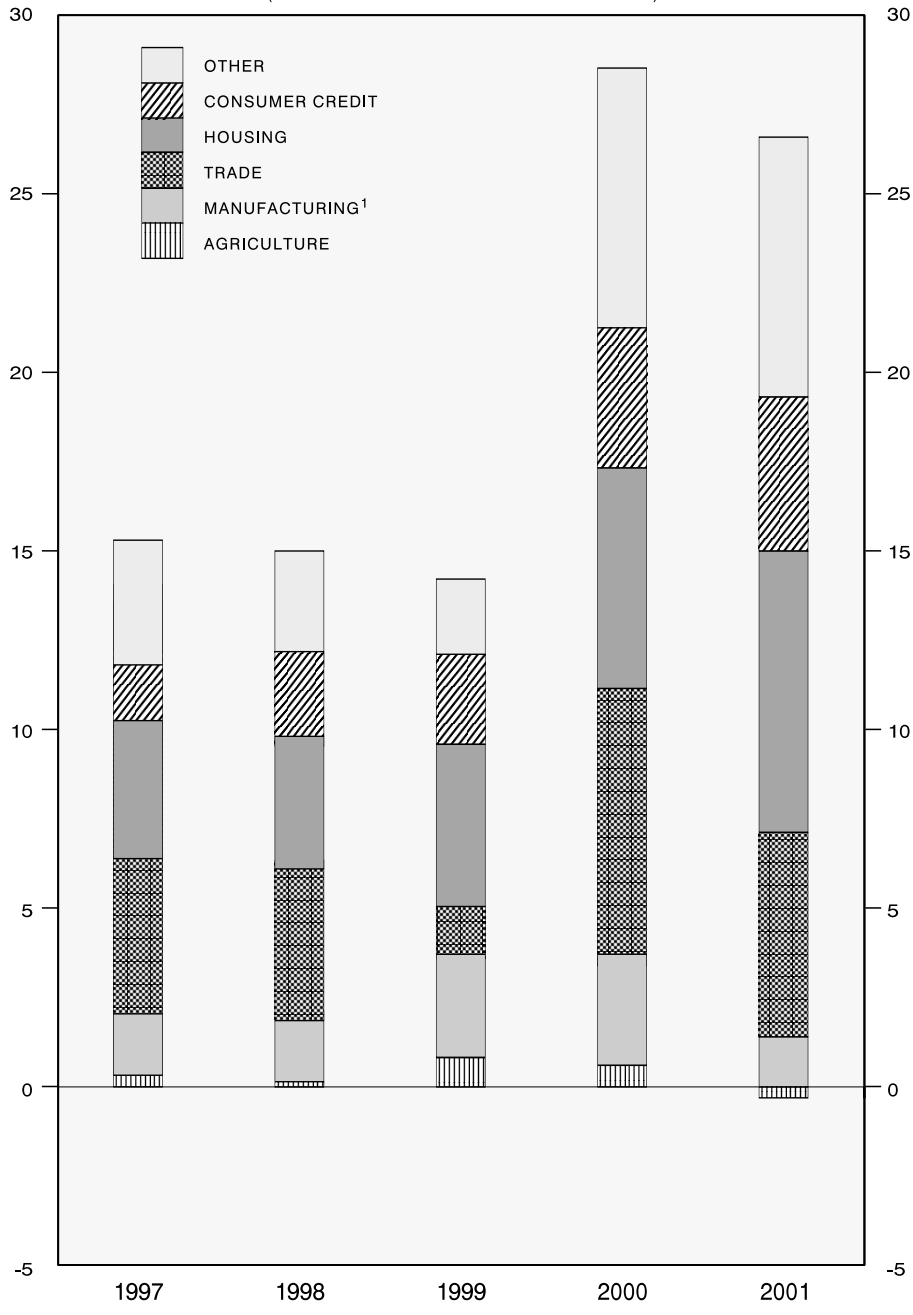
Credit expansion to trade recorded a considerable deceleration, but the annual growth rate of credit to trade remained at relatively high levels (2001: 25.5%, 2000: 34.2%). The slowdown was due to the decline in the growth rate of retail sales volume (2001: 4.4%, 2000:5.4%) and helped lower the share of trade in credit expansion to the private sector to 5.7 percentage points from 7.4 points in the previous year. Bank lending to agriculture decreased by €161 million (55 billion drachmas) or 4.1% in 2001, compared with an increase of 92 billion drachmas or 7.5% in 2000, a fact connected with the decrease in primary sector GDP in 2001. A sharp deceleration was also recorded in credit expansion to shipping companies (2001: 48 billion drachmas or 6.6%, 2000: 143 billion drachmas or 24.4%). As already mentioned, an acceleration was recorded only in credit expansion to the relatively smaller industries, i.e. tourism (2001: 122 billion drachmas or 19.7%, 2000: 71 billion drachmas or 12.9%) and leasing companies (2001: 337 billion drachmas or 181.1%, 2000: 109 billion drachmas or 140.2%). Finally, other loans to the private sector increased at a high but decelerating rate (2001: 856 billion drachmas or 43.1%, 2000: 752 billion drachmas or 60.9%). This category includes loans for the purchase of shares, the outstanding balance of which decreased at end-2001 and came to 458 billion drachmas at end-2001, from 500 billion drachmas at end-2000.

Bank lending to households, in the form of consumer and housing loans recorded a large increase. As a result their share in total credit expansion to the private sector rose to 12.2 percentage points in 2001, from 10.1 points in 2000. The total of these two categories of loans increased by 40% (€6,723 million or 2,291 billion drachmas) in 2001, compared with an increase of 34.8% (1,475 billion drachmas) in 2000. Hence their outstanding balance at end-2001 represented 31.9% of total bank lending to businesses and households, against 29% at end-2000 and 27.5% at end-1999. In spite of this increase, the share of loans to households in total bank lending to businesses and households in Greece remains lower than the euro area average (47.8%).¹ Although in relation to GDP, the outstanding balance of bank loans to households in Greece has increased considerably in recent years, it remains at relatively low levels. Total consumer and housing loans amounted to 18% of GDP at end-2001, compared with 13.8% in 2000. At end-June 2001,

¹ According to data for December 2001 published in the March 2002 issue of the ECB *Monthly Bulletin*.

CHART VI.4
BREAKDOWN OF CREDIT TO THE PRIVATE SECTOR
BY BRANCH OF ECONOMIC ACTIVITY

(PERCENTAGE CHANGE IN CREDIT BALANCES*)



¹ Including mining and small-scale industry.

* Against the end of the previous year.

Source: Bank of Greece.

the respective aggregate in the euro area was 50%.¹ It should be pointed out that the considerable increase in loans to households in recent years accounts for a high percentage of the total credit expansion of Greek banks to businesses and households (2001: 46.8%, 2000: 34.6%), with a direct impact on the quality of the bank loans portfolio. For this reason, the Bank of Greece is closely monitoring changes in loans to households, especially consumer loans. Greater transparency in this market will make the management of credit risks by banks more effective and might lead to lower lending rates. The Bank Information System "Teiresias" is expected to make a major contribution in this field and must become fully operational as soon as possible.

In more detail, housing loans increased by 1,493 billion drachmas or 38.9% in 2001, compared with an increase of 913 billion drachmas or 31.2% in 2000. The high credit expansion to housing also observed in 2001 was associated with the low interest rates,² as well as with the banks' strong interest in this type of lending, which they manifest by offering a large variety of products with flexible loan repayment schemes. However, the increase in housing loans is also connected with the rise in real estate prices, which increases purchasers' borrowing requirements. It is worth noting that real estate (housing) prices increased by 11-15% in the course of 2001.

The growth rate of consumer loans rose to a very high level in 2001 (2001: 42.5% increase, €2,342 million or 798 billion drachmas, 2000: 42.7% increase or 562 billion drachmas). The largest increase was recorded in borrowing through credit cards, which are used to purchase mainly consumer goods (2001: increase of 62.7% €-1,435 million or 489 billion drachmas, 2000: increase of 49.8% or 260 million drachmas). Lower growth rates were recorded in loans granted against supporting documents (2001: 35.1%, 2000: 46.4%) for the purchase of durable consumer goods, particularly cars, as well as in personal loans (2001: 22.4%, 2000: 31.9%). Thus, the breakdown of consumer loans changed significantly, as the share of loans through credit cards increased (2001: 47.5%, 2000: 41.5%) at the expense of loans against supporting documents (2001: 24.9%, 2000: 26.3%) and personal loans (2001: 27.6%, 2000: 32.2%).

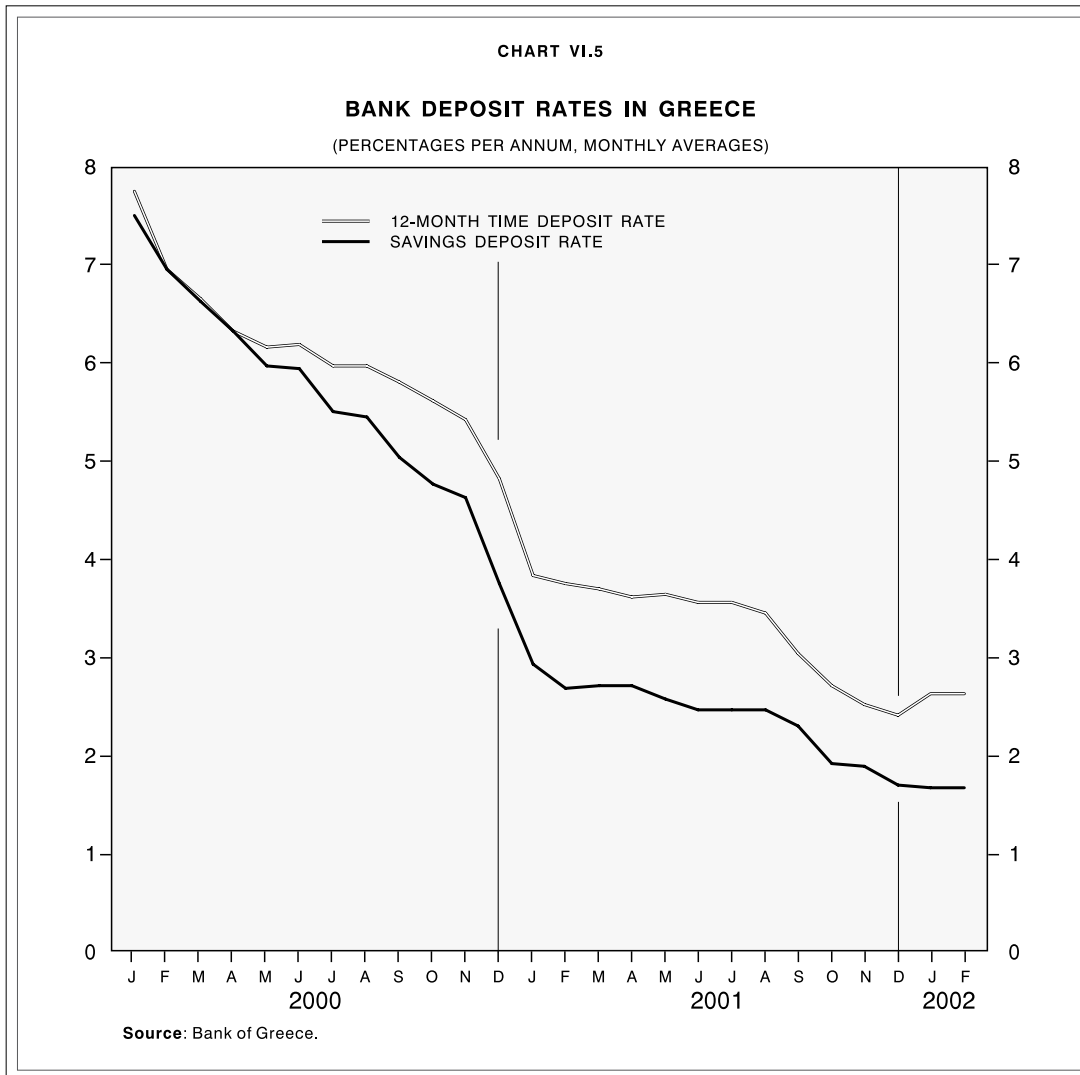
3. BANK DEPOSIT AND LENDING RATES

In 2001, Greek banks' interest rates followed a downward course, influenced by the drop in ECB rates (from May 2001 onwards, the ECB gradually reduced its key rates by a total of 1.5 percentage points), but they continued to converge to interest rates in the euro area. Specifically, deposit rates converged almost entirely to the respective euro

1 See Bank of Greece, Monetary Policy 2001-2002, March 2002, page 85, Box 1 (in Greek).

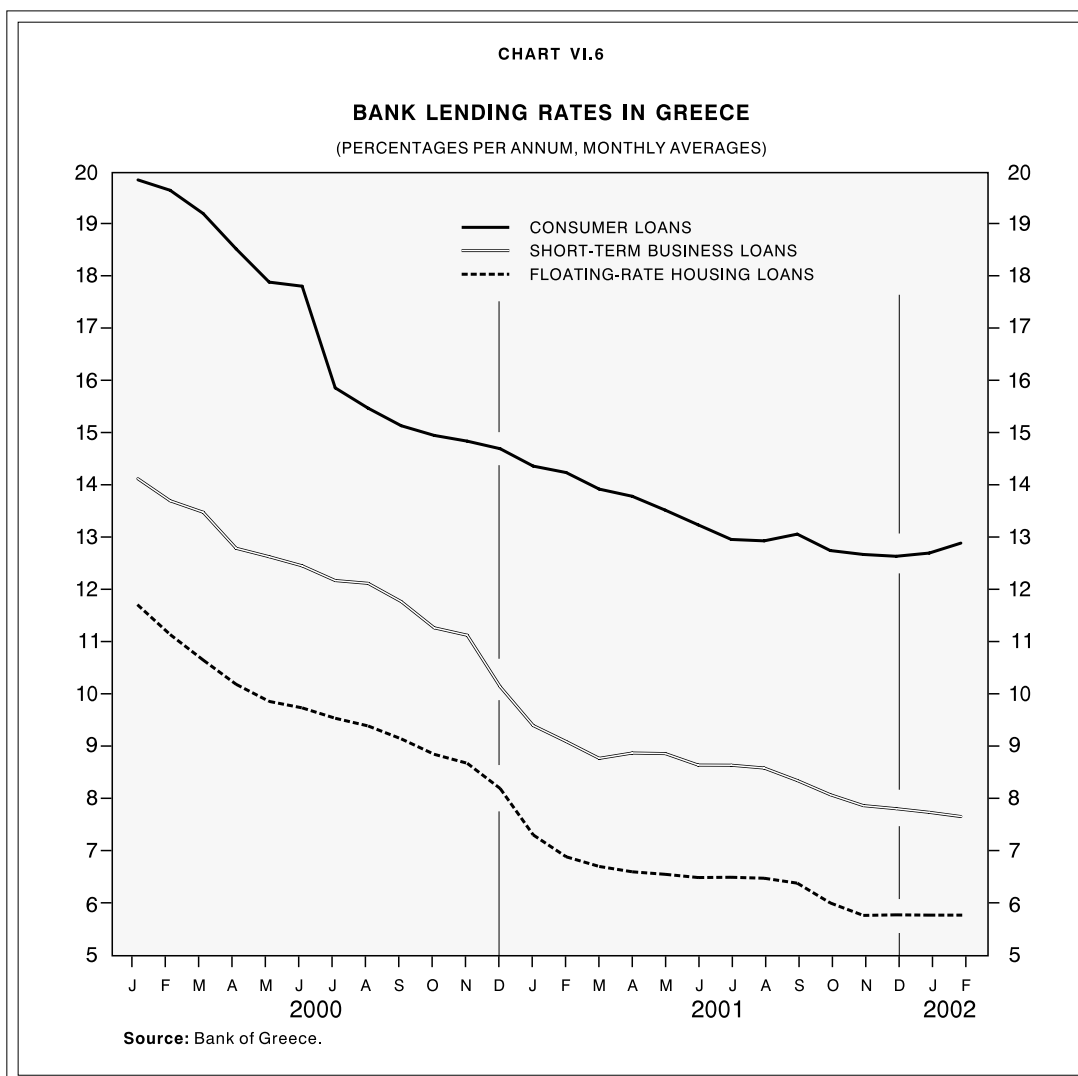
2 On the basis of the interest rates on housing loans (average interest rate 5.78%) at end-2001, the annual amortisation instalment on a 25-year loan of 10 million drachmas amounted to 760 thousand drachmas compared with 1,306 thousand drachmas at end-1999, when the average interest rate on these loans was 12.42%.

area rates, as the monetary policy of the ECB is transmitted almost uniformly to the rates of this category in the single money market. Interest rates on savings deposits and deposits with an agreed maturity of twelve months in Greece fell in 2001 by 2.1 and 2.4 percentage points respectively and averaged 1.7% and 2.4% respectively in December (see Chart VI.5).



Repo yields also followed a downward course throughout the year (repos with a maturity of one month decreased by 1.80 percentage points on average). The decline, however, was steeper in the four-month period September-December 2001. As a result, this yield came to 3.4% in December. In the first two months of this year, the interest rate on savings deposits remained almost unchanged, while the interest rate on deposits with an agreed maturity of twelve months and the interest rate on repos increased mar-

ginally by 0.2 percentage point. The respective interest rates on deposits in the euro area at end-2001 were on average slightly higher than the Greek ones (deposits redeemable at up to 3 months' notice: 2.2%, time deposits with a maturity of up to two years: 2,8%) and remained almost unchanged in the January-February 2002 period. It should, be noted, however, that the terms of competition and the services offered by



banks through deposit accounts may lead to a slight differentiation of interest rates among euro area countries.

Decreases were recorded in 2001 in interest rates on bank loans in Greece (see Chart VI.6). Specifically, the average interest rate on short-term credit to businesses (see Table VI.4) declined by about 2.4 percentage points in 2001 (December 2001: 7.8%, December 2000: 10.2%). Thus, its spread compared with the respective interest rate in the

euro area was limited to 1.6 percentage points, compared with 2.9 percentage points at end-2000 (see Chart VI.7). Besides, the interest rate on short-term credit to businesses in Greece fell further in the first two months of 2002 and came to 7.7% in February 2002. As a result its spread compared with the respective interest rate of the euro area was reduced to 1.5 percentage points.

The average interest rate on long-term business loans decreased by 2.1 percentage points (December 2001: 7.7%, December 2000:9.8%), while its spread compared with the respective interest rate in the euro area was limited to about 2 percentage points in December 2001, from 3.3 percentage points in December 2000. In the first two months of 2002 this interest rate recorded a small increase both in Greece and in the euro area.

TABLE VI.4
LENDING RATES IN THE EURO AREA AND IN GREECE
(Percentages per annum)

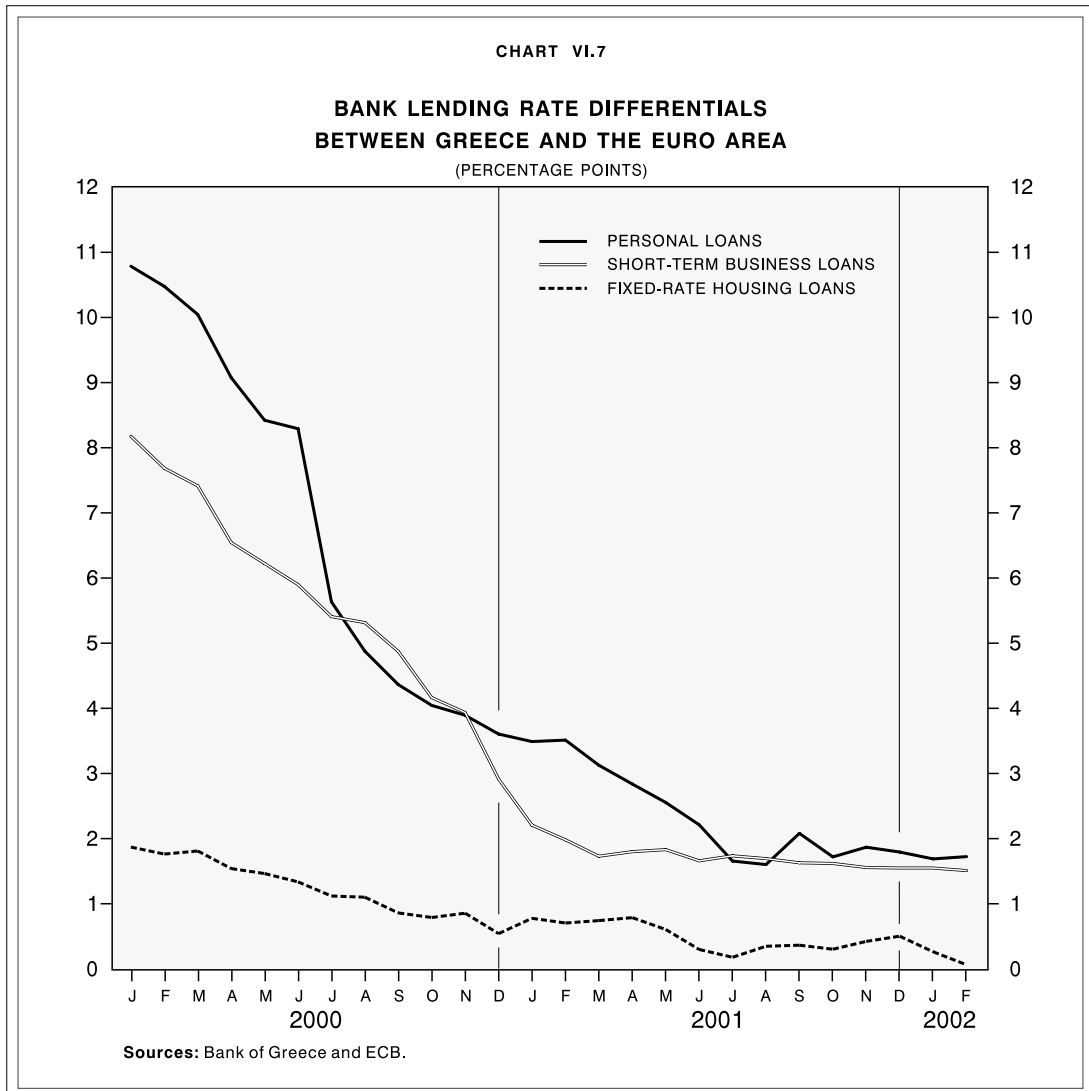
	December 2000	December 2001	Reduction between Dec. 2000 and Dec. 2001
Short-term business loans			
Average interest rate in the euro area	7.18	6.24	0.94
Maximum interest rate in the euro area	9.94	8.44	1.50
Minimum interest rate in the euro area	5.66	4.45	1.21
Interest rate in Greece	10.15	7.79	2.36
Housing loans (fixed interest rate)			
Average interest rate in the euro area	6.43	5.52	0.91
Maximum interest rate in the euro area	6.99	6.29	0.70
Minimum interest rate in the euro area	5.99	4.52	1.47
Interest rate in Greece	6.98	6.03	0.95
Consumer loans (personal loans)			
Average interest rate in the euro area	10.19	9.81	0.38
Maximum interest rate in the euro area	12.26	11.62	0.64
Minimum interest rate in the euro area	7.13	5.45	1.68
Interest rate in Greece	13.83	11.62	2.21

Sources: ECB and Bank of Greece.

Similar decreases were observed in the interest rates on credit to households. Specifically, the average rate on all the categories of consumer loans fell to 12.7% in December 2001, from 14.7% in December 2000. The largest decrease was recorded in interest rates on credit cards, which came to 15.4% in December 2001, compared with 17.8% in December 2000. Interest rates on personal loans fell by 2.2 percentage points (December 2001: 11.6%, December 2000: 13.8%), while the decline in interest rates on loans against supporting documents was smaller (December 2001: 10.9%, December 2000: 12.5%). It should be noted that, in Greece, the interest rate on personal loans is more comparable to the interest rate published in the ECB Monthly Bulletin as “interest rate on consumer loans”. The spread in this interest rate between Greece and the euro area decreased to 1.8 percentage points at end-2001, from 3.6 percentage points at end-

2000. In the first two months of 2002 interest rates on consumer loans in Greece recorded a slightly upward trend and in February 2002 the average interest rate on all categories of consumer loans came to 12.9%.

Decreases were also observed in interest rates on housing loans, particularly on floating-rate loans. The interest rate on loans in this category with a maturity of more than



five years fell to 5.8% in December 2001 from 8.2% in December 2000, while the respective interest rate on fixed-rate housing loans dropped by 1.4 percentage points to 5.8% at end-2001. Thus, the spread between this rate and the respective rate in the euro area fell further to 0.3 percentage points. In the first two months of 2002 the interest rate on floating-rate housing loans, remained unchanged in Greece, while the interest rate on fixed-rate loans, which is more comparable to the interest rate published in the *ECB Monthly*

Bulletin as “interest rate on housing loans”, fell in Greece and recorded a marginal increase in the euro area.

In 2001, the weighted average interest rates on deposits and repos declined by about 2 percentage points, while the average lending rates fell by about 2.5 percentage points. Thus, the spread between lending and deposits rates was further reduced in 2001, reflecting increased competition between banks and greater effectiveness of bank intermediation.

VII. THE CAPITAL MARKETS

1. INTRODUCTION

Greece's entry into the euro area and the upgrade of the country's credit-standing were the key determinants of developments in the domestic capital markets during 2001. Moreover, the Greek capital markets were affected during the year by unfavourable developments in international stock markets.

In particular, the reduced – compared with 2000 – fund-raising and the fall in interest rates were the main features of the primary market for government paper. Domestic and foreign investors took increased interest in Greek government paper, thus leading to a decline in bond yields to levels close to the yields of comparable euro area securities. Between the end of 2000 and the end of 2001, the yield differential between Greek and German 10-year bonds fell almost by half.

Stock prices and transactions in 2001 followed a downward path for the second year running. Moreover, fund-raising through the stock market shrank considerably compared with 2000. Negative developments in the Athens Stock Exchange (ASE) affected the mutual funds market, resulting in a decline in the value of mutual funds' assets.

2. THE MARKET FOR GOVERNMENT PAPER

2.1. The primary market

In 2001 the primary market for Greek government paper was marked by a decrease in the value of securities issued and a fall in interest rates. Factors such as the reduction of the public sector's gross borrowing requirements, Greece's entry into the euro area and the upgrade of the country's credit-standing,¹ contributed to these developments. Another important factor was connected with the conditions prevailing in international stock and bond markets.

Specifically, the value of government paper issued in 2001² was reduced to €24.2 billion or 8.2 trillion drachmas compared with 9.1 trillion drachmas in 2000 and 10.4 trillion drachmas in 1999 (see Table VII.1). Such fund-raising took place through standard tenders,³ related for the most part to the reopening of past issues and, to a lesser extent,

1 On 13 March 2001, Standard & Poor's revised the rating of Greece's long-term external debt to A from A-. Furthermore, in June 2001 FITCH-IBCA also revised the country's long-term credit standing to A from A-.

2 Moreover, the government proceeded with the issue to the international market of bonds convertible into equity (excluding the equity of "Agricultural Bank of Greece SA" and "Hellenic Touristic Properties SA"); this equity was owned by public sector enterprises and DEKA SA.

3 Conducted at regular pre-announced dates.

to new issues. Apart, however, from the tenders held in the domestic market, a 10-year euro bond was issued on 30 January 2001 in the form of a syndicated loan.¹ In more detail, new paper issues corresponded to 13% of the total value of government paper tendered in 2001 and concerned almost exclusively 10-year bonds. The process of reopening past issues helped the public sector make the best out of the favourable conditions created during 2001 in the secondary market for securities and, in addition, contributed to a further deepening of the market.

During 2001 the amount of capital supplied to the primary market was much bigger than the public sector's demand. In particular, the supply of capital for the purchase of both Treasury bills and government bonds was double the demand in 2001, a ratio which increased further in the first quarter of 2002.²

TABLE VII.1
NEW ISSUES OF GREEK GOVERNMENT PAPER
(Percentage share by initial maturity)

Type	1999		2000		2001	
Treasury bills	22.6		12.0		5.0	
Bonds	77.4		88.0		95.0	
2-year		11.1		0.5		0.0
3-year		16.7		21.5		0.0
5-year		16.0		22.3		22.9
7-year		15.2		6.5		22.2
10-year		23.3		27.7		35.4
15-year		17.7		1.6		2.9
20-year		–		19.9		16.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total value (trillion drachmas)	10.4		9.1		8.2	

Note: Securities value is expressed at settlement prices.

Source: Bank of Greece.

The government securities issued in 2001 were largely bonds with a maturity of 5 to 10 years and, to a much lesser extent, Treasury bills with a maturity of 3, 6 and 12 months. Table VII.1 shows that Treasury bills constituted a mere 5% of total issues in 2001, compared with 12% in 2000 and 23% in 1999. As in previous years, 12-month

1 For this bond issue, five monetary financing institutions (two from the Greek market (National and Alpha Bank) and three from the international market (Schroder Salomon Smith Barney, Goldman Sachs and UBS Warburg)) were pre-selected to act as head arrangers. The issue amounted to €2,600 million and the interest rate stood at 5.35%.

2 In the first quarter of this year, government paper was issued by tenders or in the form of syndicated loans. In the latter form there were two issues: one on 17 January 2002 for ten-year bonds (of a value of about €5 billion) and another on 14 February 2002 for five-year bonds (of a value of about €4 billion).

Treasury bills prevailed, with a share of about 45% in the total value of Treasury bills issued. The limited issue of Treasury bills reflects the policy followed in recent years of prolonging the average maturity of public debt through, among other things, the substitution of bonds for Treasury bills.

The value of government bonds sold in 2001 stood at €22,984 million or 7.8 trillion drachmas, compared with 8 trillion drachmas in 2000 and 1999. The maturity structure of the total value of bonds sold in 2001 shows that no 2-year and 3-year bonds were issued, while more than half of the issues related to bonds with a maturity of 10 years and over (see Table VII.1). The share of 10-year bonds in the total value of bond issues increased significantly in the last two years (2001: 35%, 2000: 28%, 1999:23%). Seven-year bonds showed an impressive increase in 2001 (2001: 22%, 2000: 7%), while only a small rise was recorded in the share of 5-year bonds (2001: 23%, 2000: 22%) and 15-year bonds (2001: 3%, 2000: 2%). By contrast, the share of 20-year bonds fell (2001: 17%, 2000: 20%). As a result of these developments, the average maturity of total government paper issued in 2001 rose to 8.5 years from 8.4 years in 2000 and 6.1 years in 1999.

The downward course of Treasury bill yields in the primary market¹ (tenders) in recent years continued in 2001. The weighted average interest rates of bonds, attained in tenders held in 2001, followed the downward trend of secondary market rates for corresponding securities.

2.2. *The secondary market*

The key features of the secondary market for government bonds in 2001 were the impressive rise in transactions, the drop in bond yields and their convergence towards the lower yields of corresponding securities in the euro area. Greece's entry into the euro area (and its participation in the single bond market), which eliminated the risk connected with the exchange rate of the drachma against the euro, contributed to the aforementioned developments, the same as the upgrading of the country's credit-standing, already referred to, and certain institutional and organisational improvements in market operation.² Furthermore, the favourable conditions prevailing in international bond markets, owing to the downward course of share prices in international stock markets from the end of the second quarter of 2000 to September 2001, made a positive contribution in the same direction.

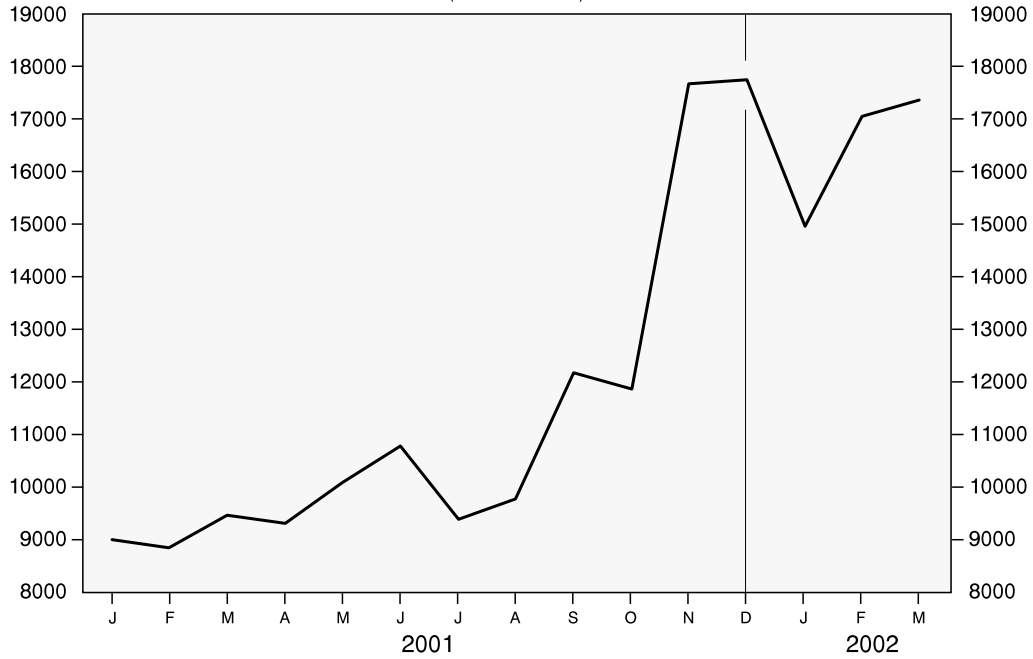
1 As from August 1999, 3-month and 6-month Treasury bills are issued every three months, which accounts for the gaps in the statistical data relating to their yields.

2 These changes concerned the possibility extended as from the beginning of 2001 to foreign credit institutions not established in Greece to become Primary Dealers. They also concerned the production of the necessary liquidity in securities that constitute benchmark paper, the pre-announcement of the total amount of new public debt and the announcement of the tendering programme on a quarterly basis, as well as the establishment, as from May 2001, of new pier-like ceilings in the Electronic Secondary Securities Market (HDAT) for the purchase and sale of securities.

CHART VII.1

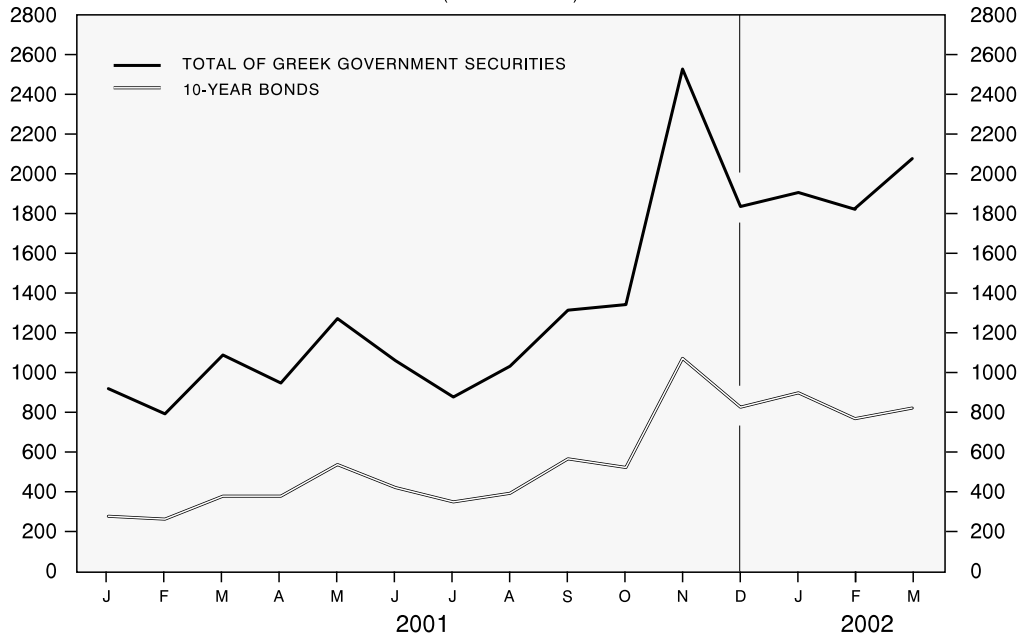
A. AVERAGE DAILY VALUE OF TRANSACTIONS IN GREEK GOVERNMENT SECURITIES IN THE BOOK-ENTRY SECURITIES SYSTEM

(MILLION EURO)



B. AVERAGE DAILY VALUE OF TRANSACTIONS IN HDAT

(MILLION EURO)



Source: Bank of Greece.

TABLE VII.2
VALUE AND STRUCTURE OF TRANSACTIONS IN GOVERNMENT SECURITIES IN HDAT

Period	Average daily value of total transactions (million euro)	Percentage share in the total value of transactions ¹													
		Treasury bills		Government bonds											
		3-year	5-year	7-year	10-year	15-year	20-year	3-year	5-year	7-year	10-year				
2001 Jan.	921.6	-	3.4	12.7	15.7	30.6	20.8	16.8							
Feb.	798.3	-	3.7	7.3	16.7	34.3	18.1	19.9							
March	1,089.4	0.1	2.6	10.9	17.6	35.1	18.7	15.0							
Apr.	950.3	0.3	1.8	9.1	13.7	40.8	20.7	13.6							
May	1,274.1	-	1.5	6.5	15.3	42.7	18.9	15.1							
June	1,056.4	-	2.8	13.8	19.7	40.2	14.1	9.4							
July	873.2	-	3.7	16.6	19.5	40.8	13.2	6.2							
Aug.	1,041.7	-	2.1	10.5	21.9	38.6	12.7	14.2							
Sept.	1,315.5	-	3.3	12.3	18.0	42.8	14.0	9.6							
Oct.	1,340.5	-	2.0	16.7	20.1	39.4	10.0	11.8							
Nov.	2,576.9	0.1	2.3	18.3	17.7	41.3	12.4	7.9							
Dec.	1,849.4	- ²	2.1	15.8	19.9	44.2	9.7	8.3							
Jan. - Dec.	1,257.3	-	2.5	13.4	18.1	40.0	14.5	11.5							
2002 Jan.	1,915.3	-	1.9	12.0	18.3	46.4	11.0	10.5							
Feb.	1,825.7	- ²	1.5	17.1	20.0	41.7	11.0	8.7							
March	2,073.4	-	5.7	21.5	11.6	39.3	10.3	11.6							

¹ As per initial maturity.

² Total transactions in Treasury bills amounted to €0.9 million in December 2001 and €0.5 million in February 2002.
Source: Bank of Greece.

In greater detail, the average daily value of transactions in the Book-Entry Securities Clearing System of the Bank of Greece¹ increased by 103% in December 2001 compared with December 2000 (see Chart VII.1A). The average daily value of transactions conducted through the Electronic Secondary Securities Market (HDAT) amounted to €1,257 million or 428 billion drachmas in 2001, against 87 billion drachmas in 2000, a fact that mainly reflects the positive influence exerted on the bond market by Greece's entry into the euro area (see Table VII.2). The increase was particularly pronounced in the last months of the year (see Chart VII.1B), owing to the conditions prevailing in the stock markets in the aftermath of the terrorist attack against the United States in September 2001. Transactions in long-term securities (with maturities of 10 years and over) accounted for 66% of total HDAT traffic in 2001, compared with 69% in 2000 (see Table VII.2). Ten-year bonds² continued to constitute the bulk of transactions in the secondary market. The value of transactions in 10-year bonds represented 40% of the total value of transactions in 2001.

The yield of the 10-year Greek government bond decreased to 5.28% at end-December 2001 from 5.47% at end-December 2000, i.e. by 19 basis points, fluctuating sharply throughout that period (see Chart VII.2). In particular, within 2001 the differential between maximum (5.63% on 28 May) and minimum yield (4.69% on 8 November) was 94 basis points. These fluctuations mirror those in the euro area. The yield differential between the Greek and the German 10-year bond fell to 34 basis points at the end of December 2001 from 62 basis points at the end of December 2000, but remained at almost the same level (33 basis points) in March 2002 (see Chart VII.2). The yields of other maturities also decreased in 2001 and continued to converge on the lower euro area yields. Sharper falls in yields were characteristic of shorter maturities (up to 7 years), particularly following the heightened uncertainty caused by the events of 11 September in the United States. However, towards the end of 2001 the yields of all maturities increased and this continued until end-March 2002 (e.g. the 10-year bond yield at the end of March stood at 5.58%).

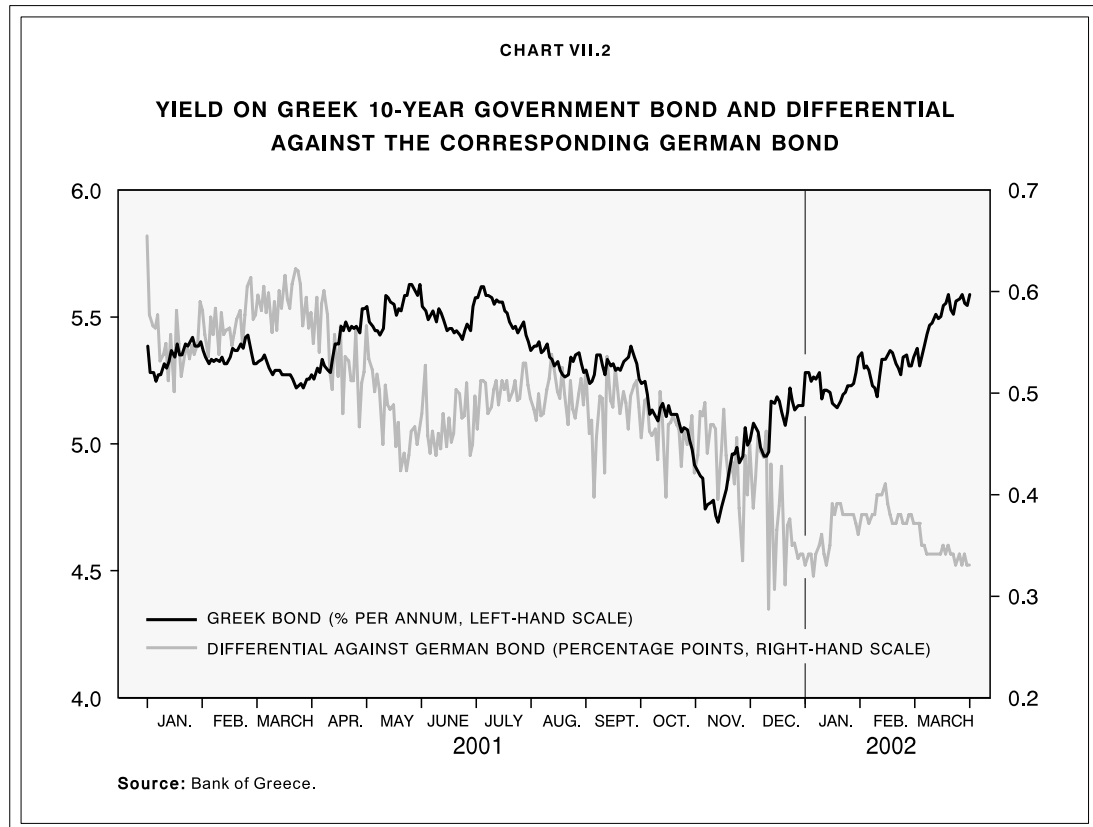
Between the end of December 2000 and the end of December 2001, the government paper yield curve shifted downwards, taking on a more positive slope³ for all maturities from 12 months to 10 years. In particular, the slope of the yield curve, as measured by the yield differential between the 10-year bond and the 12-month Treasury bill, rose from 0.7 percentage point at end-December 2000 to 1.95 percentage points at end-December 2001, but narrowed down to 1.63 percentage points at end-March 2002. Both the shift of the corresponding yield curve of the euro area and the change in its slope followed a similar pattern. These developments confirm the Greek market's further integration into the

1 As from the beginning of 2001 the prices in this system are expressed in euro.

2 As from January 2000 the 10-year bond constitutes a futures contract in the Athens Derivatives Exchange (ADE).

3 The more positive slope of the bond yield curve reflects market expectations that the ECB's cut-down on interest rates would contribute to the recovery of economic activity.

European bond market and the enhanced confidence of both domestic and foreign investors in the Greek economy. The increase in market liquidity, which is reflected in the expansion of transactions, further narrowed the differential between the offered and



asked prices of securities with a maturity of more than 3 years and thus improved the bond market's efficiency. Specifically, the differential fell from 14.3 basis points in December 2000 to 9.8 basis points in December 2001 and 9.6 basis points in March 2002.

3. THE STOCK MARKET

All stock-market-related indicators turned negative in 2001: stock prices and transactions as well as fund-raising through the stock market were lower than in 2000.

Developments in the stock market during 2001 were affected by factors such as the negative business sentiment prevailing in international stock markets in the course of the year, particularly after September 2001, and the reduced profitability of most companies with shares listed on the ASE. Similarly, the upgrade of the Greek stock market in May 2001 from emerging to developed failed to produce the desired results.

In greater detail, the negative business sentiment prevailing in international stock markets in 2001 was caused by the slower increase in economic activity (especially in the United States), the prospect of limited corporate profits in a number of industries, chiefly telecommunications, and the impact of the terrorist attacks of 11 September on world markets. Between end-December 2000 and end-December 2001, the Dow Jones EURO STOXX index (euro area), Standard and Poor's 500 index (USA) and Nikkei 225 index (Japan) dropped by 19.7%, 13% and 23.5% respectively. Share price indices in international stock markets, however, were highly volatile during 2001, which reflects the increased uncertainty connected with short-term developments in the world economy.

The reduced profitability of enterprises with shares listed on the ASE, which began in 2000, became more pronounced in 2001. In particular, these companies' pre-tax earnings in 2001 decreased by about 19%, compared with 13.4% in 2000. Notwithstanding that, in 2001 another 15 companies were added to the previous year's number of loss-making companies. Developments during the last two years in the prices of stocks and the profitability of companies with shares listed on the ASE, compared with developments in other EU stock markets, resulted in the Greek stock market being ranked, on the basis of the P/E ratio, among EU stock markets recommended for investment at the end of 2001.

The upgrade of the Greek stock market from emerging to developed had a negative effect on stock market developments, particularly between end-May and mid-July 2001. Specifically, this upgrade led foreign institutional investors, who mainly invest in emerging markets and had already put money in the Greek stock market, to restructure their equity portfolios, reducing their holdings in Greek stocks. On the other hand, inflows from foreign institutionals investing in developed markets were very limited, at least in the beginning. This is evident from the balance of payments, which in May 2001 showed a significant net outflow of funds, connected with the liquidation of non-residents' holdings in the Greek stock market.

In the five months from January through May 2001, the composite share price index of the ASE fluctuated, but its average did not fall considerably in relation to its end-December 2000 performance (see Chart VII.3A). From early June, however, until mid-July 2001, share prices followed a markedly downward trend. This happened, as aforementioned, regardless of the 31 May 2001 upgrade of the Greek stock market from emerging to developed. Share prices increased slightly from mid-July, but fell sharply after the terrorist attack against the United States on 11 September, with a tendency to recover between the beginning of October and the end of December 2001.

Between end-December 2000 and end-December 2001, the ASE composite share price index fell by 23.5%.¹ The index peaked at 3,360.5 points on 3 January 2001 and fell to its lowest value (2,105.6 points) on 21 September 2001 (see Chart VII.3A). All individual indices dropped, with the exception of the insurance companies index, which increased. Compared with the composite index, the largest drop between end-December

¹ In December 2001, the average monthly value of this index was 25.7% lower than in December 2000.

2000 and end-December 2001 involved the portfolio investment companies index (42.9%), the holding firms index (35.4%), the banking index (34.5%), the insurance companies index (30.7%), the industrial firms index (25.9%) and the parallel market index (24.2%). The construction firms index fell by 9.9%, i.e. much less than the composite index.

The value of trading¹ in shares stood at €41,526 million or 14,150 billion drachmas in 2001, down from 34,343 billion drachmas in 2000 (see Table VII.4). The daily value of transactions, though volatile during 2001 (see Chart VII.3B), generally receded to much lower levels than in 2000. Specifically, the average daily value of transactions in 2001 amounted to 42% of the previous year's (2001: €167 million or 57 billion drachmas, 2000: 136 billion drachmas). The share marketability index² followed a similar pattern, falling from 5% in December 2000 to 4.4% in December 2001 (see Chart VII.3C). This was due to the sharp fall in the share trading volumes of all industries, affecting in particular leasing companies (79.4%), portfolio investment companies (76.6%) and commercial-industrial companies (75.9%); as a result, trading in these industries' shares declined as a proportion of total stock market trading, while the proportion of the remaining industries increased (see Table VII.4).

The investment behaviour of both savers and institutional investors was adversely affected in 2001 by the drop in the prices of shares and their increased volatility. In more detail, the holdings of mutual funds and portfolio investment companies in ASE listed-shares decreased (at constant prices) at the end of 2001 by approximately 233 billion drachmas, compared with the end of 2000. This was the result of the increased liquidation of mutual fund units and of the partial replacement of mutual funds' holdings in ASE-listed shares with repos and foreign bonds.

Conditions in the stock market in 2001 severely constrained fund-raising by both newly-listed companies and – mainly – companies with already listed shares. Total funds raised by means of capital stock increases³ amounted to a mere €835 million or 285 billion drachmas in 2001,⁴ compared with 2,994 billion drachmas in 2000 (see Table VII.3). These funds were raised by 40 companies (2000: 146 companies), out of which 21 listed their shares for the first time and raised €468 million or 160 billion drachmas. In particular, about a quarter of this amount was raised by companies in the oil industry and another quarter by construction firms.

Between end-December 2000 and end-December 2001, the index of bank share prices fell by 34.5%, having fluctuated sharply in the course of the year (see Table VII.3 and Chart VII.3A). The average daily value of transactions was heavily reduced (by 43%), falling to about €35 million or 12 billion drachmas from 21 billion drachmas in 2000.

1 Total transactions exclude the sale of existing shares.

2 The number of shares traded to the total number of listed shares.

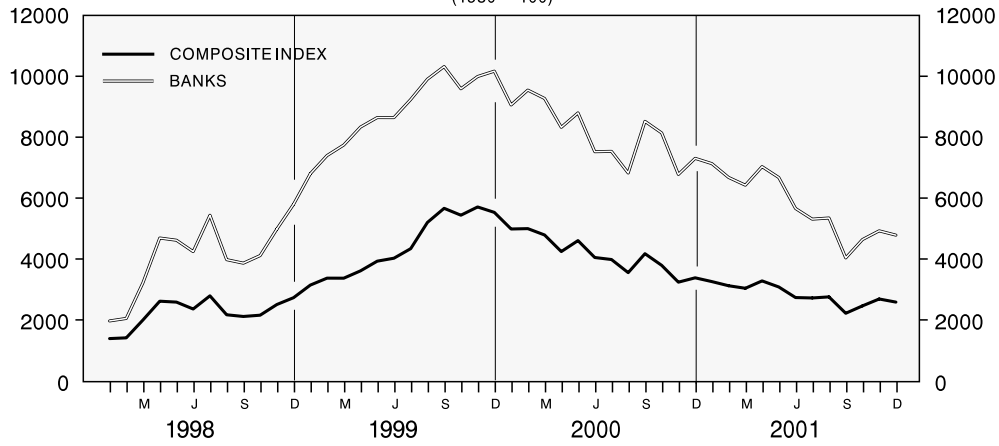
3 By public subscription or private placement.

4 Additionally, an amount of 205 billion drachmas was raised through the stock market from the sale of existing shares, compared with 370 billion drachmas in 2000. To a large extent, this amount refers to the sale by the government of existing shares of public enterprises.

CHART VII.3

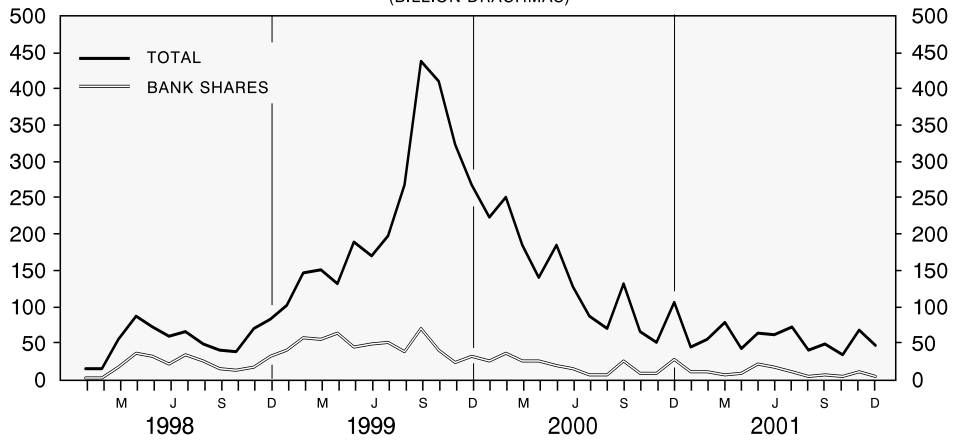
A. SHARE PRICE INDICES OF THE ATHENS STOCK EXCHANGE

(1980 = 100)



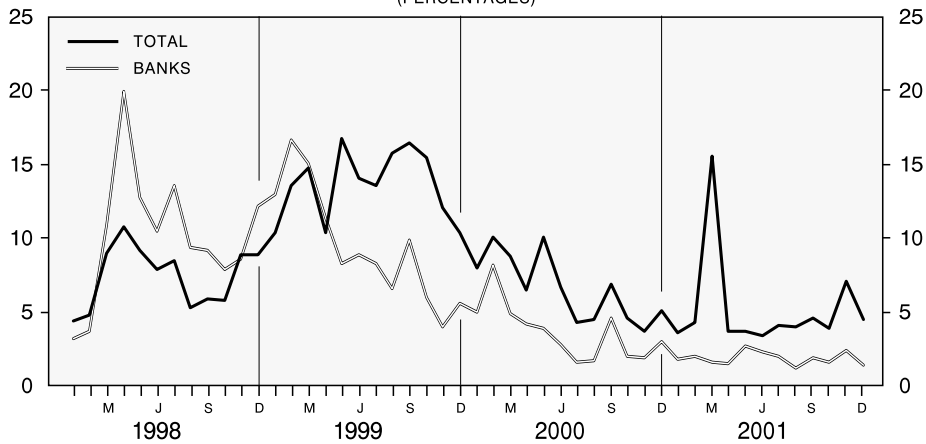
B. AVERAGE DAILY VALUE OF TRANSACTIONS

(BILLION DRACHMAS)



C. MONTHLY MARKETABILITY OF SHARES

(PERCENTAGES)



Sources: Athens Stock Exchange and Bank of Greece.

TABLE VII.3
STOCK MARKET AGGREGATES

Year	Share price indices ¹ (1980 = 100)		Average daily value of transactions ² (billion drachmas)		Market capitalisation ¹ (billion drachmas)			Market capitalisation (percentage of GDP)			Funds raised through the Athens Stock Exchange ⁴ (billion drachmas)		
	Composite	Banks	Shares	Bonds ³	Shares	Bonds	Total	Shares	Bonds	Total	Listed companies	New companies	Total
1998	2,737.6	5,799.4	22,839	22,801	45,640	63	63	126	494	333	827		
1999	5,535.1	10,165.4	67,311	26,190	93,501	68	68	243	2,926	383	3,309		
2000	3,388.9	7,307.0	40,194	26,218	66,412	63	63	160	2,374	620	2,994		
2001	2,591.6	4,788.1	33,036	27,662	60,698	74*	62*	136*	125*	160*	285*		

1 At year-end.

2 In shares. Transactions in existing shares are not included.

3 Loans consist of Greek Treasury bills and government bonds (drachma-denominated, in foreign currency and with a foreign currency clause), bank bonds and corporate bond loans.

4 Through capital increase and issue of new shares. Subscriptions to new capital are entered on the last day of the subscription period.

* Provisional data.

Sources: Athens Stock Exchange, Bank of Greece and (for GDP) Ministry of Economy and Finance.

TABLE VII.4
VALUE AND STRUCTURE OF STOCK MARKET TRANSACTIONS
(Billion drachmas)

	1998		1999		2000		2001	
	Value of transactions	Percentage of total	Value of transactions	Percentage of total	Value of transactions	Percentage of total	Value of transactions	Percentage of total
Shares	14,083.6	99.1	58,796.0	100.0	34,343.0	99.8	14,149.8	100.0
Main market	13,322.5	93.7	52,261.9	88.9	28,610.0	83.1	11,826.2	83.6
–Banks	5,697.2	40.1	12,150.5	20.6	5,337.0	15.5	2,891.5	20.4
–Leasing	77.1	0.5	403.5	0.7	136.3	0.3	28.0	0.2
–Insurance	181.0	1.2	1,111.6	1.9	858.6	2.5	775.9	5.5
–Investment	241.5	1.7	1,806.9	3.1	919.6	2.7	214.8	1.5
–Construction	310.7	2.2	4,856.4	8.3	2,094.0	6.1	945.7	6.7
–Commercial/industrial	4,550.7	32.0	20,909.4	35.6	10,836.2	31.5	2,612.4	18.5
–Telecommunications	1,473.2	10.4	3,253.0	5.5	3,164.3	9.2	1,596.3	11.3
–Holdings	340.6	2.4	2,109.5	3.6	1,526.6	4.4	1,034.4	7.3
–Other	450.5	3.2	5,661.1	9.6	3,737.4	10.9	1,727.2	12.2
Parallel market	761.1	5.4	6,534.1	11.1	5,733.0	16.7	2,323.6	16.4
Bonds¹	128.4	0.9	4.4	0.0	85.8	0.2	6.3	0.0
Total	14,212.0	100.0	58,800.4	100.0	34,428.8	100.0	14,156.1	100.0

¹ Comprising Greek Treasury bills and government bonds (drachma-denominated, in foreign currency, and with a foreign currency clause), bank bonds, government and corporate bond loans, bond loans of international institutions, as well as national loans in foreign currency, loans for consolidation and expropriation purposes, lottery loans and loans of legal persons and business firms.

Source: Athens Stock Exchange.

Similarly, the average marketability of bank shares retreated to 1.3% in December 2001 from 2.9% in December 2000. The fall in the above stock market-related indicators of banks is largely associated with the abovementioned reasons, as well as with the decline in the profitability of banks for a second consecutive year. In more detail, the total pre-tax earnings of banks with shares listed on the ASE, which had already fallen by 16.1% in 2000, were further reduced by 13% in 2001.¹

Between end-2000 and end-2001, the share price index for portfolio investment companies fell by 42.9%, which is easily explained by the fact that a considerable part of the portfolio of these companies consists of shares listed on the ASE.

The index of construction firms' share prices recorded a loss of 9.9%, in spite of the significant increase in these firms' profitability (27.1%) in 2001 and the favourable provisions of Law 2940/2001.² The industry's prospects seem positive, considering the expected increase in demand for constructions over the coming years, in view of the 3rd Community Support Framework and the 2004 Olympic Games.

Finally, the index of industrial share prices fell by 25.9% in 2001, compared with end-2000. The general factors explaining weak demand for shares account for this development, as well as the drop (27.4%) in the profitability of industrial companies (with shares listed on the ASE). Among manufacturing industries, those of food and beverages, tobacco, chemicals, non-metallic minerals and electrical equipment saw their profits increase.

4. THE MUTUAL FUNDS MARKET

The decline in the activity of mutual funds, which was recorded in the first quarter of 2000, continued in 2001 (see Chart VII.4). In particular, the value of mutual funds' assets fell by 1,415 billion drachmas or 13.4% to 9,141 billion drachmas at the end of 2001 from 10,556 billion drachmas at end-December 2000 (see Table VII.5). This development is attributed to the drop in prices and to the reduced number of mutual fund units in circulation. Moreover, mutual funds' assets decreased further during the first quarter of this year.

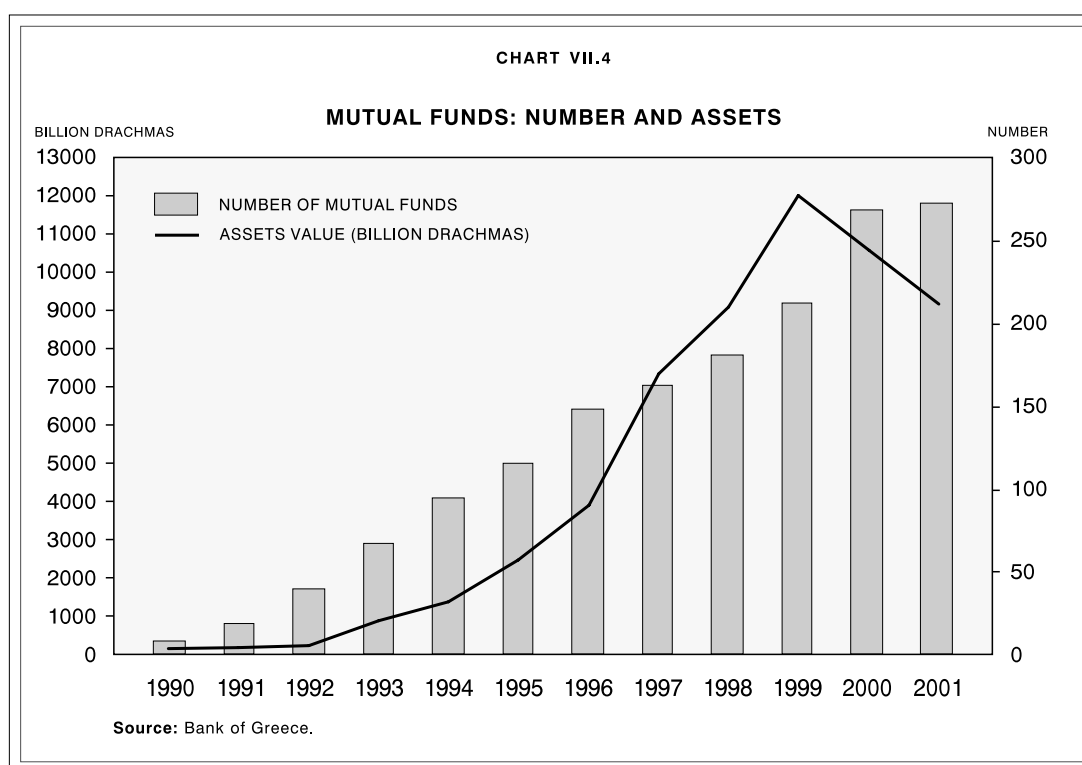
Demand for mutual fund units in 2001 was met primarily by the sale of units already on the market at the end of 2000 and, to a lesser extent, by the launching of new mutual funds in 2001. In greater detail, 23 mutual funds were established in 2001 (11 of the equity type, 5 of the balanced type, 4 of the bond type and 3 of the money-market type), with total assets valued at 89 billion drachmas at the end of 2001, representing

1 The profits of the banking sector as a whole (all banks with shares listed on the ASE), excluding the Bank of Greece, fell by 14.1% and 22.7% in 2001 and 2000, respectively. Moreover, the profits of Greek banks with shares listed on the ASE, excluding the Bank of Greece, fell by 16.4% and 23.2% in 2001 and 2000, respectively.

2 This law established new criteria for the classification of construction companies in registries and gave incentives for acquisitions and mergers within the industry.

aproximately 1% of the total value of mutual funds' assets. Moreover, 20 mutual funds¹ (8 of the money-market type, 5 of the bond type, 5 of the equity type and 2 of the balanced type) withdrew from the market in 2001, while 6 mutual funds changed their investment purpose, with 3 being now reclassified as mutual funds of the equity type, 2 of the bond type and 1 of the money-market type. Following these developments, the number of mutual funds rose to 272 at the end of 2001, from 269 in 2000 and 212 in 1999 (see Table VII.5 and Chart VII.4). Half of these were of the equity-type.

It is worth noting that two new Mutual Funds Management Companies (MFMC) started operating in 2001, out of the 4 MFMCs to which the Capital Markets Committee



had granted a licence. At the same time, 3 MFMCs ceased operating.² Thus, at the end of 2001 the total number of MFMCs active in the Greek mutual funds market was 26.

The fall in the value of mutual funds' total assets reflects corresponding developments in the value of the assets of mutual funds of the money-market type (-36.9%) and of the equity type (-30.7%). By contrast, the assets of bond-type and balanced-type mutual funds increased by 18.2% and 105.2% respectively (see Table VII.5).

1 Out of these, 15 mutual funds (5 of the bond type, 5 of the equity type, 4 of the money-market type and 1 of the balanced type) merged with 15 mutual funds of corresponding MFMCs.

2 Out of these, 2 MFMCs merged with other MFMCs.

The continued decrease in the assets of mutual funds of the equity type was partly due to the drop in the prices of shares in the Greek stock market and the shift of investors' interest from this type to the balanced and the bond type (domestic, foreign and international). As a result, the number of equity-type mutual fund units in circulation decreased by about 9% at the end of 2001, compared with the end of 2000. It should be noted that the holdings of mutual funds in shares listed on the ASE (at constant prices) declined in 2001 by €786 million or roughly 268 billion drachmas (compared with a drop of about 731 billion drachmas in 2000). Investors' interest also shifted from mutual funds of the money-market

TABLE VII.5
MUTUAL FUNDS: NUMBER AND ASSETS¹
(Assets value in billion drachmas)

Type of mutual fund	2000		2001		Percentage of total assets	
	Number	Assets value	Number	Assets value	2000	2001
Money-market type	49	5,234	43	3,303	49.5	36.2
Domestic	43	5,223	37	3,286	49.4	36.0
Foreign	2	2	2	3	0.0	0.0
International	4	9	4	14	0.1	0.2
Bond type	62	1,610	63	1,904	15.3	20.8
Domestic	38	1,510	33	1,670	14.4	18.3
Foreign	13	64	13	132	0.6	1.4
International	11	36	17	102	0.3	1.1
Equity type	122	2,709	130	1,876	25.7	20.5
Domestic	79	2,532	77	1,738	24.0	19.0
Foreign	26	136	31	102	1.3	1.1
International	17	41	22	36	0.4	0.4
Balanced type	36	1,003	36	2,058	9.5	22.5
Domestic	25	915	25	1,996	8.7	21.8
Foreign	4	5	2	1	0.0	0.0
International	7	83	9	61	0.8	0.7
Total	269	10,556	272	9,141	100.0	100.0

1 At year-end.

Source: Bank of Greece.

type to mutual funds of the bond type, owing to the significant cut in interest rates in the Greek money market and the favourable conditions that prevailed in the market for bonds. Based on these developments, the share of mutual funds of the money-market and the equity type in the total value of mutual funds' assets fell to 36.2% and 20.5% at the end of 2001 from 49.5% and 25.7%, respectively, at the end of 2000. By contrast, the corresponding share of mutual funds of the bond and the balanced type rose to 20.8% and 22.5% at the end of 2001, from 15.3% and 9.5% respectively, at the end of 2000 (see Table VII.5).

The investment behaviour of mutual funds in 2000 continued in 2001, favouring holdings chiefly in foreign capital markets and to a lesser extent in the Greek money mar-

ket. Specifically, the decrease of 1,415 billion drachmas in the assets of mutual funds between December 2000 and December 2001 was due to the decline in holdings of Greek government paper (–882 billion drachmas), in synthetic currency swaps (–808 billion drachmas) as well as in ASE-listed shares (–793 billion drachmas) (see Table VII.6). By

TABLE VII.6
PORTFOLIO STRUCTURE OF MUTUAL FUNDS¹
(Billion drachmas)

	2000	2001	Change
Domestic investment	9,900	7,807	–2,093
– Synthetic currency swaps	3,229	2,421	–808
– Greek government bonds and Treasury bills	2,609	1,727	–882
– Shares listed on the ASE	2,503	1,710	–793
– Repos	1,493	1,583	90
– Bank deposits and cash	66	366	300
Foreign investment	388	922	534
– Bonds	197	776	579
Other	268	412	144
T o t a l	10,556	9,141	–1,415

¹ At year-end.

Source: Bank of Greece.

contrast, there was an increase in holdings in foreign bonds (579 billion drachmas), in bank deposits and cash (300 billion drachmas) and in repos (90 billion drachmas). At the end of 2001, 26.5% (2000: 30.6%) of all mutual fund portfolios consisted of holdings in synthetic currency swaps, 18.7% (2000: 23.7%) in ASE-listed shares, 18.9% (2000: 24.7%) in Greek government paper and 17.3% (2000: 14.1%) in repos.

VIII. PUBLIC FINANCE

1. THE PUBLIC SECTOR BORROWING REQUIREMENT AND ITS FINANCING

The continuous and systematic eight-year effort to achieve fiscal adjustment resulted in a surplus in 2001, for the first time in almost three decades. Consequently, from the very first year after joining the euro area, Greece met the requirements of the Stability and Growth Pact for a “general government budget that is close to balance or in surplus”.

The realisation of a surplus, notwithstanding the deterioration of the international macroeconomic environment, was due to strict adherence to the 2001 budget (particularly as regards expenditure) and to extraordinary revenue, originally not envisaged in the budget.

TABLE VIII.1
GENERAL GOVERNMENT BALANCE¹
(Percentage of GDP)

	1997	1998	1999	2000	2001*
General government					
National accounts data ² - <i>convergence criterion</i>	-4.0	-2.4	-1.7	-0.8	+0.1
On an accrual basis ^{3,4}	-5.4	-3.2	-2.5	-2.0	-1.7
Borrowing requirement (on a cash basis) ^{3,5}	-6.8	-5.0	-3.7	-4.0	-4.5

1 Deficit (-), surplus (+).

2 Including public enterprises' debt assumed by central government.

3 Excluding capitalised interest.

4 Ministry of Economy and Finance and Bank of Greece data.

5 Including expenditure for the acquisition of assets, which, however, according to established international practice, are deducted from the two indicators above.

* Provisional data.

Sources: Bank of Greece, Ministry of Economy and Finance, National Statistical Service of Greece (NSSG).

Specifically, according to national accounts data, the budget balance of general government, which comprises central government, social security funds, local authorities and other public entities (but not public enterprises), turned from a 0.8% of GDP deficit in 2000 into a 0.1% surplus in 2001 (see Table VIII.1).

The general government deficit on an accrual basis (second item in Table VIII.1), continuing its downward trend, also fell from 2.0% of GDP in 2000 to 1.7% in 2001. This indicator is based on accrual data, as regards central government, and on estimates, as regards the financial results of all social security funds, local authorities and other public entities.

Finally, the general government borrowing requirement, as shown by cash flows between the State and other general government entities, on the one hand, and the banking system, on the other hand, grew by 0.5 percentage point to reach 4.5% of GDP. The considerable difference between the national accounts – and the accrual-based result on the one hand and the borrowing requirement on the other is attributable to the fact that certain general government transactions, which are not taken into account in the national

accounts – and the accrual-based result (e.g., “expenditure for the acquisition of assets”), are included in the borrowing requirement on a cash basis. Furthermore, on a national accounts and an accrual basis, revenue (mainly of the public investment budget) collected in the “extension” of the fiscal year is registered in the year it accrues to but, on a cash basis, it is registered in the year it is collected. For this reason, not only does the borrowing requirement usually differ from the respective national accounts – or accrual-based result, but it may also move in the opposite direction.

The public sector borrowing requirement

Since 2001, the data obtained from the banking system are not suitable for monitoring developments (on a cash basis) in public enterprises, as these enterprises are now included in the private sector of the economy. For this reason, analysis on a cash basis is now limited to general government. According to available provisional data, the borrowing requirement of general government, on a cash basis, increased slightly in 2001 to reach 4.5% of GDP, from 4.0% in 2000 (see Table VIII.2). This rise was mainly due to the reduced surplus of public entities (i.e. annual change in their reserves) and, to a lesser extent, the larger deficit of central government.

Specifically, the borrowing requirement of central government rose marginally, from 5.9% of GDP in 2000 to 6.0% in 2001. This is exclusively attributable to the increase in the ordinary budget cash deficit from €1,888 million in 2000 to €3,125 million in 2001 and is partly associated with the shortfall in ordinary budget revenue. By contrast, the cash deficit in the public investment budget declined considerably in 2001 (as much of the revenue falling due in 2000 was actually collected in spring 2001), while the deficit in the special management accounts of the State (DIDAGEP)¹ turned into a surplus. The appearance of a surplus in these accounts is attributable to the change in the way EU subsidies are paid to beneficiaries, with the result that scheduled payments to farmers were not completed within 2001.

Finally, the fall in the surplus recorded by public entities was almost entirely due to a 20.6% decrease in the reserves of social security funds. Thus, although the borrowing requirement of local authorities dropped to about half the amount recorded in 2000, the total cash surplus of public organisations fell from 1.9% of GDP in 2000 to 1.5% in 2001.

The net borrowing requirements were financed smoothly in the course of 2001, while interest rates on Greek government bonds continued to fall and converge towards the corresponding German rates. For the fifth consecutive year, financing was effected by the issue of medium – and long-term drachma-denominated fixed-rate bonds (see Table VIII.3). It should be recalled that since 2001 all new government paper has been euro-denominated and that the existing debt has been converted into euro. As in the two pre-

¹ From 3 September 2001 DIDAGEP was abolished and replaced with the Organisation for the Payment and Control of Guidance and Guarantee Community Subsidies (OPEKEPE).

ceding years, a substantial amount of bonds was purchased by non-residents, while domestic private investors continued to restructure their portfolios, shifting from government paper to repos, though to a lesser extent than in 1999 and 2000. As the acquisition of gov-

TABLE VIII.2
PUBLIC SECTOR NET BORROWING REQUIREMENT
(Million euro)

	1996	1997	1998	1999	2000	2001*
1. Central government ¹	10,832	7,585	6,819	6,043	7,090	7,812
Percentage of GDP	12.3	7.8	6.4	5.4	5.9	6.0
– Government budget (Ordinary budget) ² (Public investment budget)	10,791 (8,777) (2,014)	7,512 (4,882) (2,630)	6,588 (3,459) (3,128)	5,835 (1,907) (3,929)	6,844 (1,888) (4,956)	7,909 (3,125) (4,784)
– DIDAGEP ³	41	73	232	208	247	–97
2. Public entities ⁴	–1,900	–1,013	–1,552	–1,866	–2,248	–1,996
Percentage of GDP	–2.2	–1.0	–1.5	–1.7	–1.9	–1.5
– Financing of social security funds	36	6	–76	80	82	–144
– Financing of local authorities	91	17	23	11	232	103
– Financing of other entities	–139	–68	–59	–106	73	138
– Reserves	–1,887	–969	–1,441	–1,851	–2,635	–2,092
General government (1+2)	8,932	6,572	5,267	4,178	4,843	5,817
Percentage of GDP	10.2	6.8	5.0	3.7	4.0	4.5
3. Public enterprises	245	–389	414	209	196	...
Percentage of GDP	0.3	–0.4	0.4	0.2	0.2	...
– Financing of public utilities	169	–339	191	253	214	...
– Financing of other enterprises	49	54	167	229	176	...
– Reserves	30	–104	56	–274	–194	...
Public sector (1+2+3)	9,177	6,183	5,681	4,386	5,039	...
Percentage of GDP	10.4	6.4	5.4	3.9	4.2	...
Public sector (including capitalised interest)	9,702	6,286	5,760	4,386	5,039	...
Percentage of GDP	11.0	6.5	5.4	3.9	4.2	...

1 Results from the respective accounts with the Bank of Greece, the Agricultural Bank and commercial banks.

2 Including, as of 1997, movements in public debt management accounts.

3 Agricultural Markets Management Service. As of 3 September 2001, DIDAGEP was replaced by the Payment and Control Agency for Guidance and Guarantee Community Aids (OPEKEPE).

4 Estimates on the basis of their investment in securities and bank deposits and the change in their liabilities to the banking system.

* Provisional data and estimates.

Source: Bank of Greece.

ernment paper by non-residents is registered as borrowing in foreign currency, it appears that borrowing in foreign currency financed the entire borrowing requirement and that part of it was used to repay debts to residents (see Table VIII.3).

TABLE VIII.3
SOURCES OF FINANCING THE PUBLIC SECTOR BORROWING REQUIREMENT¹
(Million euro)

	1996		1997		1998		1999		2000		2001*	
	Amount	Percentage of total	Amount	Percentage of total	Amount	Percentage of total	Amount	Percentage of total	Amount	Percentage of total	Amount	Percentage of total
BORROWING IN EURO	8,317	90.6	2,838	45.9	204	3.6	-3,634	-82.9	-3,483	-69.1	-1,514	-26.0
- Treasury bills and bonds purchased by monetary financial institutions ^{2,3}	1,437	15.7	1,834	29.7	-1,633	-28.7	1,543	35.2	5,379	106.8	4,070	70.0
- Treasury bills and bonds purchased by the domestic non-bank sector ²	7,206	78.5	350	5.7	180	3.2	-5,136	-117.1	-9,171	-182.0	-4,499	-77.3
- Loans and advances from monetary financial institutions ³	119	1.3	-12	-0.2	1,017	17.9	-396	-9.0	21	0.4	-191	-3.3
- Bank of Greece ⁴	-445	-4.8	665	10.8	640	11.3	354	8.1	288	5.7	-895	-15.4
BORROWING IN FOREIGN CURRENCY AND BORROWING FROM NON-RESIDENTS	860	9.4	3,345	54.1	5,476	96.4	8,020	182.9	8,522	169.1	7,331	126.0
TOTAL BORROWING	9,177	100.0	6,183	100.0	5,681	100.0	4,386	100.0	5,039	100.0	5,817	100.0

1 For 2001, borrowing requirements regard general government.

2 Sales of securities in the secondary market are also included.

3 For 2001, the source of financing the PSBR regards credit institutions only.

4 As from 1 January 1994, the respective figure no longer concerns financing by the Bank of Greece but changes in the credit balance of the government's cash account with the Bank.

* Provisional data.

Source: Bank of Greece.

Unlike domestic private investors, domestic credit institutions increased their portfolio of government paper, although to a lesser extent than in 2000, thus helping to finance the 2001 deficit.

The policy of prolonging the average maturity of public debt continued in 2001, through the further substitution of medium – and long-term bonds for Treasury bills. Thus, at end-2001, the outstanding balance of Treasury bills and other short-term securities was reduced to €892 million or 0.7% of the total consolidated debt, compared with 1.4% in 2000 and 3.9% in 1999 (see Table VIII.8). At the same time, the average maturity of new borrowing effected in 2001 is estimated at almost 9 years.

In addition to easily meeting its borrowing requirement, the government also increased its deposits with the Bank of Greece by €895 million in the course of 2001.

Finally, it should be mentioned that in 2001 the government used new financial products which, according to the Eurostat regulations in force, are not included in public debt.

2. FISCAL AGGREGATES

2.1 *The government budget*

Unlike the three years 1998-2000, when high revenue determined fiscal developments, the distinctive feature in 2001 was a considerable shortfall in ordinary budget revenue. However, 73.7% of this shortfall was offset by the collection of extraordinary revenue amounting to €822 million (or 280 billion drachmas), not envisaged in the 2001 budget. Thus, the government budget deficit continued to decline, falling to 3.6% of GDP, compared with 4.3% in 2000 and 5.0% in 1999 (see Table VIII.9).

In any case, despite extraordinary revenue, the deficit overshot the budgeted amount by 0.3 percentage point, which was exclusively due to the shortfall of revenue compared with budget forecasts. By contrast, both ordinary budget expenditure and public investment budget expenditure showed no deviation from budget forecasts.

The shortfall of revenue had a negative effect on the primary surplus, which remained as a percentage of GDP at the same level as in the previous year (2000: 3.9%, 2001: 3.9%), while it fell short of the budget forecast (4.2% of GDP) by 0.3 percentage point (see Chart VIII.1).

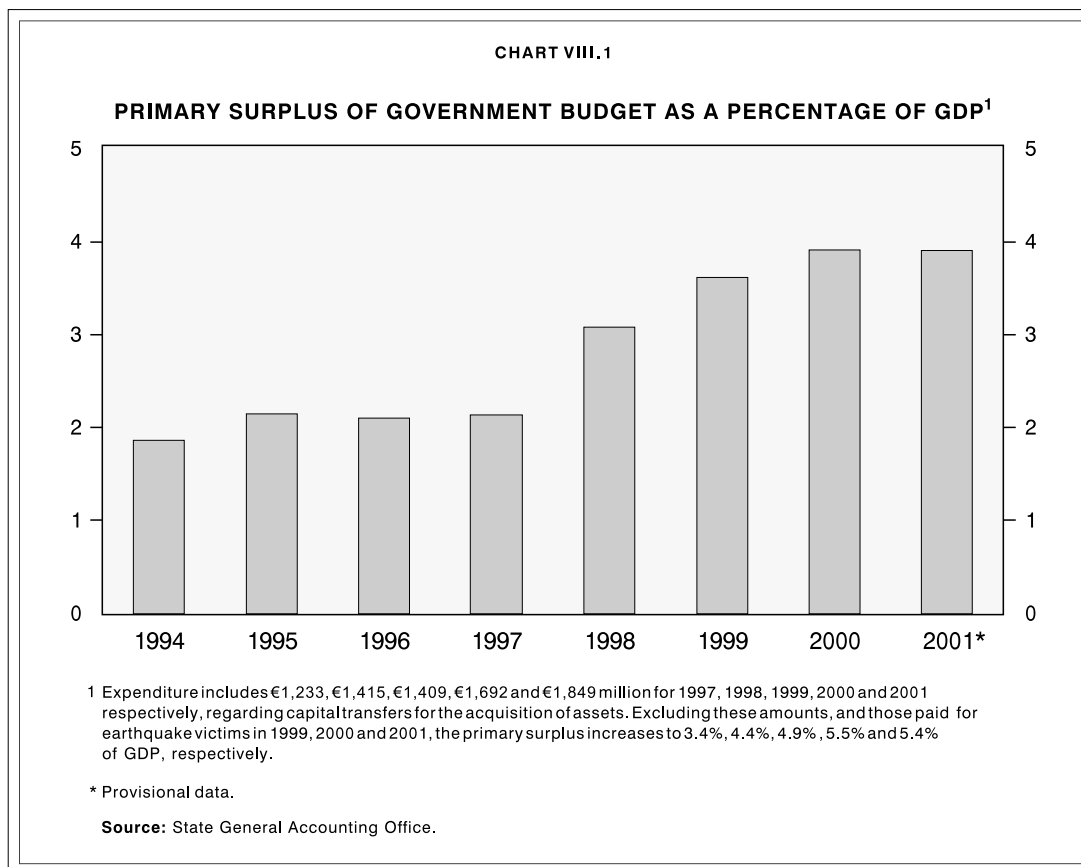
Revenue

After three years of high yields, ordinary budget revenue showed a considerable shortfall in comparison with budget forecasts. Three quarters of this shortfall were offset by extraordinary (mainly non-tax) revenue.

As a result, the share of non-tax revenue rose to 9.3% of total ordinary budget rev-

enue, compared with an average of just 6.3% in the three years 1998-2000. Even if receipts from the sale of third generation mobile telephony licences in 2001 are deducted from non-tax revenue, its share still remains high (8%).

In 2001 ordinary budget revenue increased by 7.1% (2000: 10.2%, 1999: 11.5%) and reached €36,684 million or 12,500 billion drachmas (see Table VIII.4). If extraordinary revenue is deducted, the rate of increase is limited to 4.7%, against a forecast of 8.1% in the 2001 budget. The shortfall mainly concerns taxation of corporate income, stock exchange transactions, income from bond and deposit interest, as well as the special con-



sumption tax on liquid fuel. By contrast, as regards personal income tax, the revenue from income tax withholdings, mainly on the income of employees and pensioners, showed a considerable overrun.

Direct tax receipts fell by 0.3% in 2001, compared with an increase of 15.3% in 2000, to €13,640 million or 4,648 billion drachmas (see Table VIII.4), compared with €13,682 million in 2000.

Revenue from personal income tax rose by 10.9% in comparison with 2000 and reached €6,001 million or 2,045 billion drachmas, despite the tax reliefs both in 2000 and

TABLE VIII.4
ORDINARY BUDGET REVENUE
(Million euro)

	Annual aggregates				Percentage changes		
	1998	1999	2000	2001*	1999/98	2000/99	2001*/00
I. DIRECT TAXES	10,540	11,866	13,682	13,640	12.6	15.3	-0.3
1. Income tax	8,965	10,114	11,613	11,366	12.8	14.8	-2.1
– Personal	4,657	5,357	5,411	6,001	15.0	1.0	10.9
– Corporate	2,988	3,336	5,034	4,305	11.6	50.9	-14.5
– Special categories of income tax (tax on shipping)	1,319	1,422	1,168	1,059	7.8	-17.8	-9.3
(tax on interest income from bonds, deposits etc.)	(21)	(20)	(21)	(22)	(-4.2)	(1.4)	(7.1)
(1,114)	(1,052)	(665)	(587)	(-5.5)	(-36.8)	(-11.8)	
2. Wealth taxes	391	372	462	502	-5.1	24.4	8.6
3. Direct taxes collected on behalf of third parties	5	8	5	3	55.6	-39.3	-41.2
4. Tax arrears	438	604	752	833	37.9	24.6	10.8
5. Extraordinary and other direct taxes	740	769	850	936	3.9	10.5	10.2
II. INDIRECT TAXES	15,402	17,179	18,620	19,621	11.5	8.4	5.4
1. Customs duties and special contributions on imports-exports	193	204	222	229	5.9	8.6	3.2
2. Consumption taxes on imports	1,479	1,816	1,968	2,089	22.8	8.4	6.1
– VAT (non-EU imports)	958	1,053	1,311	1,394	9.9	24.5	6.4
– Cars	483	716	620	654	48.2	-13.4	5.4
– Special consumption tax	34	47	37	41	39.1	-20.6	10.2
– Other taxes on imports	4	1	0	0	-84.6	-	-
3. Consumption taxes on domestic products	11,961	12,554	13,611	15,023	5.0	8.4	10.4
– Turnover tax	132	107	158	191	-18.7	47.5	20.4
– VAT	7,034	7,715	8,759	9,479	9.7	13.5	8.2
– Fuel	2,479	2,335	2,199	2,233	-5.8	-5.8	1.6
– Tobacco	1,506	1,637	1,758	1,910	8.8	7.4	8.7
– Road duties	266	372	329	722	39.8	-11.7	119.4
– Special levies and contributions on cars	231	51	53	128	-78.0	5.2	4.4
– Other ¹	312	337	354	360	7.9	5.1	1.6
4. Transaction taxes	1,549	2,322	2,458	1,890	49.9	5.9	-23.1
– Capital transfers	507	1,240	1,417	889	144.3	-14.3	-37.3
– Stamp duties	882	848	817	888	-3.9	-3.6	8.6
– Banking transactions	136	184	161	32	35.1	-12.4	-80.0
– Licence fees for gambling	23	50	62	81	120.8	24.1	30.3
5. Other indirect taxes	222	283	362	391	27.8	27.7	8.0
III. TOTAL TAX REVENUE	25,942	29,046	32,303	33,262	12.0	11.2	3.0
Non-tax revenue	1,933	2,041	1,954	3,422	5.6	-4.3	75.1
IV. TOTAL ORDINARY BUDGET REVENUE	27,875	31,087	34,257	36,684	11.5	10.2	7.1

¹ Including the special consumption tax on domestic products.

* Estimates.

Source: State General Accounting Office.

2001. It should be noted that this revenue exceeded the budget forecast by €454.9 million (155 billion drachmas). This favourable development is mainly attributable to the overrun in income tax withholding at the source (€264.1 million), although the raising of the tax-free amount for 2001 had a negative impact on revenue from income tax withholdings only.

Receipts from corporate income tax fell by 14.5% to €4,305 million (1,467 billion drachmas), from €5,034 million in 2000. The shortfall in this category of revenue relative to budget forecasts amounted to €801 million or 273 billion drachmas and is attributable to reduced business profitability in 2000 and unusually high receipts from corporate income taxation in 2000 (base effect), owing to the high profits earned in 1999.

The interest rate cuts, mainly in the course of 2000, had a negative effect on revenue from the taxation of interest income in 2001. Thus, for the third consecutive year, revenue from the taxation of interest income (government paper, bank deposits etc.) fell by 11.8% to €587 million or 200 billion drachmas. This amount, which is only 52.7% of the revenue in this category collected in 1998, falls short of the budget forecast by 119 billion drachmas. In addition to the interest rate cuts, this development is also attributable to increased investment in repos, whose yields were tax-exempt until the end of 2001. At the same time, a substantial part of government paper is held by non-residents, who are exempt from this tax liability.

Revenue from taxes on inheritances, gifts and parental donations fell by 7.1%, compared with an increase of 30.3% in 2000, and stood at €332 million or 113 billion drachmas. By contrast, revenue from big real property tax (which appears cumulatively with the previous category in Table VIII.4) rose by 61.4%. As a result, the total of both categories grew by 8.6% and reached €502 million or 171 billion drachmas. The drop in revenue from taxes in the former category is attributable to the speeding up of gifts and parental donations in autumn 2000, after the government had announced that “objective prices” of real estate would be raised as from 1 January 2001 (actually effected two months later), which led to an increase in revenue in 2000 and a drop in revenue in 2001.

Receipts from “direct tax arrears” grew by 10.8%, compared with an increase of 24.6% in 2000 and 37.9% in 1999, and reached €833 million or 284 billion drachmas. The deceleration of the growth rate of this revenue is attributable to the repeated extensions granted within the context of the arrangements for the collection of overdue payments first introduced in November 1998 (at the beginning of 2001 a further extension was granted for 2001), which resulted in a decrease in outstanding tax liabilities. On the other hand, according to the Ministry of Economy and Finance, this revenue was favourably affected by the establishment of regional tax auditing centres and the intensification of audits, and the mobilisation of internal revenue officers.

Revenue from indirect taxes rose by 5.4% in 2001, compared with 8.4% in 2000, and reached €19,621 million or 6,686 billion drachmas, falling short of the budgeted amount by 204 billion drachmas (see Table VIII.4). This shortfall would have been at least 50% higher if the road duties for 2002 had not been collected in the last two months of

2001. Although many categories of revenue from indirect taxes showed small deviations from budget forecasts, the shortfall was virtually due to the reduced yield of the tax on stock exchange transactions.

In greater detail, revenue from VAT on imports from non-EU countries grew by 6.4% and reached €1,394 million or 475 billion drachmas, almost as envisaged in the budget.

Revenue from car registration fees (actually the special consumption tax on cars) increased by 5.4% and reached €654 million (222.7 billion drachmas), overshooting the budget forecast by 33 billion drachmas.

Revenue from VAT on domestic goods and services (including imports from EU countries) grew by 8.2%, compared with an increase of 13.5% in 2000, and reached €9,479 million or 3,230 billion drachmas. The small shortfall of €88 million relative to the budget forecast was probably due to the deceleration of economic activity in the last quarter of 2001.

Receipts from the special consumption tax on liquid fuel increased by 1.6% only and reached €2,233 million or 761 billion drachmas, despite a rise in the total number of cars and relevant fuel tax increases on 28 December 2000 and 9 March 2001. Revenue fell short of the budget forecast by 52 billion drachmas.

Revenue from tobacco tax showed a small overrun relative to the budget forecast, rising by 8.7% in comparison with 2000, to reach €1,910 million or 651 billion drachmas. This favourable development is associated with the extraordinary increase in the price of cigarettes in autumn 2000, which affected on an annual basis the revenue collected in 2001.

The biggest shortfall in indirect taxes was recorded in revenue from the tax on stock exchange transactions, which was limited to €176 million or 60 billion drachmas, compared with a budgeted amount of 330 billion drachmas. This is mainly attributable to the reduction of the tax rate from 0.6% to 0.3%, which was decided upon after the budget had been passed, as well as the reduced volume of transactions on the stock exchange.

Moreover, as from 1 January 2001 the Special Tax on Banking Transactions was abolished and the corresponding revenue¹ decreased by 80%.

Finally, non-tax revenue grew by 75.1% in 2001 in comparison with 2000 and reached €3,422 million or 1,166 billion drachmas. This is partly attributable to receipts from the sale of third generation mobile telephony licences. Even if these receipts (170.7 billion drachmas) are deducted, the growth rate of non-tax revenue remains high (49.5%), as the revenue from the government's business activities (dividends from the Bank of Greece, the Hellenic Telecommunications Organisation, the Deposits and Loans Fund, the State Lottery etc.) showed a significant increase and receipts from the European Social Fund rose by 27.1%, while they had decreased in 2000.

¹ The existence of revenue notwithstanding the abolition of the tax is attributable to the payment (by banks to the State) of the revenue of the last period of 2000 in January 2001.

Expenditure

The growth rate of government budget expenditure was contained at 5.7% in 2001, compared with an increase of 7.7% in 2000 (see Table VIII.5), while there was no substantial overrun relative to the budget forecasts (€16 million or 5.4 billion drachmas). In absolute terms, government budget expenditure rose to €45,151 million, from €42,734 million in 2000, while as a percentage of GDP it fell to 34.6%, from 35.2% in the two years 1999-2000 and 34.8% in 1998.

This development is attributable to the efforts to contain expenditure and is mainly due to the curtailment of ordinary budget expenditure, in particular interest payments. Specifically, while in 2001 ordinary budget expenditure rose by 4.8%, primary expenditure grew by 7.4% and as a percentage of GDP remained at the level of 2000 (20.9%).

As regards individual categories of ordinary budget expenditure, personnel outlays grew by 6.3%, compared with an increase of 8.7% in 2000, and reached €13,942 million. Despite the deceleration of the growth rate, the share of personnel outlays (which are the biggest category of expenses in recent years) in total ordinary budget expenditure continued to increase and reached 37.7%, compared with 37.1% in 2000, 36.5% in 1999 and 36.0% in 1998 (see Chart VIII.2). At the same time, personnel outlays overshot the budget forecast by €252 million or 85.8 billion drachmas. This overrun is attributable to new recruitments in 2001 (mainly of teachers, medical and nursing personnel), as well as increased expenditure for pensions, which is associated with the early retirement of civil servants in the beginning of 2001, following the announcement of a reform in the social security system. (Central government pensioners increased by 8,994 in 2001, compared with an increase of 1,673 in 2000).

Interest payments decreased by 2% for the first time since the beginning of the '80s and stood at €9,714 million (3,310 billion drachmas), compared with €9,914 million in 2000. As a percentage of GDP they dropped further to 7.4%, compared with 8.2% in 2000, 8.6% in 1999 and 9.0% in 1998 (see Chart VIII.3). This reduction would have been bigger if interest payments on foreign debt had not been pushed upwards by the fall of the euro to 0.8956 of the US dollar, compared with a budget forecast of one to one. This decline is attributable to the considerable decrease in the government's borrowing rates and, to a lesser extent, the containment of public debt (in absolute terms). Besides, interest on public debt has not been capitalised since 1999 (see Table VIII.2).

Payments to the European Union fell slightly by 0.7%, compared with an increase of 9.7% in 2000. The containment of these expenses at the level of 2000 is attributable to the reduced repayment of tariffs (-11.5%), as well as the stagnation (-1.1%) of GDP-based contributions to the European Union.

Restitution of revenue collected on behalf of third parties grew by 13.3%, compared with 8.7% in 2000, and reached €3,001 million or 1,023 billion drachmas. The high annual growth rates of these outlays in the last few years are attributable to increased pay-

TABLE VIII.5
OUTLAYS UNDER THE ORDINARY BUDGET AND THE PUBLIC INVESTMENT BUDGET
(Million euro)

	Annual aggregates				Percentage changes		
	1998	1999	2000	2001*	1999/98	2000/99	2001*/00
I. OUTLAYS UNDER THE ORDINARY BUDGET ¹	31,287	33,093	35,313	36,993	5.8	6.7	4.8
1. Personnel outlays	11,269	12,070	13,115	13,942	7.1	8.7	6.3
2. Interest payments ²	9,490	9,694	9,914	9,714	2.2	2.3	-2.0
(interest payments related to the national defence debt) ³	(299)	(301)	(355)	(382)	(0.4)	(17.9)	(7.6)
3. Payments to the European Union	1,326	1,277	1,401	1,391	-3.7	9.7	-0.7
4. Payment of revenue collected on behalf of third parties ⁴	2,172	2,437	2,649	3,001	12.2	8.7	13.3
5. Tax refunds	794	879	866	949	10.8	-1.5	9.6
6. Interest rate subsidies	8	1	1	1	-89.1	-	-
7. Subsidies to farmers	292	284	338	379	-2.6	18.7	12.2
8. Grants ⁵	4,179	4,426	4,854	5,341	5.9	9.7	10.0
9. Guarantees and foreign exchange valuation differences	4	4	4	2	-	-	-53.4
10. Other ⁶	1,752	2,020	2,172	2,273	15.3	7.5	4.7
II. OUTLAYS UNDER THE PUBLIC INVESTMENT BUDGET ⁷	5,510	6,603	7,421	8,158	19.8	12.4	9.9
1. Project implementation	2,539	2,334	2,264	...	-8.1	-3.0	...
2. Grants	2,947	4,249	5,105	...	44.2	20.2	...
3. Administration	25	21	52	...	-15.9	151.5	...
III. TOTAL I + II	36,797	39,696	42,734	45,151	7.9	7.7	5.7
Primary expenditure under the government budget	27,307	30,002	32,820	35,437	9.9	9.4	8.0
Primary expenditure under the ordinary budget	21,797	23,399	25,399	27,279	7.3	8.6	7.4
Amortisation payments (amortisation payments related to the national defence debt) ³	10,378	9,996	13,859	12,446	-3.7	38.6	-10.2
	(673)	(631)	(666)	(927)	(-6.2)	(5.6)	(39.2)

1 Excluding amortisation payments.

2 Including "other expenditure" related to public debt servicing.

3 This category includes only interest and amortisation payments effected by the Ministry of National Defence. Interest and amortisation payments related to the national defence debt and taken over by the Ministry of Finance are included in the main categories of the corresponding items.

4 For the sake of comparability, this amount includes €278 million for 1998, which were granted to prefectures. From 1999 onwards, such grants are recorded under payment of revenue collected on behalf of third parties. The figure for 1999 also includes a €176 million grant to the Farmers' Insurance Fund (OGA).

5 Including social security subsidies.

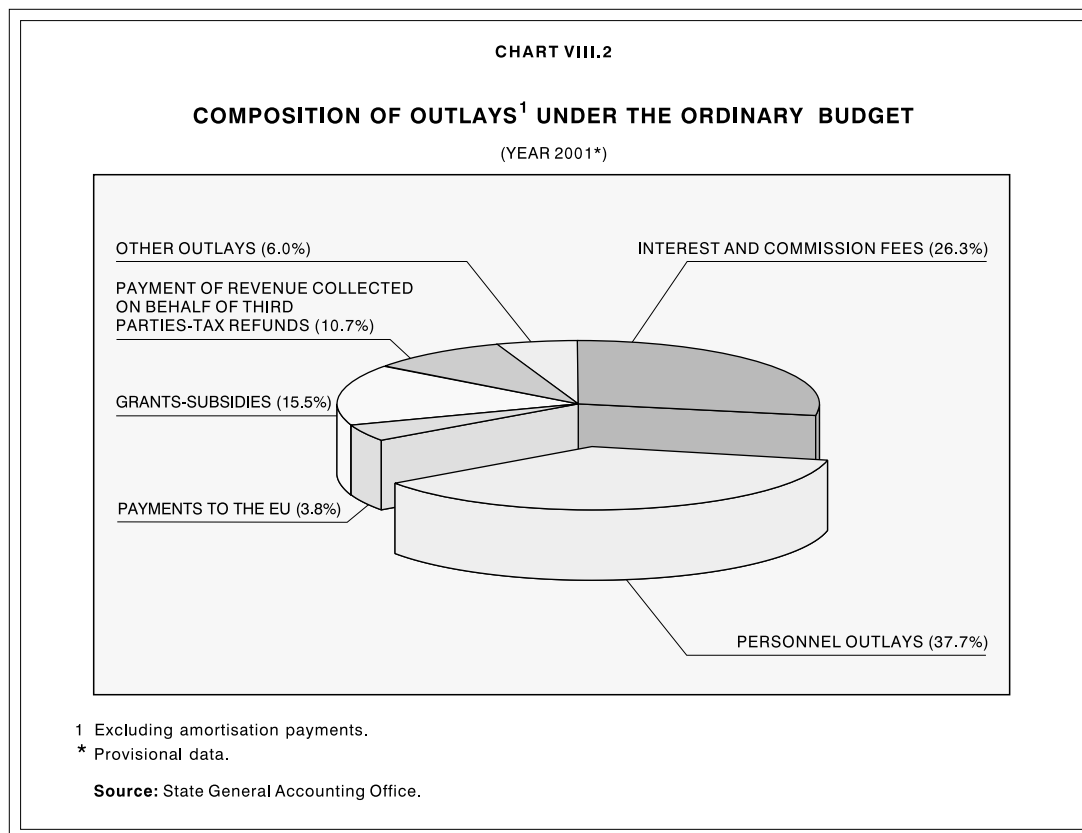
6 Including expenditure incurred in 2000 (€71 million) and in 2001 (€59 million) for persons hit by the September 1999 earthquake.

7 Including expenditure for persons hit by the September 1999 earthquake, amounting to €88 million in 1999 and €258 million in 2000.

* Provisional data.

Source: State General Accounting Office.

ments of revenue to local authorities.¹ Especially in 2001, the considerable rise (9.5%) in payments to municipal authorities is associated with the transfer of certain powers (and the corresponding budget appropriations) from the Ministry of Culture and the Ministry of Health & Welfare to local authorities. Tax refunds also grew considerably (9.6%) and reached €949 million or 324 billion drachmas, mainly due to tax changes concerning income earned in 2000 (declared in 2001) and the small amount of these refunds in 2000. It should be noted that as of 2001 these outlays are not included in budget expenditure, but are deducted from revenue.



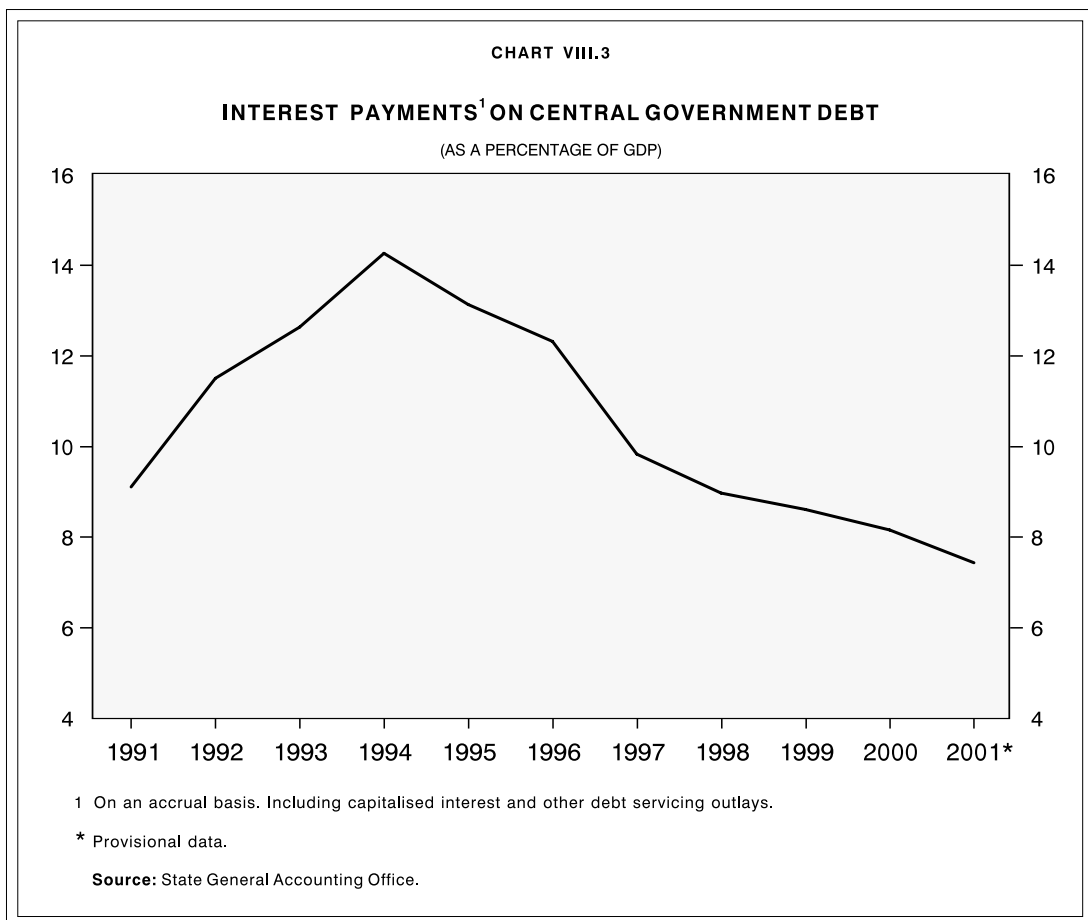
Outlays for grants, the third largest category of expenditure, grew by 10.0% in 2001, compared with 9.7% in 2000 and 5.9% in 1999. Part of the increase in these outlays was a result of the payment of the heating oil allowance to households, not included in the budget for 2001, as well as increased grants to the Farmers' Insurance Fund (OGA), owing to the rise in farmers' pensions and the pensioners' social solidarity allowance.

Finally, "other outlays" rose slightly by 4.7%, compared with 7.5% in 2000, and reached €2,273 million or 775 billion drachmas. The containment of the growth rate of

¹ With the exception of 2000, when there was a big increase in payments to OGA.

other outlays is attributable to the curtailment of operating expenditure, compared both with budget forecasts and respective outlays in 2000.

Expenditure under the public investment budget grew by 9.9% and reached €8,158 million or 2,780 billion drachmas, as forecast¹ in the 2001 budget. It should be noted that



since 1997 investment expenditure includes “equity injections” to public enterprises, which amounted to €1,849 million or 630 billion drachmas in 2001.

2.2 Social security and welfare funds

According to accrual data from the Introductory Report on the Budget for 2002, the provisional financial results of the seven major social security and welfare funds for 2001 deteriorated in comparison with the corresponding 2000 results (see Table VIII.6).

¹ The exact amount of the investment budget expenditure and revenue will not be known before the end of April 2002.

TABLE VIII.6
FINANCIAL RESULTS OF SOCIAL SECURITY FUNDS¹
AND THEIR FINANCING
(Million euro)

	1999	2000	2001*	Budget for 2002	Percentage changes		
					2000/99	2001*/00	2002/01*
A' Operating account							
1. Revenue	8,494	9,085	9,511	11,093	7.0	4.7	16.6
2. Expenditure	11,008	12,332	13,467	14,773	12.0	9.2	9.7
3. Result (1 – 2)	<u>-2,514</u>	<u>-3,247</u>	<u>-3,956</u>	<u>-3,680</u>	<u>29.1</u>	<u>21.8</u>	<u>-7.0</u>
B' Capital account							
4. Revenue	0	0	0	0	-	-	-
5. Expenditure	357	359	407	733	0.6	13.3	80.1
(Investment)	(330)	(265)	(299)	(550)	(-19.7)	(12.8)	(83.9)
(Working capital)	(27)	(40)	(44)	(94)	(48.1)	(10.0)	(113.6)
(Other)	(0)	(54)	(64)	(89)	(-)	(18.5)	(39.1)
6. Result (4 – 5)	<u>-357</u>	<u>-359</u>	<u>-407</u>	<u>-733</u>	<u>0.6</u>	<u>13.3</u>	<u>80.1</u>
7. Special resources	<u>235</u>	<u>256</u>	<u>365</u>	<u>303</u>	<u>8.9</u>	<u>42.5</u>	<u>-17.0</u>
TOTAL RESULT (3+6+7)	<u><u>-2,636</u></u>	<u><u>-3,350</u></u>	<u><u>-3,998</u></u>	<u><u>-4,110</u></u>	<u><u>27.1</u></u>	<u><u>19.3</u></u>	<u><u>2.8</u></u>
FINANCING							
8. Grants	<u>2,745</u>	<u>3,150</u>	<u>3,241</u>	<u>3,612</u>	<u>14.8</u>	<u>2.9</u>	<u>11.4</u>
(Ordinary budget)	(2,263)	(2,467)	(2,590)	(2,788)	(9.0)	(5.0)	(7.6)
(Public investment budget)	(100)	(35)	(156)	(132)	(-65.0)	(357.1)	(-15.4)
(European Union etc.)	(382)	(648)	(495)	(692)	(69.6)	(-23.6)	(39.8)
9. Depreciation	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>
10. Net borrowing requirement	<u>-110</u>	<u>199</u>	<u>756</u>	<u>497</u>	<u>-281.1</u>	<u>279.9</u>	<u>-34.3</u>
TOTAL FINANCING	<u><u>2,636</u></u>	<u><u>3,350</u></u>	<u><u>3,998</u></u>	<u><u>4,110</u></u>	<u><u>27.1</u></u>	<u><u>19.3</u></u>	<u><u>2.8</u></u>
11. Amortisation payments	108	279	18	15	158.3	-93.5	-16.7
12. Gross borrowing requirement (10+11)	-2	478	774	512	-	61.7	-33.9

1 Including 7 social security funds [Social Insurance Fund (IKA), Seamen's Pension Fund (NAT), Farmers' Insurance Fund (OGA), Manpower Employment Agency (OAED), Workers' Housing Organisation (OEK), Workers' Fund (EE) and National Welfare Organisation (EOP)].

* Estimates.

Source: Ministry of Economy and Finance.

Total revenue increased by 4.7% in 2001, compared with 7.0% in 2000, and reached €9,511 million. The deceleration of the growth rate is mainly attributable to the significant reduction in the revenue of OGA (-15.2%), whose share in the total revenue of these funds is 12.4%. By contrast, Social Security Fund (IKA), Manpower Employment Organisation (OAED), Workers' Housing Organisation (OEK) and Seamen's Insurance Fund (NAT) revenue recorded a significant increase (7.4%, 13.9%, 6.6% and 8.7% respectively).

Total expenditure (on both the operating and the capital accounts) of the seven social security and welfare funds grew by 9.3% (11.7% in 2000 and 12.2% in 1999) and reached €13,874 million. On the other hand, the slight deceleration of the growth rate of total expenditure was entirely due to the decrease in the growth rate of operating expenditure (9.2% in 2001, compared with 12.0% in 2000), while the growth rate of capital account expenditure rose to 13.3% in 2001, from 0.6% in 2000.

As a result, the total deficit of the consolidated operating and capital account of the seven funds grew further to €3,998 million in 2001, from €3,350 million in 2000. As a percentage of GDP, the total deficit recorded an increase from 2.8% in 2000 to 3.1% in 2001.

Most of the deficit (€3,241 million or 81.0%) was financed by grants out of the government budget. Specifically, ordinary budget grants amounted to €2,590 million or 883 billion drachmas and covered 64.8% of the deficit, compared with 73.6% in 2000. It should be noted that there has been a significant decrease (10 percentage points) in the financing of the deficit from the ordinary budget between 2000 and 2001. Of the ordinary budget grants, 98.2% was absorbed by OGA (€1,482 million), IKA (€607.5 million) and NAT (€452.5 million). Grants from the European Union also fell to €495 million, from €648 million in 2000. The decrease mainly affected OAED, as European Social Fund grants were reduced from €274.7 million in 2000 to €58.7 million in 2001. In contrast, grants out of the public investment budget rose from €35 million in 2000 to €156 million in 2001 and covered 3.9% of the deficit.

The limited growth of grants in 2001 (2.9%), combined with the widening of the deficit by 19.3%, led to an increase in the borrowing requirement to €756 million in 2001, compared with €199 million in 2000.

2.3 Public enterprises

According to data from the Introductory Report on the Budget for 2002, as well as data from the Ministry of Economy and Finance, in 2001 public enterprises recorded an operating surplus of €73 million, but the consolidated deficit in the operating and capital accounts rose to €4,132 million, from €3,883 million in 2000. As a percentage of GDP, this deficit remained virtually unchanged, at 3.2% of GDP (see Table VIII.7).

The containment of the consolidated deficit at the previous year's level is mainly attributable to a 5.2% decrease in operating expenditure in 2001 and, secondarily, to a

TABLE VIII.7
FINANCIAL RESULTS OF PUBLIC ENTERPRISES¹ AND THEIR FINANCING
(Million euro)

	1999	2000	2001*	Budget for 2002	Percentage changes		
					2000/99	2001*/00	2002/01*
A' Operating account							
1. Revenue	12,509	13,585	13,344	13,772	8.6	-1.8	3.2
2. Expenditure	11,849	13,998	13,272	13,384	18.1	-5.2	0.8
3. Result (1 - 2)	660	-413	72	388	-162.5	-117.6	438.9
B' Capital account							
4. Revenue	0,0	0,0	0,0	0,0	-	-	-
5. Expenditure	6,971	4,874	5,954	6,857	-30.1	22.2	15.2
(Investment)	(4,837)	(4,236)	(5,091)	(6,121)	(-12.4)	(20.2)	(20.2)
(Working capital)	(1,169)	(342)	(282)	(118)	(-70.7)	(-17.5)	(-58.2)
(Other)	(965)	(296)	(581)	(618)	(-69.3)	(96.3)	(6.4)
6. Result (4 - 5)	-6,971	-4,874	-5,954	-6,857	-30.1	22.2	15.2
7. Special resources ²	2,349	1,404	1,749	1,515	-40.2	24.6	-13.4
TOTAL RESULT (3+6+7)	-3,962	-3,883	-4,132	-4,954	-2.0	6.4	19.9
FINANCING							
8. Grants	1,418	2,206	3,009	3,711	55.6	36.4	23.3
(Ordinary budget) ³	(83)	(303)	(395)	(269)	265.1	30.4	-31.9
(Public investment budget)	(1,229)	(1,794)	(2,512)	(3,354)	(46.0)	(40.0)	(33.5)
(European Union etc.)	(106)	(109)	(102)	(88)	(2.8)	(-6.4)	(-13.7)
9. Depreciation	1,306	779	813	879	-40.4	4.4	8.1
10. Net borrowing requirement	1,238	898	310	364	-27.5	-65.5	17.4
TOTAL FINANCING	3,962	3,883	4,132	4,954	-2.0	6.4	19.9
11. Amortisation payments ⁴	989	905	1,102	870	-8.5	21.8	-21.1
12. Repayment of credit ⁴	38	35	42	33	-7.9	20.0	-21.4
13. New suppliers' credit	777	92	78	15	-88.2	-15.2	-80.8
14. Gross borrowing requirement (10+11+12-13)	1,488	1,746	1,376	1,252	17.3	-21.2	-9.0

1 Including those public enterprises mentioned in the Introductory Report on the 2001 Budget (the Hellenic Telecommunications Organisation only for 1999).

2 Comprising advances and participations by Public Power Corporation consumers, lump-sum payments by Hellenic Telecommunications Organisation subscribers (only for 1999), participation of individuals in Water Supply and Sewerage Company projects, and own assets (from surpluses) of certain public enterprises.

3 Grants from the ordinary budget to those public enterprises which ran a deficit, minus collection of the surpluses of certain public enterprises (Soccer Pools Organisation, Duty Free Shops and Greek Horse Races Organisation).

4 Owing to lack of data, the breakdown of the sum of amortisation payments and repayment of credit is an estimate.

* Estimates.

Source: Ministry of Economy and Finance.

17.5% drop in working capital, from €342 million in 2000 to €282 million in 2001. A considerable (24.6%) increase in special resources, from €1,404 million in 2000 to €1,749 million in 2001, also helped contain the deficit. By contrast, investment outlays caused the deficit to widen, as they rose by 20.2%, from €4,236 million in 2000 to €5,091 million in 2001. The reduction of 1.8% in operating account revenue, from €13,585 million in 2000 to €13,344 million in 2001, had a similar effect. A considerable increase (96.3%) was also recorded in other capital account expenditure, from €296 million in 2000 to €581 million in 2001. Total capital account expenditure rose by 22.2%, from €4,874 million in 2000 to €5,954 in 2001.

The consolidated deficit in the operating and the capital accounts (€4,132 million) was financed to the extent of 72.8% by grants out of the public investment budget, the ordinary budget and transfers from the EU. The balance of the deficit was covered by depreciation allowances (19.7%) and net borrowing (7.5%). Specifically, total grants grew by 36.4% between 2000 and 2001 and reached €3,009 million. Public investment budget grants increased by 40%, from €1,794 million in 2000 to €2,512 million in 2001, and ordinary budget grants by 30.4%, from €303 million to €395 million. Depreciation allowances grew by 4.4% and reached €813 million, owing to increased fixed capital formation. The small increase in the consolidated deficit (6.4%), together with the considerable expansion of grants (36.4%), had the effect of reducing the net borrowing requirement of public enterprises to €310 million, from €898 million in 2000. Nevertheless, the continuous increase in borrowing by public enterprises has contributed to the accumulation of outstanding loan balances, which, according to the data from the Balance Sheet of the State for 2000 (p. 32), amounted to €5,955 for 2000. These balances carry a state guarantee.

2.4 Public debt

The continuous reduction of the general government deficit and the swing from a deficit to a surplus in 2001 contributed to a further decline in the debt-to-GDP ratio. Thus, the consolidated debt of general government, as a percentage of GDP, fell by 3.1 percentage points to 99.7% of GDP, compared with 102.8% and 103.8% in 2000 and 1999 respectively (see Table VIII.8).

Overall, the debt-to-GDP ratio has dropped by 11.6 percentage points over the last five years. This favourable development is attributable both to the continuous improvement in the main determinants of this ratio (interest rates, primary surpluses, GDP growth rate) and to the diminishing importance of factors other than the annual deficit that cause a direct increase in debt (forfeiture of guarantees, assumption of debts of entities not belonging to general government, "equity injections", interest capitalisation etc.). Nevertheless, the "stock-flow adjustment", i.e. the difference between the annual deficit and the change in the amount of debt for the same year, remains high and hinders a faster drop in the debt-to-GDP ratio.

Starting in 2001, all drachma-denominated liabilities of the Greek State were converted into euro. At the same time, liabilities denominated in euro area currencies (German marks, French francs etc.) were also converted into euro. Consequently, the outstanding foreign-currency-denominated debt was drastically reduced. In summer 2001 considerable swap transactions were carried out and, as a result, the debt denominated in non-euro area currencies (mainly US dollars and Japanese yen) was further reduced. According to the Introductory Report on the Budget for 2002, only 6.2% of the consolidated general government debt was denominated in non-euro area currencies at the end of 2001. This greatly reduced the foreign exchange risk of debt, i.e. the “automatic” appreciation of the outstanding euro-denominated foreign debt, owing to depreciation (or

TABLE VIII.8
CONSOLIDATED DEBT OF GENERAL GOVERNMENT*
(Million euro)

	1997	1998	1999	2000	2001**
Treasury bills and short-term bonds	14,154	10,465	4,531	1,767	892
Medium-term and long-term bonds	72,478	82,996	91,416	99,202	102,521
Other medium-term and long-term loans	18,553	17,570	21,156	23,795	26,635
Total	105,186	111,032	117,103	124,763	130,048
Percentage of GDP	108.2	105.0	103.8	102.8	99.7
– domestic debt ¹	80,740	84,182	87,187	91,140	121,922 ²
(of which: debt to the Bank of Greece)	(11,903)	(12,129)	(12,290)	(12,472)	(11,918)
– external debt	24,446	26,850	29,916	33,623	8,126 ²

1 Including euro-denominated securities held by non-residents, as well as Bank of Greece loans with a foreign currency clause.

2 From 2001 onwards, domestic debt covers all liabilities in euro, and external debt all liabilities in non-euro-area currencies. External debt (Greece's liabilities to other countries) amounts to €30,274 million.

* According to the definition in the Maastricht Treaty.

** Provisional data.

Sources: State General Accounting Office and Bank of Greece.

devaluation) of the euro. In the past, exchange rate fluctuations had been strongly conducive to increases in debt (in terms of drachmas) and had raised the stock-flow adjustment item.

According to data from the State General Accounting Office, in 2001 advance purchases of debt worth €6 billion were made, which were mainly financed by the securitisation of future revenue and the issue of privatisation certificates.

As in previous years, the policy aimed at lengthening average debt maturity continued in 2001 through the substitution of long-term bonds for Treasury bills. The average weighted maturity of new domestic debt thus rose to almost 9 years, from 8.4 years in 2000.

Following these developments, at the end of 2001 0.7% of the debt represented short-term liabilities (maturing in up to one year), 78.8% medium – and long-term liabilities from bond issues and the remaining 20.5% medium – and long-term loans and other liabilities.

Finally, as regards debt negotiability, it is estimated that at the end of 2001 about 83% of the debt consisted of negotiable government securities (mostly medium – and long-term bonds), while the remainder was made up of loans which are not directly negotiable on the secondary market.

3. THE BUDGET FOR 2002

3.1 The central government budget

Following the euro cash changeover, the role of national fiscal policy as an instrument for stabilising the economies of the euro area Member States has been significantly upgraded,¹ especially in the case of asymmetric shocks, i.e. shocks that affect only one of the Member States.

At the same time, however, the conduct of national fiscal policy in the euro area countries is now subject to significant constraints, including the requirement of the Stability and Growth Pact for a “general government budget that is close to balance or in surplus”, the well-known criteria of the Maastricht Treaty, as well as “tax competition”. Moreover, there is a need to enhance the flexibility and effectiveness of fiscal policy. Especially for countries with high public debt (such as Greece), there is also the requirement to reduce the debt-to-GDP ratio by the end of the decade.

Fiscal policy for 2002, as shown by the new budget, continues to be restrictive. In the first place, it provides for a reduction of 0.7 percentage point in the government budget deficit, from 3.6% of GDP in 2001 to 2.9% of GDP in 2002 (see Table VIII.9). This reduction leads to an increase in the general government surplus, from 0.1% of GDP in 2001 to 0.8% of GDP in 2002. Thus, the requirement for a “general government budget that is close to balance or in surplus” is met. Second, several important tax cuts came into force as of 1 January 2002. Some of them had already been scheduled in early 2001, while others were decided upon in November 2001. Many tax changes were aimed at reducing the tax burden or business costs, as well as cutting red tape, while others were aimed at reducing taxes on income from employment. These measures are reflected in the restrained increase in the ordinary budget revenue, which is forecast at 6.1% for 2002. Finally, the budget provides for a further reduction of 2.4 percentage points in public debt in 2002, to 97.3% of GDP.

¹ The role of fiscal policy was upgraded, formally at least, as from 1 January 2001.

T A B L E V I I I . 9
REVENUE, EXPENDITURE AND DEFICIT UNDER THE OVERALL GOVERNMENT BUDGET
(Million euro)

	1998	1999	2000	2001*	Budget for 2002	Percentage changes				
						1999/98	2000/99	2001*/00	Budget for 2002/01*	
R e v e n u e										
1. Ordinary budget	30,558	34,051	37,522	40,514	43,005	11.4	10.2	8.0	6.1	
— Direct taxes	27,875	31,087	34,257	36,684	38,920	11.5	10.2	7.1	6.1	
— Indirect taxes	(10,540)	(11,866)	(13,682)	(13,640)	(14,618)	(12.6)	(15.3)	(-0.3)	(7.2)	
— Other revenue	(15,402)	(17,179)	(18,620)	(19,621)	(20,666)	(11.5)	(8.4)	(5.4)	(5.3)	
— Public investment budget	(1,933)	(2,041)	(1,954)	(3,422)	(3,636)	(5.6)	(-4.3)	(75.1)	(6.3)	
2. Public investment budget	2,682	2,964	3,265	3,830	4,085	10.5	10.1	17.3	6.7	
E x p e n d i t u r e										
1.1 Ordinary budget ¹	36,797	39,696	42,734	45,151	47,052	7.9	7.7	5.7	4.2	
Interest payments ²	31,287	33,093	35,313 ³	36,993 ³	38,104	5.8	6.7	4.8	3.0	
1.2 Primary ordinary budget expenditure	(9,490)	(9,694)	(9,914)	(9,714)	(8,951)	(2.2)	(2.3)	(-2.0)	(-7.9)	
2. Public investment budget ⁴	21,797	23,399	25,399 ³	27,279 ³	29,153	7.3	8.6	7.4	6.9	
	5,510	6,603 ⁵	7,421 ⁵	8,158	8,948	19.8	12.4	9.9	9.7	
Net deficit (-)/surplus (+)	-6,239	-5,645	-5,212	-4,638	-4,047	-9.5	-7.7	-11.0	-12.7	
Percentage of GDP	-5.9	-5.0	-4.3	-3.6	-2.9					
1. Ordinary budget	-3,412	-2,006	-1,056	-309	816					
2. Public investment budget	-2,828	-3,639	-4,156	-4,329	-4,863					
Primary deficit (-)/surplus (+)⁴	3,251	4,050	4,702	5,076	4,904					
Percentage of GDP	3.1	3.6	3.9	3.9	3.5					
ELEGEF (Revenue=Expenditure)	2,327	2,366	2,401	2,569	2,483	1.7	1.5	7.0	-3.4	
Amortisation payments ²	10,378	9,996	13,859	12,446	20,320	-3.7	38.6	-10.2	63.3	

1 Excluding amortisation payments.

2 Including, respectively, interest and amortisation payments related to the national defence debt.

3 Including expenditure incurred in 2000 (€71 million) and in 2001 (€59 million) for persons hit by the September 1999 earthquake.

4 Expenditure for 1998, 1999, 2000, 2001 and 2002 includes €1,415 million, €1,409 million, €1,692 million, €1,849 million and €1,908 million respectively, which concern capital transfers for acquisition of assets. If these amounts, along with those granted in 1999, 2000 and 2001 to support persons hit by the September 1999 earthquake, are deducted, the primary surplus for 1998, 1999, 2000, 2001 and 2002 rises to 4.4%, 4.9%, 5.5%, 5.4% and 4.9% of GDP respectively.

5 Including expenditure for persons hit by the September 1999 earthquake, amounting to €88 million in 1999 and €258 million in 2000.

* Provisional data.

Source: State General Accounting Office.

As regards individual items in the government budget, the ordinary budget is expected to record a surplus of €816 million (or 278 billion drachmas), while the public investment budget is expected to show a deficit of €4,863 million.

The surplus in the ordinary budget stems from the containment of expenditure, which is budgeted to increase by 3% in comparison with last year's outlays, and the rise of 6.1% in revenue.

The deceleration of the growth rate of revenue to about half the average (11.3%) of the three years 1998-2000 partly reflects the tax cuts mentioned earlier, which are aimed at improving the competitiveness of the Greek economy. Larger increases are expected in revenue from direct taxation (7.2%) and in non-tax revenue. By contrast, revenue from indirect taxation is expected to grow moderately (5.3%), as in 2001.

The picture of ordinary budget expenditure is mixed. Primary expenditure is expected to rise by 6.9%, exactly as much as nominal GDP, while interest payments will decrease considerably (7.9%). Thus, the containment of expenditure (increase of 3% only) is exclusively attributable to reduced interest payments, while primary expenditure is envisaged to grow more than twice as fast as total expenditure.

Besides, the appearance of a surplus in the ordinary budget is based mainly on reduced interest payments and, to a lesser extent, on increased revenue. The decisive importance of restraining interest payments in order to achieve a surplus in 2002 is also suggested by the fact that the primary surplus is expected to be smaller in 2002 (2002: 3.5%, 2001: 3.9%), for the first time in many years.

It should be noted that fiscal adjustment so far has been based on the increase in revenue and the reduction in interest payments. However, in 2001 and 2002 the reduction in interest payments is relatively more important, while until 2000 the growth of revenue was the determinant of fiscal developments. In this respect, the budget for 2002 does not differ from previous ones.

International experience, however, has shown that fiscal adjustment based on the growth of revenue and the reduction of interest payments is not sustainable and is, generally, less favourable to the economy than fiscal adjustment based on the containment of primary expenditure.

Public investment budget expenditure is expected to grow by 9.7%, i.e. as much as in 2001. By contrast, the growth rate of revenue (which actually derives from various EU funds) is expected to decelerate to 6.7%, compared with 17.3% in 2001 and 10.1% in 2000.

Another interesting aspect is the big increase in amortisation payments in 2002 to €20,320 million, from €12,446 million in 2001, which points to the constraints imposed by high public debt on the conduct of fiscal policy.

Finally, net receipts from the EU are expected to decrease marginally in 2002 to €5,030 million, from €5,074 million in 2001 (see Table VIII.10). Receipts from the EU are forecast to increase by 2.2%, while the scheduled payments by our country to the European Union are budgeted at €1,579 million, rising by 13.5%, compared with a fall of 0.7% in 2001.

TABLE VIII.10
FINANCIAL ACCOUNT OF GREECE WITH THE EUROPEAN UNION
(Million euro)

	Annual aggregates						Percentage changes			
	1998	1999	2000	2001	Budget for 2002	1999/98	2000/99	2001/00	Budget for 2002/01	
<i>A. Receipts from the European Union</i>	5,377	5,816	6,004	6,465	6,609	8.2	3.2	7.7	2.2	
1. Refund to cover cost of collecting the Union's "own resources" (10% per cent of collected resources)	18	20	22	23	59	11.5	10.3	4.5	157.0	
2. Social Fund	377	620	679	396	596	64.5	9.5	-41.7	50.4	
3. EAGGF - Guidance Section	318	321	391	382	418	0.9	21.7	-2.2	9.4	
4. Regional Fund	1,776	1,917	1,936	2,189	2,463	7.9	1.0	13.1	12.5	
5. EAGGF - Guarantee Section	2,389	2,460	2,506	2,712	2,621	2.9	1.9	8.2	-3.3	
6. Other receipts	12	11	12	7	2	-7.1	4.8	-41.7	-68.1	
7. Cohesion Fund	457	421	407	739	419	-7.8	-3.4	81.6	-43.3	
8. Receipts from EFTA countries	7	10	12	2	1	37.5	23.9	-	-	
9. Fisheries Fund	22	36	39	15	29	64.9	9.8	-61.9	93.3	
<i>B. Payments to the European Union</i>	1,336	1,276	1,402	1,391	1,579	-4.5	9.9	-0.7	13.5	
1. Agricultural levies and duties	9	10	9	10	8	20.7	-14.3	14.7	-17.8	
2. Sugar levies	12	11	11	14	7	-4.9	-5.1	26.2	-48.2	
3. Customs duties under the Common External Tariffs provision	158	178	202	179	198	12.6	13.4	-11.5	10.9	
4. Contribution on the basis of revenue from VAT	552	563	569	611	515	2.0	1.1	7.4	-15.8	
5. Contribution on the basis of GDP	507	509	543	537	767	0.6	6.6	-1.1	42.8	
6. Other contributions	58	4	26	31	53	-93.5	581.5	18.5	71.5	
7. Contribution to the European Development Fund	29	-	39	10	22	-	-	-75.6	131.6	
8. Payments due to unrealised projects	12	-	-	-	3	-	-	-	-	
9. Contribution to the food aid programme	-	-	3	-	6	-	-	-	-	
<i>Net receipts from the European Union (A-B)</i>	4,041	4,541	4,602	5,074	5,030	12.4	1.4	10.2	-0.9	

Source: Ministry of Economy and Finance, Department for Fiscal Relations with the EU and Other International Organisations.

3.2 The budget of public enterprises and social security and welfare funds

According to the Introductory Report on the Budget for 2002, the financial results of the seven major social security and welfare funds, as reflected in the consolidated deficit of the operating and the capital account, are expected to deteriorate slightly in 2002 (see Table VIII.6).

Specifically, the total consolidated deficit of the operating and the capital account is expected to rise by €112 million (2001: €3,998 million, 2002: €4,110 million), while as a percentage of GDP it is expected to decrease somewhat (2002: 2.9%, 2001: 3.1%).

However, the forecast increase in grants from the ordinary budget (3.6%) and from the EU (39.8%) is expected to result in a considerable decrease (34.3%) in the net borrowing requirement of social security and welfare funds.

Revenue under the operating account is expected to rise by 16.6%, while operating expenditure should increase by 9.7%. The operating deficit will therefore fall by 7%. However, the consolidated deficit of the operating and the capital account is forecast to rise slightly (by 2.8%), because of the anticipated significant increase in capital expenditure (80.1%) between 2001 and 2002.

According to the Introductory Report, the consolidated deficit of the operating and the capital account of public enterprises is expected to grow considerably (19.9%) and reach €4,954 million, from €4,132 in 2001. As a percentage of GDP, the deficit is expected to rise from 3.2% in 2001 to 3.5% in 2002 (see Table VIII.7).

The operating revenue of public enterprises is expected to record a 3.2% increase in comparison with 2001. Combined with the marginal 0.8 growth of operating expenditure, this will lead to a primary operating surplus of €388 million in 2002, compared with an operating surplus of €72 million in 2001. By contrast, the deficit of the capital account is expected to rise by 15.2%, as investment expenditure is forecast to increase by 20.2% and other expenditure by 6.4%.

The budgeted rise of 19.9% in the consolidated deficit of public enterprises, despite the 23.3% increase in grants, will raise the net borrowing requirement of these enterprises by 17.4%, from €310 million in 2001 to €364 million in 2002. Finally, total grants in 2002 are projected to reach €3,711 million, of which 90.4% will come from the public investment budget, while the balance will come from various EU funds (2.4%) and the ordinary budget (7.2%).

APPENDIX TO CHAPTER VIII

TAX POLICY

As in the previous two years, 2001 was a year of significant and extensive changes in the tax system, including the implementation of previously enacted tax measures. The relevant measures were aimed, on the one hand, at preparing the tax system for the euro cash changeover (e.g. conversion of tax scales and other tax parameters into euro) and, on the other hand, at better preparing the Greek economy for entry into the euro area. The latter category includes measures to enhance the competitiveness of the Greek economy, encourage entrepreneurship, increase employment, combat tax evasion and boost tax revenue.

Specifically, Law 2948/2001 “Circulation of euro banknotes and coins and tax measures for the euro cash changeover” provided for the conversion into euro of the income tax scale, tax credits, tax deductions and allowances etc. Conversion also extended to the tax schedule and other parameters of the taxation of inheritances, gifts and parental donations, the tax schedule of big real property etc.

Law 2954/2001 “Tax measures, mutual funds, amendment to stock exchange legislation and other provisions” completed the tax arrangements in anticipation of the euro cash changeover and levied as from 2 November 2001 a 17.5% one-off tax on tax-exempt reserves formed by construction companies out of their profits. The same law provides for 18% VAT on buildings under construction, where the building licence will be issued on 1 January 2003 or later. Finally, the tax rate on the interest income earned from bonds issued by banks and insurance companies was reduced from 15% to 10% (as for other firms).

Law 2990/2002 ratified Legislative Act dated 21 December 2001 “Jurisdiction of courts in cases of compulsory expropriation, tax and customs measures”, whereby a 7% tax on repos yields is imposed, with effect as from 1 January 2002. The same law provides for the abolition, as from 1 January 2002, of the stamp duty (1.2%) on wage earners’ income (half of which is borne by employers and half by employees), as well as the stamp duty on bills of exchange, statutory declarations and documents of other categories. Also, the tax rate on oil used by industrial firms was reduced to half.

Finally, under Law 2992/2000 “Measures aimed at supporting the capital market and promoting entrepreneurship, and other provisions”, incentives were given for enhancing entrepreneurship and new tax measures were introduced. A new income tax scale was introduced for financial year 2003, i.e. for incomes earned in 2002. Specifically for employees, the tax-free amount was raised to €8,400 and the second tax bracket was abolished. Furthermore, from financial year 2002 there is a 2.5% tax rebate on the total tax liability in the event of lump sum payment, as well as a further 2.5% credit (not to exceed €118) on the total amount of tax when the tax return is submitted through the Internet. Under another provision, as from 1 January 2002, the tax rate on seamen’s incomes is cut from 9% to 6% for officers and from 6% to 3% for junior crew.

Under the same law, the tax rate on the profits of domestic sociétés anonymes, limited liability companies and foreign firms established in Greece was reduced from 35% to 34%, 33% or 32.5%, provided that the number of employees is raised, by 5%, 10% or 12.5% respectively, in comparison with the previous year. The tax cut concerns profits earned in 2002 and may not exceed €15,000 per newly hired worker. In order to be entitled to use the reduced rate, firms should not reduce the size of their staff in the next financial year.

INDIVIDUAL INCOME TAX SCALE
(in euro)

Income bracket	Tax rate (%)	Income bracket tax	Total income	Total tax
7,400	0	0	7,400	0
1,000	5	50	8,400	50
5,000	15	750	13,400	800
10,000	30	3,000	23,400	3,800
Excess	40			

Under another provision of the said law, the International Olympic Committee (IOC) is exempt of any direct or indirect tax, while foreign firms that are official international sponsors of IOC shall not be taxed for the income they earn in Greece.

In an effort to combat real property tax evasion, the same law stipulates that foreign legal entities owning real property in Greece shall submit an income tax return whether this property yields income or not.

Under the same law, tax incentives are granted to encourage business mergers, as well as mergers of farmers' co-operatives. Specifically, the tax rate on the profits of enterprises to be merged is reduced by ten percentage points for the profits that appear in the first financial statement after the merger and five percentage points in the second financial statement. Such mergers should take place between 1 January 2002 and 31 December 2004. Furthermore, the new firms to result from mergers are enabled to accumulate a tax-exempt reserve from the undistributed profits of the years from 2002 through 2005.

It should be noted that in March 2001 a scientific committee was set up, whose mandate is to study the tax system and submit comprehensive recommendations for its overhaul. The committee completed its task and delivered its recommendations on 31 March 2002. These recommendations will be discussed by the social partners.

IX. BALANCE OF PAYMENTS

1. CURRENT ACCOUNT

1.1 Introduction

The adoption of the single European currency by Greece has significantly reduced the importance of the current account deficit as a constraint on the conduct of economic policy. However, developments in the current account deficit provide useful

TABLE IX.1
BALANCE OF PAYMENTS
(Million euro)

	January – December			Percentage changes	
	1999	2000	2001*	2000/99	2001/00
I. Current account balance (I.A+I.B+I.C+I.D)	-4,800.5	-8,371.6	-8,068.5		
I.A Trade balance (I.A.1 – I.A.2)	-16,888.7	-21,927.5	-21,299.3		
Non-oil trade balance	-15,450.7	-18,940.8	-18,500.2		
Oil trade balance	-1,438.0	-2,986.7	-2,799.1		
I.A.1 Exports of goods	8,030.3	11,098.6	11,857.0	38.2	6.8
I.A.2 Imports of goods	24,919.0	33,026.1	33,156.3	32.5	0.4
I.B Services balance (I.B.1 – I.B.2)	6,846.5	8,711.1	8,803.9		
I.B.1 Receipts	15,575.5	20,977.0	21,744.1	34.7	3.7
I.B.2 Payments	8,729.0	12,266.0	12,940.1	40.5	5.5
I.C Income balance (I.C.1 – I.C.2)	-626.5	-955.3	-1,981.3		
I.C.1 Receipts	2,414.1	3,039.1	2,100.3	25.9	-30.9
I.C.2 Payments	3,040.6	3,994.3	4,081.6	31.4	2.2
I.D Transfers balance (I.D.1 – I.D.2)	5,868.2	5,800.1	6,408.2		
I.D.1 Receipts	6,795.2	6,767.3	7,718.6	-0.4	14.1
I.D.2 Payments	927.0	967.2	1,310.5	4.3	35.5
II. Financial account balance	4,748.1	8,906.3	6,934.6		
III. Errors and omissions	52.3	-534.7	1,133.9		
Reserve assets (end of period)	18,836.9	14,520.0	7,031.0 ¹		

1 In 2001, according to the ECB definition, reserve assets do not include:

- (a) claims in euro on non-euro-area residents,
- (b) claims in foreign currency and euro on euro area residents and
- (c) Bank of Greece participation in the ECB capital and reserves.

* Provisional data.

Source: Bank of Greece.

information on the competitiveness of Greek products both in the domestic and in the world market.

Therefore, the fact that the current account deficit fell by €303 million in 2001 in comparison with 2000, to 6.2% of GDP (from 6.8% in 2000), is a positive development,

although the deficit is still large. This was the combined result of a decline in the trade deficit and an increase in the surpluses on transfers and services; on the other hand, the income deficit doubled.

Developments in the current account balance were influenced by the steep fall in crude oil prices and the recession in the world market, where the price competitiveness of Greek exports improved only marginally, as well as by extraordinary factors, such as the 11 September terrorist attacks, the impact of which on Greek exports of travel services seems to have been smaller than initially expected. More pronounced, however, was the effect on transport services, owing to the increase in ship supply and the global decline in freight rates, while EU transfers continued to finance a considerable (and slightly larger) part of the trade deficit.

1.2 Trade balance

The trade deficit was reduced by €628 million (or to 16.3% of GDP, from 17.8% in 2000) relative to 2000,¹ as both the oil and the non-oil balances recorded smaller deficits. Falling world crude oil prices and import volumes contributed to a decrease in the “net” oil import bill. Specifically, the average price of crude oil (in US dollar terms), the value of which accounts for over two thirds of total oil imports, declined by around 14% in 2001, while import volumes declined by 2.5%. Thus, the oil import bill (in euro terms) was reduced by 14% and the oil deficit narrowed by €188 million, despite a considerable decrease of 24% in oil export receipts.

According to Bank of Greece data, the improved non-oil trade deficit was due to a sharp increase in export receipts (15.4%), which more than offset a 3.2% increase in the import bill and occurred despite a marked slowdown in exports in comparison with 2000. Deflated by the respective wholesale price sub-indices of NSSG, these figures point to an increase of 12% in export volumes, while import volumes remained virtually unchanged.

Bank of Greece data show that the positive course of exports in 2001 was partly due to an overall improvement in price competitiveness over the four years from 1998 to 2001. Another contributing factor was the stronger export orientation of Greek businesses, some of which have taken advantage of opportunities in individual markets and/or products and, as a result, the composition of Greek exports by product and destination makes them less vulnerable – than the exports of the other EU countries – to the economic slowdown witnessed worldwide and in the OECD countries in particular.

¹ The trade statistics of the NSSG present a different picture. On the basis of these data (as announced by Eurostat on 22 March 2002), in 2001 the trade deficit increased by €2.4 billion, while in the same year there was a small decrease in the value of imports (–1%) and a considerable drop in the value of exports (–24%). It should be noted that the data on the trade transactions of Greece in October, November and December are Eurostat estimates. For the divergences between Bank of Greece and NSSG data, see Box IX.1.

BOX IX.1**Discrepancies between Bank of Greece and NSSG external trade data**

The trade statistics of the National Statistical Service of Greece (NSSG) show a different picture from that emerging from Bank of Greece data. This is not only due to differences in time coverage between the two sources (as regards 2001). Specifically, according to the latest available NSSG data for the nine months from January to September 2001, the trade deficit increased by 3.6% in comparison with the same period of 2000. Non-oil exports fell by 17.5% and non-oil imports by 6.8%.

The data published by the Bank of Greece differ from those of the NSSG owing primarily to the different compilation methodology. After the Bank of Greece adopted the new methodology for compiling the balance of payments (1998), as described in the 5th edition of the IMF Balance of Payments Manual, all transactions between residents of Greece and residents of other countries are recorded in the balance of payments, irrespective of the currency in which they are denominated.¹ On the other hand, NSSG uses a different method, whereby value and volume data on exports and imports of goods are collected from two sources: (a) for EU countries, from “INTRASTAT” declarations which are submitted, along with VAT returns, by companies carrying out international transactions; and (b) for non-EU countries, from export/import declarations submitted during the customs clearance of goods. The resulting divergence is often sizeable, as in the cases described below:

a. Regarding exports of oil products, Bank of Greece data are directly collected from refineries and include fuel bought in Greece by ocean-going vessels and ships carrying out voyages inside and outside the Mediterranean bunkering at sea. The corresponding NSSG data are collected from customs offices. Thus, oil exports appear higher in Bank of Greece data than in NSSG data.

b. In compliance with the relevant IMF instructions, the Bank of Greece external trade data do not only refer to exports of goods, but also include ship repair expenses, ship supplies, “triangular” transactions, as well as the value added to imported goods that are processed domestically and re-exported. In any case, it should be noted that it is not always possible to identify the goods causing the divergence between the two sources, as each uses different codes.

Another factor explaining the divergences is the NSSG data revision procedure. Although the submission of INTRASTAT and customs office forms is compulsory, exporters often omit to do so, possibly for tax evasion purposes, and, as a result, part of the exports is not recorded. Moreover, a considerable percentage of computerised notes (INTRASTAT/VAT returns) (about 25% for imports and 15% for exports) is initially rejected because of errors in classification (wrong codes, blank fields etc.) and/or in figures. This explains the marked differences observed between provisional and final data for the EU countries. The notes rejected are re-checked and, in consultation with the exporters/importers in question, are corrected by the NSSG. This procedure is also followed by other EU Member States. Accordingly, the final →

¹ These data mainly come from financial firms (banks, mutual funds etc.), as well as from certain big manufacturing industries with substantial foreign transactions (refineries).

→ intra-EU export and import figures are considerably higher than those of the provisional data. The finalisation of data, which could take place up to two years following the reported month, may change the initial picture considerably. It should be noted that the customs data collected for non-EU countries do not present major divergences from the corresponding Bank of Greece data and their control and revision is faster.

A breakdown of Bank of Greece data by group of destination countries¹ suggests that the increase in Greek exports is associated with a re-orientation trend observed in exports since the mid-1990s, as well as with developments in “new” Greek export markets. These include the Balkans, and the former USSR and Central European countries, in which the economic slowdown was less pronounced than in developed countries. Specifically, exports to the Balkan countries continued to grow fast in 2001, while the performance of Greek exports to the former USSR and Central European countries was also satisfactory. By contrast, exports to the OECD countries decreased considerably, bringing the share of exports to the EU countries down from 51.5% in 2000 to 49.1% in 2001 (to the euro area: from 37.2% to 34.9%) and the share of exports to the OECD countries down from 86.1% to 82.4%. On the other hand, the share of exports to the Balkan, former USSR, Central European, Middle East and Mediterranean countries grew from 12.1% to 14.9%.²

Regarding the composition of non-oil exports, again according to Bank of Greece data, the increase in non-oil export receipts stemmed mainly from the categories “food-beverages-tobacco” (in particular tobacco), “consumer durables” and –to a lesser extent– “consumer non-durables”. The rise in exports of consumer durables is largely attributable –at the level of two-digit classification on the basis of Combined Nomenclature Codes– to items classified under “machinery-apparatuses, television sets, video recorders and their spare parts”, including fixed and mobile telephony equipment (in particular mobile telephony network installations). Among consumer non-durables, certain

1 The disaggregated data by country and product do not cover total export receipts and the total import bill, given that during the collection of primary information from banks the country or product code is not always mentioned. Therefore, the evaluation of the relevant data should be preferably based on percentage shares and rates of change rather than on aggregates in absolute terms.

2 The real rate of exports to all these countries seems to be underestimated on the basis of data from banks –with a corresponding overestimation of exports to the USA– given that, during the collection of the initial information concerning each transaction, confusion is sometimes caused with regard to the transaction currency, on the one hand, and the destination country, on the other. As a result, the USA is reported as destination country for transactions that concern those countries, but have been settled in US dollars. It is indicatively noted that, on the basis of NSSG (provisional) data, for the January-September 2001 period, the share of exports to OECD countries was about 63% and more specifically the US share reached 5% in the same period. The share of exports to the Balkan, former USSR, Central European and Middle East countries was about 30%. In any case, the trends of the composition of exports by geographical destination are corroborated by both sources of data.

groups of products including clothing, pharmaceuticals¹ and plastics contributed considerably to the increase in exports. Therefore, the rise in exports is largely accounted for by several non-traditional categories of products.²

TABLE IX.2
BREAKDOWN OF GREEK EXTERNAL TRADE BY GEOGRAPHICAL AREA

A. Percentage share of each area in total export receipts			
	1999	2000	2001*
OECD ¹	83.1	86.1	82.4
European Union	55.9	51.5	49.1
Euro area	43.7	37.2	34.9
United States ²	19.0	26.2	27.3
Balkan countries ³	3.0	3.4	5.2
Central Europe and former USSR ⁴	1.8	1.7	2.5
Middle East and the Mediterranean ⁵	10.4	7.0	7.2
Other countries	1.7	1.9	2.6
Total	100.0	100.0	100.0
B. Percentage share of each area in the total import bill			
	1999	2000	2001*
OECD ¹	87.9	85.4	83.2
European Union	60.7	58.2	61.8
Euro area	49.2	47.4	51.4
United States ²	12.7	18.8	13.9
Balkan countries ³	1.4	1.3	1.5
Central Europe and former USSR ⁴	2.4	3.6	5.3
Middle East and the Mediterranean ⁵	2.7	3.8	3.7
Other countries	5.6	5.9	6.3
Total	100.0	100.0	100.0

1 Twenty-four OECD Member States except for the Czech Republic, Hungary, Mexico, Poland and South Korea.

2 With respect to the reliability of the data concerning the United States, see footnote 1 below.

3 Albania, Bulgaria, Romania and former Yugoslavia countries (Bosnia, Croatia, FYROM, New Yugoslavia and Slovenia).

4 Czech Republic, Hungary, Poland, Slovakia and former USSR countries.

5 The major trading partners of Greece in Northern Africa, the Middle East and the Mediterranean (Cyprus and Malta).

* Provisional data.

Source: Bank of Greece.

A breakdown of the import bill by product group reveals that the highest growth rates in 2001 were recorded in the imports of consumer non-durables, which accounted for 50% of the total increase in the import bill, and computers and accessories, which had attained a very high growth rate in 2000, too. Imports of consumer durables, consumer non-

1 This reflects a practice employed by pharmaceutical companies and warehouses in recent years, i.e. to make increased imports for re-export purposes (due to profitable prices), which often results in a lack of certain preparations in the domestic market.

2 A comparison of the breakdown of NSSG data by product with that of Bank of Greece data is not readily possible, due to the lack of adequate information on the individual products included in the various categories. However, on the basis of the available disaggregated NSSG data for the January-September 2001 period, developments were relatively more favourable (i.e. the decrease was smaller) in the "food, beverages, tobacco" and "industrial consumer goods" categories.

durables and foods, beverages and tobacco together contributed to almost two thirds of the total rise in imports, which is associated with the relatively high growth rate of disposable income and disposable resources (whether borrowed or not) of households. By contrast,

TABLE IX.3
BREAKDOWN OF GREEK EXTERNAL TRADE BY PRODUCT CATEGORY

A. Export receipts							
	Percentage share of each product category in total export receipts			Percentage change		Percentage share in the increase in total export receipts	
	1999	2000	2001*	00/99	01/00	00/99	01/00
Food, beverages, tobacco	34.2	27.5	29.3	-7.8	15.4	-18.2	49.9
Consumer non-durables	31.9	35.3	34.5	26.7	6.2	58.1	25.6
Consumer durables	5.9	5.3	8.0	3.3	62.7	1.3	39.3
Raw materials and semi-manufactured products	23.3	28.0	25.4	37.9	-1.7	60.3	-5.7
Capital goods	4.0	3.4	2.6	-1.1	-17.5	-0.3	-7.1
Other goods	0.7	0.5	0.2	-20.3	-43.4	-0.9	-2.4
Total	100.0	100.0	100.0			100.0	100.0
B. Import bill							
	Percentage share of each product category in total import bill			Percentage change		Percentage share in the increase in total import bill	
	1999	2000	2001*	00/99	01/00	00/99	01/00
Foods, beverages, tobacco	16.4	15.1	14.8	11.6	6.5	9.1	10.8
Consumer non-durables	28.6	27.8	29.7	17.7	16.3	24.1	50.2
Consumer durables	8.4	8.5	8.6	22.9	9.6	9.2	9.0
Raw materials and semi-manufactured products	13.2	14.0	13.8	29.1	7.5	18.3	11.6
Capital goods	15.3	15.0	14.5	18.4	5.2	13.5	8.7
Computers and accessories	2.7	3.0	3.1	34.2	14.1	4.4	4.6
Fixed and mobile telephony	2.2	2.9	2.5	61.9	-7.6	6.5	-2.5
Passenger cars	11.9	12.9	12.0	30.9	1.2	17.6	1.8
Other goods	1.3	0.6	1.1	-43.1	82.1	-2.8	5.8
Total	100.0	100.0	100.0			100.0	100.0

* Provisional data.

Source: Bank of Greece

imports of fixed and mobile telephony products fell, while a slight decrease was recorded in the passenger car import bill (as was to be expected following a large increase in 2000).

Over the same period, changes concerning the countries of origin were less notable than those concerning the destination countries. Specifically, an increase was recorded in

the share of imports from EU countries and, to a lesser extent, in the share of imports from the former USSR and Central European countries.¹

1.3 Services balance

The services balance showed a surplus of €8,804 million in 2001, i.e. €93 million higher than in 2000. This surplus financed a larger part of the trade deficit (41.3%) than in the previous year (39.7%). This development was primarily due to an increase in net receipts from travel services, as well as to a decrease in net payments for other services. By contrast, net receipts from transport services dropped appreciably.

TABLE IX.4
SERVICES BALANCE
(Million euro)

	1999	2000	2001*	Percentage change	
				2000/1999	2001/2000
Receipts	15,576	20,977	21,744	34.7	3.7
Travel	8,296	10,061	10,248	21.3	1.9
Transport	4,872	8,641	9,113	77.4	5.5
Other services	2,408	2,275	2,383	-5.5	4.7
Payments	8,729	12,266	12,940	40.5	5.5
Travel	3,761	4,949	4,665	31.6	-5.7
Transport	2,266	4,458	5,351	96.8	20.0
Other services	2,703	2,859	2,924	5.8	2.3
Net receipts	6,847	8,711	8,804	27.2	1.1
Travel	4,535	5,112	5,583	12.7	9.2
Transport	2,606	4,182	3,762	60.5	-10.0
Other services	-295	-584	-541	98.0	-7.2

* Provisional data.

Source: Bank of Greece.

Specifically, gross receipts from travel services increased by 1.9% in comparison with 2000, reaching €10,248 million. This overall change masks contrasting developments in the course of the year, namely a rise of 7.5% during the first seven months of 2001 and a decline afterwards through December. From 11 September, this decline is estimated to have been partly associated with the social climate following the terrorist attacks in the United States. However, it seems that, broadly speaking, the impact of the attacks on

1 By contrast, there is a considerable decline in the share of imports from the USA, which, however, is attributable to the decrease in the oil import bill, combined with problems in the collection of primary data (see footnote 2 on page 210). It should be noted that, on the basis of NSSG (provisional) data for the first nine months of 2001, the share of EU countries appears to have dropped to 53.8%, in comparison with 58.2% in the same period of 2000.

tourist traffic to Greece was not so strong as in other countries (although it was quite strong in the case of certain hotels in Attica).¹

Although official data for the tourist season of 2001 are not available, it is estimated that there has been a small increase in arrivals and overnight stays of foreigners for the country as a whole, but with considerable differences across the various regions of the

TABLE IX.5
BALANCE ON SERVICES, INCOME AND TRANSFERS
(Million euro)

	1999	2000	2001*
Services balance	6,846.5	8,711.1	8,803.9
Exports	15,575.5	20,977.0	21,744.1
Travel	8,296.2	10,061.2	10,248.1
Transport	4,871.5	8,640.6	9,113.3
Other services	2,407.8	2,275.2	2,382.7
Imports	8,729.0	12,266.0	12,940.1
Travel	3,760.8	4,948.9	4,665.1
Transport	2,265.5	4,458.3	5,351.0
Other services	2,702.6	2,858.8	2,924.1
Income balance	-626.5	-955.3	-1,981.3
Receipts	2,414.1	3,039.1	2,100.3
Wages, salaries	576.5	631.0	606.3
Interest, dividends, profits	1,837.6	2,408.3	1,494.0
Payments	3,040.6	3,994.3	4,081.6
Wages, salaries	231.2	272.0	280.9
Interest, dividends, profits	2,809.4	3,722.4	3,800.8
Transfers balance	5,868.2	5,800.1	6,408.2
Receipts	6,795.2	6,767.3	7,718.6
General government (net EU transfers)	4,250.1	3,972.1	4,694.5
Other sectors (emigrants' remittances etc.)	2,545.1	2,795.2	3,024.2
Payments	927.0	967.2	1,310.5
General government	190.1	208.5	504.2
Other sectors	736.9	758.8	806.3

* Provisional data.

Source: Bank of Greece.

country.² The prices of travel services remained at the levels of 2000, since the announced increases in hotel tariffs were offset by subsequent discounts. At the same time, payments

1 On the basis of the latest estimates of the World Tourism Organisation, tourist arrivals in European countries in the last four months of 2001, in comparison with the same period in 2000, dropped by 6.2% and for the world as a whole by 10.9%, while travel receipts by Greece over the same period were only 3.6% lower.

2 More specifically, on the basis of the Civil Aviation Agency provisional data for all the airports of the country, arrivals from abroad (whether of foreigners or Greek nationals) during 2001 reached 12.2 million, compared with 11.8 million in 2000, recording an increase of 3.6%. However, at the same time, the growth rate of foreigners' arrivals was around 2%, given that total arrivals include Greek passengers, whose share increased. As regards regional differences, detailed data reveal that the North Aegean and the Dodecanese islands enjoyed the highest growth rates (11.9% and 7.5% respectively).

for travel services fell almost throughout 2001, dropping by 5.7% on an annual basis to €4,665 million, from €4,949 million in 2000. This resulted in an increase of €471 million in net travel receipts, which more than offset a fall (of €420 million) in net transport receipts.

Gross transport receipts grew by a mere 5.5%, while the increase in gross transport payments was much stronger (20%). The considerable slowdown in receipts is associated with the downturn in world trade, which had reduced the volume of ship cargoes, as well as with the increase in the world merchant fleet,¹ which led to a fall in freight rates. Specifically, the BDIY index (concerning freight rates in US dollar terms), which had gradually risen to more than double over the two years 1999-2000, fell sharply in 2001 and ended the year at just above its January 1999 level.

1.4 Income account

The deficit of the income balance more than doubled in 2001, recording an increase of €1,026 million, which was primarily due to a large fall in gross receipts from interest, dividends and profits, mainly reflecting international interest rate developments. On the other hand, total payments for interest, dividends and profits showed a small increase, given that – despite the decline in interest rates – investments by non-residents in Greece rose significantly. Specifically, interest payments rose to €3,492 million, of which €2,203 million covered general government borrowing. It should be noted that the balance of incomes also includes flows of fees and salaries of residents of Greece abroad and non-residents to Greece, which are much smaller than the above mentioned items and therefore do not affect income account developments.

1.5 Transfers balance

The surplus in the balance of transfers in 2001 was €608 million higher than in 2000, mainly due to the increase in receipts and, to some extent, to the decrease in payments. Increased receipts stemmed mainly from the “other sectors”, which include, in addition to emigrants’ remittances, the proceeds of sales of UMTS licences, as well as net EU transfers (receipts minus payments).

Specifically, net EU transfers (receipts minus payments) grew by 18.2% in 2001, to €4,695 million, from €3,972 million in 2000 (according to balance of payments statis-

¹ It is noteworthy that, despite market fluctuations, the Greek-owned fleet not only remains the first in the world in terms of dead weight and gross tonnage, but also increases. Specifically, according to the Lloyds’ Register of Shipping, the share of the Greek-owned fleet in the world fleet is 9.6% in terms of number of ships (9.7% in 2000), 16.2% in terms of gross tonnage (15.3% in 2000) and 18.6% in terms of dead weight (17.4% in 2000).

tics¹). This chiefly reflected increased inflows from the Structural Funds under the 3rd Community Support Framework (CSF), given that receipts from the Guarantees Section of FEOGA under the Common Agricultural Policy (CAP) remained almost at the level of the previous year. As known, advances from the CSF III² have started to flow in since April 2001, whereas the collection of the first payments for the implementation of CSF

TABLE IX.6
FINANCIAL ACCOUNT BALANCE

	Million euro		
	1999	2000	2001*
Financial account balance (I+II+III+IV)	4,748.1	8,906.3	6,934.8
I. Direct investment	9.2	-1,116.2	1,087.6
By residents abroad	-518.0	-2,319.0	-688.5
By non-residents in Greece	527.2	1,202.8	1,776.1
II. Portfolio investment	5,706.0	9,107.6	9,464.8
Assets	-426.9	-933.0	-514.7
Liabilities	6,130.9	10,040.5	9,979.5
III. Other investment	-518.2	-4,856.8	-9,794.6
Assets	-4,457.1	-1,060.6	-1,467.0
Liabilities	3,938.9	-3,796.2	-8,327.6
(General government borrowing)	604.3	-437.7	-2,809.7
IV. Reserve asset changes	-448.9	5,771.7	6,177.0
Errors and omissions	52.3	-534.8	1,133.9

* Provisional data.

Source: Bank of Greece.

III projects began in December 2001. At the same time, payments for projects under the CSF II³ and inflows from the Guarantees Section of FEOGA (in the context of the current CAP) continue.

1 It should be stressed that any discrepancies between Ministry of Economy and Finance data and Bank of Greece data (as the latter appear in the balance of payments statistics) are due to the fact that the former are expressed on an accrual and the latter on a cash basis.

2 It should be recalled that the way in which advance payments for the projects under CSF III are effected is determined by Council Regulation 1260/99 concerning the Structural Funds. According to Article 92 of this regulation, in the first commitment of appropriation the European Commission pays, in the form of advance payment, 7% of the total Community participation, which, depending on the funds available under the Community budget, is given by instalments in the first two years of the period for which the projects have been drawn up (3.5% in 2000 and 3.5% in 2001). Because the relevant approvals of projects by the European Commission were granted as late as in February 2001, these advances were collected in 2001.

3 In the 1994-2000 period Greece absorbed from the EU budget about 95% of the amount allocated to the country by the Structural Funds, as provided for in CSF II. There remains to be paid an amount of €1.4 billion, of which €700 million is expected to be paid during 2002.

BOX IX.2**The 3rd Community Support Framework (CSF III) and prospects for inflows from the EU budget to Greece**

“Net” transfers to Greece from the EU budget represent a considerable percentage of GDP and the trade deficit (4.0% and 28.1% respectively on average for the ten years 1991-2000).

In 2001 net EU transfers covered 22% of the trade deficit and stood at 3.6% of GDP (see the first table below). About 45% of these inflows currently comes from the Guarantees Section of FEOGA under the Common Agricultural Policy (CAP) and the remainder mainly comes from the Structural Funds: ERDF, ESF, the Orientation Section of FEOGA and the

NET INFLOWS IN GREECE FROM THE COMMUNITY BUDGET AS A PERCENTAGE OF GDP AND OF THE TRADE DEFICIT*

Year	Net inflows ¹ (million euro)	As a percentage of GDP ²	As a percentage of the trade deficit
1991	3,255	4.5	32.8
1992	3,126	4.1	29.2
1993	3,476	4.3	32.5
1994	3,638	4.3	31.8
1995	3,839	4.2	29.0
1996	4,036	4.1	27.5
1997	4,087	3.8	25.3
1998	4,327	4.0	29.2
1999	4,250	3.6	25.2
2000	3,972	3.2	18.1
2001	4,695	3.6	22.0

1 Receipts from, minus payments to, the Community Budget.

2 On the basis of revised data from the Ministry of Economy and Finance, March 2002.

* Discrepancies between Bank of Greece and Ministry of Economy and Finance data are mainly due to the different calculation base used (on a cash and an accrual basis, respectively).

Sources: Bank of Greece and Ministry of Economy and Finance.

Cohesion Fund. Since 1988, inflows from the Structural Funds have been incorporated into the Community Support Frameworks (CSFs).

The CSFs I and II for Greece were established on the basis of the Community resources available from the so-called Delors packages I and II and covered the periods 1988-1993 and 1994-1999 respectively.

In July 1997, shortly after the Treaty of Amsterdam was signed, the European Commission, by its document entitled Agenda 2000, submitted proposals concerning, *inter alia*, the fiscal prospects of the EU for the period 2000-2006, taking into account the forthcoming enlargement of the EU. The European Council of Berlin (24-25 March 1999) approved a new package, which secured considerable resources for the less developed areas of the EU →

→ for the period 2000-2006. On the basis of the Greek “Development Plan”, CSF III for Greece was established, concerning the period 2000-2006.

The total cost of projects and programmes under CSF III for the entire period is €50.7 billion, including €6.4 billion from the Cohesion Fund.¹ Of those the national public participation covers €13.2 billion, the Community participation covers €26 billion and the private sec-

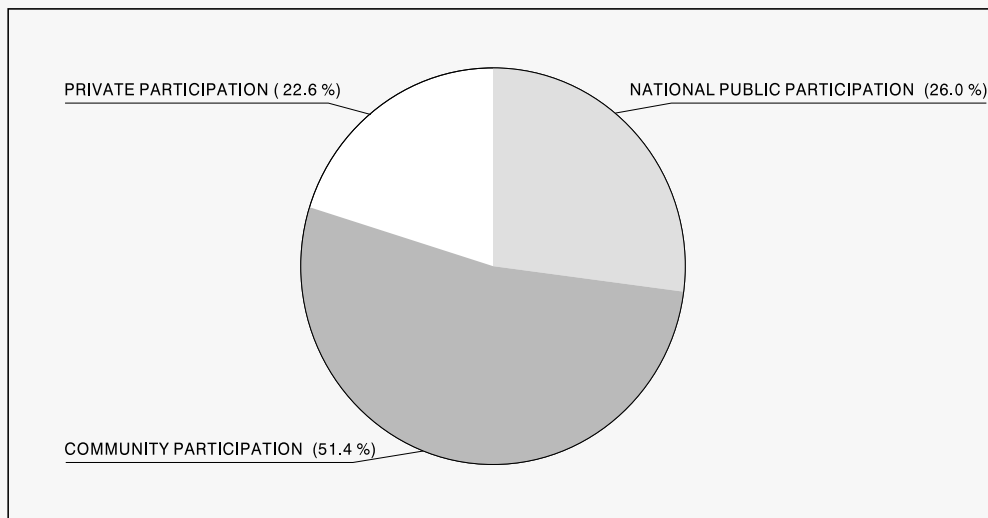
CSF III FINANCING (2000-2006)¹

	Billion euro	(%)
National public participation	13.2	26.0
Community participation	26.0	51.4
Private participation	11.5	22.6
Total cost	50.7	100.0
(European Investment Bank loans)	(3.8)	

¹ Including the Structural Funds and the Cohesion Fund. Community Initiatives are not included.

Source: Ministry of Economy and Finance.

CSF III FINANCING (2000 - 2006)¹



¹ Including the Structural Funds and the Cohesion Fund. Community Initiatives are not included.

Source: Ministry of Economy and Finance.

tor the remaining €11.5 billion (see the second table and the first chart in this Box). The average share of the Structural Funds in the total (national and Community) public expenditure for the projects and programmes is 67%, whereas the Cohesion Fund has a share of 60% in →

¹ Community Initiative projects are not included.

→ total financing. Part of the national participation can be covered by loans from the European Investment Bank (EIB), up to a ceiling of €3.8 billion, and other lending instruments.

Of the contribution of the Structural Funds, 68% comes from ERDF, and is devoted to the financing of infrastructure projects, 20% from ESF, and is aimed at upgrading human resources and raising employment, and 11% from the Guarantees Section of FEOGA, and is used for upgrading the agricultural sector (see the third table).

Inflows from the Structural Funds are projected to be about €3 billion per year (see the third table). To this should be added the annual inflows from the Cohesion Fund, totalling €3.3 billion for the six years 2000-2006. Concurrently with inflows from the Structural Funds and the Cohesion Fund, inflows from the Guarantees Section of FEOGA will continue, as the CAP

COMMUNITY SHARE¹ IN CSF III (2000-2006) BY YEAR AND BY FUND
(Billion euro)

Year	Total	ERDF	ESF	FEOGA	FIFG
2000	3.1	2.1	0.6	0.3	0.02
2001	3.1	2.1	0.6	0.3	0.03
2002	3.2	2.2	0.6	0.3	0.03
2003	3.2	2.2	0.6	0.3	0.03
2004	2.9	2.0	0.6	0.3	0.03
2005	2.9	2.0	0.6	0.3	0.03
2006	3.0	2.1	0.6	0.3	0.03
2000-2006	21.3	14.6	4.2	2.3	0.21
Percentage share	100.0	68.5	19.9	10.6	1.0

¹ The Cohesion Fund, Community Initiatives and reserves are not included.

Source: Ministry of Economy and Finance.

remains the largest category of expenditure under the Community Budget for the period 2000-2006. According to the new guidelines of CAP,¹ these inflows will remain at current levels, of €2.6-2.7 billion per year.²

Thus, if Greece's payments to the Community Budget are also taken into account, net EU transfers should average about €5 billion annually over the next few years. For the period after 2006 there are no official projections. However, for an assessment of the fiscal impact of the EU enlargement on Greece and the other EU Member States, the key factors to be taken into consideration would be the degree of convergence between the Greek per capita GDP and the average of the enlarged EU and the direction in which CAP and the EU structural policy are to be reformed.

¹ The Council of Berlin broadly endorsed the agreement among the Ministers of Agriculture of March 1999 on the guidelines of the revised CAP.

² The amount cannot be calculated with accuracy, because it depends, *inter alia*, on the prices of agricultural products in world markets, the euro/dollar exchange rate and the level and composition of Greek agricultural output.

In the first quarter of 2002, net inflows from the EU stood at €2,018,¹ compared with €1,499 in the same quarter of 2001. Part of them (gross receipts) came from the Guarantees Section of FEOGA, while the remainder came from the Structural Funds and the Cohesion Fund and mainly concerned implementation of projects under the CSF III and, to a lesser extent, final payments under the CSF II² (for further details, see Box IX.2).

2. FINANCIAL ACCOUNT

2.1 Introduction

The participation of Greece in the euro area has had a positive impact on the country's financial transactions as it provides conditions of stability, which favour the free cross-border movement of funds. Thus, despite the recession in the world market in 2001 and the events of 11 September, direct investment inflows have continued to show an upward trend. At the same time, capital inflows for the purchase of government bonds by non-residents remained high at 2000 levels, despite the gradual narrowing of yield spreads between those bonds and the comparable euro area securities. Specifically, financial transactions, i.e. the sum of total direct investment, portfolio investment and "other" investment, showed in 2001 a net inflow of €758 million, which is substantially smaller than the net inflow of €3,135 million in 2000. This is attributable to the fact that the net inflow of portfolio and direct investment, worth €9,465 and €1,088 million respectively, was largely offset by the considerable net outflow (€9,795 million) in the category of "other" investment.

2.2 Direct investment

Direct investment by non-residents in Greece increased significantly in comparison with 2000 (2001: €1,776 million, 2000: €1,203 million). Although direct investment inflows are still low relative to other euro area countries, there are signs of a gradual recovery, as they have more than tripled in comparison with 1999. This improvement occurred despite the unfavourable developments in world markets, where, according to UN data, foreign direct investment inflows in 2001 showed a marked decline in comparison with 2000.

As shown by the geographical breakdown of direct investment inflows, the substantial increase in investment by non-residents is entirely attributed to inflows from EU

1 Provisional data.

2 It should be noted that, according to the applicable procedures governing the flow of the community resources of the Structural Funds, the amounts paid to the beneficiaries are finally accounted for three times a year. The Ministry of Economy and Finance sends the relevant applications to the EU and within about two months from the dispatch of the applications the Community resources start to flow in. Therefore, many months may pass from the recording of these amounts in the Public Investment Budget (PIB) disbursements until the corresponding inflow of community resources is recorded.

countries (mainly of the euro area). A detailed examination of these inflows for 2001 reveals that a considerable share is accounted for by the partial acquisition of Interamerican insurance company by the Dutch-owned Eureco, the participation of Attica Denmark company in the capital of the Gas Production Company of Attica and the purchase of new shares in Telestet Hellas mobile telephony company by Soft Holding on behalf of its Italian parent company, Telecom s.p.a.

TABLE IX.7
BREAKDOWN OF FOREIGN DIRECT INVESTMENT IN GREECE BY
GEOGRAPHICAL AREA OF ORIGIN*

	Million euro	
	2000	2001**
OECD ¹	1,121 (93.2)	1,678 (94.5)
European Union	1,054 (87.6)	1,641 (92.4)
Euro area	886 (73.7)	1,333 (75.0)
Balkan countries ²	0.0 (0.0)	0.0 (0.0)
Central Europe and former USSR ³	0.0 (0.0)	0.0 (0.0)
Middle East and the Mediterranean ⁴	6 (0.5)	25 (1.4)
Other countries	75 (6.3)	73 (4.1)
Non-residents' direct investment	1,203	1,776

1 Twenty-four OECD Member States except for the Czech Republic, Hungary, Mexico, Poland and South Korea.

2 Albania, Bulgaria, Romania and former Yugoslavia countries (Bosnia, Croatia, FYROM, New Yugoslavia and Slovenia).

3 Czech Republic, Hungary, Poland, Slovakia and former USSR countries.

4 The major trading partners of Greece in Northern Africa, the Middle East and the Mediterranean (Cyprus and Malta).

* In parentheses the percentage share of each area in total direct investment.

** Provisional data.

Source: Bank of Greece.

Residents' investment abroad amounted to €689 million, showing a considerable fall in comparison with 2000 (€2,139 million). In terms of geographical distribution, this reduction stemmed from a decrease in outflows to the EU, in particular to non-euro area Member States.¹ By contrast, Greek investment in Balkan countries almost doubled in comparison

1 It should be recalled that outflows were particularly increased in 2000. Indeed, in August 2000 the British company Coca Cola Beverages was fully acquired by the Hellenic Bottling Company (for €1,685 million) and this transaction was recorded in direct investment as an outflow. (This had been preceded by an increase in the Greek company's capital, which was fully covered by the shareholders of the British company; as a result, an amount equal to this increase was recorded as inflow under portfolio investment in the same month. Thus, this transaction, although not having changed the financial balance, affected considerably the level of the two specific aggregates in 2000).

with 2000. A considerable part of this investment is accounted for by the completion of the acquisition of an Albanian mobile telephony company by Cosmote, whereas investment in OECD countries includes the purchase of new shares in Titan America I.l.c. by Titan S.A.

TABLE IX.8
BREAKDOWN OF GREEK DIRECT INVESTMENT ABROAD BY
GEOGRAPHICAL AREA OF DESTINATION*

	Million euro	
	2000	2001**
OECD ¹	2,065 (89.1)	420 (60.9)
European Union	1,903 (82.1)	239 (34.6)
Euro area	61 (2.6)	104 (15.1)
Balkan countries ²	77 (3.3)	113 (16.3)
Central Europe and former USSR ³	4.0 (0.2)	5 (0.8)
Middle East and the Mediterranean ⁴	107.0 (4.6)	102 (14.8)
Other countries	66 (2.8)	50 (7.2)
Non-residents' direct investment	2,319	689

1 Twenty-four OECD Member States except for the Czech Republic, Hungary, Mexico, Poland and South Korea.

2 Albania, Bulgaria, Romania and former Yugoslavia countries (Bosnia, Croatia, FYROM, New Yugoslavia and Slovenia).

3 Czech Republic, Hungary, Poland, Slovakia and former USSR countries.

4 The major trading partners of Greece in Northern Africa, the Middle East and the Mediterranean (Cyprus and Malta).

* In parentheses the percentage share of each area in total direct investment.

** Provisional data.

Source: Bank of Greece.

2.3 Portfolio investment

Portfolio investment inflows amounted to €9,980 million, showing only a marginal decrease in comparison with 2000 (€10,040 million). The sustained high level of these inflows is mainly attributed to the ongoing purchases of Greek government bonds (€8,054 million, compared with €8,314 in 2000), which continue to be attractive to foreign investors, although their yield spreads over comparable euro area securities are decreasing. At the same time, purchases of shares by non-residents continued in 2001, broadly remaining at the levels of 2000 (€2,052 million, compared with €1,892 million in 2000). Finally, as regards residents' portfolio investment abroad, the increase in assets stemmed from the purchase of shares, while there was net redemption of bonds, mainly reflecting a global decline in interest rates.

2.4 Other investment

The considerable net outflow under “other” investment is a result of both a large decrease (of €8,328 million) in liabilities and an increase (of €1,467 million) in assets. The substantial reduction in liabilities mainly stemmed from a €7,749 million decrease in non-residents’ deposits in Greece, as well as from loan repayments of €2,544. These repayments are exclusively attributable to the negative “net” foreign borrowing (new loans minus repayments) of general government, in the amount of €2,810 million.

As noted in other recent reports of the Bank of Greece, a considerable part of developments in “other” investment in 2001 reflects institutional changes implied by Greece’s participation in the euro area as from 1 January 2001. These include the gradual release, from the beginning of 2002, of commercial banks’ foreign exchange redeposits with the Bank of Greece and the adoption, as from 1 January 2001, of the new definition of reserve assets, according to the instructions of the European Central Bank (ECB). Under the new definition, reserve assets no longer include claims on non-euro-area residents in euro, claims on euro area residents in foreign exchange and euro and, finally, the contribution of the Bank of Greece to the capital and the reserve assets of the ECB.

As a result of the above developments in the financial and the current account, the reserve assets of Greece amounted to €7.0 billion at the end of December 2001.

3. INTERNATIONAL INVESTMENT POSITION

The international investment position of Greece remained negative, although it improved, from €–50.7 billion at end-2000 to €–47.1 billion at end-2001.¹ This improvement, combined with the high growth rate of economic activity in 2001, resulted in a considerable decrease in the negative international investment position of the country as a percentage of GDP, from 41.8% in 2000 to 36.1% in 2001. The improved international investment position stemmed chiefly from the “other investment” item, specifically from the increase of €5.1 billion in assets and the decline of €5.7 billion in the corresponding liabilities. However, it should be stressed that a considerable part of this change is attributable to the adoption of the new definition of reserve assets and, consequently, it does not eventually affect the international investment position of Greece, owing to the corresponding decrease in reserve assets.

Finally, the contribution of direct and portfolio investment to the change in the international investment position was marginal. This particularly concerns direct invest-

1 The change in the international investment position is mainly affected by developments in the balances of the current and the financial account, as well as by other factors (changes in the structure of portfolios, foreign exchange valuation differences etc.).

ment, as the small increase of €0.6 billion in investment abroad was offset by the increase of €0.5 billion in foreign investment. The fact that the growth of foreign investment stocks was small relative to the increase in foreign investment inflows in 2001 largely reflects the

TABLE IX.9
INTERNATIONAL INVESTMENT POSITION
(Million euro)

	1999	2000	2001 ¹
1. Direct investment	-11,523	-7,249	-7,100
Abroad	3,793	6,163	6,800
Home	15,316	13,412	13,900
2. Portfolio investment	-46,162	-54,657	-55,800
Assets	4,757	4,135	9,100
Liabilities	50,919	58,793	64,900
3. Financial derivatives	13	13	15
4. Other investment	6,407	-2,015	8,800
Assets	40,176	37,858	43,000
Liabilities	33,769	39,873	34,200
5. Reserve assets²	10,141	13,207	7,031
Net international investment position	-41,124	-50,701	-47,054
(Memo item: GDP) ³	(116,389)	(121,413)	(130,436)
% of GDP	-35.3	-41.8	-36.1

1 Provisional estimates.

2 According to the new ECB definition of reserve assets, i.e. excluding:

- (a) claims in euro on non-euro-area residents and
- (b) claims in foreign currency and euro on euro area residents.

The data for 2001 exclude, in addition, Bank of Greece participation in the ECB capital and reserves.

3 On the basis of exchange rates as at 31 December.

Source: Bank of Greece.

drop in the market capitalisation of stocks due to the fall in share prices in 2001. In portfolio investment, the negative contribution was bigger, given that Greece's liabilities grew by €6.1 billion, while assets rose by €5 billion only.

X. THE BANKING SYSTEM AND ITS SUPERVISION

1. STRUCTURAL FEATURES OF THE GREEK BANKING SYSTEM

The entry of Greece into the euro area marked the beginning of a new era for the Greek banking system, which now operates in a much more competitive environment and must therefore keep up its efforts to modernise itself and adapt to the conditions of the single European financial market. Although significant progress has been achieved in recent years, further challenges lie ahead, in terms of know-how, product quality, risk management and administration.

To meet these challenges, Greek credit institutions have formulated long-term development and efficiency strategies. Building on their high profitability and on the substantial amounts of funds they have raised through the capital market, they have been able to expand their capital base and improve their portfolios. In their effort to strengthen their position in the Greek market and, at the same time, acquire a size that will afford them economies of scale and easier access to international money and capital markets, certain Greek banks have opted for mergers and acquisitions (see Table X.1), often involving non-bank enterprises of the financial sector. They have also forged strategic alliances with major European credit institutions. Specifically, in the period 1998-2001 a total of 14 banks were acquired (see Table X.2), of which six were state-controlled and eight belonged in the private sector (seven Greek banks and one branch network of a foreign bank). It should be noted that in the rest of the euro area between 1998 and 2000 a total of 56 bank acquisitions and mergers took place, of which 19 were domestic.

Meanwhile, Greek banks have expanded their activities to Balkan and other south-eastern European countries. By the end of 2001, a network of 26 subsidiaries, branches and representative offices had been operative (see Table X.3). Of these establishments, 9 (2 subsidiaries and 7 branches) were located in Albania, 8 (2 subsidiaries, 5 branches and 1 representative office) in Bulgaria, 5 (4 subsidiaries and 1 branch) in Romania, 2 subsidiaries in the Former Yugoslav Republic of Macedonia, one representative office in the Federal Republic of Yugoslavia and one in Turkey.¹

The medium-term expansion of Greek banks can only be supported by the supply of services at competitive prices and by response to the needs of their customers. This requires the promotion of new products and distribution channels, installation of state-of-the-art information systems, well-trained staff and an efficient network structure.

In recent years, Greek banks have expanded considerably their retail business, while also enhancing their activity in other areas, such as investment banking, asset management and bank-assurance. A major driving force for the sustained high profitability of the banking sector has been the marked expansion of operations associated with the

¹ In late 2001, a deal was struck on the acquisition of a Turkish bank by Nova Bank.

financing of consumers (households). In this respect, the outstanding balance of loans to households, as a percentage of total credit to the non-financial private sector, rose to 31.9% at end-2001 from 27.5% at end-1999 (and 18.4% at end-1995). The relatively recent deregulation of the market for consumer credit, cuts in bank retail interest rates, strong economic growth and macroeconomic stability have all boosted demand for this type of loans. Banks promptly responded to this demand, in order to take advantage of the higher profit margins in that market. This has given rise to stronger competition and attracted new entrants to the market. Banks' increased focus on retail banking and, to a lesser extent, investment banking and asset management is evidenced by the fact that in the

TABLE X.1
ACQUISITIONS AND MERGERS OF BANKS IN GREECE
IN THE PERIOD 1998-2001

Year	Purchasing bank	Acquired bank
1998	Piraeus Bank	Macedonia-Thrace Bank, Credit Lyonnais Grèce, Chios Bank
	Eurobank	Athens Bank, Creta Bank
	Egnatia Bank National Bank	Bank of Central Greece National Mortgage Bank of Greece (EKTE)
1999	Piraeus Bank	National Westminster Bank (Greek network)
	Alpha Credit Bank	Ionian Bank
	Telesis Financial Bank	Dorian Bank
	Eurobank	Ergasias Bank
2001	Eurobank Ergasias	Telesis Investment Bank
	Marfin Investment Firm	Piraeus Prime Bank
	Piraeus Bank	Hellenic Industrial Development Bank (ETBA)

Source: Bank of Greece.

years 2000 and 2001 seven new entrants to the Greek banking market¹ are mainly active in those segments.

Furthermore, the Greek insurance market is still inadequately developed by international standards,² implying that there is considerable room for expansion. The joint promotion of modern bank and insurance products by both bank networks and insurance

1 By February 2002 one more bank had started operations and another had been authorised by the Bank of Greece and is expected to start operations in the course of 2002.

2 According to data from the Greek Association of Insurance Companies and the European Insurance Committee, premiums as a percentage of GDP came in Greece to only 2.1 per cent in 2000, compared with 5.6 per cent in Italy, 5.7% in Spain and Portugal and 8.2% in all the countries of the European Union in 1999.

TABLE X.2
BANK ACQUISITIONS AND MERGERS IN GREECE AND THE EURO AREA

	1998	1999	2000	2001
Greece				
Acquisitions and mergers (total)	7	4		3
Among state-controlled banks	1			
Of state-controlled banks by private Greek banks	3	1		1
Of private Greek banks by individuals	3	2		2
Of a network of foreign bank branches by private Greek banks		1		
Euro area¹				
Acquisitions and mergers (total)	20	28	8	
In the same country	7	9	3	
With institutions of another euro area country	1	4	0	
With institutions of a country outside the euro area	12	15	5	

1 Data for 2000 concern only the January-April period. There are no available data for 2001.
Sources: Bank of Greece and Bank for International Settlements (BIS), *Annual Report 2000*.

TABLE X.3
GREEK BANKS IN THE BALKANS¹

	Bulgaria	Romania	Albania	Federal Republic of Yugoslavia	FYROM	Turkey	All countries
Branches	9 ²	1	7	1 ³			18
Subsidiaries	2	4	2		2		10
Delegation Offices	1			1		1	3
Total	12	5	9	2	2	1	31
Total (in operation)	8	5	9	1	2	1	26

1 Until September 2001.

2 4 branches are included for which authorisation had been granted by the Bank of Greece, but their operation had not started yet.

3 Bank of Greece authorisation had been granted, but the branch's operation had not started.

companies leads to synergies, increases sales and contributes to establishing more lasting cooperation between financial institutions and their customers.

The choice of a suitably dense branch network is a crucial aspect of Greek banks' strategies. Credit institutions cannot ignore modern technological advances, which have enabled the development of alternative distribution channels such as Automated Teller Machines (ATMs) and remote banking (phone banking, e-banking). Branch networks still offer the comparative advantage of proximity to customers, especially private individuals and small and medium-sized enterprises, but the maintenance of an extensive network entails high operating costs, with negative implications for bank efficiency. On the other

hand, the rapid and continuous development of information systems implies that banks need to be very cautious in their choices, so that they can fully exploit the potential of such systems and ensure that their investment in technology pays off in a reasonable amount of time. In the Greek bank market, which is at a different stage of development from most European markets that have reached a stage of maturity, the number of bank branches keeps growing (1998: 2,779, 2001: 3,134). However, the number of employees per branch has decreased (see Table X.4), from about 21 in 1998 to 19 in 2001 (in the euro area the respective figure is only 12). Moreover, there has been an impressive rise in the number of ATMs, which almost doubled over the last three years (1998: 2,168, 2001: 4,326). Nevertheless, their ratio to population (density) is well below the euro area average (Greece: 409 ATMs per million inhabitants in 2001, euro area: 609 ATMs in 1999). The average size of bank branches, measured in terms of total assets, increased by 26.6% in

TABLE X.4
BANK BRANCH SIZE AND ATM/POPULATION RATIO

	Assets per branch (million euro)		Employees per branch		ATMs per million inhabitants	
	Greece	Euro area	Greece	Euro area	Greece	Euro area
1998	47.0	73.3	21	12	206	568
1999	53.9	84.8	21	12	290	609
2000	59.4	–	20	–	329	–
2001	59.5	–	19	–	409	–

Sources: Bank of Greece, ECB, *Blue Book*, June 2001, Eurostat, *Statistics in focus, Statistics on credit institutions*, theme 4-9/2000, 25/2001, and OECD, *Main economic indicators*, April 2000, February 2001.

2001 relative to 1998, but remains comparatively low by European standards (Greece: €59.5 million in 2001, euro area: €84.8 million in 1999).

The market share of, directly or indirectly, state-controlled credit institutions has declined in recent years. This partly reflects the government's privatisation policy and partly the growth strategies of several private-sector banks. Following the deal on the acquisition of ETBA by Piraeus Bank in late 2001, the market share of state-controlled banks (in terms of total assets) fell to about 53%, compared with 63% at end-1998, and should drop further, given the government's intention to further reduce its bank shares portfolio.

Concentration in the Greek credit system, on the basis of the market shares of the 5 largest banks or banking groups, changed little overall between end-1998 and end-2001 (see Table X.5). This, however, masks significant developments during that period: in 1999, concentration increased considerably, mainly owing to the acquisition of Ionian Bank by Alpha Credit Bank and of Ergobank by Eurobank; later on, a general trend of decline was observed, although the market shares of the 5 largest banks remained higher in 2001 than

in 1998, especially when measured in terms of total credit extended. European Central Bank (ECB)¹ data on the euro area (excluding Luxembourg) for 1999 suggest that average concentration in the banking system, measured by the market share of the top 5 banks in terms of total assets, is almost 55%, but there are wide variations across countries (Germany: 19.4%, Italy: 40.2%, Portugal: 74.7%, the Netherlands: 82.9%), which reflect the existing marked differences in national banking market structures.

An examination of the structure of the Greek banking system (see Table X.6) reveals that commercial banks had a domestic market share of almost 80% at end-2001 on the basis of total assets, while on the basis of lending and deposits their respective shares were 2.5-3 percentage points higher. Specialised credit institutions had a market share of about 10.5% on the basis of total assets, which has declined slightly in recent years, and their shares in terms of lending and deposits were just below 8% and 9% respectively. The domestic branches of foreign banks had a market share of about 9.5% at end-2001, almost

TABLE X.5
MARKET SHARE OF THE FIVE LARGEST BANKS

	As a percentage of total			As a percentage of the respective figures for Greek banks ¹		
	Assets	Lending	Deposits	Assets	Lending	Deposits
1998	63.4	62.3	69.7	78.0	75.2	81.2
1999	67.1	70.9	73.6	84.8	84.8	89.5
2000	65.2	68.8	71.8	82.4	82.9	87.6
2001	66.0	68.7	71.3	80.9	81.5	85.8

1 The term "Greek banks" does not exclude only foreign banks in Greece, but also the Postal Savings Bank, the Deposits and Loans Fund and cooperative banks, i.e. credit institutions with an operating regime differing from the standard one. Source: Bank of Greece (balance sheet data).

1.5 percentage points lower than in the previous year, as certain networks (Barclays Plc and Nova Scotia) ceased operations (and were subsequently acquired by other banks active in the domestic market) or transferred specific activities to other financial markets, in the context of a broader strategy. Lastly, cooperative banks, in spite of an increase in their number (to 15 in 2001 from 12 in 1998), continued to have a small market share of 0.4% for total assets and 0.7% for deposits or lending.

The size of Greek banks is still comparatively small both by international and by European standards. On the basis of total assets at end-2000, no Greek bank was included among the world's 100 biggest banks, while only 2 ranked among the 100 top European banks.² In the same period, a similar position was held by the Danish and the Finnish

1 European Central Bank, "Bank concentration and retail interest rates", Working Paper Series, July 2001.

2 See "Top-300 Europeans," The Banker, September 2001.

banks, while the 100 top European banks included 6 Spanish, 5 Dutch, 4 Belgian, 4 Swedish, 13 Italian, 7 French, 9 British and 25 German banks.

The spread between lending and deposit rates has been on a downward path for some years now, narrowing by about 3 percentage points between end-1998 and end-2001. This decline reflects increased competition in the banking market, most notably in the segments of consumer and housing credit that have exhibited the strongest rates of expansion (about 34% on average in the last three-year period). Apart from the aggressive pricing policy of new entrants, particularly in the area of credit cards, another factor underlying stronger competition has been technological progress, which has offered banks new possibilities for the promotion of their business and new methods for the management of their loan portfolios. Moreover, the recent decision of the Bank of Greece to allow the establishment and operation of Finance Companies, whose main activity would be the provision of consumer and personal loans, is expected to contribute to even keener competition in that segment of the market. However, in spite of the strong growth of these types of loans,

TABLE X.6
STRUCTURE OF THE GREEK CREDIT SYSTEM
(End 2001)

	Banks	Branches	Assets (%)	Lending (%)	Deposits (%)
Greek commercial banks	21	2,734	79.4	82.1	82.8
Foreign banks	21	188	9.6	9.4	7.8
Co-operative banks	15	56	0.4	0.7	0.4
Specialised Credit Institutions ¹	4	156	10.6	7.8	8.9
Total	61	3,134	100.0	100.0	100.0

¹ Specialised Credit Institutions are the Postal Savings Bank, the Deposits and Loans Fund and investment banks.
Source: Bank of Greece (balance sheet data).

the indebtedness of Greek households remains relative low as a percentage of GDP (18% at the end of 2001), compared with a euro area average of 50% in June 2001. The total volume of household borrowing cannot therefore be regarded as very high. It is possible, however, that particular cases of overindebted households might exist, since the allocation of overall indebtedness among individual households cannot yet be adequately controlled by banks. Once the Teiresias interbank credit data company becomes fully operative as a comprehensive Credit Bureau, the market for consumer and personal loans will become more transparent and it will be possible to prevent incidents of household overindebtedness.

2. EFFICIENCY AND KEY AGGREGATES OF GREEK BANKS

The profitability of Greek commercial banks declined in 2001 (see Table X.7). Pre-tax profits fell by 13.7% and came to 1.5% of average assets, compared with 1.9% in 2000, and return on equity dropped from 20.7% in 2000 to 17.9% in 2001. It should be noted

that in 1999, a record year for banks' profitability, pre-tax profits (including extraordinary revenue, which increased substantially owing to the sale of the Ionian Bank) had been about 3% of average assets. Thereafter, the downturn in the stock market implied lower income from financial operations and underwriting activities, which squeezed banks' non-interest income and overall profitability in the last two years.

Net interest income increased by 13.9% in 2001 relative to 2000. This reflected the fact that in 2001 interest income declined less (-19%) than interest payments (-32.2%). However, as a percentage of average assets, net interest income remained almost unchanged (2.5%), since the growth of average assets (12%) was slightly weaker than that of net interest income in 2001. The main factors underlying the evolution of interest income and payments were the faster growth of lending than that of deposits and the very rapid increase in consumer loans, which involve higher profit margins.

TABLE X.7
BANKS' PROFIT AND LOSS ACCOUNTS
(As a percentage of average assets)

	2000	2001
Interest income	8.6	6.2
Interest expenses	6.1	3.7
Net interest income	2.5	2.5
Non-interest income	2.1	1.5
Operating expenses	2.4	2.3
Pre-tax profits	1.9	1.5
Pre-tax profits as a percentage of own funds	20.7	17.9

Source: Bank of Greece calculations based on balance sheet data.

Non-interest income declined by 18.8%, falling to 1.5% of average assets in 2001, from 2.1% in 2000. This largely stemmed from a drop of about 24% in income from financial operations, as well as from a reduction of 20% in net fee and commission income.

Operating costs increased by 7% in 2001, and their ratio to average assets rose to 2.3%, from 2.4% in 2000, although bank's administrative expenses were further burdened by the cost of preparations for the euro cash changeover. Staff costs grew by 4.7% in 2001; as a percentage of average assets, they fell for the third consecutive year and came to 1.4% in 2001, compared with 1.5 per cent in 2000 and 1.7% in 1998. In the same period, assets (at constant prices) per employee increased by €1.6 million at end-1998 to €2.3 million at end-2001. These developments are very encouraging, given that it is essential for Greek banks to reduce their operating costs in order to maintain their competitiveness in the sin-

gle European financial market. It should be noted that the operating costs of European banks were about 1% of average assets in 2000.

An analysis of balance sheet data for all Greek banks indicates that the Greek banking system has developed considerably in recent years. The total assets of credit institutions have increased at fast rates and stood at 146% of GDP at end-2001, compared with 120% at end-1998.

Specifically, Greek commercial banks' own funds (adjusted for own equity holdings), after having more than doubled in 1999, decreased slightly (-1,9%) in 2000 and rose marginally (+0.5%) in 2001, standing at 7.7% of total assets at end-2001, compared with 5.9% at end-1998 (see Table X.8) and with a European Union average of 5.5% in 1999.¹

Deposits with Greek banks recorded rather weak growth between 1999 and 2001 and by the end of 2001 they had fallen to about 62% of total assets, from about 76% at the end of 1998. The deceleration of the rate of increase in deposits was mainly due to their

TABLE X.8
MAIN AGGREGATES IN GREEK COMMERCIAL BANKS' BALANCE SHEETS
(As a percentage of assets)

	2000	2001
Lending	38.8	46.1
Deposits	76.1	61.8
Own funds	5.9	7.7

Source: Bank of Greece, calculations based on balance sheet data.

substitution with repos, whose yields were not subject to tax in the period between September 1998 and the end of 2001. However, it should be noted that for the same reason the average annual rate of increase in repos was particularly high (86%). Hence, deposits and repos together corresponded to about 78% of total assets in 2001, which was just below the 1998 figure.

In the same period, Greek bank lending increased at a robust pace (24% on average) and at end-2001 it accounted for 46.1% of total assets, compared with 38.8 per cent at end-1998. The rapid credit expansion to households (consumer and housing loans) and, to a lesser degree, to other sectors, such as trade, was the factor underlying this development. Moreover, in the context of the stricter capital adequacy requirements and more precise definition of overdue loans, banks have increased their provisions (39% on average annually), which amounted to 1.9% of their assets in 2001, compared with 1.3% in 1998.

¹ See Eurostat, Statistics in focus, Statistics on credit institutions, theme 4-25/2001.

3 DEVELOPMENTS IN THE BANKING SUPERVISION FRAMEWORK

3.1 International developments

In the area of supervision, the most important issues currently discussed at the European level refer to the revision of the capital adequacy framework for credit institutions and investment firms, the supervisory review process and measures to enhance market discipline. Also included are issues concerning the establishment of a supervisory framework for financial conglomerates.

The revision of the capital adequacy framework aims at ensuring the closest possible relationship between supervisory capital requirements and the capital requirements determined by banks themselves in respect of the total of risks incurred (economic capital). To this end, the European Commission works on the refinement of the relevant regulatory provisions, in parallel with work undertaken by the Basel Committee on Banking Supervision. The second round of consultations, at both a European and an international level, was completed in May 2001 and concluded that the proposed new framework had, in principle, universal support, although there were reservations about the precise quantitative determination of total capital requirements. In particular, criticism focused on the capital requirements for operational risk, which would have been very hard to measure anyway, and on the risk of an unharmonised and inconsistent adoption of the new framework, on the part of member states, arising from the abundant qualitative and subjective criteria that gave too much discretion to supervisors.

In parallel, the Basel Committee on Banking Supervision conducted a worldwide survey concerning the quantitative impact of the proposed framework. In this respect, the respondent credit institutions were classified under two groups, the former comprising big international banks with diversified portfolios and the latter the remaining banks. Greece participated in the second group, with a sample of three credit institutions.

The analysis of the survey results indicated that the proposals for the supervisory treatment of credit risk, in conjunction with that of operational risk, would most likely lead to a considerable increase in capital requirements, in fact for most cases to a larger extent than initially estimated and this irrespective of whether credit institutions followed a standardised method or, alternatively, an internal model approach to risk management. In several cases, the internal model approach led to higher capital requirements than the standardised approach.

The results of the survey, comments from the parties involved, especially on key aspects of the new framework, and the well-founded arguments set forth on the supervisory treatment of operational risk, in particular regarding any counter-incentives for the financing of small and medium-sized enterprises and the granting of long-term loans, have highlighted the need for further elaboration of proposals. The constructive dialogue that followed resulted in the decision to suspend the implementation of the new provisions, so as to provide more time for credit institutions to adjust to the new manner of risk monitoring and for the

evaluation of proposals. The Basel Committee further elaborated the relevant provisions and agreed to amend the time frame for the implementation of the new supervisory framework.

The Basel Committee is contemplating conducting another survey within 2002, on the basis of a new questionnaire. It is advisable that a larger number of Greek financial institutions participate, so that the sample can be more representative, as well as because Greek banks will thus become acquainted with the new framework. The evaluation of the results of this survey will enable the publication of a third consultative document in the course of 2002 and the finalisation of the proposals by the end of 2003.

Against this background, the issuance of the European Union Directive required for the incorporation of the new measures into the national legislation of Member States has been postponed for 2003, while its implementation is expected, in all likelihood, in 2006, although a further extension cannot be ruled out.

Under the new capital adequacy framework, more emphasis is placed on banks' internal methodologies (flexibility, a variety of approaches and incentives for a more effective risk management). Greek banks, some of which have already adopted risk rating systems, must therefore continue to improve and adapt their internal control systems and techniques for monitoring and managing credit and operational risks, since any gains in terms of capital requirements are crucial for dealing with competition.

Additional gains may arise from an increase in the number of banks and firms the credit standing of which is evaluated by rating companies. Furthermore, the initiative taken by the Hellenic Bank Association, and supported by supervisory authorities, to create a suitable environment will enable banks to fully reap the benefits of the new framework. An important step in this direction will be the forthcoming adoption of international accounting standards, as announced by the Ministry of Economy and Finance.

Regarding the supervisory framework for financial conglomerates, the European Commission has proposed to the Council of Ministers a draft directive, which is still under discussion. This addresses the issue of the complementary supervision of financial conglomerates, as defined in the directive, and amends, where necessary, the sectoral directives concerning the supervision of credit institutions, investment firms and insurance companies respectively. It provides for the determination of capital adequacy and the monitoring and control of risk concentration transactions at a conglomerate level, cooperation between the sectoral supervisors involved and the appointment of a coordinator-supervisor of the conglomerate. The directive is expected to be adopted within 2002, once key issues regarding the definition of financial conglomerates and the appointment and responsibilities of the coordinator-supervisor are resolved.

Further to the specific issues mentioned above, the events of 11 September highlighted the urgent need to take measures for the management of operational risk and to ensure the capital adequacy of the global credit system so as to minimise the impact of such events on financial stability. This, in turn, has pointed to the importance of international cooperation between supervisors, through specific initiatives within the relevant European and international fora.

3.2 Developments in the domestic supervisory framework

The above-mentioned important developments, which should have far-reaching implications for financial regulation, would have to be addressed by Greek legislation. Meanwhile, the Bank of Greece, within the scope of its authorisation under recently enacted legislation, has adopted several measures in this respect, which are summarised below.

The minimum initial capital of credit institutions operating as *sociétés anonymes* was increased from €11.7 million to €18 million, while that of credit cooperatives was increased to €6-18 million, depending on their geographical location, from €3.5-11.7 million (Bank of Greece Governor's Act 2471/10 April 2001). For a smooth adjustment to the new limit, a transitional period up to the end of 2002 was granted. These increases, eight years after the last adjustment, were deemed necessary in view of the need for credit institutions to undertake substantial investment in infrastructure in order to maintain their competitiveness and ensure more efficient risk management.

Moreover, in the framework of new capital adequacy provisions, the Bank of Greece intends to amend and supplement its relevant decisions and adopt, under certain conditions, a Value-at-Risk methodology to measure market risks. It will also address issues related to commodity derivatives.

In the field of structural adjustment, Law 2937/2001 introduced major changes in the institutional framework governing the operation of credit and financial institutions.

Specifically:

- Enterprises other than credit institutions were permitted to grant loans to households, provided that they are supervised by the Bank of Greece. In this respect, Bank of Greece Governor's Act 2485/31 January 2002 specified the terms and conditions for the establishment and operation of such enterprises (minimum initial capital, solvency ratio, internal audit systems). It should be noted that the operation of one enterprise of this type in Greece has already been granted authorisation.

- The maximum period allowed for banks to accrue interest on overdue loans was halved from 12 to six months of the principal and/or interest falling in arrears. This change is a further adjustment of legislation enacted in 1992 and was decided in response to the new conditions that have emerged in the financial sector and to the need for banks to consolidate their loan portfolios. However, as explained in Section 4.1 below, the Bank of Greece, in assessing the adequacy of banks' provisions for bad loans, will also take into account any non-performance of less than 6 months.

- A moratorium has been applied on part or all of the due obligations of credit institutions that face a liquidity shortage possibly entailing capital inadequacy, so as to allow for a reasonable time for remedial action on the part of the illiquid institution before more radical corrective measures can be adopted.

- The scope of cooperation between the Bank of Greece and the auditing profession has been expanded. The Bank of Greece is monitoring developments in institutional issues regarding the operation of auditing companies and is planning to strengthen and

further specify the framework of its cooperation with external auditors, both independently and in conjunction with the enhancement of the system of internal audit of the credit and financial institutions it supervises.

– The Bank of Greece has been authorised to intervene on issues related to the accounting and disclosure in the financial statements of specific economic events, so as to ameliorate the effects of information gaps arising from existing discrepancies on disclosure rules on the one hand and regulatory reporting ones on the other. Interventions of this kind aim at ensuring that credit institutions' financial statements are prepared in a way that allows the accurate valuation of assets and liabilities, so as not to disguise potential problems and to facilitate the readers of the financial statements in their assessment of longer-term efficiency prospects.

– The discretionary power of the Bank of Greece to impose capital requirements tailored to the particular risks of each credit institution rather than common-for-all capital charges, has been enhanced in order to better serve the broader goal of financial stability. This change, which is provided for in the new supervision framework elaborated by the Basel Committee on Banking Supervision and has already been implemented in practice, became necessary because all-encompassing rules cannot always cater for the specific risk asset structures of each and every credit institution. Further reducing the gap between regulatory and financial reporting provisions for doubtful loans (see Section 4.1) is also a high priority for the Bank of Greece.

The implementation of the latter two measures should be geared towards ensuring a level playing field for all banks, as well as minimising any negative side-effects, that could arise at both individual credit institution and banking system levels.

All of the above measures are expected to provide stronger incentives for the adoption of more flexible risk management attitudes on the part of credit institutions and to enhance their transparency, on its own a development that is conducive to both more effective supervision and greater systemic stability.

Additional support to a more efficient management of banks' assets should certainly come from the long-delayed (relative to other countries) adaptation of the institutional and tax regime that will enable the securitisation of banks' loans and other claims.

These adjustments pose significant challenges to supervisors, who would need to upgrade their technical infrastructure and hire qualified staff; they also pave the way for a smoother adoption of the Basel Committee proposals and of the relevant Community legislation that is currently under way.

4. KEY SUPERVISORY DATA ON COMMERCIAL AND COOPERATIVE BANKS

4.1 Provisions against risks

In the last three years the Bank of Greece, assessing the potentially negative implications of strong credit expansion — as a result of the convergence of interest rates and increased

competition— for the quality of credit institutions' loan portfolios, has established a framework of minimum mandatory provisions for supervisory purposes, calculated as set percentages of various classes of performing and overdue loans classified in accordance with overdue periods (Bank of Greece Governor's Act 2442/99). This arrangement has ensured a more systematic and reliable evaluation of the degree of coverage, by general as well as specific provisions, of expected losses from bad debts. This may be construed as a type of dynamic provision, since *ex ante* provisions are effectively required, by the time a loan is granted. Regulatory provisioning, which is in fact not embedded in financial reporting rules as yet, may well be used along with each bank's own internal loan classification and provisioning methodology.

The current accounting and tax treatment of provisions and, most importantly, the non-availability of long historical data series have not allowed to date a precise statistical calculation of the amount of provisions required and thus the avoidance of cases of over-estimated bank efficiency. A short-term approach of efficiency, which would not take medium term risk factors into account, would often fail to lead to appropriate and timely adjustments of lending policy. In this particular area, it is recognised that systematic efforts are being made, at least by some credit institutions.

Specifically, the ratio of loans overdue for more than 3 months to total lending improved by about 6 percentage points in the 1999-2001 period. Nevertheless, banks' provisions for doubtful loans in 2001 only increased by 6.6% compared with last year, falling short of that year's rate of credit growth. These developments point to the need for more effective debt collection procedures, stricter lending criteria and further adjustment of the existing provisioning framework, so as to ensure that specific as well as general provisions are at least equal to either the minimum supervisory provisions or the banks' own approved internal ratings calculations (if available). Moreover, stress testing would further enhance effective credit risk management under such circumstances.

4.2 Capital adequacy

On the basis of the data reported by banks to the Bank of Greece, commercial banks' unconsolidated capital increased by 6% on 30 June 2001 compared with 30 June 2000. Supervisory capital, on the other hand, fell by 3.8% in the same period and totalled €10,707 million (3,648.4 billion drachmas).

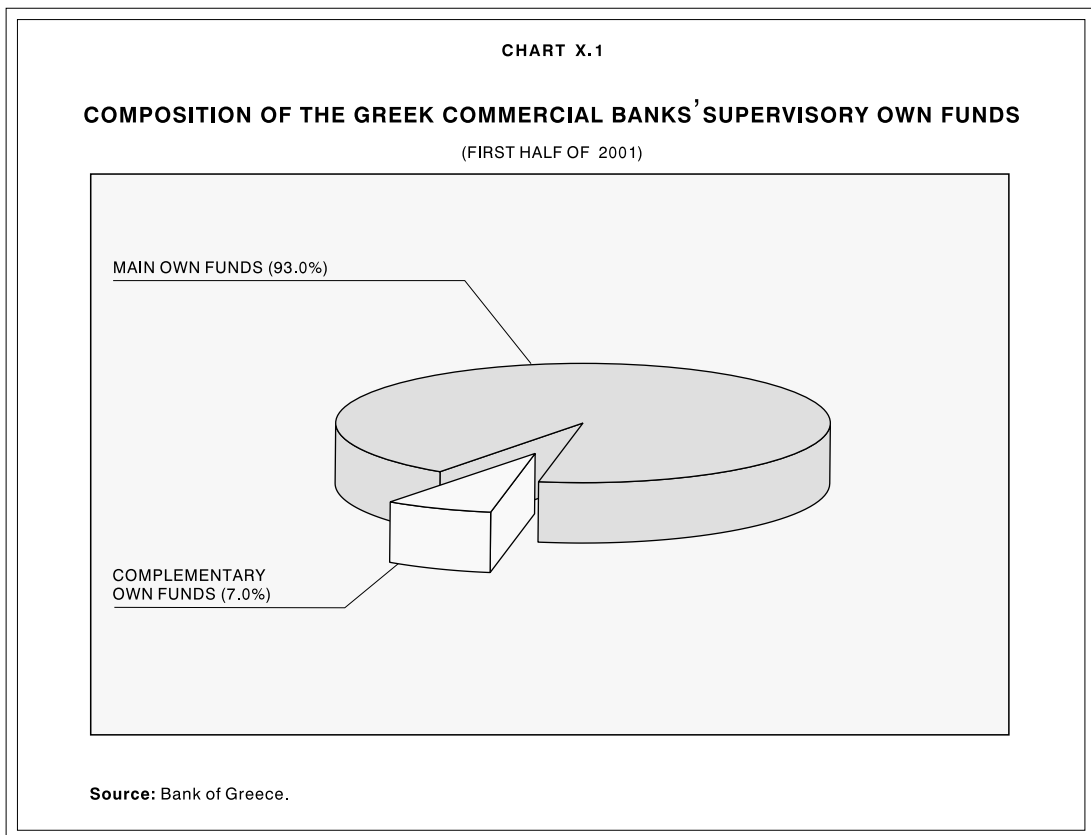
The main factors that contributed to this decline were the following:

- the acquisition of own equity (as a result of developments in the stock market), which is subtracted from supervisory own funds;
- the subtraction of non-consolidated holdings (to avoid leverage within the financial sector); and, although to a lesser extent,
- a decline in reserves reflecting securities valuation effects.

Regarding the composition of supervisory own funds, basic own funds (equity capital, reserves, profit/loss carried forward) account for the bulk (93%) of the total own

funds of Greek commercial banks (see Chart X.1). This implies that there is considerable room for expanding total own funds through an increase in complementary own funds. A common practice for increasing the size of complementary funds is to raise subordinated loans, in which case the benefit should be weighed against the cost of interest.

On the other hand, banks' risk-weighted total assets and off-balance-sheet items, on a non-consolidated basis, including the notional assets corresponding to capital requirements for market risks, increased by 26.9% in the same period and reached €85,028 million (28,973.3 billion drachmas), while notional assets rose by 29.8%. Specifically, risk-



weighted assets accounted for 56% of total assets, compared with 49.9% at the end of the first half of 2000, reflecting banks' involvement in higher-risk operations.

At the end of July 2001, the total capital adequacy ratio for credit and market risks stood at 12.6% (June 2000: 16.6%) and at 11.9% on a consolidated basis (30 June 2000: 16%).

To eliminate a base effect caused by the very high level of the capital adequacy ratio in the years 1999-2000, owing to the exceptional conditions prevailing at the time in capital markets, a more meaningful comparison would be between the first half of 2001 and the average for the three years from 1998 to 2000. This would point to a fall of 2 percentage points in the capital adequacy ratio over that period.

Between 30 June 2000 and 30 June 2001, the growth of provisions outpaced that of non-performing loans (but fell short of credit expansion, as already mentioned), leading to a decline in the shortfall of provisions, which, under the current framework, is deducted from banks' own funds. This decline reduced the impact of the shortfall on the capital adequacy ratio to 0.57 percentage point, compared with 1.3 percentage points in June 2000.

The total capital adequacy ratio of cooperative banks is at the very high level of 39.5%.

4.3 Valuation

Law 2992/2002 introduced, with effect from 2003, the mandatory application of international accounting standards in the compilation of the annual financial accounts of enterprises. Using the option provided by the same law, a number of banks with listed shares applied the new valuation rules, starting from their accounts as at 31 December 2001.

These banks valued their equity and fixed-income securities portfolios, as well as their positions in financial derivatives (but not their participations) at market value, unlike other banks that continued to apply the old method and valued their securities portfolios, as well as their holdings in other firms, at the lower between market and acquisition value. The new method led to considerable negative valuation differences, which, under the transitional provisions of Law 2992/2002 for financial year 2001, were not reflected in banks' results, but were transferred to their accounting own funds.

Differences in individual banks' valuation rules impair the comparability of efficiency data both across banks for the year 2001 and relative to previous years.

The Bank of Greece, within the scope of its authorisation under Law 2937/2001 to establish accounting and valuation rules for specific on and off balance sheet items that from a supervisory point of view merit a more comprehensive and transparent treatment, will monitor the implications of these changes for banks' supervisory ratios and other indicators.

5. OTHER SUPERVISORY ISSUES

The Bank of Greece, in the context of its responsibilities in the field of the prevention and suppression of money laundering,¹ continued to issue circulars and guidelines aimed at adjusting the relevant regulatory framework to the requirements of the international community.

Specifically, the Bank issued a circular containing instructions for the prevention and suppression of money laundering during the dual circulation period, which, due to an expected increase in cash transactions, was identified as a period of "high risk". Moreover,

¹ Law 2331/95.

in order to help credit institutions to meet their increased obligations during that period, and in addition to information, instructions and clarifications regarding the cash changeover, it held the “Euro Information Conference” which brought together senior staff of Greek and foreign banks.

In 2001, the Bank of Greece intensified specific audits to verify compliance with its guidelines and imposed sanctions where cases of non-compliance were detected. Credit institutions and financial organisations must keep up their efforts to implement Law 2331/95 re: “Prevention and suppression of money laundering” and relevant Bank of Greece circulars, by adopting, *inter alia*, “Get to know your customer” procedures and by properly training and raising the awareness of their staff, so as to ensure that any transactions that may be related to money laundering can be detected and reported to the Competent Body, as defined in the above law. The findings of on-site controls and the unequal allocation of reports of suspicious transactions to the Competent Body indicate that there is room for further improving the effectiveness of systems for detecting, controlling and reporting such transactions.

As repeatedly stressed in the past, the Bank of Greece attaches particular importance to measures aimed at preventing the use of the domestic financial system for the purpose of money laundering. The readiness of financial institutions to cooperate in this field is taken seriously into consideration by the Bank in its assessment of the adequacy of banks’ administrative organisation and internal audit procedures.

Lastly, in the context of international cooperation against terrorism, in particular the recent commitment of the financial system to prevent and suppress the financing of terrorist activities, the Bank of Greece is monitoring developments and taking the necessary steps to ensure compliance by the entities under its supervision.

6. THE HERMES PAYMENT SYSTEM

In 2001, there were no major changes in the infrastructure of HERMES (Hellenic Real-time Money transfer Express System) further to those effected in 2000 in the context of preparations for the integration of the Bank of Greece into the European System of Central Banks. However, new features were incorporated into the system, with a view to improving the quality of its services. These include the transmission of information about the time of debiting/crediting of cross-border payment orders, the automatic forwarding of incoming cross-border orders to the receiving bank in cases where Bank of Greece acts as the intermediary bank, as well as additional checks of the correctness of messages.

The HERMES system contributed to the fast incorporation of the Greek money and capital market into the single European market, by enabling its participants to adopt more efficient methods for the provision of payment services and cash management in euro.

The introduction of the euro as the domestic currency of Greece and the downward adjustment of the minimum reserve ratio reduced the need for interbank transac-

tions in the domestic market. As a result, interbank payments through HERMES declined by 49% in volume terms and 72% in value terms over the period from March to December 2001 relative to the corresponding period of 2000. Reflecting this development, the aggregate volume and value of payments (both domestic and cross-border) fell by 9.2% and 47% respectively in the same period. For the year 2001 as a whole, the number of HERMES payments reached 1.1 million and their value came to €2,411 billion (see Table X.9).

On the other hand, the volume and the value of cross-border interbank HERMES payments increased by 266% and 280% respectively. The growth of this category of payments shows the increased activity of Greek credit institutions in the single European market. However, a breakdown of data by credit institution suggests that a large number of

TABLE X.9
TRANSACTIONS THROUGH THE HERMES SYSTEM

Payment orders	2000		2001 ¹		2001 ²	
	Number of transactions	Value of transactions (million euro)	Number of transactions	Value of transactions (million euro)	Number of transactions	Value of transactions (million euro)
1. Domestic	875,735	3,736,549	695,460	1,259,972	834,287	1,368,920
– with customers	309,195	132,261	408,332	242,614	490,086	284,224
– interbank ³	566,540	3,604,288	287,128	1,017,358	344,201	1,084,696
2. Cross-border	85,690	210,451	178,260	797,594	224,492	1,041,653
– with customers	68,353	1,831	114,861	4,397	143,615	5,228
– interbank	17,337	208,620	63,399	793,197	80,877	1,036,425
Total	961,425	3,947,000	873,720	2,057,566	1,058,779	2,410,573

1 For reasons of comparability, these data concern the period between 10 March 2001 and 31 December 2001, i.e. a period corresponding to that during which the Hermes system operated in 2000.

2 Data concern transactions in euro for the whole of 2001.

3 Domestic interbank payment orders include Debiting of the Clearing Agencies (10,754 payment orders worth 201,874 million euro for the period between 10 March 2001 and 31 December 2001 and 13,180 payment orders worth 250,995 for the whole of 2001).

Source: Bank of Greece.

banks did not use the HERMES system for their cross-border payments as much as had been expected. This can be explained by the fact that credit institutions still make extensive use of correspondent banking and even the payment system of the Euro Banking Association (EBA) for their cross-border payments.

Greece's participation in EMU and the integration of the Greek RTGS system into TARGET have reduced the importance of correspondent banking in cross-border payments and have expanded the scope for improving credit institutions' cash management in euro. It is therefore expected that the volume and value of cross-border HERMES payments will drop further in coming years.

In spite of the above-mentioned decline in the aggregate volume and value of payments, the share of domestic HERMES payments in the total payments processed

through all systems operating in Greece has remained very high (81%). This indicates the contribution of the HERMES system to establishing the electronic transfer of funds and to reducing settlement risk, since HERMES payments become final once the sending participant's account has been debited in real time.

Payment traffic in HERMES was smooth throughout the year. An important role in this development was played by the intraday credit provided by the Bank of Greece to HERMES participants against collateral. The use of the intraday credit facility increased considerably in 2001 relative to 2000. This increase, in conjunction with a decline in the average value of collateral used in the context of that facility, indicates an improvement in credit institutions' management of payments executed through HERMES and suggests a reduction in the opportunity cost of assets held as collateral for this purpose.

APPENDIX TO CHAPTER X

CHRONOLOGY OF DECISIONS CONCERNING THE ESTABLISHMENT AND OPERATION OF CREDIT INSTITUTIONS AND THE SUPERVISION OF THE FINANCIAL SYSTEM

22 January 2001

The scope of activities of the Hellenic Industrial Development Bank is expanded.

27 February 2001

The Commercial Bank of Greece is authorised to acquire a qualifying holding of 75.02% in the share capital of its subsidiary to be established in Cyprus under the name “Commercial Bank of Greece (Cyprus) Ltd”, to which all the activities of the existing branch network of the Commercial Bank of Greece in Cyprus are to be transferred.

10 April 2001

– The minimum share capital of credit institutions is increased and set as follows per credit institution category:

1. Banks in the form of a société anonyme: €18 million (6,133.5 million drachmas, against a previous limit of 4,000 million drachmas).
2. Cooperative banks which engage in business:
 - a) within the prefecture of the city where their head office is located: €6 million (2,044.5 million drachmas, against a previous limit of 1,200 million drachmas),
 - b) in bordering prefectures or in the administrative region of their head office: €10 million (3,407.5 million drachmas, against a previous limit of 2,500 million drachmas),
 - c) in the region of Attica, in the Thessaloniki prefecture or in the whole country: €18 million (6,133.5 million drachmas, against a previous limit of 4,000 million drachmas).
3. Branches of credit institutions having their head office in a non-EU country:
 - a) for the first and up to 4 branches: €9 million (3,066.75 million drachmas, against a previous limit of 2,000 million drachmas),
 - b) for more than 4 branches: €18 million (6,133.5 million drachmas, against a previous limit of 4,000 million drachmas).

For the smooth adjustment, especially of small banks, to the new higher limits of minimum share capital, a transitional period is provided for until the end of 2002. This provision also applies to leasing and factoring firms, the minimum capital of which is determined as a percentage of the minimum share capital required for the establishment of a credit institution.

– The minimum share capital of firms acting as intermediaries in the interbank money and foreign exchange markets is increased to €0.3 million (102.2 million drachmas, against a previous minimum of 100 million drachmas). Own funds must have been adjusted to the new level by the end of 2001.

– The minimum share capital of bureaux de change belonging to sociétés anonymes other than credit institutions is increased to €0.25 million (85.2 million drachmas, against a previous minimum of 80 million drachmas). Own funds must have been adjusted to the new level by the end of 2001.

20 April 2001

A new bank, under the name of “Panhellenic Bank S.A.,” is authorised to operate in Greece. One of the main objectives of the bank is to contribute to the development and better functioning of cooperative credit. The “Pangritia Cooperative Bank” and the “Cooperative Bank of Chania” are authorised to acquire qualifying holdings up to 49% and 15.9%, respectively, in the share capital of the new bank.

3 May 2001

For the calculation and weighting of the items which determine own funds, the solvency ratio and the large exposures of factoring firms, the provisions in force for credit institutions shall apply.

21 May 2001

– A new bank under the name of “Probank S.A.” is authorised to operate in Greece.
– With a view to gradually harmonising the Postal Savings Bank’s operating framework to the rules governing the operation and supervision of the other credit institutions, the Postal Savings Bank is authorised to invest in equity and mutual fund units up to an amount corresponding to 25% of its own funds.

31 May 2001

The terms and conditions for the granting of credit by members of the Athens Stock Exchange for the purchase of shares, as well as the minimum maintenance margin, are defined. Moreover, the ceiling on loans granted by credit institutions to individuals for the purchase of shares, as well as relevant margins, are adjusted accordingly.

18 June 2001

A new bank under the name of “Proton Investment Bank S.A.” is authorised to operate in Greece.

17 July 2001

– A new bank under the name of “FBB-First Business Bank S.A.” is authorised to operate in Greece. The Agricultural Bank is authorised to acquire 44% of the share capital of the new bank.

– National Bank of Greece and Alpha Bank are authorised to participate in the share capital of a firm to be established for the management of the reloadable e-purse.

3 August 2001

The operating framework of mortgage banks is fully harmonised to that applying to the other credit institutions. The housing loan deposit scheme is extended to apply to all credit institutions.

27 August 2001

With a view to harmonising Greek banking legislation to that of the European Union, Directives 98/32/EC and 98/33/EC of the European Parliament and the European Council are incorporated into national law. These directives supplement the procedure for calculating the solvency ratio of credit institutions authorised in Greece.

3 September 2001

The absorption of Telesis Investment Bank by EFG Eurobank is approved.

10 October 2001

With a view to meeting the needs of central banks for specific statistical information for the conduct of the single monetary policy, mutual fund management companies are required to submit a monthly financial statement to the Bank of Greece.

23 October 2001

Marfin Investment Firm is authorised to acquire 71.42% of the Piraeus Prime Bank's share capital. By a subsequent decision (31 January 2002) it is authorised to acquire 100% of this bank's share capital.

5 November 2001

The operating framework of bureaux de change is adjusted to the conditions resulting from the introduction and circulation of the single currency.

29 November 2001

Authorisation to operate in Greece is withdrawn from the Bank of Nova Scotia. The branch network of the above bank is acquired by FBB-First Business Bank S.A.

18 December 2001

Nova Bank is authorised to acquire 100% of the Turkey-based Sitebank A.S.

20 December 2001

The limits set for monetary or supervisory policy purposes on certain transactions or activities are adjusted and redenominated in euro. These limits refer mainly to:

- 1) the granting of consumer loans,
- 2) credit institutions' participations in financial firms and their placements in the interbank market, and
- 3) the provision of supervisory data to the Bank of Greece and the application of limits related to the prevention and suppression of the use of the financial system for money laundering.

27 December 2001

In the context of implementation of Council Regulation 1338/2001(EC) on the determination of the necessary measures for the protection of the euro, credit institutions and bureaux de change must withhold the euro banknotes and coins produced to them which they reasonably suspect to be counterfeit. If the above institutions fail to comply with this provision, they will incur a fine in favour of the Greek government.

31 January 2002

– The terms and conditions for the establishment and operation of Finance Companies, as well as the rules for the supervision of such institutions by the Bank of Greece, are laid down. The main activity of Finance Companies is the supply of credit to cover personal and consumption needs of natural persons.

– A Finance Company under the name “Codifis Hellas Finance Company S.A.” is authorised to operate in Greece.

26 February 2002

A new bank under the name “Aegean Baltic Bank” is authorised to operate in Greece.

1 March 2002

– Natural persons are allowed to keep a second joint account with the same credit institution, provided that the maximum amount (€1,500) up to which such accounts may be in debit applies cumulatively for both the accounts kept, irrespective of the number of beneficiaries.

– Credit institutions operating as credit cooperatives may record as their members, following an ad hoc permit of the Bank of Greece, leasing and factoring firms which have their head office out of the area in which such credit institutions operate.

XI. THE EURO CASH CHANGEOVER

The euro cash changeover was carried out smoothly, despite the size of this complex task, and was completed by end-February 2002 in all euro area countries. This success is attributable not only to the timely and careful preparations by the organisations involved, but also to warm public acceptance.

Preparatory work for the euro cash changeover included:

1. the production of the necessary quantities of euro banknotes and coins;
2. the completion of the legal framework for the euro cash changeover and its implementation in domestic law;
3. the practical preparations for the launch of the euro and the parallel withdrawal of national banknotes and coins in circulation inside and outside the euro area;
4. a comprehensive information campaign to help the public become acquainted with the new currency;
5. arrangements for the protection of the new currency against counterfeiting.

Although Greece had a transitional period of only one year between its entry into Economic and Monetary Union and the euro cash changeover (compared with three years for the other 11 countries of the euro area), the preparations for the smooth launch of euro banknotes and coins were completed in time and the changeover was a success.¹ This chapter contains an account of the steps taken for the launch of the euro and an overall evaluation of this task.

1. DETERMINATION AND PRODUCTION OF THE NECESSARY QUANTITIES OF EURO BANKNOTES AND COINS

The necessary quantities of euro banknotes and coins were estimated by each national central bank of the Eurosystem, on the assumption that these quantities are mainly demand-determined.² The Bank of Greece calculated the quantities of euro banknotes and coins that would be needed in Greece to replace the drachmas in circulation at the end of December 2001.

1 The Bank of Greece and the Ministry of Economy and Finance, in collaboration with other entities, such as the Hellenic Bank Association, prepared the "National Cash Changeover Plan", which was published in December 2000 and set out the guidelines and procedures to be followed in the euro cash changeover.

2 For this reason, each central bank reports to the ECB data on the euro banknotes they put into circulation during the year following their launch. As regards euro coins, according to Article 106 (2) of the Treaty establishing the European Community, the competent national authority must, at the end of every year, request the approval of the European Central Bank for the quantity it intends to issue during the next year. For Greece this procedure was first applied in 2001, when the country adopted the euro in scriptural form. (The exact procedure is described in Article 2 par. 2 of Law 2948/2001). For 2002, the approval of the quantity of coins that will be issued is included in the Decision of the ECB of 20 December 2001 (ECB/2001/19).

Specifically, the Bank of Greece determined the amounts of drachma banknotes and coins in circulation on 31 December 2001¹ by taking into account the estimated GDP growth for the year 2001 and the income elasticity of demand for currency per denomination. Subsequently, these amounts were corrected for the estimated volume of banknotes and coins which have been lost or remain unused in the possession of the public (dormant holdings), to calculate the anticipated active circulation of currency in drachmas at the end of 2001. This was then converted into euro on the basis of the euro/drachma conversion rate and a substitution key correlating individual drachma denominations to euro denominations. The resulting amounts were increased to include logistical stocks, amounting to an additional 20% of the initial quantities.² This enabled the Bank of Greece to address any errors in estimates, difficulties in the exchange procedure or other contingencies associated with the geography of Greek territory or with the considerable value mismatches between the denominations of drachma and euro banknotes and coins.³

In total, it was estimated that 617 million euro banknotes and 1,600 million euro coins of various denominations with a total weight of 8.3 thousand tonnes (see Table XI.1) should be made available in Greece.

The Governing Council of the European Central Bank (ECB) decided that the necessary quantities of euro banknotes and coins should be produced on a decentralised basis. All printing works assigned the production of euro banknotes and coins prepared a production schedule, whose implementation was monitored by the respective national central bank and the ECB. The ECB created a Central Reserve Stock of euro banknotes to help national central banks meet any unexpected demand. The Bank of Greece, after determining the necessary euro quantities, obtained the ECB's approval to start production before 1 January 2001.

Immediately after the decision on the entry of Greece into the euro area, the Bank of Greece Printing Works (IETA) proceeded to the procurement of raw materials and upgraded and completed its machinery. Specifically:

- IETA drew up a monthly production schedule, which was submitted to the appropriate ECB committees.
- In the second half of 2000, IETA ordered the materials (inks, paper, blanks) for the start of production in October 2000.
- At the same time, IETA procured a silk-screen printing machine and improved and modernised the already existing machinery, in particular the machines used for printing the background of banknotes and the intaglio printing machines.

1 In this chapter, the term "currency in circulation" refers to euro or drachma banknotes and coins outside the Bank of Greece.

2 An exception is the €5 denomination, where the initially estimated necessary quantity for replacing drachmas was increased by 20 million banknotes without an equivalent increase in the logistical stock. It should be noted that the creation of logistical stocks, to an extent reflecting country-specific factors, was standard practice for all the national central banks of the euro area.

3 For example, the value of the €2 coin, which is the highest-denomination euro coin, far exceeds the value of the highest-denomination drachma coin.

- Coin striking presses and packaging assemblies were also procured.

Meanwhile, IETA stepped up its operation in order to produce the maximum possible quantity of euro banknotes and coins, despite the shorter transition period for Greece than for the other countries of the euro area.¹ Indeed, the bulk of the required quantities of euro banknotes and coins was produced by IETA, while the production of the remainder was assigned to other printing works and mints that produced euro banknotes and coins for other national central banks of the Eurosystem.

TABLE XI.1
QUANTITIES OF EURO BANKNOTES AND COINS
REQUIRED FOR GREECE

Denomination	Quantity (million pieces)	Value (million euro)
Banknotes		
5 euro	158	790
10 euro	183	1,830
20 euro	178	3,560
50 euro	67	3,350
100 euro	26	2,600
200 euro	4	800
500 euro	1	500
Total	617	13,430
Coins		
1 cent	88	0.88
2 cents	172	3.44
5 cents	287	14.35
10 cents	257	25.70
20 cents	371	74.20
50 cents	145	72.50
1 euro	117	117.00
2 euro	163	326.00
Total	1,600	634.07

Source: Bank of Greece. These quantities include logistical stocks.

Euro banknotes and coins incorporate numerous security features that protect them effectively against counterfeiting, as well as features facilitating their recognition by the visually impaired. The security features that can be easily recognised by the general public include the unique feel achieved through the use of cotton fibres, the watermark, the security thread, the foil hologram, the see-through register, colour-shifting ink, as well as tactile properties produced by raised print and intaglio printing. Other security

¹ It should be noted that for a long time IETA operated for 13 hours a day, as well as on Saturdays.

features are recognisable by professional cash handlers or readable by banknote-accepting machines.

Special emphasis was placed on the quality of the euro banknotes and coins produced, as well as on strict compliance with the uniform product specifications, so that they can be used in all the countries of the euro area. For this purpose, a common quality control system is applied by all printing works and mints engaged in the production of euro banknotes and coins.

From 2002, a decentralised system of joint production of euro banknotes of the Eurosystem is in place. Each national central bank is responsible for the production of one or two denominations of euro banknotes. The banknotes of each denomination are not to be produced by more than four printing works in the euro area. In 2002, IETA exclusively produces €10 banknotes, both for the Bank of Greece and for other national central banks in the euro area. Conversely, the Bank of Greece is supplied with the banknotes of other denominations by other printing works in the euro area.

2. LEGAL FRAMEWORK

The legal framework for the euro cash changeover was based, in addition to the Treaty on European Union, on Council Regulations (EC) 1103/97 and 974/98. Regulation 1103/97 laid down, among other things, the rules of conversion from euro to national currencies and vice-versa. Regulation 974/98 stated that the euro banknotes and coins would be put into circulation by the ECB and the national central banks of the euro area Member States as from 1 January 2002 and that banknotes and coins denominated in the national currency units would lose legal tender status at the latest six months after that date.

Council Regulations (EC) 975/98 and 423/99 set out the denominations and technical specifications of euro coins intended for circulation. Council Regulations (EC) 2866/98 and 1478/2000 specified the conversion rates between the euro and the currencies of the Member States adopting the euro.

According to the common statement of ECOFIN of 8 November 1999, the euro cash changeover had to be effected within a specific framework, but the details of this procedure would be arranged by the individual Member States of the euro area. The ECOFIN statement provided that the dual circulation period would last between four weeks and two months, i.e. less than the six months specified by Council Regulation 974/98. Greece and seven other countries of the euro area opted for a two-month period of dual circulation. The said statement of ECOFIN also provided for the supply of limited quantities of coins to the public as from the second half of December 2001.

The above regulations have been implemented in Greek legislation through a number of laws, ministerial decisions and circulars. Law 2842/2000 provided for the sub-

stitution of the euro for the drachma as the national currency as from 1 January 2001 and specified the rules for conversion and rounding. Law 2948/2001 stated that the euro banknotes and coins would be put into circulation as from 1 January 2002 and that the dual circulation period would last until 28 February 2002. It also described the designs of the national side of the Greek euro coins and contained detailed provisions on frontloading/sub-frontloading¹ and the protection of the currency.

The ECB issued a number of guidelines on the frontloading/sub-frontloading of euro banknotes and coins to credit institutions, enterprises, the public, as well as central banks and credit institutions outside the euro area. Euro banknotes and coins were frontloaded to credit institutions in accordance with the Guideline of the European Central Bank of 10 January 2001 (ECB/2001/1). The ECB Guideline of 13 September 2001 (ECB/2001/8) laid down provisions on the frontloading of euro banknotes outside the euro area. Several other Guidelines and Decisions of the ECB addressed various other matters relating to the forthcoming launch of the euro.²

Despite strong pressure from various professional groups on the ECB to approve the sub-frontloading of euro banknotes to the public as from December 2001, the Governing Council of the ECB considered that any benefits from such an arrangement would be offset by potential risks of confusion and of premature circulation of the new banknotes. In the case of coins, such risks were not considered to be high, since coins are mostly used as change.

According to a Decision of the ECB Governing Council,³ the right to issue euro banknotes lies with the European Central Bank and the 12 national central banks of the euro area countries. Following the euro cash changeover, it is no longer possible to ascertain the exact quantity of euro banknotes in circulation in each country of the euro area, as the euro banknotes put into circulation in one euro area country may migrate to, and be used in, another country. For this reason, each national central bank of the Eurosystem as well as the ECB include in their balance sheets as banknotes in circulation a share of the total euro banknotes in circulation and it is this share that is considered to have been issued by the said national central bank or the ECB. Specifically, 8% of total banknotes in circulation are included in the ECB's balance sheet, while the other 92% is allocated to the national central banks according to their respective ECB capital key. The 12 national central banks put into circulation, withdraw and physically handle all euro banknotes, including those issued by the ECB.

1 The term "frontloading" means the supply of credit institutions with euro banknotes and coins before 1 January 2002, while the term "sub-frontloading" means the supply of retailers and the public with euro before that date. Frontloading dates differed across the euro area, but moved within the limits specified in the relevant ECB Guideline (see below).

2 Decisions of ECB dated 30 August 2001 and 3 December 2001 (ECB/2001/7 and ECB/2001/14) contained provisions on matters relating to the denominations, reproduction, exchange and withdrawal of euro banknotes. Provisions on the implementation of Article 52 of the Statute of the ESCB are included in Guideline ECB/2001/10, which amended Guideline ECB/2000/6.

3 Decision of the European Central Bank of 3 December 2001 on the issue of euro banknotes (ECB/2001/15).

3. THE LAUNCH OF EURO BANKNOTES AND COINS AND THE WITHDRAWAL OF DRACHMAS

3.1 Frontloading and sub-frontloading of euro cash and arrangements for the withdrawal of drachmas

The frontloading of euro banknotes to credit institutions in Greece started on 1 October 2001, while the frontloading of coins started earlier, on 1 September, as it was judged that, given their higher weight, their transport would require longer and more intensive preparation. The relevant arrangements were included in Article 7 of Law 2948/2001, which was the legal base of frontloading and sub-frontloading in Greece.

In view of the geography of Greek territory (namely remote and secluded mountainous areas and islands), the Bank of Greece made special efforts to establish an extensive network of distribution centres all over the country. This included the Bank's head office and 27 branches nationwide, as well as 96 branches of the National Bank of Greece at which the Bank of Greece maintains cash holdings. Moreover, from the beginning of the frontloading procedure, the Bank made arrangements for the timely supply of remote areas with euro banknotes and coins.

Equally important to the Bank of Greece was to ensure the safe storage of euro banknotes and coins. For this purpose, the Bank remodelled and expanded the storage facilities of its branches and secured extra storage capacity, where necessary. Euro banknotes and coins were transported to the distribution centres by vehicles and specialised personnel of the Bank under tight security measures (armoured trucks, armed escort etc.), while the Hellenic Police helped significantly by providing security escort in euro shipments undertaken by the Bank of Greece as well as from the Bank's distribution centres to branches of credit institutions.

The frontloading procedure required close co-operation between the Bank of Greece and credit institutions. The latter forwarded to the Bank of Greece their orders for euro banknotes and coins, broken down by denomination and branch, along with a proposed frontloading timetable. These timetables were finalised after bilateral consultations, taking into account possible difficulties that might affect the frontloading procedure, such as adverse weather conditions. A total of 3,233 branches of credit institutions and post offices throughout Greece were frontloaded.

The Bank of Greece estimated the geographical breakdown of the quantities of euro banknotes and coins on the basis of the contribution of each prefecture to GDP, also taking into account certain local factors. Accordingly, it increased the stocks of its branches in those areas where the frontloading of banknotes and coins to credit institutions was lower than the estimated needs per geographical area.

The total value of the euro banknotes and coins frontloaded to credit institutions amounted to €6,097.4 million (see Table XI.2), i.e. about 70% of the value of currency in circulation at the end of December 2001, which is a very high percentage. The value of the euro banknotes frontloaded to credit institutions was €5,696.2 million, which is about

67% of the drachma banknotes in circulation at the end of 2001. The corresponding figure for the euro area as a whole was €133 billion, which is about 50% of the national banknotes in circulation at the end of 2001. Thanks to the sizeable frontloading, in conjunction with the adequate quantities of euro banknotes and coins available at the branches of the Bank of Greece, the euro cash changeover was absolutely smooth, as the branches of credit institutions throughout the country had sufficient quantities to meet demand by the public. The banknotes frontloaded were 59% of the quantity of euro bank-

TABLE XI.2
FRONTLOADING – QUANTITIES OF EURO BANKNOTES AND COINS
FRONTLOADED TO CREDIT INSTITUTIONS

Denomination	Quantity frontloaded (million pieces)	Percentage of the required quantity of pieces (Table XI.1)	Value (million euro)
Banknotes			
5 euro	107.1	67.8	535.5
10 euro	113.0	61.7	1,129.9
20 euro	111.1	62.4	2,221.7
50 euro	29.0	43.3	1,449.4
100 euro	3.6	13.8	359.7
200 euro	0	0	0
500 euro	0	0	0
Total	363.8	59.0	5,696.2
Coins			
1 cent	61.3	69.7	0.6
2 cents	104.7	60.9	2.1
5 cents	185.2	64.5	9.3
10 cents	161.4	62.8	16.1
20 cents	227.5	61.3	45.5
50 cents	92.0	63.4	46.0
1 euro	77.6	66.4	77.6
2 euro	102.0	62.5	203.9
Total	1,011.7	63.2	401.1

Source: Bank of Greece. Differences between, on the one hand, the products of the multiplication of the quantities of banknotes and coins by the corresponding denomination and, on the other hand, the amounts given in the last column are due to rounding.

notes and the coins were 63.2% of the quantity of euro coins that had been planned to replace the drachma banknotes and coins in circulation. Particular emphasis was placed on the frontloading of euro banknotes of lower denominations and coins to credit institutions, rather than of banknotes of higher denominations (€200 and 500), so that retailers would not need to give much change in the first days following the launch of the euro. A similar policy was followed in the rest of the euro area and, as a result, in the first days of January 2002 the lower denomination banknotes (i.e. €5, €10 and €20) accounted for

82.4% of the total number (43% of the total value) of banknotes in circulation, by far exceeding the corresponding shares of national banknotes of similar denominations before the euro cash changeover.

The Bank of Greece also frontloaded euro banknotes to some central banks of neighbouring countries, implementing the relevant Guideline of the European Central Bank (ECB/2001/8).

Although demand by retailers for sub-frontloading of euro banknotes and coins was much lower than the amount frontloaded to credit institutions, there were no problems in the smooth operation of the market. This is attributable to the adequate frontloading to credit institutions all over Greece, which enabled them to meet demand for euro banknotes and coins during the first days, and to the continuous supply of euro banknotes and coins by the head office and the branches of the Bank of Greece. A total of 107,000 retailers (i.e. 43% of all active firms with authorised cash registers¹) were supplied with euro banknotes and coins before 1 January 2002, including those supplied exclusively with euro coin rolls after 17 December 2001.

Frontloading of euro coins to the public started on 17 December 2001.² Greek starter kits were produced in 3 million pieces, each contained 45 coins of a total value of €14.67 and had a countervalue of 5,000 drachmas and they almost sold out. Specifically, by 31 December 2001 about 2,850,000 starter kits had been sold through the banking system, i.e. 95% of the total number. Warm public acceptance is evident from the fact that on the very first day of distribution 39% of the total amount of kits was distributed. In this way large quantities of euro coins (about 130 million pieces) were made available to the public. The distribution of starter kits helped the public, especially the visually impaired, to familiarise themselves with the new coins. In the euro area as a whole, the public acquired more than 150 million starter kits, comprising over 4.2 billion coins worth €1.6 billion.

At the same time, it was necessary to make detailed plans for the collection and destruction of withdrawn drachma banknotes and coins.³ The Bank of Greece bought a banknote shredding machine, which shreds banknotes into small particles and compresses them into bricks, instead of applying the obsolete and environment-unfriendly incineration process. With this machine a total of 180 million drachma banknotes were destroyed in 2001 and 248 million in the first three months of 2002. Coins are destroyed by defacing machines installed at the branches of the Bank of Greece and are then delivered to the Organisation for the Management of State-Owned Movable Property (ODDY) to be used as raw material. By the end of March 2002, a total of about 147 million drachma coins had been defaced.

In addition to the withdrawal of drachmas, plans were also made for the withdrawal of banknotes denominated in the national currencies of the other euro area coun-

1 According to data from the Ministry of Economy and Finance, the number of active firms with official cash registers was 248,221 in December 2001.

2 Decision of the Minister of Economy and Finance No. 2/59329/0025/2 November 2001.

3 The drachma banknotes withdrawn are collected in IETA for counting and authenticity control.

tries. In implementation of Article 52 of the Statute of the European System of Central Banks (ECSB), each national central bank of the Eurosystem had to ensure, as from 1 January 1999 (for Greece, 1 January 2001), the exchange of banknotes denominated in national currencies of other euro area countries at their respective par value, in at least one location within the national territory. The Governing Council of the ECB decided to extend the effect of this obligation until the end of March 2002. In Greece, this task was entrusted to the head office and the 27 branches of the Bank of Greece. In this context, banknotes of the other 11 euro area countries worth €614 million were exchanged in 2001, while in the first three months of 2002 the exchange process gained considerable momentum and by the end of March 2002 banknotes worth €426 million euro had been exchanged. The drachma banknotes repatriated to the Bank of Greece between 1 January 2001 and the end of March 2002 by the national central banks of other euro area countries represented a total value of 150 billion drachmas.

3.2 *The circulation of the euro after 1 January 2002*

To achieve a smooth changeover, it was essential that drachmas ceased to enter circulation via bank counters and automated teller machines (ATMs), which are the main channels whereby higher denomination banknotes are fed into the market.¹

On 1 January 2002, credit institutions ceased to pay out drachmas from their counters.² The rapid adaptation of ATMs was particularly important, so that they would

TABLE XI.3
ATM CONVERSION PROGRESS

Date	Number of converted ATMs	Percentage of total number	Corresponding percentage in the euro area
1 January 2002	3,987	92	80
2 January 2002	4,239	98	91
3 January 2002	4,326	100	97
4 January 2002			100

Sources: Bank of Greece and European Commission.

be ready to dispense euro banknotes as from 1 January 2002. The Bank of Greece monitored the ATM conversion procedure, which was completed in just three days all over the country, actually faster than expected³ (see Table XI.3). No problems occurred during the conversion of EFT-POS terminals, which was completed within the first days

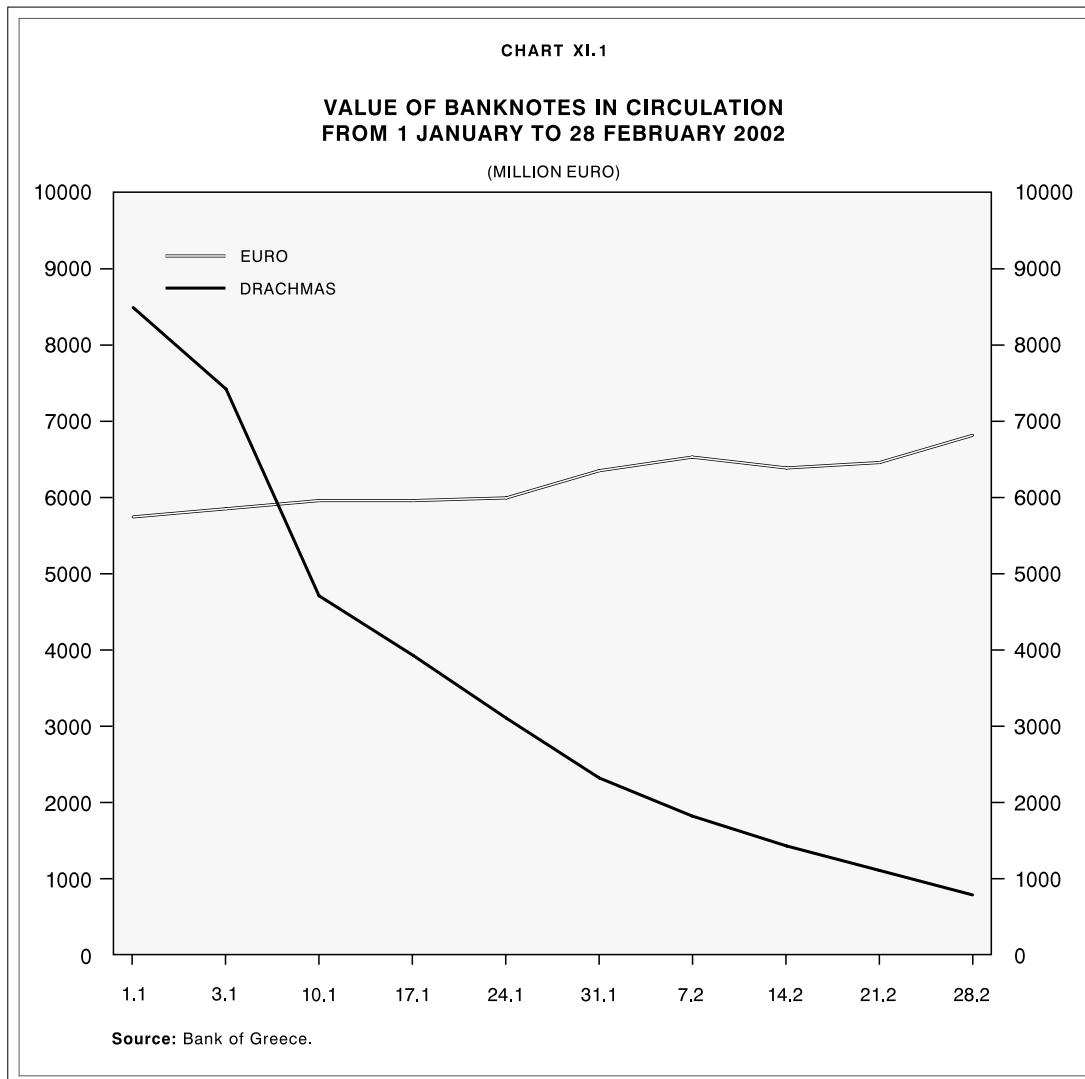
1 Lower denomination banknotes and coins are mainly put in circulation by retailers as change.

2 National Cash Changeover Plan, December 2000.

3 The ATMs that had not been converted continued to dispense drachmas until their conversion.

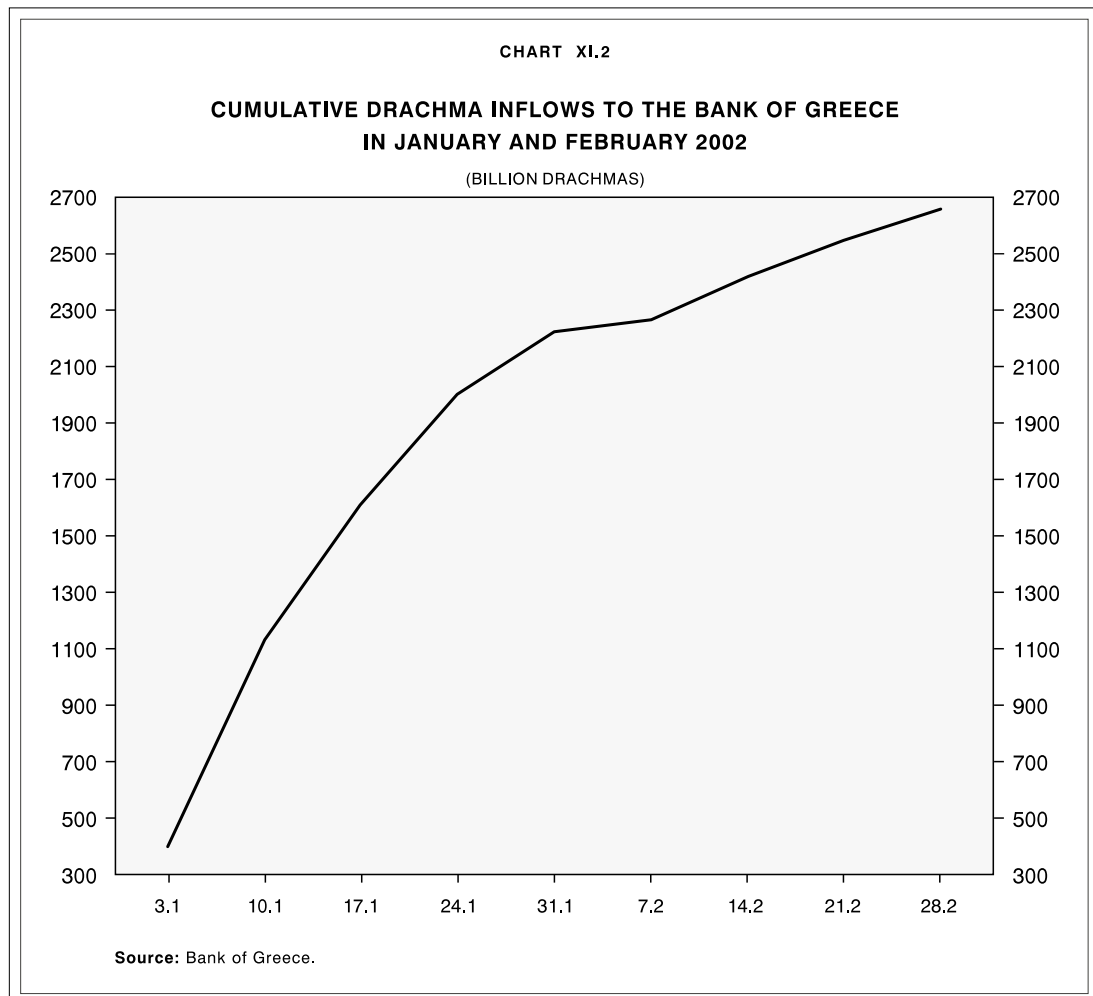
of January. Equally satisfactory was the speed of conversion of vending machines, 75% of which had been converted by the third week of January 2002, and the remainder by mid-February.

The value of euro banknotes and coins outside the Bank of Greece on 28 February 2002 totalled €7,216 million, i.e. 83% of the value of the currency in circulation at the end



of 2001. Cash outflows from the counters of the Bank of Greece during the first two months of 2002 were continuous, although occasionally (net) euro inflows were recorded, owing to the return of certain quantities of euro banknotes, mainly of lower denominations, from credit institutions to the central bank. These returns reflected the need of certain banks to restructure the banknote stocks of their branches, so as to match local demand (see Chart XI.1).

Drachma inflows to the Bank of Greece during that period were continuous and massive. By 28 February 2002 a total amount of 2.7 trillion drachmas (€7.8 billion), or about 90% of the currency in circulation on 31 December 2001 had been withdrawn (see Chart XI.2). It should be noted that a part of the drachmas that were in circulation at the end of 2001 has been lost or will continue to be held by the public as collector's items.

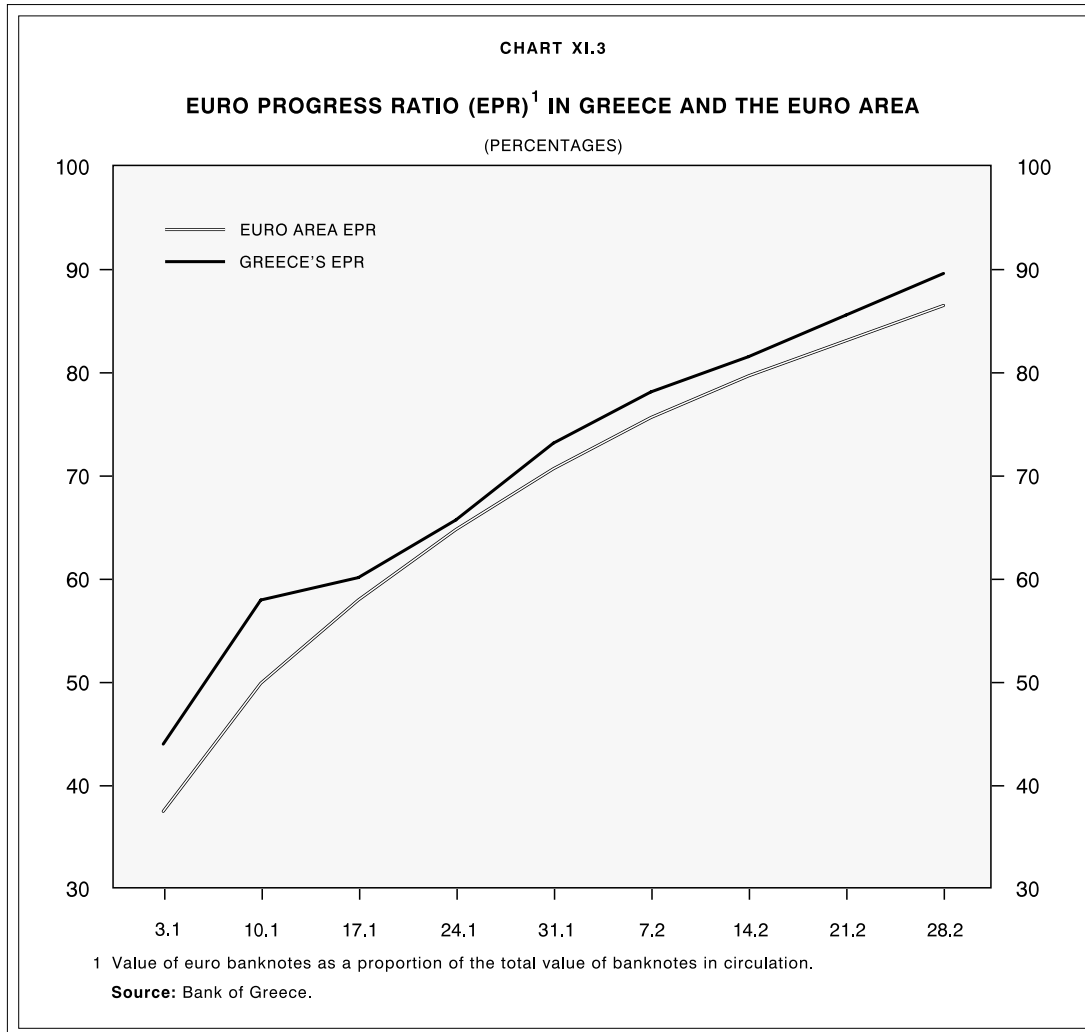


Another small part is expected to be returned to the Bank of Greece after the end of the dual circulation period.

The high speed of entry of the euro into circulation and of the withdrawal of drachmas is also corroborated by the evolution of the euro progress ratio (EPR) (see Chart XI.3).¹

¹ This ratio (Euro Progress Ratio - EPR), which was monitored by the ECB for the Eurosystem as a whole, is defined as the ratio of the euro banknotes in circulation to the total value of euro and national banknotes in circulation.

To sum up, the introduction of euro banknotes and coins and the withdrawal of drachmas progressed at a satisfactory pace, as is also evidenced by the fact that over 90% of market transactions were being conducted in euro by the end of January 2002.¹



4. COMMUNICATION ACTIVITIES OF THE BANK OF GREECE CONCERNING THE EURO CASH CHANGEOVER

During 2001 and the first months of 2002, the Bank of Greece was involved in numerous communication activities aimed at providing information to, and ensuring the timely preparation of, the public in respect of the cash changeover. Part of these activities

¹ According to data from the Ministry of Economy and Finance, which were presented at the meeting of the National Co-ordinating Committee in the Zappeion Conference Hall on 1.2.2002 and are based on a survey conducted by Metron Analysis, by 30 January 2002 99% of respondents had acquired euro cash, 73.1% were carrying out their transactions mainly in euro and 94.2% had already made transactions in euro.

was included in the Euro 2002 Information Campaign organised by the ECB in co-operation with the national central banks of the Eurosystem; however, independent communication activities were also undertaken by the Bank of Greece.

The Euro 2002 Information Campaign comprised a mass media campaign, a public relations and press programme, a partnership programme and a training programme for professional cash handlers in various fields.

In the context of the mass media campaign, the general public was informed through TV spots and print adverts about the appearance and the security features of the euro banknotes and coins and about the modalities of the cash changeover. As a support to the mass media campaign, the Greek version of a leaflet entitled "Getting ready for the euro" was distributed to all Greek households, while posters, brochures etc. were distributed to the public. At the same time, a competition entitled "Be a Euro SuperStar" for children aged 8-12 was held in all euro area countries. 24 winners (two from each country) were invited to the award ceremony in Frankfurt on 31 December 2001, whereas another 100 winners received their prizes by mail.

The public relations and press programme included two main events. On 5 September 2001 the Bank of Greece hosted a press conference, where the security features of the euro banknotes were analysed and the Euro 2002 Information Campaign was presented. On 17 October 2001 a Euro 2002 Information Conference was held at the Bank of Greece, with the participation of the President of the ECB, Dr. Willem Duisenberg.

The partnership programme aimed at the broadest possible dissemination of information, through co-operation with organisations that would act as information multipliers. In Greece, 120 public and private sector entities participated in this programme (ministries, banks, public utilities, chambers, professional associations, social security funds, retail chains etc.).

Finally, the Bank of Greece organised in 2001 500 training courses (with uniform training material that was distributed to all participants) for cash handlers who work either in private enterprises or in the public sector, focusing on the identification features of euro banknotes. The 6,500 cash handlers who attended these courses trained, in turn, their colleagues from various entities, including ministries, internal revenue offices, customs offices, banks, public utilities (Public Power Corporation, Hellenic Post Office, Athens and Piraeus Water Supply Corporation), the Central Association of Municipalities and many public and private sector enterprises. In this context, a total of 115 courses were held at the head office and 385 at the branches of the Bank of Greece.

To train blind and partially sighted people, the ECB, in consultation with the European Blind Union, issued specifically adapted informative material and ad hoc specimens of euro banknotes and coins, which were distributed to the national associations of the blind to make them available to their members. Employees of the Bank of Greece participated in training courses organised by the respective national associations.

The additional information activities of the Bank of Greece were aimed at meeting special information needs of the Greek public. In this context, the Bank of Greece

launched additional TV spots and press adverts from December 2001 to February 2002, placing emphasis on specific information concerning the euro cash changeover in Greece.

In November and December 2001, the branches of the Bank of Greece held public information conferences in various cities and towns (Volos, Heraklion, Thessaloniki, Ioannina, Kavala, Kalamata, Corfu, Larisa, Xanthi, Patras, Serres, Tripoli and Chania), attended by local audiences and with the contribution of members of the Bank's Administration. The conferences focused on the security features of the euro banknotes and the preparations for the cash changeover.

Moreover, staff from the head office or the branches of the Bank of Greece participated as speakers or panelists in numerous events and training courses on the launch of the euro held by various organisations across the country.

As part of the "Euro-World" project, the Euro-City-Tour exhibition was hosted in Athens between 15 November and 10 December 2001, featuring giant polyester models of euro coins, painted by children and artists from all over Europe. Following the exhibition, the works were put up for auction and the proceeds were used in aid of children with cancer.

In order to better inform school age children, who act as basic information multipliers, the Bank of Greece produced the board game "Euroraces" and the "Eurognosia" cartoon, both starring Eurocles. With the support of the Ministry of National Education, the game was distributed free of charge to the senior grades of primary schools and the cartoon to high schools all over the country.

Finally, on New Year's eve the Bank of Greece celebrated at its head office the launch of the euro banknotes and coins, which was broadcast by satellite all over the world.

5. ANTI-COUNTERFEIT MEASURES

The euro banknotes and coins are manufactured in a way that ensures maximum security against counterfeiting, as they incorporate advanced security features that make their illegal reproduction very difficult. Research on the improvement of these features, conducted on a decentralised basis and co-ordinated by the ECB, is a basic factor contributing to the maintenance of the high level of security provided by the first series of euro banknotes. To enable the competent services to effectively address any attempt at counterfeiting, it was decided, in addition to strengthening the relevant legal framework, to establish a network of agencies, both centrally and at the regional level, with specific roles and responsibilities, extending beyond the euro area.¹

The Counterfeit Monitoring System (CMS) includes the European network of National Analysis Centres (NAC) and a database located at the ECB and is used for storing and processing information on counterfeit euro banknotes and coins. National analy-

¹ These arrangements are contained in Council Regulations (EC) 1338/2001 and 1339/2001.

sis centres analyse counterfeit banknotes at the national level and transmit the relevant information to the central database.

The Counterfeit Analysis Centre (CAC), established in Frankfurt am Main, Germany, started to operate at the beginning of 2002 and its purpose is to classify the counterfeits received from the National Analysis Centres. Its counterpart in the field of coins is the European Technical and Scientific Centre (ETSC), established at the French Mint in Pessac, France. The Eurosystem closely co-operates with Europol, which has been entrusted with the task of combatting counterfeiting, jointly with the national police authorities. The ECB and Europol have entered into a co-operation agreement to this effect.

The Bank of Greece, actively participating in the competent bodies that have taken the above measures, has established a National Counterfeit Centre (NCC) under its supervision. This body has undertaken the exclusive co-ordination of the centres established in Greece, serves as a link between the centralised bodies of the network and is responsible for monitoring and controlling the application of the Counterfeit Monitoring System in Greece. The Centre is located at the Cash Department of the Bank of Greece and is already operational.

At the same time, National Analysis Centres (NAC) and Coin National Analysis Centres (CNAC) have been set up, whose responsibility and operation has been undertaken by the Hellenic Police. Counterfeit euro banknotes and coins are delivered to the national analysis centres for banknotes and coins, respectively, for control and verification and for updating the database.

Under Council Regulations (EC) 1338/2001 and 1339/2001 and Bank of Greece Governor's Act 2484/27 December 2001, credit institutions, bureaux de change and any other organisation involved in circulating banknotes and coins are required to withhold any suspicious banknote and/or coin and deliver it to the competent authorities.

Citizens who in any manner whatsoever gain possession of suspicious banknotes and/or coins should notify the Hellenic Police.¹

¹ The criminal sanctions for producing and putting counterfeits into circulation are laid down in Articles 207 et seqq. of the Penal Code, as amended by Law 2948/2001 "circulation of euro banknotes and coins".

GLOSSARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Supervisory own funds: the ones defined in Bank of Greece Governor’s Act 2053/8 March 1992, incorporating Directive 89/299 (EEC) into Greek Law.

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

**ANNUAL ACCOUNTS
OF THE BANK OF GREECE**

BALANCE SHEET AT

IN EURO AND DRACHMAS

ASSETS	2 0 0 1		2 0 0 0	
	<i>in euro</i>	<i>in drachmas</i>	<i>in euro</i>	<i>in drachmas</i>
1. GOLD AND GOLD RECEIVABLES	1,451,798,229	494,700,246,532	995,009,578	339,049,513,704
2. CLAIMS IN FOREIGN CURRENCY ON NON-EURO-AREA RESIDENTS	5,788,374,062	1,972,388,461,626	11,840,934,366	4,034,798,385,215
2.1. Receivables from the IMF	448,657,635	152,880,089,126	367,589,416	125,256,093,502
2.2. Balances with banks and security investments, external loans and other assets	5,339,716,427	1,819,508,372,500	11,473,344,950	3,909,542,291,713
3. CLAIMS IN FOREIGN CURRENCY ON EURO AREA RESIDENTS	6,378,091,290	2,173,334,607,068	3,308,499,135	1,127,371,080,252
3.1. General government	2,804,759,052	955,721,646,969	2,893,619,605	986,000,880,404
3.2. Other claims	3,573,332,238	1,217,612,960,099	414,879,530	141,370,199,848
4. CLAIMS IN EURO ON NON-EURO-AREA RESIDENTS	54,451,964	18,554,506,733	659,440,870	224,704,476,453
1. Balances with banks, security investments and loans	54,451,964	18,554,506,733	659,440,870	224,704,476,453
2. Claims arising from credit facilities under ERM II	0	0	0	0
5. LENDING IN EURO TO EURO AREA CREDIT INSTITUTIONS, RELATED TO MONETARY POLICY OPERATIONS	510,000,000	173,782,500,000	728,099,780	248,100,000,035
6. OTHER CLAIMS IN EURO ON EURO AREA CREDIT INSTITUTIONS	185,327,046	63,150,190,925	721,770,949	245,943,450,872
7. SECURITIES IN EURO OF EURO AREA RESIDENTS	4,100,534,465	1,397,257,119,085	2,858,980,543	974,197,620,164
7.1. General government debt	3,021,587,049	1,029,605,787,083	2,828,980,543	963,975,120,164
7.2. Other securities	1,078,947,416	367,651,332,002	30,000,000	10,222,500,000
8. GENERAL GOVERNMENT DEBT IN EURO	11,070,457,699	3,772,258,460,934	11,703,948,781	3,988,120,547,126
8.1. Long-term debt	2,250,147,387	766,737,722,120	2,448,430,485	834,302,687,764
8.2. Loans for participation in the IMF	878,387,343	299,310,487,127	952,584,937	324,593,317,283
8.3. Long-term loans and securities with a euro clause	7,941,922,969	2,706,210,251,687	8,302,933,359	2,829,224,542,079
9. INTRA-EUROSYSTEM CLAIMS	1,416,814,874	482,779,668,316	76,197,124	25,964,170,003
9.1. Participation in the capital and reserves of the ECB	388,614,874	132,420,518,316	5,141,000	1,751,795,750
9.2. Claims equivalent to the transfer of foreign reserves to the ECB	1,028,200,000	350,359,150,000	0	0
9.3. Claims related to promissory notes backing the issuance of ECB debt certificates	0	0	0	0
9.4. Other claims within the Eurosystem (net)	0	0	71,056,124	24,212,374,253
10. ITEMS IN COURSE OF SETTLEMENT	667,266	227,370,890	427,373,785	145,627,617,239
11. OTHER ASSETS	1,615,233,823	550,390,925,051	1,084,061,105	369,393,821,320
11.1. Coins of euro area	4,454,304	1,517,804,088	10,667,562	3,634,971,680
11.2. Tangible and intangible fixed assets	226,239,699	77,091,177,434	165,492,888	56,391,701,586
11.3. Other financial assets	26,359,102	8,981,864,007	20,511,120	6,989,164,140
11.4. Accruals and deferred expenditure	248,988,157	84,842,714,498	162,507,449	55,374,413,247
11.5. Sundry	1,109,192,561	377,957,365,024	724,882,086	247,003,570,667
T O T A L	<u>32,571,750,718</u>	<u>11,098,824,057,160</u>	<u>34,404,316,016</u>	<u>11,723,270,682,383</u>
OFF-BALANCE-SHEET ITEMS				
Investment in government securities on behalf of public entities*	6,843,450,472	2,331,905,748,202	5,794,614,843	1,974,515,007,895

* Including legal persons in public law and insurance funds in public and private law

Notes: - Under article 54A of the Bank's Statute, the balance sheet was drawn up in compliance with the rules and accounting practices determined by the European Central Bank (ECB) and applying to the members of the European System of Central Banks.
 - The value of gold is calculated on the basis of 100% of the gold price (in euro) per ounce as specified by the ECB and is shown under a separate item.
 - Claims/liabilities denominated in euro or foreign currencies are broken down into claims on/liabilities to euro area residents and non-euro-area residents.
 - Account balances related to monetary policy operations are shown under separate items.
 - For the sake of comparability, account balances as at 31 December 2000 are depicted above, matched as appropriate with the corresponding items of the balance sheet for the year 2001.

LIABILITIES	2001		2000	
	<i>in euro</i>	<i>in drachmas</i>	<i>in euro</i>	<i>in drachmas</i>
1. BANKNOTES IN CIRCULATION	8,514,029,802	2,901,155,655,032	8,911,005,631	3,036,425,168,600
2. LIABILITIES IN EURO TO EURO AREA CREDIT INSTITUTIONS, RELATED TO MONETARY POLICY OPERATIONS	1,671,669,937	569,621,531,033	3,068,747,802	1,045,675,813,532
2.1. Current accounts <i>(including minimum reserves)</i>	1,657,609,937	564,830,586,033	2,201,543,106	750,175,813,370
2.2. Deposit facility	14,060,000	4,790,945,000	867,204,696	295,500,000,162
3. OTHER LIABILITIES IN EURO TO EURO AREA CREDIT INSTITUTIONS	4,822,113,530	1,643,135,185,348	9,520,058,324	3,243,959,873,903
4. LIABILITIES IN EURO TO OTHER EURO AREA RESIDENTS	843,423,242	287,396,469,712	671,012,859	228,647,631,704
4.1. General government	826,778,900	281,724,910,175	658,320,491	224,322,707,308
4.2. Other liabilities	16,644,342	5,671,559,537	12,692,368	4,324,924,396
5. LIABILITIES IN EURO TO NON-EURO-AREA RESIDENTS	755,411,273	257,406,391,275	917,861,270	312,761,227,753
6. LIABILITIES IN FOREIGN CURRENCY TO EURO AREA RESIDENTS	1,578,438,575	537,852,944,431	5,333,165,510	1,817,276,147,533
7. LIABILITIES IN FOREIGN CURRENCY TO NON-EURO-AREA RESIDENTS	1,675,425,750	570,901,324,313	1,778,770,325	606,115,988,244
7.1. Deposits and other liabilities	1,675,425,750	570,901,324,313	1,778,770,325	606,115,988,244
7.2. Liabilities arising from credit facilities under ERM II	0	0	0	0
8. COUNTERPART OF SPECIAL DRAWING RIGHTS ALLOCATED BY THE IMF	147,500,677	50,260,855,688	145,546,460	49,594,956,245
9. INTRA-EUROSYSTEM LIABILITIES	8,092,898,988	2,757,655,330,161	0	0
9.1. Liabilities related to promissory notes backing the issuance of ECB debt certificates	0	0	0	0
9.2. Other liabilities within the Eurosystem (net)	8,092,898,988	2,757,655,330,161	0	0
10. ITEMS IN COURSE OF SETTLEMENT	151,752,634	51,709,710,388	68,503,253	23,342,483,460
11. OTHER LIABILITIES	1,044,250,486	355,828,353,105	1,777,708,495	605,754,169,902
11.1. Accruals and deferred income	64,389,620	21,940,763,016	27,383,028	9,330,766,791
11.2. Sundry	979,860,866	333,887,590,089	1,750,325,467	596,423,403,111
12. PROVISIONS	188,940,426	64,381,450,160	161,475,897	55,022,911,903
13. REVALUATION ACCOUNTS	392,456,989	133,729,719,002	0	0
14. CAPITAL AND RESERVES	2,187,153,773	745,272,647,795	1,559,700,412	531,467,915,034
14.1. Capital	49,844,397	16,984,478,100	49,844,397	16,984,478,100
14.2. Ordinary reserve	49,844,397	16,984,478,100	49,844,397	16,984,478,100
14.3. Special reserves	2,076,660,865	707,622,189,749	1,449,207,504	493,817,456,988
14.4. Difference from the revaluation of fixed assets (Law 2065/92)	10,804,114	3,681,501,846	10,804,114	3,681,501,846
15. PROFIT FOR THE YEAR	506,284,636	172,516,489,717	490,759,778	167,226,394,570
T O T A L	<u>32,571,750,718</u>	<u>11,098,824,057,160</u>	<u>34,404,316,016</u>	<u>11,723,270,682,383</u>
OFF-BALANCE-SHEET ITEMS				
Investment in government securities on behalf of public entities*	6,843,450,472	2,331,905,748,202	5,794,614,843	1,974,515,007,895

PROFIT AND LOSS ACCOUNT

IN EURO AND DRACHMAS

<u>DEBIT</u>	2001		2000	
	<i>in euro</i>	<i>in drachmas</i>	<i>in euro</i>	<i>in drachmas</i>
STAFF COSTS	206,204,814	70,264,290,371	188,181,222	64,122,751,557
Wages and salaries	110,008,027	37,485,235,200	100,720,836	34,320,624,971
Employer's contributions and other levies				
To the Health Insurance Fund	10,454,473	3,562,361,675	8,094,760	2,758,289,610
To the Pension Fund	26,162,382	8,914,831,667	24,289,068	8,276,500,060
To the Supplementary Pension Fund	10,779,489	3,673,110,877	9,862,995	3,360,815,646
To the Self-Insurance Fund	0	0	30,484	10,387,516
Contributions to other insurance funds and other charges	7,547,575	2,571,836,181	6,446,581	2,196,672,415
Pensions and benefits	41,252,868	14,056,914,771	38,736,498	13,199,461,339
ADMINISTRATIVE AND OTHER EXPENSES	41,105,713	14,006,771,705	21,607,175	7,362,644,771
DEPRECIATION OF TANGIBLE AND INTANGIBLE FIXED ASSETS	20,111,634	6,853,039,286	18,162,991	6,189,039,352
TAXES-CHARGES	2,847,958	970,441,688	2,141,564	729,737,741
OPERATING PROVISIONS	26,875,467	9,157,815,380	88,269,993	30,078,000,000
Provision under Article 71 of the Statute	17,841,560	6,079,511,570	58,694,057	20,000,000,000
Provision for personnel pensions	8,805,000	3,000,303,750	29,347,029	10,000,000,000
Sundry provisions	228,907	78,000,060	228,907	78,000,000
	<u>297,145,586</u>	<u>101,252,358,430</u>	<u>318,362,945</u>	<u>108,482,173,421</u>
NET PROFIT	506,284,636	172,516,489,717	490,759,778	167,226,394,570
	<u>803,430,222</u>	<u>273,768,848,147</u>	<u>809,122,723</u>	<u>275,708,567,991</u>

FOR THE YEAR 2001

SEVENTY-FOURTH YEAR

<u>CREDIT</u>	2001		2000	
	<u>in euro</u>	<u>in drachmas</u>	<u>in euro</u>	<u>in drachmas</u>
NET INTEREST INCOME	481,565,527	164,093,453,326	649,319,187	221,255,513,198
NET RESULT FROM FINANCIAL OPERATIONS	149,830,467	51,054,731,630	111,164,189	37,879,197,285
NET INCOME FROM FEES AND COMMISSIONS	97,203,411	33,122,062,298	28,249,644	9,626,066,200
INCOME FROM SHARES AND PARTICIPATIONS	37,003,991	12,609,109,934	0	0
NET RESULT OF POOLING OF MONETARY INCOME	339,991	115,851,933	0	0
<u>OTHER INCOME</u>	<u>37,486,835</u>	<u>12,773,639,026</u>	<u>20,389,703</u>	<u>6,947,791,308</u>
	<u>803,430,222</u>	<u>273,768,848,147</u>	<u>809,122,723</u>	<u>275,708,567,991</u>

DISTRIBUTION OF NET PROFIT OF EURO 506,284,636 or DRACHMAS 172,516,489,717

(Article 71 of the Statute)

	2001		2000	
	<u>in euro</u>	<u>in drachmas</u>	<u>in euro</u>	<u>in drachmas</u>
Dividend on capital, euro 0.67 (drachmas 228) per share on 8,939,199 shares	5,989,263	2,040,841,367	5,981,328	2,038,137,372
For the ordinary reserve	0	0	874,463	297,973,300
Additional dividend, euro 2.56 (drachmas 872) per share on 8,939,199 shares	22,884,349	7,797,841,922	20,252,565	6,901,061,628
One-off payment to personnel for contribution to the circulation of the euro	1,367,550	465,992,663	0	0
Tax payment (Law 2873/2000, Article 6)	18,144,697	6,182,805,503	17,489,262	5,959,466,000
To the Government	457,898,777	156,029,008,262	446,162,160	152,029,756,270
	<u>506,284,636</u>	<u>172,516,489,717</u>	<u>490,759,778</u>	<u>167,226,394,570</u>

Athens, 27 March 2002

LUCAS D. PAPADEMOS
GOVERNOR

DIMITRIOS E. MATSIMANIS
DIRECTOR, ACCOUNTS DEPARTMENT