

BANK OF GREECE

MONETARY POLICY

INTERIM REPORT
2003



OCTOBER 2003

BANK OF GREECE
21, E. Venizelos Avenue
GR-102 50 Athens

www.bankofgreece.gr

Economic Research Department - Secretariat

Tel. +30 210 320 2392

Fax +30 210 323 3025

Printed in Athens, Greece
at the Bank of Greece Printing Works

ISSN 1108 - 2690

BANK OF GREECE

MONETARY
POLICY
INTERIM REPORT
2003



OCTOBER 2003

BANK OF GREECE
21, E. Venizelos Avenue
GR-102 50 Athens

www.bankofgreece.gr

Economic Research Department - Secretariat
Tel. +30 210 320 2392
Fax +30 210 323 3025

Printed in Athens, Greece
at the Bank of Greece Printing Works

ISSN 1108 - 2690

To the Greek Parliament and the Council of Ministers

The present Interim Report on Monetary Policy is submitted to the Greek Parliament and the Council of Ministers, as required by the Statute of the Bank of Greece. The Report examines and assesses economic developments in the euro area and Greece during the year in course, the third year of Greece's full EMU membership and implementation of the Eurosystem's single monetary policy.

The main points of the Report are summarised in Chapter I. Chapter II discusses monetary developments, inflation and economic activity developments and prospects in the euro area, as well as the international economic environment; these elements help explain the monetary policy decisions taken by the European Central Bank in 2003, which directly affect the Greek economy.

Chapter III analyses the determinants of and the outlook for Greek inflation, as well as its differential with the euro area average. The developments and prospects for economic activity and employment, as well as for the balance of payments in 2003, are also examined in detail. Developments in the Greek money, credit and capital markets are analysed in Chapter IV.

With a view to providing full information to Parliament and the Council of Ministers, the Report also discusses special issues, such as the evolution of Greece's financial system over the past decade, the alternative methods of measuring the fiscal deficit and its developments, the management of foreign reserves and other Bank of Greece assets, as well as the TARGET payment system and the impact of its operation on the Bank's balance sheet.

Athens, October 2003

The general conclusion of this Report concerning the Greek economy is positive. It is estimated that gross domestic product will grow by 4% this year, compared with 0.5% in the euro area, indicating further progress towards real convergence. Employment growth has been faster this year than in 2002, while the rate of unemployment continues to decline. Inflation has gradually decelerated in the course of 2003 and on average for the entire year CPI inflation is expected to be slightly smaller than in 2002.

In spite of this improved economic performance, Greece still has a marked inflation differential with the euro area average. The unemployment rate, though on the decline, remains high, as is also the case in the euro area, while the current account deficit as a percentage of GDP exceeds 6% for the fourth year in a row. Finally, the public debt-to-GDP ratio, though estimated to have markedly decreased this year, remains one of the highest in the European Union.

These problems reflect weaknesses of the Greek economy that will require further structural reforms and continued efforts towards fiscal consolidation. Achieving and sustaining price stability will also require that the social partners make their own contribution by implementing prudent pricing policies and containing real wage increases so that the latter are close to productivity growth. Such measures would help protect the purchasing power of wages, strengthen competitiveness and reduce unemployment to tolerable levels. These issues are examined in detail in the fifth and final chapter of this Report.

Nicholas C. Garganas
Governor

Monetary Policy Council of the Bank of Greece

Chairman

Nicholas C. Garganas

Members

Panayotis A. Thomopoulos

Nicholas D. Paleocrassas

Vassilis S. Droucopoulos

Antonis G. Mantzavinos

Georgios E. Oikonomou

Contents

I. Summary	11
II. Macroeconomic and monetary developments in the euro area and the single monetary policy	
1. The international economic environment	19
1.1 Overview and developments by main economic regions	19
1.2 International trade and commodity prices	22
1.3 International financial markets	23
2. Macroeconomic developments and prospects in the euro area	25
2.1 Inflation	25
2.2 Economic activity	25
2.3 Labour markets	26
2.4 Fiscal developments	26
3. Monetary developments	27
3.1 The monetary policy of the ECB	27
3.2 Developments in M3, its components and its counterparts, and the issuance of bonds and other debt instruments	31
3.3 Money market rates, bank rates and yields on long-term securities	33
3.4 Stock market developments	35
III. Macroeconomic developments in Greece	
1. Inflation: developments, determinants and prospects	37
2. Inflation differentials in the euro area and the case of Greece	47
3. Economic activity and employment – developments and prospects	51
4. Developments and prospects of the balance of payments	63
4.1 Current account	63
4.2 Financial account	67
IV. Money, credit and capital markets in Greece	
1. Developments in main monetary aggregates	75
2. Credit expansion	77
3. Bank interest rates	81
4. Capital markets	84
4.1 The bond market	84
4.2 Stock market developments	87
Annex to Chapter IV: The development of the Greek financial system over the last decade	89
V. The situation of the economy, and challenges for economic agents	
1. Key characteristics of 2003 developments and the “coordinates” of the Greek economy	101
2. Prospects and challenges	102
Monetary policy measures of the Eurosystem	113
Glossary	115
Statistical appendix	119

Charts		17 Wholesale import price index and the inverse of the effective exchange rate of the euro, weighted on the basis of Greece's external trade	42
1	Central bank key lending rates	20	
2	Exchange rate of the euro against the US dollar and the Japanese yen	24	
3	Exchange rate of the euro against the pound sterling and the Swiss frank	24	
4	ECB interest rates and money market overnight rate (EONIA)	30	
5	M3 in the euro area	31	
6	Money- and bond-market yield curves in the euro area	34	
7	Short-term interest rates in the euro area	34	
8	Ten-year bond yields in the euro area and the United States	35	
9	Stock market indices	36	
10	Harmonised index of consumer prices in Greece, the euro area and the European Union	38	
11	Core inflation in Greece and the euro area on the basis of the HICP excluding energy and unprocessed food	38	
12	Consumer price index and core inflation in Greece	39	
13	Core inflation, prices of fresh fruit and vegetables and fuel	40	
14	Evolution of CPI/WPI fuel prices and the euro price of Brent crude oil	41	
15	Inflationary contribution of changes in fuel prices	41	
16	Effective exchange rate index, weighted on the basis of Greece's external trade	42	
		18 Industrial capacity utilisation rate (manufacturing)	43
		19 Inflationary expectations of consumers and business firms	46
		20 Annual inflation differentials between Greece and the euro area	51
		21 The coincident indicator of economic activity compiled by the Bank of Greece	52
		22 Consumer demand	54
		A. Retail sales volume and retail trade business expectations	
		B. New passenger car registrations	
		23 Volume of new buildings and extensions on the basis of permits issued	57
		24 Industrial production	58
		25 Output and business expectations in manufacturing	59
		A. Indices	
		B. Percentage changes over same month of previous year	
		26 Purchasing Managers' Index (PMI) for manufacturing	60
		27 Employment	61
		28 Total unemployment rate	61
		29 Business forecasts on employment	62
		30 Trade balance and current account balance	63
		31 Deposits, repurchase agreements and money market fund units in Greece	77
		32 Bank deposit rates in Greece and the euro area	81

33	Bank lending rates in Greece	82	XIII Breakdown of Greece's non-oil external trade by product category	64	
34	Bank lending rate differentials between Greece and the euro area	83	A. Export receipts		
			B. Import bill		
35	Yields on the 10-year Greek government bond and the comparable German bond	84	XIV Breakdown of Greece's external trade by geographical area	66	
36	Greek government paper yield curves	85	A. Exports		
			B. Imports		
37	Average daily value of transactions in the Electronic Secondary Securities Market (HDAT)	86	XV Greek contribution to the monetary aggregates of the euro area	76	
38	Athens Stock Exchange: composite share price index and value of transactions	87	XVI Total credit expansion in Greece	78	
			XVII Credit to enterprises and households in Greece by branch of economic activity	79	
			XVIII Lending rates in the euro area and Greece	82	
Tables			XIX Greek government paper issuance	86	
I	Adjustment of ECB key interest rates	30	XX Fund-raising through the Athens Stock Exchange	88	
II	Main components of M3 in the euro area	32			
III	Main counterparts of M3 in the euro area	33			
IV	Employees' earnings, productivity and labour costs	45	Boxes		
V	Harmonised index of consumer prices: Greece and the EU	47	1	Assessment of the monetary policy strategy of the ECB	27
VI	Contribution to the inflation differential between Greece and the euro area	47	2	The TARGET system: the implications of its operation for the balance sheet of the Bank of Greece	68
VII	Demand and gross domestic product	52		Chart: Liquidity and balances of TARGET accounts	71
VIII	Indicators of consumer demand	53	3	Management of the reserves and other assets of the Bank of Greece	73
IX	Retail sales value index	53	4	Recent developments in monetary conditions in Greece	103
X	Dwelling price index	55		Chart: Monetary conditions index (MCI) in Greece	104
XI	Indicators of investment demand	56			
XII	Export price index and effective exchange rate of the currency	60			

5 Fiscal deficit: Indicators and available data	105	Table A2: The presence of Greek banks in South Eastern Europe	94
Tables: Government budget balance (accrual data)	107	Table A3: Fund-raising through the Athens Stock Exchange	96
Borrowing requirement of central government and public entities (cash data)	107	Chart A1: Average deposit and lending rates	92
Central and general government balance	108	Chart A2: Stock market aggregates	95
General government deficit (-)/surplus (+): targets and outcomes	108	Chart A3: Share price indices: Greece and the euro area	95
 Annex to Chapter IV		Chart A4: Gross issues of euro-denominated debt securities by euro area residents	97
Table A1: Mergers and acquisitions of banks in Greece	91	Chart A5: Mutual funds	98
		Chart A6: Insurance companies	99

I. Summary

Greece is already in its third year of euro area participation. The primary objective of the Eurosystem's single monetary policy, implemented in Greece since 2001, is to maintain price stability in the euro area as a whole over the medium term. After thoroughly evaluating its monetary policy strategy in May 2003, the Governing Council of the European Central Bank (ECB) clarified that it aims to maintain inflation rates below, but close to, 2% over the medium term.

In the *euro area*, the ECB further relaxed its monetary policy in 2003, taking due account of the gradual easing of inflationary pressures and the sluggish growth of economic activity. After being lowered by 50 basis points in December 2002, ECB key interest rates were further reduced in March and June by a cumulative 75 basis points.¹

In the first half of 2003, the interest rates in the single money market of the euro area pursued the downward course that had begun in May 2002. From July onwards however, this course came to a halt and interest rates on longer maturities, though remaining low, even increased slightly. Similarly, the downward trend in bond yields in the first half of 2003 was reversed after mid-June, reflecting an improvement in expectations for economic recovery and a shift in investors' preference (from mid-March onwards) to the stock markets, although a new decline in bond yields was recorded in September. Finally, short- and long-term interest rates on both lending and deposits continued to fall through August, with the exception of some lending rates that rose in that month. It is not unusual for money market interest rate and bond yield developments to affect retail bank rates with a certain time lag.

¹ On 6 June, the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility were lowered to 2%, 3% and 1% respectively.

The growth rate of euro area M3 has picked up in the course of the year and at roughly 8% remains significantly higher than the reference value of 4.5% set by the ECB. This strong M3 growth reflects both the low opportunity costs of holding money and shifts towards more liquid assets in an environment of heightened uncertainty. This behaviour on the part of investors was prompted by international geopolitical developments and did not completely change after the end of the conflict in Iraq. Considering the subdued economic activity in the euro area, the Governing Council of the ECB judges that current monetary developments do not signal risks to price stability.

Regarding monetary developments in Greece, the main components of its contribution to euro area M3² (i.e. deposits, repurchase agreements – repos – and holdings of money market fund units) displayed divergent trends in the course of the first eight months of 2003. On an aggregate basis, however, over the entire period in question, they increased at significantly slower rates than the euro area average. More specifically, the annual growth of deposits was weak in the first months, but then picked up. Repo holdings continued to decline during the period under review. In contrast, holdings of money market fund units registered a very strong growth.

Against the background of low interest rates, these developments have prompted shifts towards higher-yield instruments, such as longer-term deposits (especially deposits with an agreed maturity of up to 2 years) that offer higher returns than savings deposits, as well as towards money market fund units. It has been observed that in periods of stock exchange uncertainty (such as the one experienced in the first months of 2003) savers tend to prefer money market fund units. Meanwhile, the continued decline in repo holdings is also linked to the reinstatement of taxation

on their yields (at a rate of 7%) as from January 2002.

The annual growth of total credit extended to the economy by Monetary Financial Institutions (MFIs, i.e. banks and money market funds) decelerated in the first eight months of 2003 (August 2003: 5.1%, fourth quarter of 2002: 7.1%), reflecting a steep fall in MFI credit to general government (August 2003: –13.4%, last quarter of 2002: –5.2%), which was only partly offset by faster credit expansion to enterprises and households (August 2003: 18.7%, fourth quarter of 2002: 18.3%). More specifically, credit expansion to enterprises accelerated (August 2003: 14.0%, fourth quarter of 2002: 11.4%), while a slowdown was recorded in credit expansion to households (August 2003: 27.3%, fourth quarter of 2002: 33.1%).

The sectoral breakdown of credit to enterprises shows that credit expansion to industry, agriculture, shipping, tourism and –especially– “other” sectors picked up, whereas credit expansion to trade and non-bank financial institutions slowed. With regard to households, the deceleration of credit growth is mainly attributed to a significant slowdown in the annual growth of housing loans, which nonetheless remains relatively high. The strong growth of housing credit reflects the fact that the total outstanding balance of housing loans is still comparatively low in Greece and accounted for 15% of GDP at end-2002 (compared with 31% in the euro area). Finally, the annual rate of increase in consumer loans came to 23.1% in August 2003, down from 27.4% in the fourth quarter of 2002.

Most retail bank rates declined further in the first eight months of 2003, in step with the general

² For reasons detailed in Chapter IV.1, Greek M3 developments will from now on only be analysed in terms of their basic components (excluding currency in circulation).

downward trend of money market rates in the euro area. The last five years have seen a significant reduction in both lending and deposit rates, as well as in the interest rate spread. Apart from the reduction in key interest rates (by the Bank of Greece prior to Greece's euro area entry, and by the ECB from that point onwards), other factors – such as keener competition between banks and the cutdown in their operating costs – had a significant impact on the course of interest rates. These factors, combined with (i) the abolition or cuts in certain taxes and levies charged on banking transactions and (ii) the harmonisation of Bank of Greece reserve requirements with those of the Eurosystem, have substantially reduced the lending and deposit rate spread. More specifically, the spread between the average rate on new bank lending and the average deposit rate decreased by 3.2 percentage points between December 1998 and August 2003.

In line with developments in their euro area counterparts, the yields of Greek government bonds followed a broadly declining path between mid-May 2002 and mid-June 2003, at which time they reached historically low levels, before rebounding markedly until September. Underlying these developments were, at first, the uncertainty about the recovery of the world economy and the heightening of geopolitical tensions with the first military operations in Iraq. Later on, however, the unwinding of these tensions and the more optimistic outlook for the US economy and corporate profitability shifted investors' attention to the stock markets and dampened the demand for government bonds. Transactions in the secondary market for government securities rose to higher levels in the first three quarters of 2003 than in the corresponding period of 2002. The primary market for Greek government paper was marked by an increase in funds raised and a slight shift from maturities of 7 years or more to maturities of 5 years or less.

Equity prices on the Greek stock market, after declining in the first quarter of 2003, rebounded appreciably in the next two quarters. Similar was the course of share prices on US and euro area stock markets, as a result of the aforementioned developments. Furthermore, the domestic stock market was affected positively by the improved profitability of Greek corporations listed on the Athens Stock Exchange (ASE) during the first half of 2003. In addition, stock market trading volumes and the amounts of funds raised by enterprises on the ASE increased significantly in the first three quarters of 2003, after a continuous decline in recent years.

* * *

The latest macroeconomic data confirm earlier forecasts of a slow recovery of the *world economy* in the first half of 2003. Meanwhile, there are indications that the growth rate is picking up in the second half of the year. Concern about geopolitical tensions has eased, but other factors, such as the rising current account and budget deficits in the US, are a source of uncertainty. On the other hand, oil prices, after increasing sharply in the first quarter of 2003 on account of geopolitical tensions, decreased in the second and the third quarter, but began to escalate again in September. Share prices also increased significantly in the second and the third quarter, while confidence indicators appear to have improved in recent months. These developments are expected to have a positive impact on private consumption growth, which in turn will support faster economic growth. As a result, world GDP – according to the International Monetary Fund – is expected to rise by 3.2% in 2003 (compared with 3.0% in 2002), i.e. at a lower rate than the average of 3.9% recorded over the 1995-2000 period. Turning to the advanced economies, the GDP of the United States is rising at a relatively fast pace, while the Japanese eco-

nomony is showing signs of recovery. The emerging Asian economies are the fastest growing worldwide. In any case, the volume of world trade in goods and services is estimated to have been increasing at a relatively slow pace (2.9% in 2003, compared with 3.2% in 2002 and roughly 8% on average over the 1995-2000 period).

In the *euro area*, economic activity remained very subdued, with the quarterly rate of change in GDP standing at zero in the first quarter and -0.1% in the second quarter of this year. However, uncertainty has eased somewhat, real disposable income is expected to increase (based on forecasts of a further deceleration of inflation from the end of the year onwards) and financing conditions remain favourable. Economic activity is thus anticipated to gradually recover in the second half of 2003, while the average rate of GDP growth over 2003 as a whole is projected to come to roughly 0.5%. The annual rate of HICP inflation in the euro area is forecast to stand at about 2% over 2003 as a whole and to decrease further in 2004, provided that import prices develop favourably. Meanwhile, the slight acceleration in wage growth is expected to be offset by a recovery in productivity. The prolonged economic slowdown and, in some instances, tax reductions should cause the fiscal deficits of a number of euro area countries to widen considerably and deviate from the targets set in their respective stability programmes. For the euro area as a whole, the general government deficit is now expected to approach 3% of GDP in 2003, even though the "structural" (cyclically adjusted) deficit is expected to recede slightly to 1.7% (from 2.0% of GDP in 2002, according to recent estimates by the International Monetary Fund).

Turning to the *Greek economy*, according to the latest Bank of Greece estimates, GDP is projected to increase by 4.0% in 2003, i.e. slightly faster than in 2002 (3.8%). Similar projections have

been made by the International Monetary Fund and by the Ministry of Economy and Finance in the draft 2004 budget. Based on these projections, the growth rate of the Greek economy should be the highest in the EU-15 and the second highest of the 30 OECD countries. The factors underlying the rise in GDP are the strong growth of private consumption, private and public investment, housing investment and investment by the general government sector, as well as the recovery of goods exports.

More specifically, private consumption growth is supported by the rise in real disposable income of households, and is also associated with the high growth rate of consumer loans and the favourable impact of the increase in the market value of household assets. The rise in investment reflects the sharp increase in disbursements from the Public Investment Budget (largely due to the acceleration of large public projects, especially those related to the Athens Olympic Games), the significant increase in private residential investment (also underpinned by strong credit expansion), as well as the considerable growth of business investment (by both public enterprises and enterprises involved in activities related to the Olympic Games). On the other hand, the change in the real external balance on a national accounts basis is once again expected to have a negative contribution to GDP growth in 2003, considering that the recovery in goods exports has been accompanied by a recovery in goods imports,³ while the increase in exports of transport services (mainly shipping) is offset by a fall in travel service exports (i.e. by a drop in both foreign tourist arrivals and related receipts).

Moreover, employment developments have defi-

³ Although imports of services (mainly travel expenditure abroad by Greek residents) are falling, the combined total of goods imports and imports of services is rising (after decreasing in 2002).

nately been more favourable this year than in 2002, and the unemployment rate continues to fall. It is particularly worth noting that the increase in jobs by 82,000 (in the first half of 2003 over the first half of 2002) reflects both a reduction in the number of unemployed by 35,000 and the entry of 47,000 persons into the labour force.

Inflation in Greece gradually slowed in the course of 2003, and its differential with the euro area rate has begun to decrease. The decline in core inflation was even greater. As estimated, the year-on-year rate of increase in the Harmonised Index of Consumer Prices (HICP) and in the Consumer Price Index (CPI) will decrease further to roughly 3.2% in the last quarter of 2003 (compared with 3.8% for the HICP and 3.6% for the CPI in the last quarter of 2002). For the whole of 2003, the average rate of increase in both the HICP and the CPI is expected to fall to about 3.5%, i.e. to slightly below last year's levels (HICP: 3.9%, CPI: 3.6%).

Average annual CPI inflation during the first eight months of 2003 remained unchanged over the same period of 2002. The favourable effects of both the decline in core inflation and the slower increase in fresh fruit and vegetable prices were offset by the adverse effect of the fuel price rise. This adverse effect would in fact have been greater, had the appreciation of the euro not contained the impact of the crude oil price hike in US dollars. The decline in core inflation reflects both the appreciation of the euro, which helps contain imported inflation, and a slowdown in unit labour cost growth in the business sector to below 2%.

The fact that inflation in Greece remains relatively high, despite the deceleration in core inflation, is attributed to inadequate competition in certain markets (which do not function efficiently) and to macroeconomic factors. First of all, excess demand in markets that do not operate efficiently causes

prices to increase more than would normally have been justified by cost factor developments, thus leading to a widening in operating profit margins (as has been observed in certain sectors of economic activity this year). Furthermore, unit labour cost growth, though on the decline for the economy as a whole, still exceeds the level considered consistent with price stability (i.e. a rate of inflation below but close to 2%). Generally speaking, the differential between Greek and euro area inflation (which, as mentioned above, has been declining so far this year) is associated with the Greek economy's real convergence process,⁴ its different cyclical position and the lag in the conditions of functioning of its goods and services markets vis-à-vis the euro area, as well as with other factors detailed in Chapter III.2.

* * *

The adoption of the single currency has brought about radical and irrevocable changes in the monetary policy framework and the conditions under which monetary policy is conducted. It has thus had a decisive impact on the functioning and performance of the Greek economy, which in recent years has achieved a high degree of macroeconomic stability. While the prospects for real convergence are significantly enhanced by the adoption of the euro and the resulting monetary and exchange rate stability, the sustainability of strong growth in the long run will depend importantly on efforts at the national level to implement an appropriate economic policy that will complete fiscal consolidation and bring about a steady improvement in both productivity and the international competitiveness of the economy. Another primary objective must be the achievement and

⁴ As implied by recent studies, the "Balassa-Samuelson effect" accounts for about half of the inflation differential between Greece and the euro area in 2002 and 2003.

maintenance of price stability in Greece, which, as shown by developments over the last three years, cannot be ensured solely via the implementation of the single monetary policy. This policy aims to achieve a rate of inflation slightly below, but close to, 2% in the medium term in the euro area as a whole and not in individual countries; this, combined with the zero economic growth currently observed in the euro area as a whole, has led to a decline in nominal interest rates. Given Greece's higher rate of inflation, this decline means that monetary conditions have become markedly relaxed. The stance of monetary policy, as far as Greece is concerned, has thus become highly expansionary.

So long as monetary conditions in Greece remain relaxed and no interest rate or exchange rate policy can be conducted at a national level, it can be safely concluded that the other economic policy-mix components will have to be resorted to in order to achieve fundamental objectives. More specifically, the other policy-mix components must be activated in such a way as to eliminate the Greek inflation differential and prevent further losses in price competitiveness and the ensuing adverse repercussions on employment and growth. In the meantime, higher productivity growth and a substantial improvement in competitiveness must also be achieved.

Fiscal policy is essentially the only macroeconomic policy instrument available at a national level in the euro area. The latest available data for 2003 show that Greece's fiscal policy stance was more relaxed than the target set in the Updated Stability and Growth Programme of December 2002.⁵ Given the inevitable relaxation of monetary conditions mentioned above, fiscal policy must be tightened rather than relaxed. Continued fiscal consolidation efforts can and must be geared to containing inflationary pressures, as a means of

achieving and maintaining price stability. Meanwhile, the rise in public saving that will arise from the reduction in the fiscal deficit will help reduce the current account deficit.

Under the Stability and Growth Pact, which provides the framework for the conduct of fiscal policy in EU countries, the general government budget must be close to balance or in surplus *in the medium term*. Such an accomplishment would require sustaining high primary surpluses in upcoming years, by controlling primary expenditure and curbing tax evasion. This will help speed up the decrease in general government debt, which remains very high and burdens the economy, and meet the additional public expenditure that will be required in the future to finance the social security system (considering the fiscal implications of the anticipated ageing of the population). Furthermore, the achievement – in the medium term – of a budgetary position close to balance or in surplus would enable fiscal automatic stabilisers to operate fully, symmetrically and without undesirable side-effects throughout the economic cycle, thereby allowing fiscal policy to deal in the short run with the effects of cyclical disturbances.

The government intends to pursue its fiscal consolidation effort in 2004. However, as substantial economic demands are being put forward by various social groups and general elections are to be held in 2004, it would be useful at this stage to recall that in the 1990s the efforts towards nominal convergence succeeded in significantly reducing the economic impact of the so-called electoral or political cycle; thus, they helped establish conditions of macroeconomic stability and contributed to the growth performance in the last few

⁵ See Chapter V and Box 5 in particular.

years. Failure to safeguard this gain would undermine the credibility of economic policy and adversely affect economic expectations, with negative consequences for the future of the economy.

The structural reform effort must also be pursued at a vigorous pace in order to further enhance flexibility in product, labour and capital markets, boost competition and reduce administrative barriers. All these factors would ultimately serve to increase productivity, secure conditions of price stability, improve the country's international com-

petitiveness and, thereby, help sustain high rates of output and employment growth.

Finally, by implementing prudent pricing policies and containing real wage increases so that they are close to productivity growth, the social partners can help achieve and maintain price stability and thereby help protect the purchasing power of wages, strengthen competitiveness, reduce unemployment and contribute to faster and steady increase of real incomes.

II. Macroeconomic and monetary developments in the euro area and the single monetary policy

1. The international economic environment¹

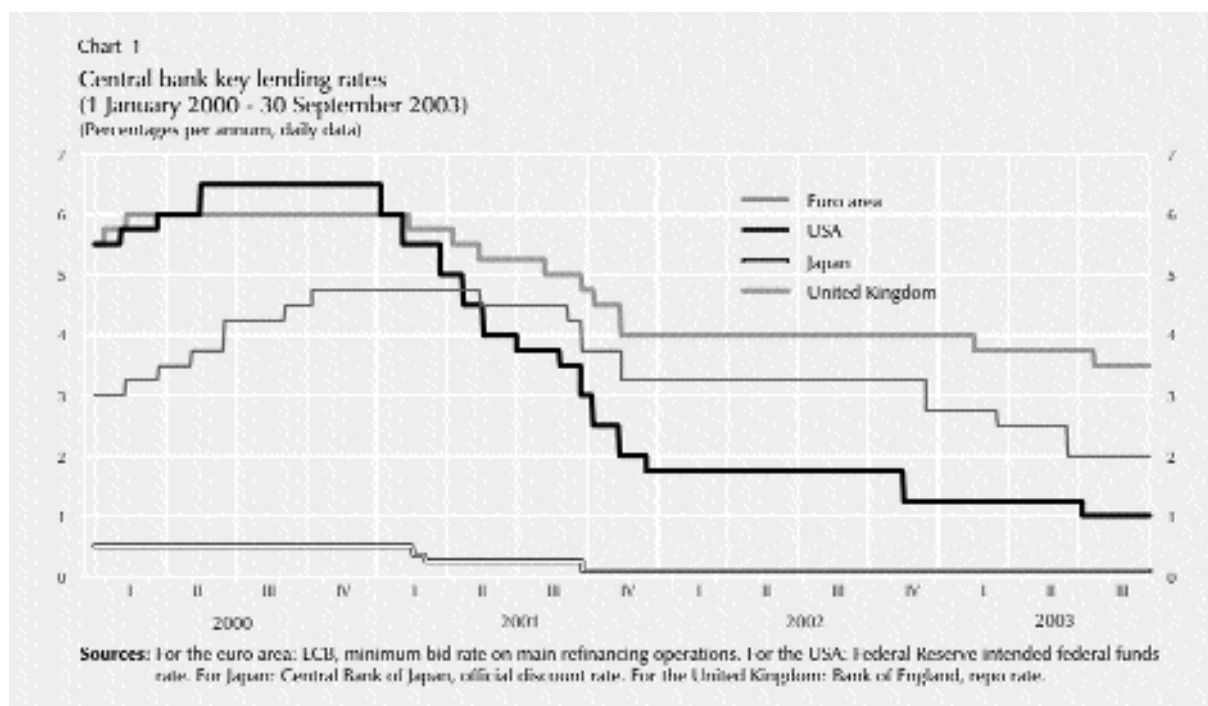
1.1 Overview and developments by main economic regions

Recent macroeconomic data confirm earlier expectations of a subdued recovery in the global economy in the first half of 2003. At the same time, there are some indications of a pick up of growth for the second half of the year. While geopolitical concerns have declined, other factors, including concerns about the growing twin deficits in the United States, have contributed to uncertainty.

Investment performance has been generally weak in the first half of 2003, despite some indications of recovery in private investment, mostly in the United States. The ongoing correction of imbalances accumulated during the previous cyclical expansion, including significant overcapacity and over-leveraging, is expected – along with the aftermath of the bursting of the stock-market bubble – to continue to affect investment in the short term.

There have been, however, some favourable developments. In addition to the decline in geopolitical tensions, oil prices – after rising sharply in the first quarter of 2003 – fell during the next two quarters before starting to rise again in late September. Equity prices rose considerably during the second and the third quarter of the year. At the same time, confidence indicators have shown some signs of improvement in recent months. These developments should support a rise in consumer spending, which should in turn underpin the acceleration of economic growth. In

¹ The following analysis is derived from developments recorded until the start of October 2003, assessments by the Bank of Greece and forecasts by international institutions, particularly the latest projections of the IMF (*World Economic Outlook*, September 2003).



the light of the above factors, world real GDP is expected to grow by 3.2% in 2003, i.e. at a rate slightly higher than in 2002 (3.0%) but below the average of the 1990-2000 period (3.9%).²

Although economic activity in the advanced economies remained rather subdued in 2003 (GDP is expected to grow by 1.8%, i.e. as fast as in 2002), inflation is projected to pick up slightly, broadly remaining however at low levels (1.8%, compared with 1.5% in 2002). Oil price hikes in early 2003, related mainly to the Iraq crisis, moderated in the following quarters and did not have a substantial impact on consumer prices and wages. Nevertheless, oil prices in dollar terms remain above their 2002 average level as a result of developments in world oil supply and ongoing global economic recovery. Some countries in Asia have experienced declines in the overall price level. In certain cases, as in China, these were rather benign – as they occurred alongside productivity and output growth – and are expected to be short-lived. In the case of Japan, however, price declines have been associated with the continuing

economic weakness and proved much more persistent.

Economic policy in most advanced economies continued to be accommodative in 2003. Central banks in the euro area and the United States each cut their interest rates on several occasions (see Chart 1). On 25 June, the US federal funds rate was further reduced by 25 basis points to reach 1%, a forty-five year low. In the euro area, the ECB eased its monetary policy by a cumulative reduction of 125 basis points in its key rates, to 2%, between early December 2002 and June 2003. Fiscal deficits are expected to increase significantly in the United States, and to a lesser extent in the euro area, reflecting notably growing deficits in the larger euro area economies. Long-term bond yields started rising in June in the United States, the euro area and other advanced

² The rate of change in world GDP is calculated as a weighted average of the changes in GDP in individual countries, with weights based on the purchasing power parities of each country's currency.

economies, reversing a long downward trend. Larger increases in US long-term interest rates reflect that country's comparatively better prospects for recovery, as well as the strong sales of US government bonds in the financial markets, a trend expected to continue given the huge US budget deficits. In September, long-term interest rates declined worldwide, reflecting the continuing uncertainty as to the strength of economic recovery.

According to recent data, the *US economy* appears to be recovering at a relatively quick pace. Real GDP growth was below potential during recent quarters (in the first quarter of 2003 GDP increased at an annualised rate of 1.4%, i.e. the same as in the last quarter of 2002), while in the second quarter of 2003 GDP growth picked up to 3.3%.³ Main contributions to GDP growth were private consumption, federal government expenditure and an upturn in business investment. In particular, defence expenses, related mainly to the war in Iraq, increased spectacularly in the second quarter (at an annualised rate of 46%). In contrast, increased imports due to the economy's recovery had a dampening effect on GDP growth, which, according to the latest forecasts, is expected to be 2.6% in 2003, compared with 2.4% in the previous year.

While recent economic indicators provide positive signals regarding the prospects of the US economy, the rise in long-term rates since mid-June, as well as recent labour market developments, contribute to uncertainty as regards the quick return to GDP growth rates close to potential.⁴ The June employment report indicated continuing labour market slack: the unemployment rate was 6.4%, i.e. at a nine-year high. In the following months the unemployment rate fell slightly and came to 6.1% in August. In September, after seven months of continuous

decline, employment recorded a slight increase but the unemployment rate remained at 6.1%. Capacity utilisation in industry increased somewhat in July and August (74.6%), but remained at low levels (average in the last 30 years: 81.3%).

The depreciation of the dollar during the first half of 2003, if maintained, will have a positive impact on economic activity, albeit with a lag, i.e. especially during 2004. The current account deficit as a percentage of GDP is expected to reach 5.1% in 2003, from 4.6% in 2002. Annual CPI inflation is expected to increase from 1.6% in 2002 to 2.1% in 2003. This slight acceleration is attributable to the combined effect of the depreciating dollar and the expected strengthening of economic activity.

In the first four months of 2003, the fiscal deficit was more than three times higher than in the same period of 2002. At the end of May, the Congress approved a fiscal package of \$350 billion over the next 10 years, expected to provide a fiscal stimulus of around 0.7% of GDP in 2003 and 1.5% in 2004. In 2003, the fiscal deficit is expected to increase to 6.0% of GDP, up from 3.8% in 2002 and only 0.7% in 2001.

In *Japan*, economic activity shows signs of recovery since the second half of 2002. GDP growth in the first quarter of 2003 was 0.3% over the previous quarter, while in the second quarter it is estimated to have accelerated to 1.0%. This rate is expected to build up to 2.0% in 2003 from 0.2%

³ The quarter-on-quarter rate of GDP growth is calculated in the United States differently than in Europe and Japan. In the United States, the announced quarterly change corresponds to the annualised percentage change between two consecutive quarters. The US rate of growth comparable to the data published by other economies was 0.4% and 0.8% for the first and the second quarter of 2003, respectively (over the previous quarter).

⁴ The rise in long-term interest rates, although not particularly significant in itself, may have an adverse effect on activities sensitive to interest rate changes, particularly in the current conjuncture of high household and business indebtedness.

in 2002. This more positive outlook is linked to improved economic performance in Japan's export markets, i.e. mainly the United States and countries of east Asia, as well as to strong domestic demand. Positive developments include a recent decline in downside risks to demand from the Asian region as the spread of the SARS disease seems to have been brought under control. Also, industrial production has rebounded in 2003. In late September, the Nikkei share price index was 34% higher than its end-April trough (the lowest since the early 1980s), while Japanese government bond yields started to increase in June. Although these developments may be mirroring improving fundamentals, some important elements of uncertainty remain. Deflation is forecast to continue in the forthcoming year, while the reform of the banking sector advances at a slow pace. The fiscal deficit is expected to remain high (7.4% of GDP compared with 7.5% in 2002), while gross public debt should continue to rise, hovering at very high levels (167% of GDP in 2003, from 158% in 2002).

In the *United Kingdom*, real GDP growth was 0.2% in the first quarter of 2003, on the previous quarter, compared with 0.5% in the last quarter of 2002. In the second quarter of the year, GDP increased by 0.6%, underpinned mainly by strong increases in both household spending and investment (0.7% and 1.2%, respectively, over the previous quarter). GDP growth may speed up slightly in 2003 relative to 2002 (1.8% according to revised data). The unemployment rate is expected to remain stable in 2003, at around 5.0%. HICP inflation should be slightly below 2%. The Bank of England, for the first time in more than 15 months, cut the repo interest rate by 25 basis points to 3.75% on 6 February and by another 25 basis points on 10 July 2003. A widening of the fiscal deficit is forecast for 2003, to 2.5% of GDP, up from 1.5% in 2002.

Growth in *Acceding Countries* was relatively robust in the first months of 2003, underpinned mainly by domestic demand in some countries (e.g. Hungary, the Czech Republic) and foreign demand in others (e.g. Slovakia, Poland). Foreign direct investment inflows – which in most *Acceding Countries* accounted for 3%-5% of GDP annually in the last two years – contributed largely to economic growth in these countries. Average AC-12⁵ GDP growth is expected to accelerate to 3.3% this year, from 2.9% in 2002, in parallel with a decline in inflation.

The *Asian emerging economies*, despite the effects of the spread of the SARS virus, remain the world's best growth performers in 2003. China's GDP increased at an annual rate of 8.2% in the first half of 2003, driven by the strong growth in exports and fixed investment. According to the IMF, China's GDP is expected to increase in 2003 at a rate of 7.5%, compared with 8% in 2002, while more recent data support an even better prospect. The economic outlook for the emerging economies of *Latin America* has improved this year, following a poor performance in 2002, which turned out to be the worst year since the financial crises of 1982-83. GDP growth in the area stems from strong export growth, following large real currency depreciations in these countries in 2002, as well as from gradually improving external financing conditions.

1.2 *International trade and commodity prices*

In 2003, the world trade volume in goods and services is projected to grow at a relatively low rate of 2.9%, compared with 3.2% in 2002 and approximately 8% on average in the 1995-2000 period. In

⁵ Including, in addition to the 10 countries admitted to the EU, Bulgaria and Romania, which are scheduled for admission in 2007 provided that they meet the agreed conditions at the time.

advanced economies and countries in transition, import growth is accelerating and export growth is decelerating, whereas in developing economies both rates of import and export growth are slowing down, remaining however at high levels.

The spike recorded in oil prices during the first quarter of the year (average crude oil prices increased by 25.4% compared with their 2002 average), mainly attributable to the uncertainties concerning the war in Iraq and the disruption of world oil supply due to the strikes in Venezuela, was subsequently reversed. Average world crude oil spot prices (Brent) fell to \$26.5 per barrel in the second quarter, from \$31.3 in the first quarter. However, in September 2003, oil supply from Iraq had not yet fully returned to previous levels, and prices remained relatively high. Oil prices may continue to be volatile in the short term, as long as oil supply from Iraq is not fully restored, and oil supplies from Nigeria (the world's 7th largest producer) are not fully normalised. It is also noted that following OPEC's decision (on 23 September 2003) to cut down oil production, prices started to increase again. Prospects regarding world economic growth and oil supply from non-OPEC producers are key determinants of medium-term developments in oil prices. For 2003, crude oil spot prices are expected to increase to \$28.5 per barrel on average, from \$25.0 in 2002.

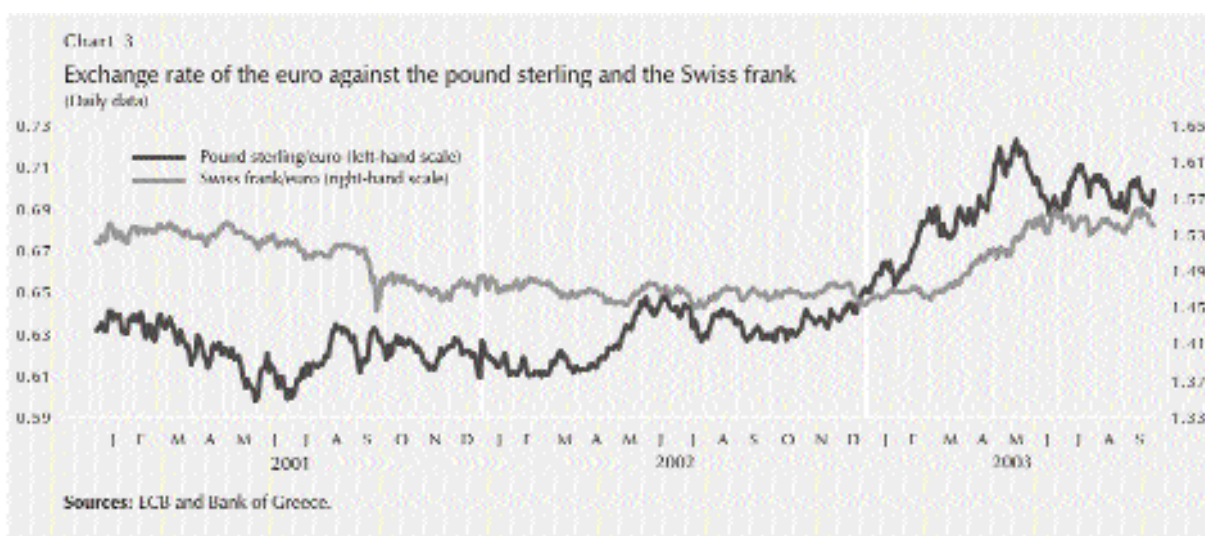
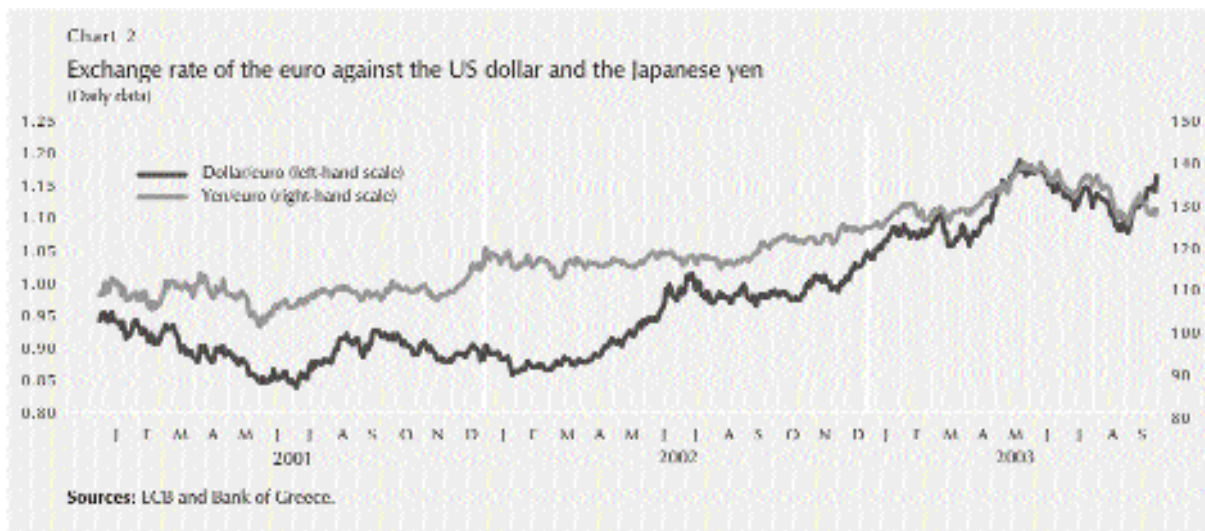
Prices of non-fuel commodities (in US dollars) are also expected to increase in 2003, by approximately 5% compared with the previous year. Due to high uncertainty in world markets, the demand for gold increased constantly throughout 2002 and the first quarter of 2003. Its price rose to \$352 per fine ounce in the first quarter of 2003, from \$310 on average in 2002, and, after falling only slightly in April, it picked up again. In late September, the price of gold peaked at a seven-year high of more than \$380 per fine ounce.

1.3 International financial markets

In global financial markets, investor confidence has been improving from the second quarter onwards. In global bond markets, the previous declining trend of long-term bond yields has been reversed. After reaching an historical low in mid-June, long-term bond yields started to increase again as investors continued to shift from fixed-income securities to equities and positive prospects regarding world economic recovery seemed to consolidate. From mid-June to late August, ten-year government bond yields increased by approximately 135 basis points in the United States, by 70 basis points in the euro area and by 100 basis points in Japan, to stand at 4.44%, 4.23% and 1.46% respectively. Thus, the differential *between the US and the euro area* yields, which had been negative for 19 months up to July 2003, became positive and stood at 21 basis points at the end of August. During September however, as US bond yields declined faster, this positive differential tended to be eliminated. It should be noted that, despite their rise in recent months, long-term rates remain lower than their 2002 averages of 4.92%, 4.60% and 1.76% for the ten-year bonds in euro, US dollars and yen, respectively.

Although some macroeconomic data continued to weigh adversely on equity prices during the first half of the year, the general attitude of investors, which turned positive after the decline in geopolitical tensions related to the crisis in Iraq, contributed to a rise in equity prices. Better than expected corporate profitability in the first quarter, as well as better sales forecasts for the rest of the year, boosted world stock markets during the second and the third quarter of 2003.

From the end of December 2002 to the end of September 2003, the US Standard & Poor's 500



index gained 13.2%, while the Japanese Nikkei 225 index rose by 19.1%. In the same period, the euro area Dow Jones Euro STOXX broad index also recorded an increase, albeit lower (4.1%). However, these movements up to late September 2003 represent significant increases from the year-lows of mid-March (late April for Japan), i.e. 24%, 34% and 30%, respectively, for these indices.

In the foreign exchange markets, the euro appreciated against all major currencies during the first half of 2003. However, in the June-August period, it gave back part of its earlier gains. In effective

terms, the euro appreciated in 2003, for the third consecutive year. In September, the effective exchange rate of the euro was 11.3% higher than the 2002 average and 20.6% over its historically low levels (recorded in 2000). The appreciation of the euro largely reflects the weakening of the US dollar, which is mainly attributable to the huge current account deficit in the United States. It also reflects developments in the exchange rates of US dollar-pegged currencies of countries in South-Eastern Asia, despite the sizeable and increasing current account surpluses and considerably high reserve assets in these countries. The exchange rate of the euro against the US dollar peaked in

late May at 1.19 USD/euro, only to fall back later on and stand at 1.08 USD/euro in early September (see Chart 2). However, during September the euro started to gain ground again and at the end of the month came to 1.17 USD/euro. The September average (of 1.12 USD/euro) corresponds to an appreciation of the euro by 19% over 2002 and by 32% over the lowest level observed in June 2001. During the first half of 2003, the euro continued to strengthen against the Japanese yen as well. Thereafter, the improved economic climate in Japan allowed the yen to reverse part of its losses during the next three months. The September average (of 128.9 yen/euro) marks a 9.2% appreciation of the euro against the yen compared with the 2002 average level. The pound sterling depreciated against the euro, particularly during the first five months of 2003. In September, its parity against the euro was 9.8% lower than in 2002.

2. Macroeconomic developments and prospects in the euro area

2.1 Inflation

After reaching its highest level for the year (2.4%) in February and March, HICP inflation declined in the following months, to 1.9% in May, mainly as a result of lower prices in energy and services. In the next few months, the rate of increase in the HICP remained close to 2% (September: 2.1%), reflecting changes in energy and seasonal food prices.

Annual inflation in the euro area is expected to stand around 2% for 2003 as a whole and to decelerate further in 2004. This prospect is based on the assumption of favourable import prices – reflecting, among other things, the appreciation of the euro. Slightly faster wage growth is expected

to be offset by a pick up in productivity growth, resulting in some moderation of unit labour costs.

Although inflation in the euro area as a whole is declining, there still remain significant diversities across euro area countries. According to the latest IMF forecasts, HICP inflation for 2003 is expected to range between 1.0% (in Germany) and 4.0% (in Ireland).

2.2 Economic activity

Economic activity in the euro area remained very weak in the first quarter of 2003, with quarterly real GDP growth estimated at 0.0%, unchanged from the last quarter of 2002. In the second quarter, the GDP rate of change was slightly negative (–0.1% over the previous quarter). In fact, according to Eurostat data, in Germany, Italy and the Netherlands, GDP decreased for a second consecutive quarter.

However, a number of factors that have been weighing unfavourably on growth have already shown signs of improvement: uncertainties have partly dissipated, inflation is forecast to decelerate further after the end of the year (thus an increase in real disposable income can be expected) and financing conditions have become more accommodative following the recent monetary policy decisions of the ECB. Overall, expectations are still for a modest rebound of activity in the second half of 2003, with the average real GDP growth rate in 2003 expected to stand close to 0.5%. Apart from a strong contribution from stock building, growth in the first quarter was mainly driven by private consumption, while total investment recorded a contraction of 1.2% on the previous quarter. With the exception of some stabilisation during the third and the fourth quarter of 2002, investment has been consistently falling since 2001. Recent information on current macroeco-

economic developments in the euro area suggests a slight improvement of the economic environment in the second half of 2003, which supports forecasts of quarterly growth between 0.0% and 0.4% for the third quarter and an acceleration to between 0.2% and 0.6% for the fourth quarter.⁶ For 2004, the rate of increase of real GDP is forecast to liven up to approximately 2%.

The stronger euro and lower interest rates suggest a higher contribution to growth from domestic rather than foreign demand. Private consumption remains relatively resilient and will benefit from the expected deceleration in inflation. Moreover, corporate balance sheets have stabilised, although corporate adjustment has probably not fully run its course. Slow cyclical adjustment in the labour market has adversely affected productivity and profit margins. The recent weakening of the contribution of external trade to economic activity underlines the importance of policies geared to reinforcing domestic sources of growth in the euro area.

The ECB eased its monetary policy through a cumulative reduction of its key interest rates by 125 basis points to 2% between early December 2002 and June 2003. With short-term interest rates now at historical lows, monetary policy should support growth without posing any risk to price stability. Overall, fiscal policy has been supportive to economic activity, mainly through the free play of automatic stabilisers. A notable country-specific development was the announcement by the German government that tax cuts totalling €22 billion and corresponding to 1% of GDP will be implemented in 2004 instead of 2005 as initially planned.

The spring forecasts of international organisations regarding economic growth in 2003 are already being revised downwards for most euro area countries. According to the latest IMF forecasts (September 2003), Greece and Spain are expected

to be best performers with regard to real GDP growth in 2003 (rates of 4.0% and 2.2% respectively), while negative rates of change are projected for Portugal and the Netherlands (−0.8% and −0.2% respectively). The German economy is expected to stagnate.

2.3 Labour markets

In the euro area, employment remained unchanged during the first two quarters of 2003. According to the European Commission's surveys, employment growth prospects appear more favourable in the services sector. Nevertheless, according to the same surveys, employment expectations until September did not signal any significant change in underlying labour market trends. The unemployment rate in the euro area has been on an upward trend since mid-2001 and saw a further deterioration in the second quarter of 2003 (from 8.7% to 8.8%). In the European Commission's spring 2003 forecasts, the unemployment rate for the year as a whole was expected to stand at 8.8%; however, given current weak growth, the risks of a stronger deterioration of labour market conditions remain.

2.4 Fiscal developments

The prolonged economic slowdown and, in some cases, tax reductions are expected to result in a significant widening of fiscal deficits in several euro area countries compared to those targeted in their stability programmes. In many countries, the size of the emerging shortfall calls into doubt targets for 2004. According to the Commission's spring forecasts, the average general government deficit in the

⁶ The European Commission's latest indicator-based forecast for GDP growth in the euro area in the third and the fourth quarter of 2003 (9 October 2003) suggests that the average annual growth in 2003 will be between 0.2% and 0.5%.

euro area was expected to rise to 2.5% of GDP this year (compared with 1.8% of GDP projected in the stability programmes of the Member States), up from 2.2% of GDP in 2002 and 1.6% in 2001. The cyclically adjusted general government deficit was also forecast to be higher, by 0.7 percentage points of GDP, compared with that projected in stability programmes.⁷ However, the cyclically adjusted primary surplus of general government was expected to remain practically unchanged in 2003.

The latest available information on the implementation of the budgets tends to confirm that the budgetary outcome for most Member States, as well as for the euro area as a whole, might turn out to be worse than that projected last spring. For the euro area, the general government deficit is now expected to come close to 3% of GDP in 2003, although, according to recent IMF estimates, the “structural” (cyclically adjusted) deficit will shrink to 1.7% of GDP, from 2.0% in 2002. Of particular concern are, on the one hand, the ongoing deterioration of the budgetary situation in Germany, where the deficit in 2003 might edge closer to 4% of GDP despite the adjustment undertaken, and, on the other hand, the situation in France, where the government already announced that the general government deficit in 2003 is expected to reach 4% of GDP. For Germany, Portugal and

France, the excessive deficit procedure has been activated and the ECOFIN Council has recommended that these countries correct their excessive deficits. In 2003, the government debt-to-GDP ratio is estimated to be over 60%⁸ in Austria, Belgium, Germany, Greece, France, and Italy. The government debt ratio of Belgium, Greece and Italy would remain this year above 100% of GDP. It is noted that the recently adopted Broad Economic Policy Guidelines urge Member States to maintain budgetary positions close to balance or in surplus over the economic cycle and to advance implementation of structural reforms.

3. Monetary developments

3.1 *The monetary policy of the ECB*

The primary objective of the European Central Bank (ECB) is the maintenance of price stability over the medium term. The ECB’s Governing Council completed in May the assessment of its monetary policy strategy; all relevant conclusions and clarifications are presented in Box 1.

⁷ European Commission, DG ECFIN, *Quarterly Report on the Euro Area*, 2 July 2003.

⁸ Reference value according to the Maastricht criteria for entry into EMU.

BOX 1

Assessment of the monetary policy strategy of the ECB

The monetary policy strategy of the ECB is geared towards maintaining price stability in the euro area and based on an analytical framework wherefrom the Eurosystem’s monetary policy decisions stem. In addition, this analytical framework facilitates the communication of the ECB with the wider public.

On 8 May 2003, the Governing Council of the ECB

completed a thorough assessment of its monetary policy strategy, which was deemed generally successful. Through this process, the basic elements of this strategy were reconfirmed, as well as further clarified.

The basic elements of the monetary policy strategy *which was originally announced in October 1998* were a quantitative definition of price stability (a year-on-year →

→ increase in the Harmonised Index of Consumer Prices – HICP – for the euro area of below 2% in the medium term) and two “pillars” (i.e. two analytical approaches complementary to each other) for the assessment of risks to price stability. The first pillar referred to monetary analysis, especially in terms of the rate of change in broad money, as well as credit developments. The second pillar involved an assessment of the price outlook in the light of – in addition to monetary aggregates – a wide range of economic variables, such as money and capital market interest rates, the exchange rate, indicators of real economic activity and fiscal policy, as well as various other measures of costs and prices.

The clarifications made by the Governing Council of the ECB referred to both the definition of price stability and the two pillars.

Quantitative definition of price stability

The Governing Council clarified that it aims to maintain inflation rates at levels below but close to 2% over the medium term, which means that extremely low levels of inflation are to be avoided.

As is well known, high inflation hampers economic growth and thus entails considerable social costs, mainly because it erodes the efficiency of the price system, aggravates potential distortions caused by the tax system, and increases the risk premia incorporated in interest rates. On the other hand, a low but positive rate of inflation (as opposed to zero inflation) offers a number of advantages, as it:

- (i) provides a safety margin to guard against the risk of deflation,
- (ii) addresses the possibility of an upward measurement bias in the HICP, and
- (iii) allows for different but positive inflation rates within the euro area.

In view of the above, a rate of inflation below but close to 2% would help avoid both the costs of inflation and deflationary risks.

The two-pillar approach

For a comprehensive assessment of risks to price stability, the Governing Council examines a large number of indicators and uses various analytical tools (such as econometric models and statistical methods). After the recent assessment of the monetary policy strategy, it was decided that this analysis would henceforth be conducted via two approaches, an economic and a monetary one, each with a different time horizon, given that inflation can be attributed to two types of effects:

- the *short- to medium-term* interplay between supply and demand, approached through economic analysis; and
- the *medium- to long-term* trends of inflation, empirically correlated to the rate of change in money over a longer horizon and approached through monetary analysis.

Overall, these two analytical approaches provide a framework for cross-checking information derived from both shorter-term economic analysis and longer-term monetary analysis. By combining these, the Governing Council ensures that the monetary policy of the ECB reflects current economic developments while taking into consideration the key long-term determinant of inflation, i.e. the rate of change in money.

The economic analysis refers to the assessment of current economic and financial developments and their impact on inflation over the short to medium term. In this respect, it examines information derived from a wide variety of indicators, including developments in output and aggregate demand, fiscal policy, investment and cost of capital, a number of cost and price indicators, developments in foreign exchange markets, the world economy, the balance of payments, money and capital markets, as well as balance sheets of various sectors of the euro area economy.

In the last few years, economic analysis has been enriched with new indicators and has been deepened by using new techniques and models, for better assessing and understanding past and current economic conditions and projecting future developments. In particular, the →

→ Eurosystem's projections regarding some basic macro-economic variables (e.g. inflation and GDP growth in the current and the next one or two years) play an important role in economic analysis. The monetary policy of the ECB is not based solely on a forecast for a given time horizon, but is adjusted to the nature, size, source and possible spillovers of disturbances to the economy.

The close interrelation observed over the longer term between monetary growth and inflation explains the prominent role attached to money within the monetary policy strategy. The assessment showed no indications of change in this interrelation in recent years. Thus, monetary analysis continues to be an essential part of the overall assessment of the inflation outlook.

With a view, as mentioned above, to cross-checking information about the inflation outlook derived from economic analysis, monetary analysis assesses the overall liquidity situation, based on data regarding the components of money and its counterparts, such as credit expansion, cross-border capital flows and the asset position of banks. To determine whether there is excessive growth of money that can threaten price stability, various measures of excess liquidity are calculated and monitored. Particular attention is paid to the rate of change in M1, which reflects demand for transaction balances and is therefore more closely linked to total expenditure. The monitoring of the counterparts of M3 on the basis of the consolidated balance sheet of Monetary Financial Institutions enables the detection of

portfolio shifts and of their implications for price developments.

In the context of monetary analysis, a reference value is set for the rate of increase in broad money (M3),¹ which serves as a benchmark for the analysis of monetary developments and for assessing potential long-term monetary imbalances and their impact on inflation. For example, if money grows faster than the reference value, inflationary pressures may follow. However, given the longer time horizon of monetary analysis, in cases of temporary deviations of the rate of change in money from the reference value, the Eurosystem does not respond mechanically by an immediate adjustment of interest rates, but takes into consideration the fact that the rate of change in M3 must be in line with the objective of price stability in the medium to long term. Moreover, this is the reason for which, in the assessment of the monetary policy strategy, the Governing Council decided to henceforth review the reference value not on an annual basis, but only when it considers that the assumptions on which this value is based have ceased to apply, so as to underscore the longer-term nature of monetary analysis and help avoid potential misinterpretation of this value as some sort of monetary target.

¹ The reference value indicates the rate of increase in money which can support real GDP growth approximately equal to medium-term trend growth (2%-2.5%) assuming price stability (i.e. inflation below but close to 2%) and a trend decline (of 0.5%-1%) in the velocity of money circulation. Based on these assumptions, the reference value (4.5%) for the rate of change in M3 was derived in 1999 and has been reconfirmed ever since.

Following the reduction of the ECB key interest rates by 50 basis points in December 2002, the monetary policy stance was further relaxed, by a cumulative 75 basis points, on two occasions: on 7 March (before the beginning of war operations in Iraq) the key interest rates were lowered by 25 basis points, and on 6 June (after the end of the war) by a further 50 basis points, bringing the minimum bid rate on the main refinancing operations, the marginal lending facility rate and the deposit facility rate to 2%, 3% and 1% respectively (see Chart 4 and Table I).

The above decisions of the ECB reflected the Governing Council's assessment of the outlook for price stability based on an analysis of economic and monetary developments. As regards economic developments, the Governing Council took into account the fact that the annual rate of economic growth in the euro area continued to decelerate and growth expectations for 2003 and 2004 had to be scaled down. Nevertheless, a gradual strengthening of GDP growth was expected for the second half of 2003 (see Section 2 of this Chapter).

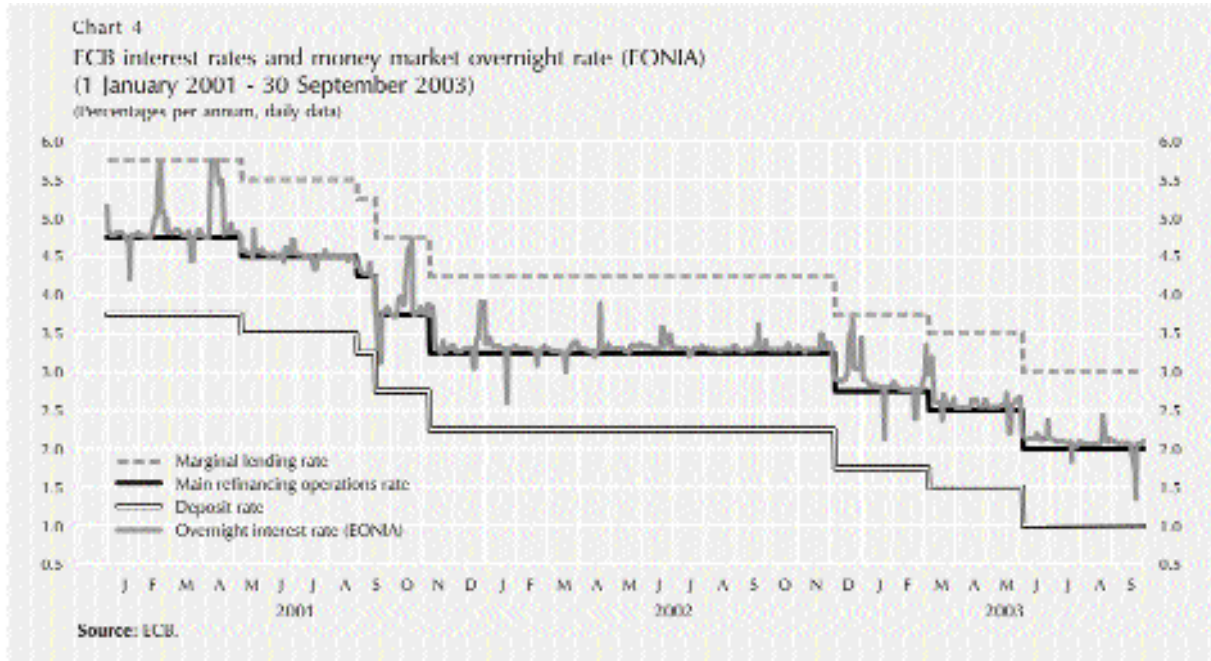


Table 1
Adjustment of ECB key interest rates
(Percentages per annum)

With effect from ¹	Deposit facility	Main refinancing operations	Marginal lending facility
6 December 2002	1.75	2.75	3.75
7 March 2003	1.50	2.50	3.50
6 June 2003	1.00	2.00	3.00

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.

Source: ECB.

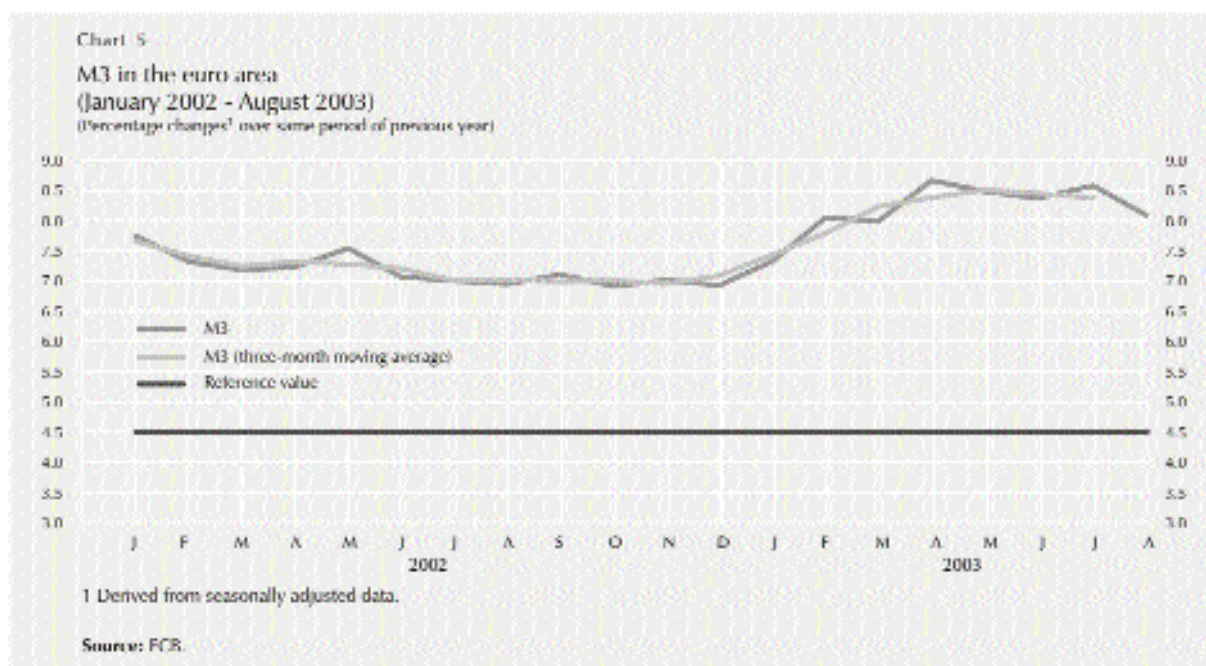
Overall, already since the beginning of the year there were signs of declining inflationary pressures, although inflation remained slightly higher than 2% in the first quarter of 2003 (2.3%). Indeed, after March, inflation dropped (second quarter of 2003: 1.9%) due to the stronger euro, weak economic activity and falling oil prices. For the second half of 2003, inflation is expected to remain at or slightly above 2%, despite some short-term pressures that may emerge as a result of the recent rise in oil prices. For 2004, inflation is projected to fall below 2%, owing to the past appreciation of the euro recorded until mid-2003;

this projection is however conditional on wage moderation.

The Governing Council's assessment for an improved inflation outlook in 2003 is also supported by the analysis of monetary and credit developments. Thus, although the annual growth rate⁹ of money (M3)¹⁰ remained brisk during the

⁹ The annual rate of change in a monetary aggregate is calculated as the percentage change in the relevant outstanding level during the twelve-month period up to a given month. The ECB monitors three-month moving averages of annual rates of change.

¹⁰ Definitions of the monetary aggregates can be found in the Glossary.



period under review (first quarter of 2003: 7.6%, second quarter: 8.4%, August: 8.2%), this was not seen as signalling inflationary risks, for reasons explained further below. The continuing strong preference for liquidity in the euro area is expected to gradually decrease once market uncertainty subsides.

3.2 *Developments in M3, its components and its counterparts, and the issuance of bonds and other debt instruments*

The annual rate of increase in M3 has accelerated since the beginning of the year, as already mentioned (see Chart 5 and Table II). This development is largely attributable to portfolio shifts to safer and more liquid assets, associated with remaining uncertainties regarding stock-market, economic and geopolitical developments, as well as with falling bond yields in the euro area until mid-June. Moreover, low short-term interest rates reduced the opportunity cost of holding money (as measured by the difference between the three-month EURIBOR and the own rate of return of M3) and fuelled demand for assets included in

M3, and particularly in M1. More specifically, the annual rate of increase in M1 continued to accelerate in the January-August 2003 period and stood at 11.4% in the second quarter of the year and at 11.8% in August, compared with 10.3% in the first quarter of 2003 and 8.8% in the fourth quarter of 2002 (see Table II). This came as a result of flights to safety, attributable to both high volatility in bond markets and uncertainty about employment prospects, as the latter may have triggered precautionary savings. Finally, the strengthening of M1 is also linked to the gradual return of currency in circulation to normal levels following the completion of the changeover process.

Turning to the counterparts of M3, the annual growth rate of loans to the private sector, which represents the bulk of credit expansion, ranged between 4.5% and 5%, suggesting a termination of the downward trend recorded from the end of 2000 until the end of 2002 (see Table III). Taking in consideration the current phase of the economic cycle in the euro area, these levels, in real terms, are broadly in line with the long-term

Table II

Main components of M3 in the euro area

(Annual percentage changes,¹ derived from data adjusted for seasonal and calendar effects, quarterly averages²)

	2002	2003		
	Q4	Q1	Q2	August
M1	8.8	10.3	11.4	11.8
Currency in circulation, M0	12.9	39.1	35.7	28.8
Overnight deposits	8.1	6.6	8.1	9.3
Other short-term deposits (=M2-M1)	4.9	4.4	5.4	5.5
Deposits with an agreed maturity of up to two years	1.5	0.5	0.0	-1.9
Deposits redeemable at notice of up to three months	7.7	7.4	9.6	11.2
M2	6.7	7.1	8.2	8.5
Marketable instruments (=M3-M2)	8.5	10.5	9.8	6.3
Repurchase agreements	2.2	8.4	2.5	-2.9
Money market fund shares/units	18.5	16.6	17.5	15.4
Money market paper and debt securities issued with a maturity of up to two years	-8.8	-5.4	-5.5	-15.1
M3	7.0	7.6	8.4	8.2

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

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

Source: ECB.

trend. The stabilisation of the growth rate of loans to the private sector reflects counterbalancing effects – subdued activity and stock-market uncertainty as opposed to a low level of lending rates – and therefore does not imply a bank credit squeeze. According to the results of the Eurosystem's quarterly surveys on bank lending, in the first two quarters of 2003 the percentage of banks applying stricter criteria for extending credit, especially to enterprises, was smaller than in the last quarter of 2002. In the second quarter of 2003, the annual rate of increase in bank loans to non-financial corporations stood at 3.6%, against 3.8% in the previous quarter and 3.5% in the fourth quarter of 2002. In the same period, the annual growth rate of loans to households slowed down, but remained at relatively high levels (at 5.5%, compared with 5.8% in the first quarter of 2003 and 5.9% in the fourth quarter of 2002), mainly due to increased demand for housing loans, which was boosted by the low level of corresponding rates and the

rises in house prices in some countries of the euro area.

The annual rate of credit expansion to general government accelerated further, to 3.5% in the second quarter of 2003 and 4.8% in August, from 2.1% in the first quarter of 2003 and 2% in the fourth quarter of 2002, on account of increased public sector borrowing requirements caused by the weakening of economic activity.

Finally, it is worth noting that the annual rate of increase in the amount outstanding of debt securities issued by private non-financial corporations stepped up to 12.7% in the second quarter of 2003, from 6.6% in the first quarter of 2003 and 4.5% in the fourth quarter of 2002. This acceleration cannot be accounted for by the economic activity prospects prevailing in the euro area at the time; rather, it is primarily associated with the narrowing of the yield spread between corporate and government bonds, which has been wit-

Table III

Main counterparts of M3 in the euro area

(Annual percentage changes,¹ derived from data adjusted for seasonal and calendar effects, quarterly averages²)

	2002	2003		
	Q4	Q1	Q2	August
Longer-term financial liabilities	5.0	4.5	4.5	5.3
Deposits with an agreed maturity of over two years	2.7	3.4	3.8	4.7
Deposits redeemable at notice of over three months	-9.1	-7.9	-9.1	-14.2
Debt securities issued with a maturity of over two years	8.1	7.1	7.1	7.6
Capital and reserves	4.3	3.1	2.7	4.3
Credit to euro area residents	4.1	4.2	4.7	5.4
Credit to general government	2.0	2.1	3.5	4.8
Debt securities other than shares	4.2	4.3	6.1	7.0
Loans	-1.2	-1.2	-0.5	1.4
Credit to other euro area residents	4.7	4.8	5.1	5.5
Debt securities other than shares	6.8	8.7	14.3	16.8
Shares and other equity	2.6	1.0	4.8	5.6
Loans	4.8	4.9	4.6	5.0

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

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

Source: ECB.

nessed since the fourth quarter of 2002 and has made the issuance of debt securities more attractive for corporations.¹¹ At the same time, given the very low level of interest rates, this acceleration also reflects investor shifts to instruments offering yields higher than those of government bonds.

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

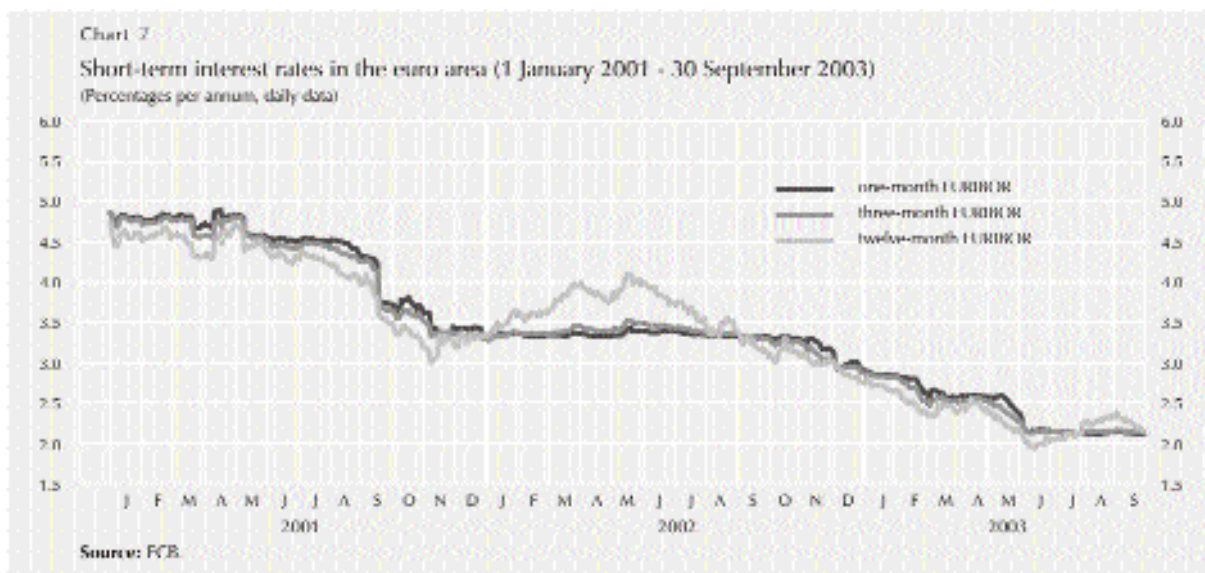
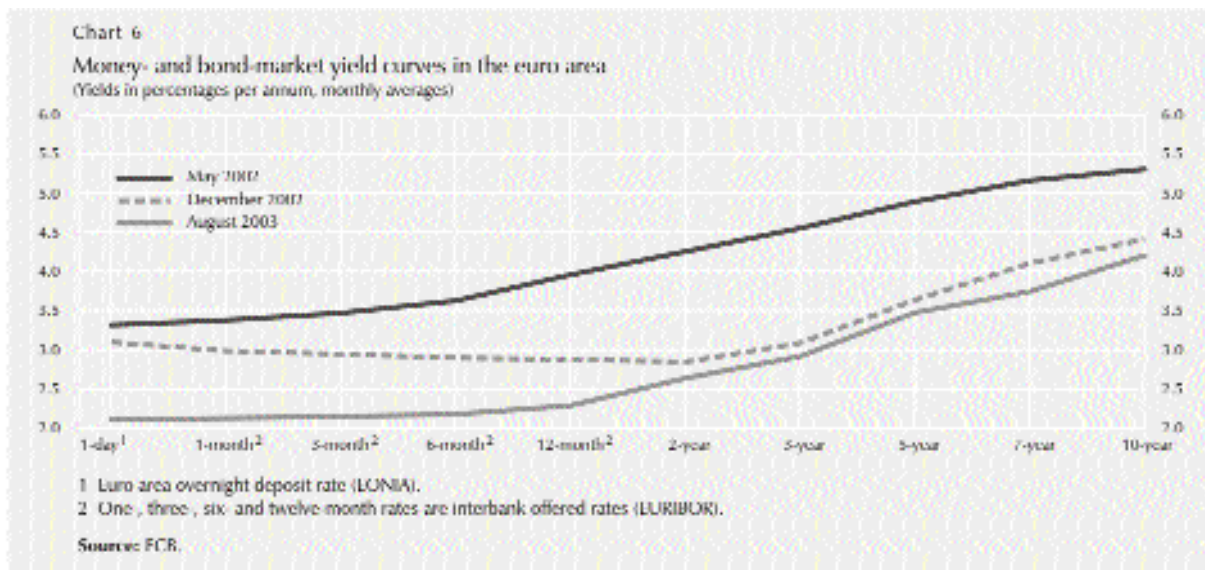
During the first half of 2003, interest rates in the single money market of the euro area fell,¹² continuing their declining trend recorded since mid-May 2002. This decrease in money market rates, which reflected the reduction of the ECB key interest rates by a cumulative 75 basis points during the same period, was more pronounced in longer maturities, suggesting expectations of a further decline in short-term rates in the future. The slope of the money market yield curve, as measured by the difference between the twelve-

month and the one-month EURIBOR, showed variations but remained negative until end-July. From August onwards however, this slope turned positive (see Chart 6), as rates in longer maturities (six-month and twelve-month EURIBOR) increased, reflecting the weakening of prospects for a further fall in short-term rates following the latest reduction of the ECB key interest rates in June.

Throughout the period under review, the inter-bank overnight rate (EONIA) remained slightly over the minimum bid rate in the Eurosystem's main refinancing operations, which is set by the ECB (see Chart 4). The three-month EURIBOR

¹¹ The annual rate of increase in the amount outstanding of debt securities issued by the general government sector of the euro area Member States stood at 4.4% in the second quarter of 2003, compared with 4.2% in the first quarter of 2003 and 4.8% in the fourth quarter of 2002.

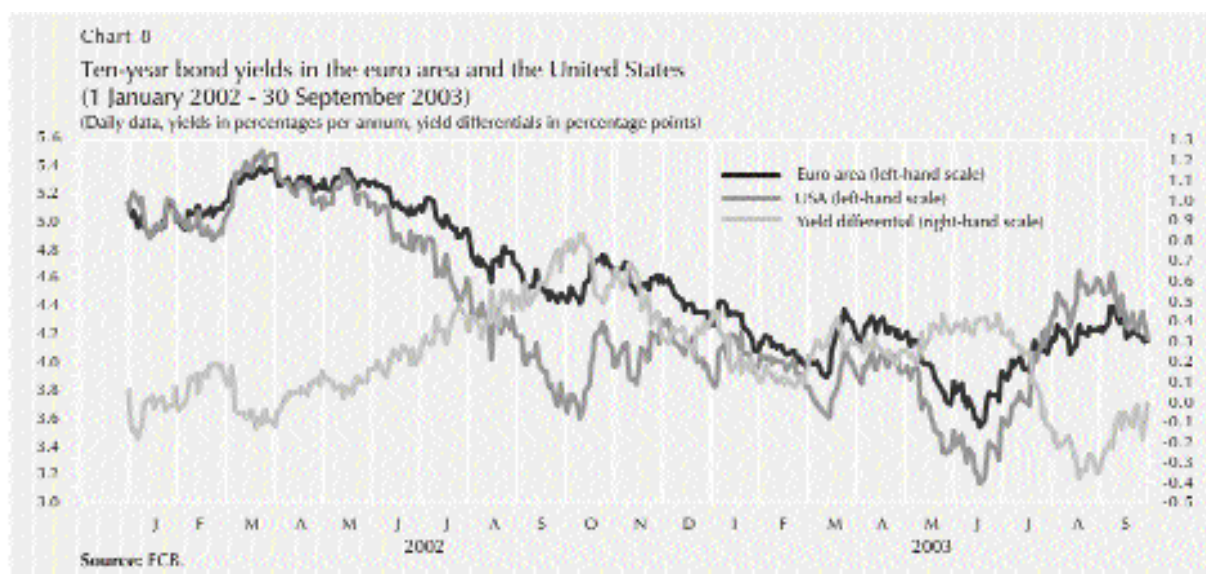
¹² Except in April, when the yields in longer maturities stabilised at marginally higher levels.



(see Chart 7), which is deemed representative of short-term rates, fell by 79 basis points during the first nine months of 2003 (to 2.15% in September). In the same period, rates in longer maturities (six-month and twelve-month EURIBOR) decreased by 71 and 61 basis points, to 2.18% and 2.26% respectively, despite an increase recorded from July onwards.

During the first half of 2003, forward interest rates in the euro area money market followed a downward path, which implied expectations of a

further decline in short-term rates in the future. However, after the latest reduction of the ECB key interest rates in June, they increased, reflecting the weakening of prospects for a further drop in short-term rates in the future. At the same time, the volatility of forward interest rates, which reflects uncertainty as regards developments in short-term rates, decreased in recent months to considerably low levels (compared to the past), particularly after the reduction of the ECB key interest rates in June. In the first eight months of 2003, short-term retail bank deposit and lending



rates continued their declining trend observed since May 2002 and stood in August at historical lows. A significant drop, of 75 basis points, was recorded in the interest rate on short-term loans to enterprises (the three-month EURIBOR fell by 80 basis points during the same period). Similar developments were also seen in long-term retail bank rates (except in April), although lending rates increased in August. Overall, recent developments in retail bank rates mirrored, with the usual lag, the evolution of the single money market rates and bond yields.

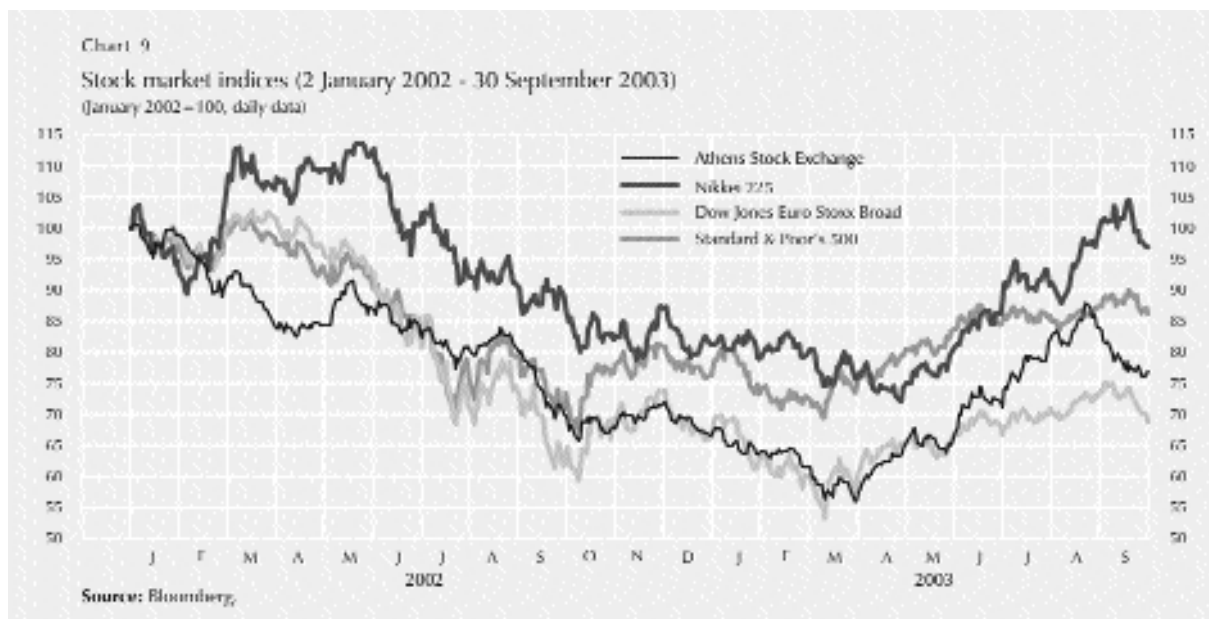
From the beginning of 2003 to mid-June, government bond yields in the euro area (see Chart 8) exhibited an overall declining trend, reflecting the downward revision of growth expectations. Government bond yields in the United States also followed a similar course.¹³ After the first half of June, government bond yields increased in both the euro area and the United States. In the euro area, this development was associated with improved indicators of confidence as regards growth and inflation prospects in the medium term (despite the publication of both positive and adverse economic data), with investors' renewed interest in equity purchases as a result of reduced

uncertainty, and with external developments such as the recovery of US bond yields. However, given the greater increase of yields in the United States compared with the euro area, the yield differential between *euro area and US* ten-year bonds became negative (for the first time in nineteen months) at the end of July 2003, but was close to zero at the end of September.

3.4 Stock market developments

Stock prices in the euro area continued their declining trend until mid-March 2003 (see Chart 9), due to the downward revision of market expectations of economic recovery in the euro area. The fall in stock prices was also connected to external factors, such as uncertainty about the world economic recovery, concerns related to the possibility of a war in Iraq, and stock market developments in the United States. On 12 March 2003, the Dow Jones EURO STOXX index, which is compiled on the basis of a large sample of euro

¹³ Bond yields in both the euro area and the United States recorded a temporary increase, as well as high volatility, in March and April, due to uncertainty both about the outcome of the war operations in Iraq and their effect on oil prices.



area stock prices, reached its lowest level since January 1997, having fallen by 19.7% compared with its level at the end of December 2002. Thereafter however, the downward path of stock prices was reversed and the Dow Jones EURO STOXX rose by 4.1% between end-December 2002 and end-September 2003. This increase was attributed mainly to subsiding concerns about the

war in Iraq and the ensuing considerable fall in oil prices, but also to the upward revision of business profit expectations. The improved outlook of stock markets is also reflected in the decrease in stock price volatility after mid-March 2003, which during the first quarter had reached a level considerably higher than the two-year average.

III. Macroeconomic developments in Greece

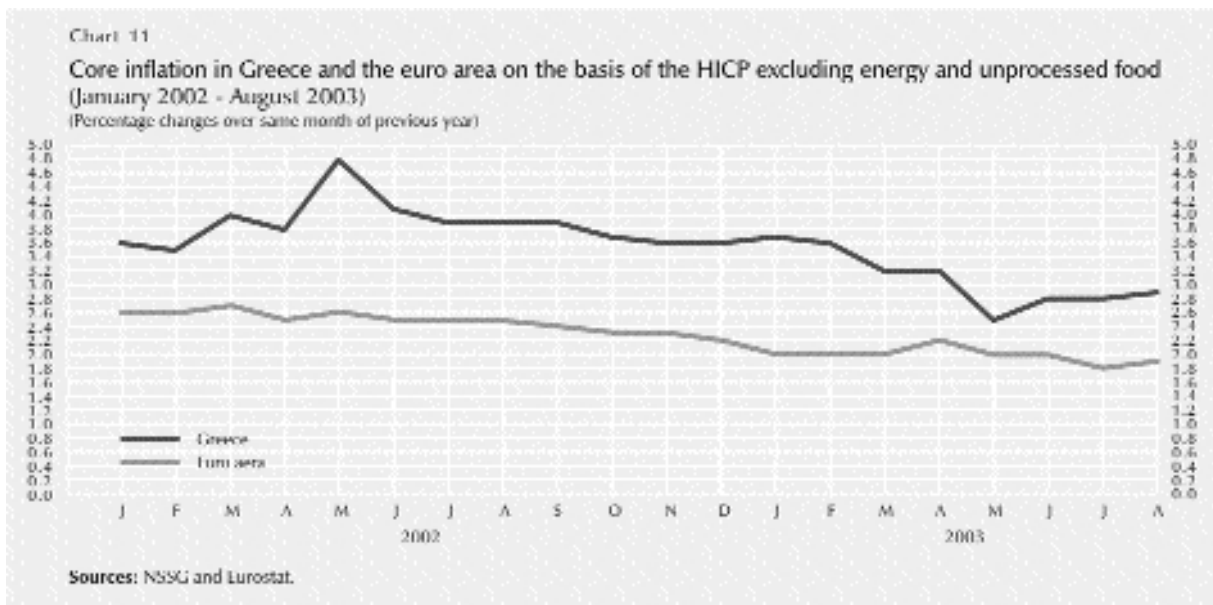
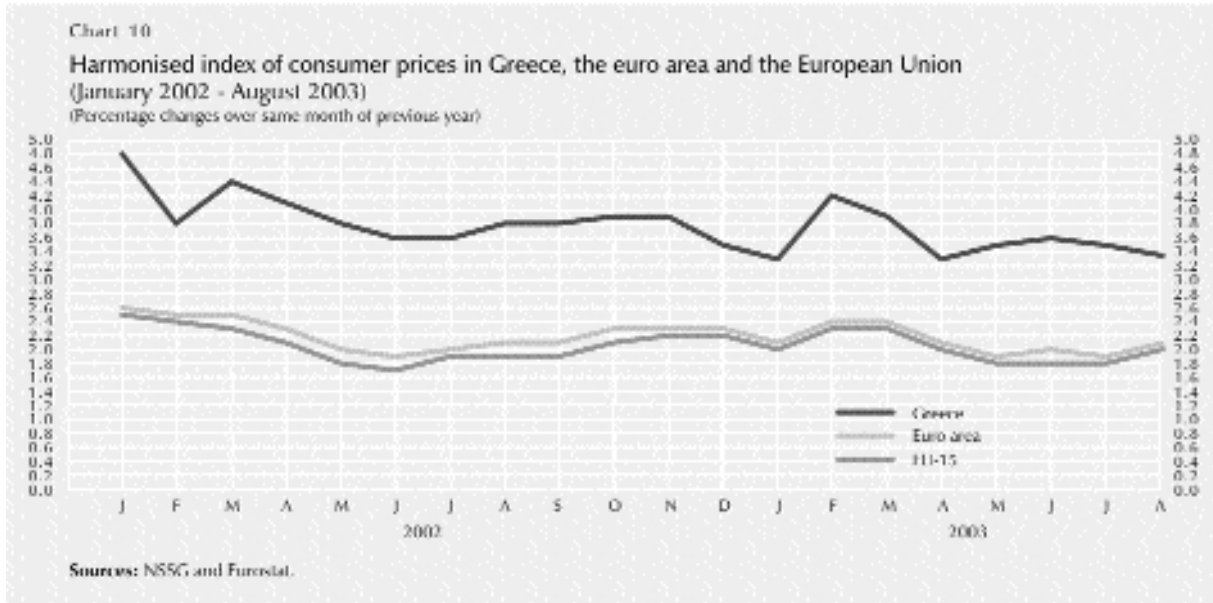
1. Inflation: developments, determinants and prospects

On the basis of the Harmonised Index of Consumer Prices (HICP – see Chart 10), the average annual inflation rate in Greece fell to 3.6% in the first eight months of 2003 (from 4.0% in the corresponding period in 2002). Thus, its differential from the respective euro area rate narrowed to 1.5 percentage points (from 1.8 percentage points in the first eight months of 2002). Inflation decelerated over the course of the year. Indeed, the annual rate of increase in the HICP was 3.8% in the first quarter, 3.5% in the second and – as estimated – 3.4% in the third quarter. In the first eight months of the year, core inflation, as measured on the basis of the annual rate of change in the HICP excluding fuel and unprocessed food (see Chart 11), dropped to 3.1% on average from 4.0% in the corresponding period of 2002. The differential between core inflation in Greece and the corresponding figure for the euro area was reduced to 1.1 percentage points in the first eight months of 2003, from 1.4 percentage points in the corresponding period of 2002.

On the basis of the Consumer Price Index (CPI), the annual inflation rate stood at 3.7% on average in the first eight months of 2003, i.e. the same level as in the corresponding period in 2002.¹ During the same period, core inflation, which in this case is measured by the annual rate of change in the CPI excluding fuel and fresh fruit and vegetables, dropped to 3.2% on average, down from 3.6% in the first eight months of 2002 (see Chart 12).

The *fluctuation* of the inflation rate in the first

¹ The fact that inflation shows a drop on the basis of the HICP but not on the basis of the CPI is chiefly a reflection of the greater weight of certain goods (such as fresh fruit and vegetables) in the HICP. The rate of increase in the prices of these goods is falling markedly this year.

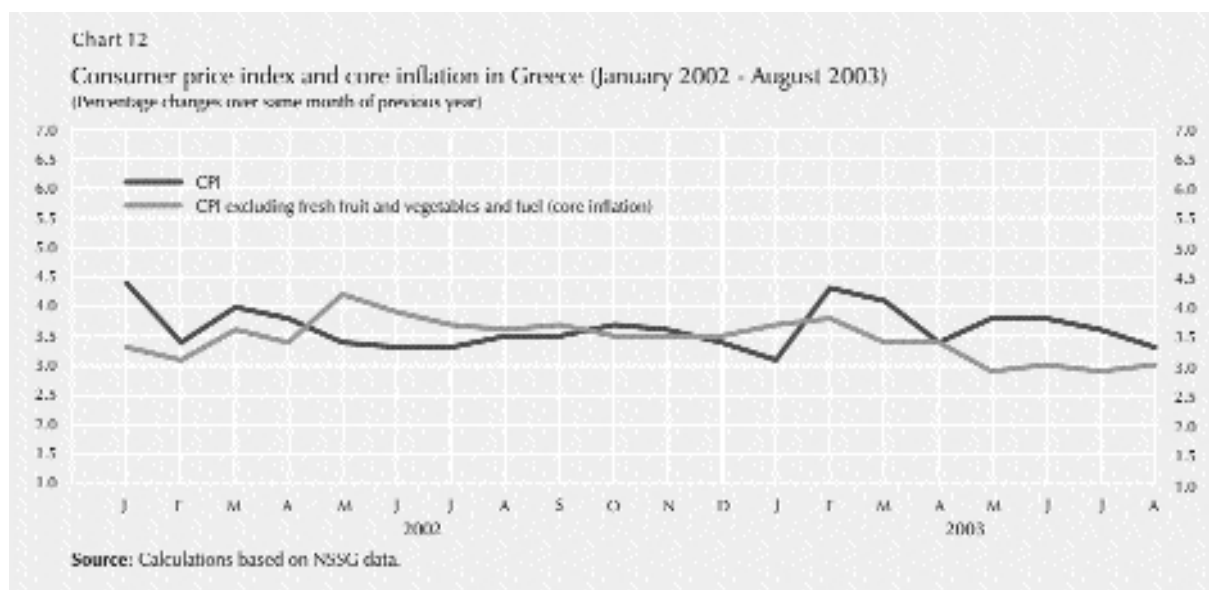


eight months of the current year² is, first, a reflection of the impact of exogenous or extraordinary factors. More specifically, after prices for *fresh fruit and vegetables* reached a much lower level in January 2003 than in the corresponding month in 2002, their *annual* rate of increase accelerated from February to May, while from June onwards it recorded a steady slowdown (see Chart 13). Overall, the *average annual* rate of increase in these prices over the first eight months of 2003

slowed significantly, although its level was still high (12.6%, compared with 20.0% in the corresponding period of 2002, on the basis of the CPI).

By contrast, the price of *crude oil* (in US dollars) on the world market initially rose (from December 2002 until mid-March of the current year), due to

² The lowest rate was recorded in January (3.1%) and the highest in February (4.3%).



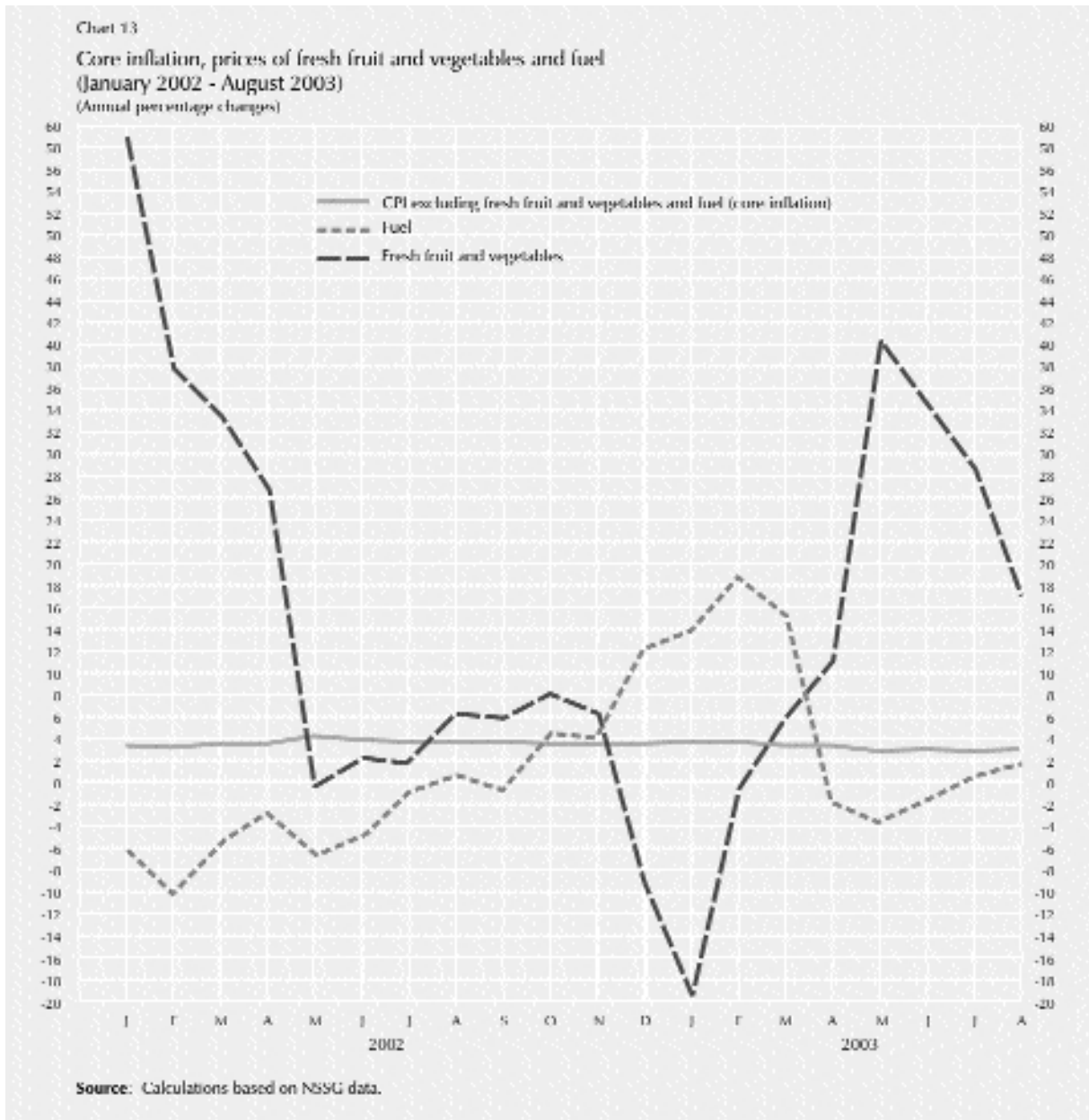
the uncertainty connected with the eventuality of war in Iraq. The start and subsequent course of military operations led to an immediate fall in the price of oil. Thereafter, from May until August, an upward trend was evident (although the price did not exceed the level reached at the beginning of the year). Another fall in prices at the beginning of September was reversed after OPEC decided, on 24 September, to limit production, and prices rose again. Thus, for 2003 as a whole, on the basis of the most recent forward prices, an average annual increase in the order of 14% is expected (compared with 14.8% on average during the first nine months of the year). The average price of oil is expected to stand at \$28.5 per barrel (against \$25 in 2002). Prices for non-energy raw materials on the world market (also in US dollars) rose significantly in the first nine months of the year (at an average annual rate of 13.3%).

However, due to the appreciation of the euro against the US dollar at an average annual rate of 20.0% in the first nine months of 2003, the price of crude oil and non-energy raw materials *in euro* actually fell by 4.3% and 5.6% respectively. Similar outcomes are expected for the year as a

whole. Based on the technical assumption that the euro will, until the end of the current year, maintain its exchange rate against the US dollar at the level where it stood in September, the average annual appreciation of the euro against the dollar will reach 17.9%. On the domestic market, retail prices for fuel *increased* at an average annual rate of 5.0% and wholesale prices by 5.4% in the first *eight* months of 2003, while in the corresponding period of 2002 they *had been falling* at a rate of 4.7% and 8.9% respectively.³ However, the annual rate of change both in retail and wholesale prices from April onwards was at times negative and at times positive, *but remained low* (see Charts 14 and 15).

Overall, the appreciation of the euro has helped restrain price increases or bring down prices (in euro) of all products (not only raw materials) which are imported into Greece from *countries*

³ The fact that developments in crude oil prices (i.e. raw material) are not reflected *immediately* and *fully* in the evolution of fuel prices included in the CPI and the Wholesale Price Index (WPI) is related to lags, market imperfections and the fact that the cost of raw materials is only one of the components of the end-product price.

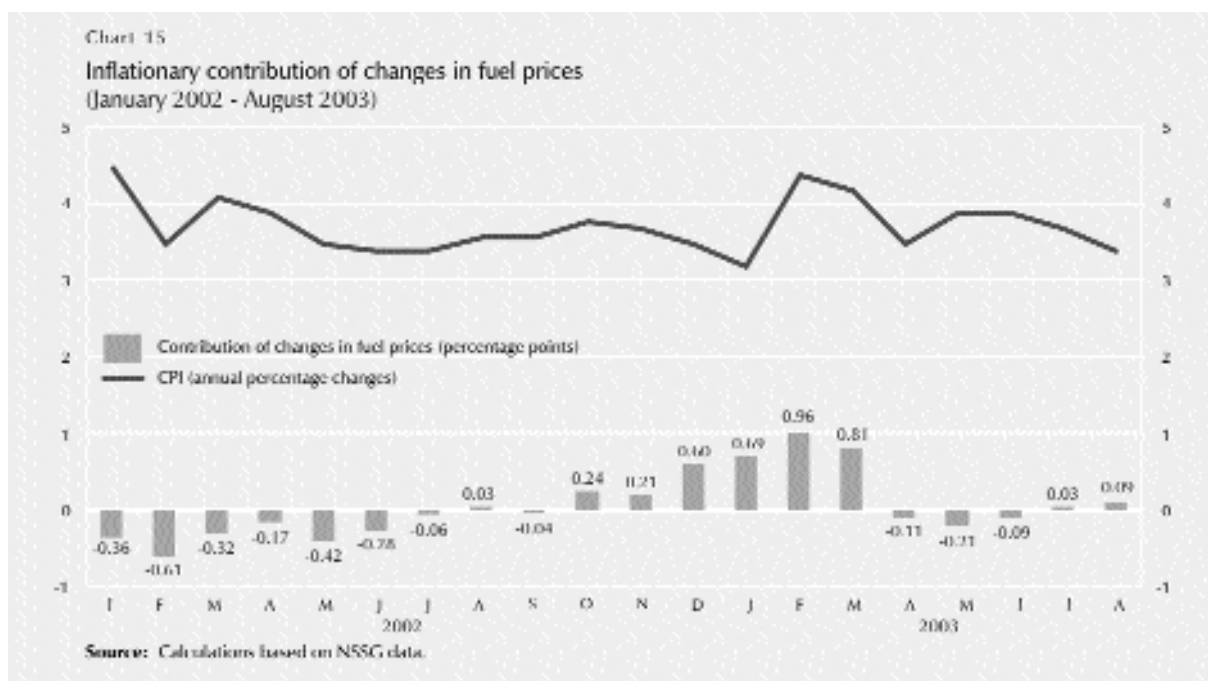
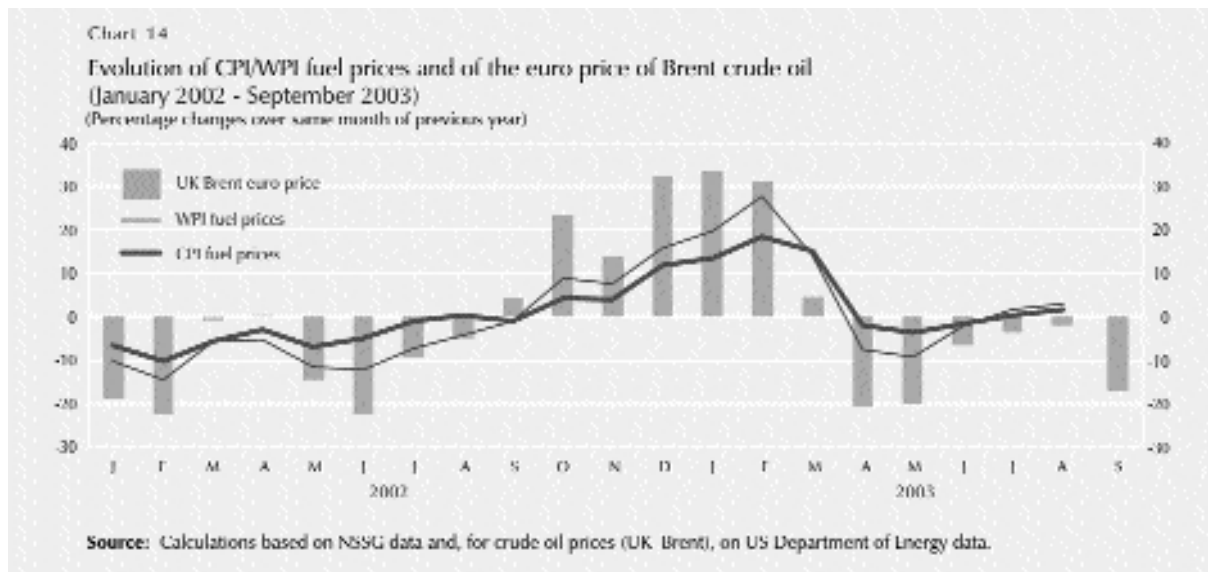


outside the euro area. It is important to note that the effective exchange rate of the euro, weighted on the basis of Greece's external trade, rose at an average annual rate of 3.0%⁴ in the first nine months of 2003; the average annual level for the whole year will rise at a slightly lower rate (2.8%) on the basis of the technical assumption that the exchange rate of the euro against other currencies will remain at September's levels (see Chart 16). Additionally, as the appreciation of the currency (a factor which holds down increases in the costs of

imported raw materials) and sluggish demand have both contributed to the slight fall in inflation observed in the euro area (see Chapter II), the rise in prices for products imported into Greece from other euro area countries is also contained.

On the basis of these data, a slowdown of price

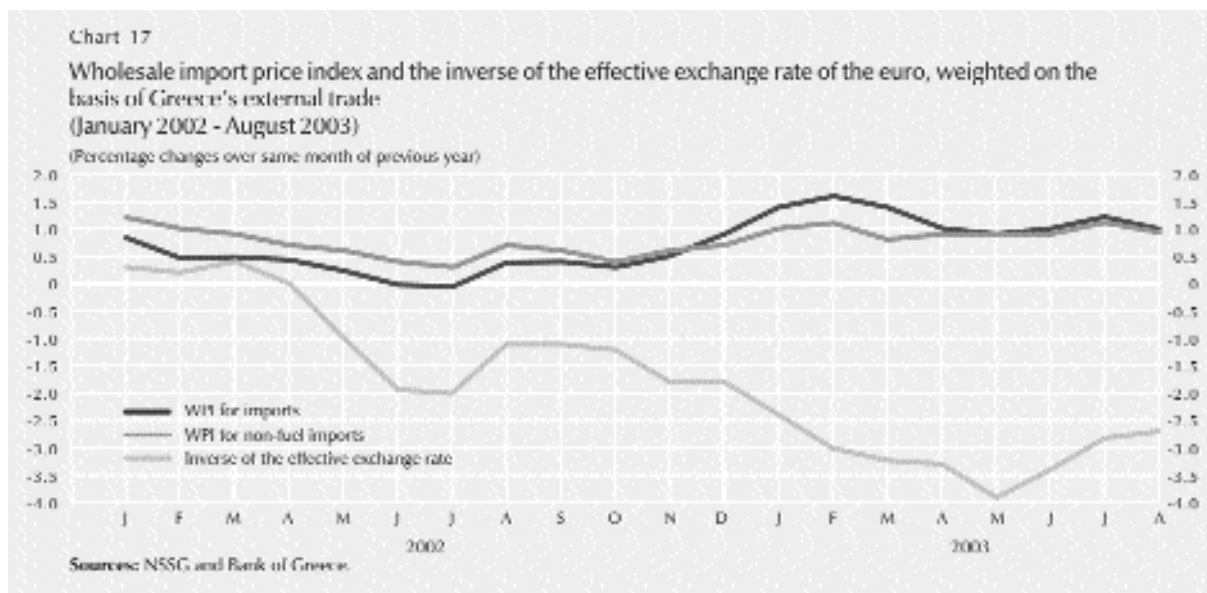
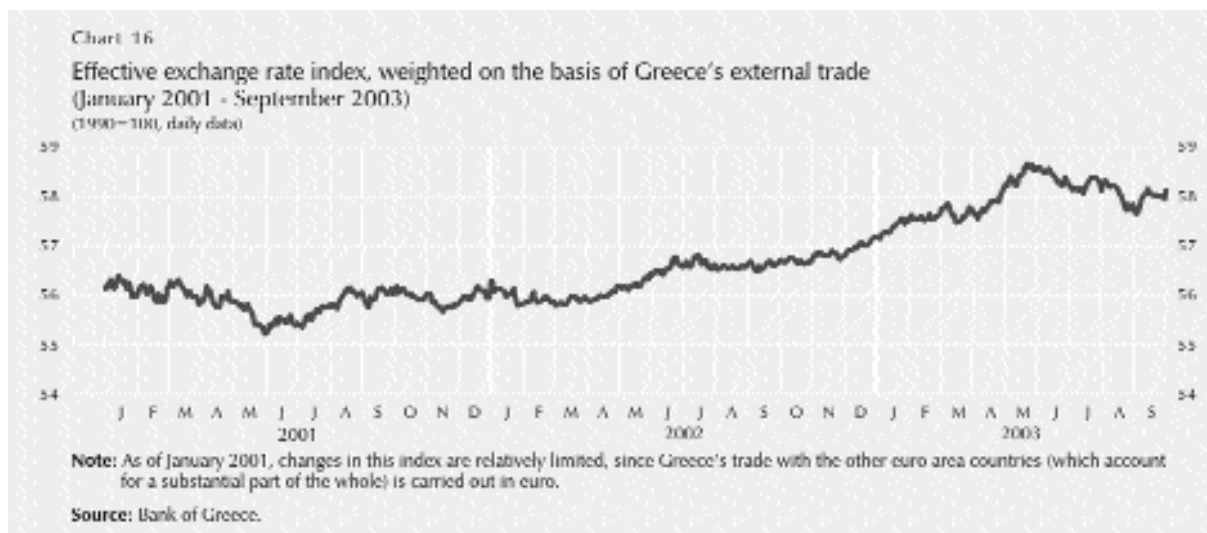
⁴ Note that this indicator also takes account of trade with countries in the euro area, where there is, of course, no change in the exchange rate (due to the single currency).



increases in imported goods would be expected. However, at the *wholesale level*, the average annual rate of increase in the prices of imported goods excluding fuel did not fall during the first eight months of 2003 in comparison with the corresponding period in 2002, although it did remain exceptionally low (0.9% – see Chart 17). At the *retail level*, however, there is a clear slowdown in the rate of price increases for two groups of products (consumer durables and “other goods”⁵)

both of which are taken into account in the calculation of core inflation and include many imported products (home appliances, other electrical and electronic equipment plus telephone appliances, cars and motorcycles).

⁵ The average annual rate of increase in the first eight months of 2003 fell, in comparison with the same period in 2002, to 1.3% from 1.6% for the first group and to 2.1% from 3.1% for the second.



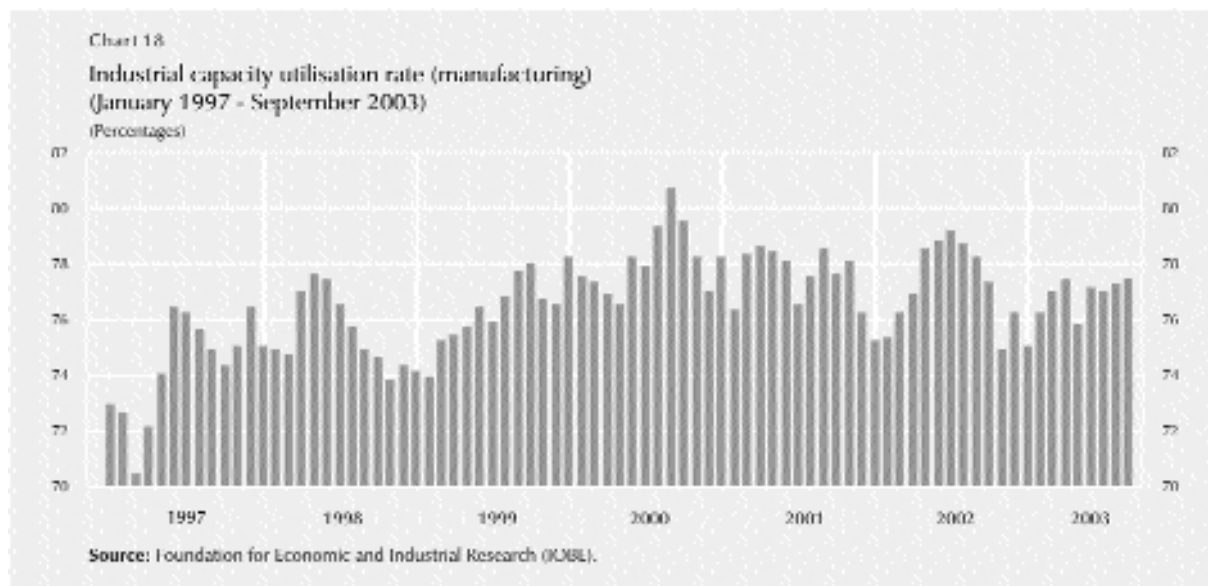
The upward effect (about 0.5 percentage point) on the annual CPI growth caused by rounding off and price increases in the first eight months of 2002 triggered by the euro cash changeover is estimated to have faded out during the corresponding period of 2003.⁶ Nevertheless, this favourable effect on core inflation was more than offset by new, higher than usual price rises, mainly of processed food⁷ and services.⁸ These increases reflected a widening of operating profit margins on the part of businesses in the relevant branches.⁹ Eventually, however, core inflation dropped as a result of a slowdown in the rate of

⁶ For the euro area as a whole, the inflationary effect of the euro cash changeover on the annual rate of HICP increase was 0.12-0.29 of a percentage point, according to revised estimates by Eurostat. See the appendix to Eurostat's Press Release 69/18 June 2003.

⁷ These prices rose at an average annual rate of 3.9% in the first eight months of 2003, compared with 3.6% in the same period in 2002.

⁸ These prices rose at an average annual rate of 4.2% in the first eight months of 2003, i.e. at the same rate as in the corresponding period in 2002, despite the absence of inflationary pressure from the euro cash changeover.

⁹ The income statements of companies listed on the Athens Stock Exchange (ASE) for the first six months of the current year confirm a significant rise in operating profits and operating profit margins (i.e. the ratio of operating profits to sales or turnover) in the branches of *food and beverage production* and *consumer goods trade* (net profit margins in these branches also rose). For all the companies listed on the ASE, it appears that operating profit margins declined in the first six months of 2003 (i.e. operating profits rose, but less than turnover did), while —by contrast— their net profit margins rose slightly. These details are not necessarily representative of businesses as a whole.



increase in the prices of durables and “other” goods, as previously mentioned, and in clothing-footwear prices.¹⁰

The fact that headline inflation in Greece remained at a relatively high level despite the drop in core inflation is the result both of insufficient competition in certain markets (which do not operate efficiently) and of macroeconomic factors. In the main, excess demand leads –*in markets which do not operate efficiently*– to price increases which are greater than what would be justified by cost developments. This leads to greater operating profit margins, as noted previously. In addition, unit labour costs in the *whole economy* continue to remain at a level higher than what would be compatible¹¹ with price stability (i.e. with inflation below but close to 2%). Nonetheless, the rate of unit labour cost growth is *falling* and it is *estimated to have dropped below 2% in the business sector* (see below).

Specifically with regard to demand-side inflationary pressures, the rate of increase in private consumption is estimated to be accelerating this year, while private residential investment continues to increase significantly (for more details see Section 3

of this chapter). At the same time, it is worth taking the development of the “output gap”¹² into account. From the available estimates made by the European Commission, the OECD and the International Monetary Fund,¹³ it appears *prima facie* that the “output gap” for the Greek economy has been positive for the past three years.¹⁴ According to these estimates, excess demand has to a degree contributed to keeping inflation at a high level. However, other evidence suggests that

10 The average annual rate of increase in clothing-footwear prices fell noticeably to 1.8% in the first eight months of 2003, down from 3.9% in the corresponding period in 2002. This development appears to be partly due to the slower increase in the prices of imported goods of this type and partly to sluggish demand in the first months of the year. The retail sales volume of clothing-footwear grew at an average annual rate of 3.3% in the first half of the year, while total retail sales volume increased by 4.6%.

11 On the assumption that *all* cost-side inflation determinants (labour costs, profits, indirect taxes per unit of output, import prices in domestic currency) rise by less than 2%, then inflation will also be less than 2%.

12 The “output gap” is defined as the difference between the level of current output (GDP) and the level of potential output (level of potential GDP) as a percentage of the level of potential GDP. This figure is not directly measurable, but is estimated by various methods, and this should be taken into account when assessing the results of any analyses involving the “output gap”.

13 (i) European Commission, *Spring 2003 Economic Forecasts* April 2003, (ii) OECD, *Economic Outlook*, June 2003, (iii) IMF, *Greece: Staff Report*, June 2003.

14 In particular, estimates of a positive “output gap” range from 0.8 to 1.9 for 2002, with marginally higher figures expected for the current year (0.9 to 2.0).

there is still room for more intensive utilisation of productive capacity in some sectors of the economy: (i) the industrial capacity utilisation rate (on the basis of data from the IOBE) fell slightly in the first nine months of 2003, reaching 76.7% (down from 77.4% in the corresponding period of 2002 – see Chart 18); and (ii) the unemployment rate is still high, although it has been falling steadily (see Chart 28 on page 61).

It is estimated that unit labour costs in the *whole economy* are rising at a lower rate this year than in 2002 (2.5% compared with 3.4%),¹⁵ albeit higher than 2.0%, while average pre-tax earnings are increasing by 6.1%, compared with 7.2% in 2002 (see Table IV).¹⁶ The annual rate of increase in unit labour costs in the *business sector*,¹⁷ which has a more direct influence on price levels, is also expected to slow this year and to reach 1.8%, down from 2.0% in 2002 – i.e. a level lower than for the whole economy.

The level reached by unit labour cost growth in the *business sector* is, to start with, a reflection of developments in earnings. More specifically, in the non-bank private sector, on the basis of the two-year collective labour agreements (2002-2003) signed in 2002,¹⁸ as well as of those signed this year, it is estimated that the average annual rate of increase in contractual wages (at branch level) is falling to 5.0% in 2003, down from 5.7% in 2002.¹⁹ A similar average annual increase is expected for contractual earnings in *banks* and *public utilities*.²⁰ Account should also be taken of the fact that the favourable effect on annual unit labour cost growth (in the order of half a percentage point) of the reduction of businesses' non-wage labour costs due to the abolition of stamp duties as of 1 January 2002 has faded out since the beginning of 2003. However, given output growth, the very slight rise in the number of employees in the business sector (in the order of

0.5%) indicates an increase in productivity (despite the simultaneous increase in hours worked per employee), which in turn has led to a slight slowing of unit labour cost growth, as already noted. For *manufacturing* in particular (which accounts for 11% of GDP) the rate of increase in unit labour costs is expected to fall to 2.2% this year, down from 2.8% in 2002, given

15 To make these estimates, (nominal) unit labour costs are defined as the ratio of total compensation of employees to real GDP or –using an equivalent method– as the ratio of compensation per employee to productivity (measured as GDP per *salaried employee*). In the National Accounts they are defined differently, namely as the ratio of compensation per employee to productivity (measured, however, as GDP per *employed person in general*). Using the second definition (as is done by the NSSG and Eurostat), unit labour costs in the whole economy are expected to show an increase of 3.0% this year. The difference between the estimates arrived at by using the first and the second definition (2.5% and 3.0% respectively) is a reflection of the difference between the estimated rates of change in total employment and salaried employment this year (1.1% and 0.6% respectively). It is helpful to remember that, in the case of Greece, measuring productivity on the basis of the change in the ratio of GDP to total employment (as is done in the National Accounts) usually leads to an overestimation of the increase in productivity and thus to an underestimation of the increase in unit labour costs (this was the case in the years 1999-2000-2001, while in the years 2002 and 2003 the opposite was the case). Therefore, in its reports, the Bank of Greece prefers to measure the change in productivity on the basis of the change in GDP per salaried employee (see *Monetary Policy 2002-2003* Box 2, March 2003, pages 47-48, and *Annual Report 2002*, Box IV.2, April 2003, pages 151-53).

16 Compensation per employee, which includes employers' social security and other contributions, is estimated to be increasing by 6.0%, against 6.5% in 2002.

17 The business sector includes both public and private enterprises and banks.

18 According to these agreements, the corrective increase awarded from 1 January 2003 was small. As the average annual inflation rate was 3.6% in 2002, the corrective increase for those on minimum wages was 0.3% from 1 January 2003. For contractual earnings at branch level, however, which increased slightly more than minimum wages in 2002, the average corrective increase was smaller (just 0.1%, from 1 January 2003).

19 The average annual increase in minimum wages was 5.1% this year, against 5.4% in 2002.

20 For the banking sector, the collective agreement for 2002-2003 provides for a 3.8% increase in the current year. However, there are additional pay rises at enterprise level. Still, from the banks' summary income statements for the first half of the year, it can be seen that the increase in compensation per employee is low, most probably as a result of the continued influence of "negative wage drift" (drop in the level of average earnings due to the retirement of highly-paid staff and the recruitment of lower-paid staff). For the Public Power Corporation (DEH), the average contractual increase is estimated at 4.7% and for the Hellenic Telecommunications Organisation (OTE) at 5.3%.

Table IV

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

(Annual percentage changes)

	2000	2001	2002	2003 (estimate)
Average gross earnings (nominal) :				
– whole economy	6.5	5.2	7.2	6.1
– central government ¹	7.1	5.5	7.3	6.7
– public enterprises	13.7	8.2	11.2	7.0
– banks	6.8 ⁴	6.4	2.9 ⁶	3.4 ⁶
– non-bank private sector	5.0	5.3	6.5	5.8
Minimum earnings	4.2	3.5	5.4	5.1
Net² income of an employee with average earnings				
(nominal)	8.5 ⁵	3.8	6.7 ⁷	...
(real)	5.1 ⁵	0.4	3.0 ⁷	...
Total compensation of employees (including employers' social security and other contributions)	7.3	7.1	7.3⁸	6.6⁹
Compensation per employee	6.3	5.3	6.5⁸	6.0⁹
GDP¹⁰	4.2	4.0	3.8	4.0
Output per person-hour in manufacturing	3.2	2.5	3.1	3.6
Unit labour costs:				
– whole economy	3.0	3.0	3.4 ⁸	2.5 ⁹
– business sector ³	2.4	3.3	2.0 ⁸	1.8 ⁹
– manufacturing	2.2	3.0	2.8 ⁸	2.2 ⁹

1 Compensation per employee.

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

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

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

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

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

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

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

9 Including the increase (of 0.1% of gross earnings) in both employees' and employers' contribution for the Workers' Fund.

10 Revised NSSG estimates for the years 2000-2002. Bank of Greece estimates for 2003.

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

the significant drop in the number of employees,²¹ the estimated increase in overtime and the growth in productivity.²²

Finally, for *central government*, if the original forecasts of the 2003 Budget together with the evolution of outlays for wages and salaries over the first eight months and of employment over the first six months of the year are taken into account, outlays per employee are expected to rise by 6.7% eventually, i.e. almost as much as in 2002, and the total wage bill (excluding pensions) is estimated to go up by 8.5%, against 11.6% in 2002.²³

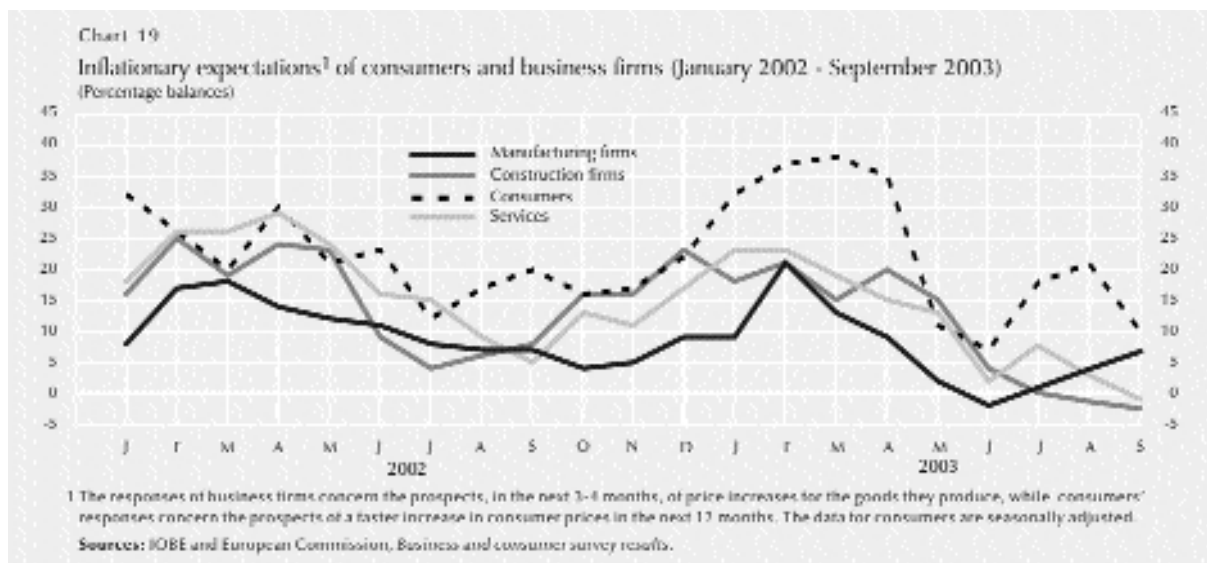
Short-term inflation prospects appear favourable,

at least according to the business surveys carried out by the IOBE during the first nine months of the current year for the manufacturing, construction and services sectors (excluding retail trade

²¹ According to the labour force survey carried out by the NSSG, the number of employees in manufacturing fell by 7.4% in the first quarter of 2003 and by 6.4% in the second one (in comparison with the corresponding quarters of 2002). This followed a drop of 3.8% in 2002 as a whole.

²² Calculations based on NSSG data indirectly show that output per employee in manufacturing rose at an annual rate of 7.1% in the first six months of 2003. However, if it is assumed that, at the same time, the average number of hours worked increased by approximately 3.0-3.5% (due to increased overtime), then output per person-hour grew 3.5-4.0% during this period. Owing to a lack of sufficient data, these estimates must be used with caution.

²³ Total outlays for wages and pensions are expected to increase by about 8% (compared with 10.5% in 2002).



and banks). The surveys showed that the percentage of businesses expecting the prices of the products or services they provide to rise²⁴ in the next 3-4 months increased in the first quarter of 2003 but then fell significantly and was much lower in the second and the third quarter than it was on average in 2002 (see Chart 19). The percentage of consumers who expect inflation to increase in the next twelve months (according to a survey carried out on behalf of the European Commission) followed a similar course. These developments in inflation expectations mainly reflect the waning of uncertainty surrounding developments in Iraq and the fact that conditions on the world crude oil market have more or less returned to normal.

If account is taken of the following:

- (i) the expected development, until the end of the year, of unit labour costs, demand and profit margins, as well as of prices for imported products;
- (ii) business and consumer expectations regarding inflation, which have already been mentioned;

- (iii) the more intense controls carried out by officials of the Ministry of Development into the fresh fruit and vegetables market;

- (iv) the commitment of certain businesses involved in the consumer goods trade (e.g. large chain stores), to freeze prices or contain price rises until the beginning of 2004; and

- (v) the drop in the prices of passenger cars and motorcycles since the beginning of September as a result of lower indirect taxation (classification fees), which was announced by the government on 2 September 2003,

it is expected that the annual rate of increase both of the HICP and of the CPI will fall further to around 3.2% in the last quarter of 2003 (compared with 3.8% for the HICP and 3.6% for the CPI in the last quarter of 2002). For 2003 as a whole, the average annual increase both of the HICP and the CPI is expected to be around 3.5%,

²⁴ To be precise: the positive difference between the percentage of businesses which predict that they will increase their prices and the percentage of those that forecast that they will reduce their prices.

Table V

Harmonised index of consumer prices: Greece and the EU (2001-2003)

(Annual percentage changes)

Country	2001	2002	Aug. 2002	Aug. 2003
Belgium	2.4	1.6	1.3	1.6
Denmark	2.3	2.4	2.4	1.5
Germany	2.4	1.3	1.1	1.1
Greece	3.7	3.9	3.8	3.3
Spain	2.8	3.6	3.7	3.1
France	1.8	1.9	1.8	2.0
Ireland	4.0	4.7	4.5	3.9
Italy	2.3	2.6	2.6	2.7
Luxembourg	2.4	2.1	2.0	2.3
Netherlands	5.1	3.9	3.7	2.2
Austria	2.3	1.7	2.1	0.9
Portugal	4.4	3.7	3.9	2.9
Finland	2.7	2.0	1.7	2.2
Sweden	2.7	2.0	1.7	2.2
United Kingdom	1.2	1.3	1.0	1.4
European Union	2.2	2.1	1.9	2.0
Euro area	2.3	2.3	2.1	2.1

Source: Eurostat.

i.e. slightly lower than in 2002 (when the HICP stood at 3.9% and the CPI at 3.6%).

2. Inflation differentials in the euro area and the case of Greece

As mentioned above, the inflation differential (as measured on the basis of the HICP) between Greece and the euro area as a whole remains considerable. It had fallen to 0.8 percentage point in 2000, but rose to 1.4 percentage points in 2001 and 1.6 percentage points in 2002. Then it dropped slightly to 1.5 percentage points in the first eight months of 2003 (1.2 percentage points in August). The core inflation differential, which had also stood at 0.8 percentage point in 2000, rose to 1.9 percentage points in 2001. It then decreased to 1.4 percentage points in 2002 and was contained to 1.1 percentage points in the first eight months of 2003 (1.0 percentage point in August – see Charts 10 and 11 and Table V).

Table VI

Contribution to the inflation differential between Greece and the euro area (2000-2003)

(Percentage points)

	Differential of average annual rates of HICP change	Contribution to the inflation differential stemming from the difference in the average annual rates of change:		
		in core inflation	in unprocessed food prices	in energy prices
2000	0.8	0.7	0.0	0.1
2001	1.4	1.6	0.1	-0.3
2002	1.6	1.2	0.4	0.0
2003 (8 months)	1.5	0.9	0.6	0.0

Source: Calculations based on EUROSTAT and ECB data.

As shown in Table VI, the inflation differential between Greece and the euro area in the first eight months of 2003 (totalling 1.5 percentage points) reflected the contribution of the core inflation differential (0.9 percentage point) and the

contribution of the differential in unprocessed food inflation (0.6 percentage point).

Inflation differentials among countries participating in a monetary union do not constitute a paradox;²⁵ they may reflect cyclical differences, asymmetric effects of changes in cost factors (e.g. crude oil prices), different degrees of flexibility in product and labour markets, national policy-induced price changes (e.g. changes in indirect taxation), different consumption patterns (reflected in the different composition of national consumer price indices) and the impact of the real convergence process experienced by countries with lower growth levels than other countries.

It has been found that the dispersion of inflation across the countries currently constituting the euro area dropped significantly in the 1990-1998 period (Stage One and Stage Two of the Economic and Monetary Union). From 1999 until now, such dispersion has remained almost unchanged at low levels and has not differed markedly from the dispersion of inflation across the US metropolitan areas (a monetary union created 211 years ago). Since 1999, certain euro area countries (Greece, Spain, Ireland, the Netherlands and Portugal) have been *steadily* showing a significant *positive* inflation differential (against the euro area average), while other countries (Germany, France and Austria) have been steadily showing *negative* differentials.

The Balassa-Samuelson effect²⁶ should be borne in mind when examining the impact of real convergence in Greece. According to this theory, when a country is in a process of economic convergence, higher productivity growth in the tradable goods sectors leads to higher wage rises, without adversely affecting unit labour costs and prices in the same sectors. When, however, high wage rises are “diffused” in the non-tradable

goods sectors (usually services), where productivity growth remains lower, then prices in the non-tradable goods sectors increase faster and overall inflation accelerates; still, competitiveness is not affected (since price increases concern non-tradable goods). Nevertheless, in the case of Greece, one should take into consideration the deregulation (actual or planned) of certain markets (e.g. air transport, telecommunications, electricity, coastal shipping) as well as the further integration of other markets (e.g. the banking market and some retail trade sectors) into the single European market. As a result:

- (i) at a cross-border level, some goods and, mainly, services become much more tradable than before and
- (ii) in any case, productivity is increasing faster and competition is enhanced in certain sectors (mainly in services) where in the past productivity growth lagged behind (compared to other sectors) or inadequate competition conditions led to higher price increases, thus significantly contributing to the positive differential of Greek inflation.

According to an earlier study of the International Monetary Fund,²⁷ the Balassa-Samuelson effect had a considerable upward impact on Greek infla-

²⁵ See (i) ECB, *Monthly Bulletin*, “Inflation differentials in a monetary union”, October 1999, (ii) ECB, *Monthly Bulletin*, Box 3: “The dispersion of inflation across the euro area countries and the US metropolitan areas”, April 2003, (iii) IMF, *Monetary and exchange rate policies of the euro area – Selected Issues* IMF Country Report No. 02/236, 2002, Chapter I, (iv) Mads Kieler, “The ECB’s inflation objective”, IMF Working Paper, May 2003, (v) ECB, *Monthly Bulletin*, “The outcome of the ECB’s evaluation of its monetary policy strategy”, June 2003 (pp. 85-86: “Sustained inflation differentials in a monetary union”), (vi) ECB, *Inflation differentials in the euro area: potential causes and policy implications* September 2003.

²⁶ See previous footnote.

²⁷ “The contribution of the Balassa-Samuelson effect to inflation: cross-country evidence” in IMF, *Greece: Selected Issues* December 1999 and *Greece: Staff Report*, November 1999.

tion.²⁸ More recent IMF studies include more up-to-date assessments on Greece and other euro area countries.²⁹ According to these reports, on the basis of 1995-2001 data, the “expected” – on account of the Balassa-Samuelson effect – differential of the annual rate of increase in HICP between Greece and the euro area (should the latter be 2%) would be equal to 0.7 percentage point.³⁰ If this assessment is viewed in terms of the current situation (when the rate of inflation in the euro area is indeed around 2%), one comes to the conclusion that – on the basis of these recent studies – the Balassa-Samuelson effect accounts for about one half of the inflation differential between Greece and the euro area in 2002 and 2003.³¹

Apart from the Balassa-Samuelson effect, there are also other factors³² explaining the positive inflation differential between Greece and the euro area:

– The Greek economy is currently in a different phase of the business cycle vis-à-vis the euro area (thus having a positive “output gap”, while the euro area has a negative one).

– The Greek economy is more sensitive to world oil price fluctuations, as domestic oil consumption per unit of GDP is higher than in the European Union.³³ Furthermore, fluctuations of the prices of fresh fruit and vegetables have a larger impact on inflation, as they weigh more in the HICP “basket”. In both cases, the inefficient operation of the respective markets (i.e. fuel and fresh fruit and vegetables) may strengthen or prolong the inflationary impact of an external shock (e.g. an increase in world crude oil prices or a steep drop, due to bad weather, of the supply of fresh fruit and vegetables).

– The lagging of the Greek against the European

economy as regards the efficient operation of the goods and services markets may strengthen the inflationary impact of external or internal shocks in other cases too.

A special factor behind the inflation differential is the positive differential of unit labour cost growth between Greece and the euro area, which has been observed for many years now. It should however be noted that, on the basis of Bank of Greece estimates, this differential has been considerably reduced in the past three years.³⁴ Of

28 More specifically, this effect accounted for one percentage point per year in the 1960-90 period (when average annual inflation was 11.8%), while it reached 1.7 percentage points in the 1990-96 period (when average annual inflation was 14%). A comparison with various other European countries indicates that, during the 1990-96 period, a significant part of the inflation differential between Greece and these countries (equal to 1.2 percentage points) is attributable to the Balassa-Samuelson effect.

29 See IMF, *Monetary and Exchange Rate Policies of the Euro Area – Selected Issues*, IMF Country Report No. 02/236, 2002, Chapter I. The same results are presented in greater detail in Mads Kieler, “The ECB’s inflation objective”, IMF Working Paper, May 2003.

30 A recent report by two National Bank of Greece researchers arrives at the same result. See N. Magginas – E. Panopoulou, “Benign and less benign inflation differentials with the euro area” in National Bank of Greece, *Greece: economic and market analysis*, April-May 2003.

31 The recent ECB study takes into consideration the two IMF studies (the one of 1999 and the latest of 2002) which indicate that, with inflation equal to 2% in the euro area, the “expected” upward deviation of Greek inflation would be 0.8 or 0.7 percentage point respectively. At the same time, it also takes into consideration a third report (Sinn and Reutter, 2001), according to which the “expected” deviation is 3.3 percentage points (!). Finally, the ECB study calculates the arithmetic mean of these three estimates, which gives the unreal result of an “expected” deviation of 1.6 percentage points. However, both the ECB study and the IMF study (2002) note that the methodology used by Sinn and Reutter overestimates the “expected” deviation.

32 See Bank of Greece, *Annual Report 2002*, April 2003, Chapter IV.1.3 (“The inflation differential between Greece and the euro area”).

33 This means that the *indirect* impact (from a change in oil prices) on goods and services is higher in Greece than in the EU. However, the *direct* impact happens to be lower, since household expenditure for energy constitutes a lower share of total *consumption* expenditure of households in Greece than in the euro area (and, as a result, energy weighs less in the Greek “consumer basket”).

34 In greater detail, the average annual differential between Greek and euro area unit labour costs (in the whole economy) during the 2001-2003 period has been positive and equalled 0.7-0.9 percentage point, depending on the definition used (see also footnote 15 above).

course, the positive differential of unit labour cost growth is in part the *other side* of the inflation differential – i.e. it is attributable to the same factors that were mentioned above. This occurs either because these factors affect inflation and – through inflation – wage demands, or because they directly contribute to the determination of wages (e.g. when the positive “output gap” or the inefficient operation of the labour market lead to excess demand for labour). However, the positive differential of unit labour cost growth in part constitutes an *autonomous* factor for the inflation differential, to the degree that it is attributable to differences in the way the labour market functions in Greece (compared with other euro area countries). These differences reflect, on the one hand, different legal frameworks governing industrial relations (mainly rigidities still remaining despite the reforms introduced since 1990) and, on the other hand, differences in the behaviour of the social partners (especially in the past, as both trade unions and employers’ associations have gradually come to adopt a much more responsible and constructive attitude during wage negotiations).

The *positive* inflation differential between a country (in this particular case: Greece) participating in a monetary union (the euro area) and the union as a whole may have effects on economic activity that are not all in the same direction. On the one hand, since *nominal* interest rates tend to be the same across the countries participating in the union,³⁵ *real* interest rates will be lower in the country with the highest inflation, and this will have an expansionary effect on domestic demand. On the other hand, a positive inflation differential leads to a higher real effective exchange rate, i.e. (to the extent it is not attributable to the Balassa-Samuelson effect) to a decrease in price competitiveness and –*ceteris paribus*– to a decrease in net exports and GDP. So the question is: which of

the two effects dominates and over what time horizon? Assuming that the inflation differential between Greece and the euro area remains stable and nominal interest rates do not change, a plausible conclusion is that the expansionary effect of low real interest rates (which also remain stable) will be exhausted after some time. By contrast, a stable inflation differential will lead to a new increase in the real effective exchange rate on an *annual basis* and the loss of competitiveness will *accumulate over time*. In the medium and the long run, the odds are that what will finally prevail will be the contracting effect of the loss of competitiveness and not the expansionary effect of lower real interest rates.³⁶

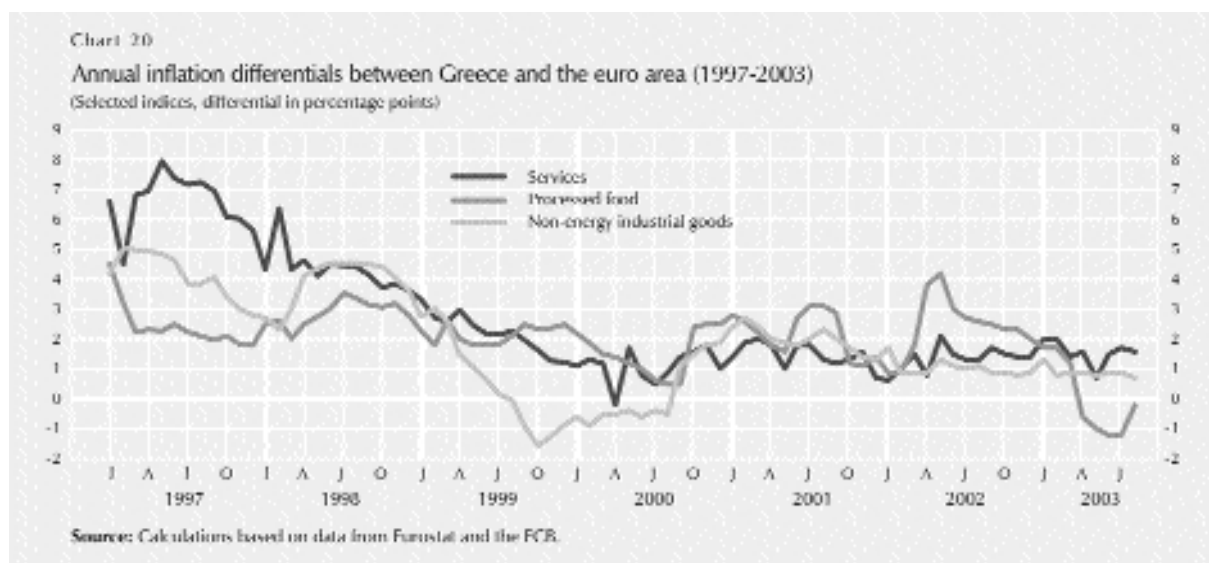
There is no doubt that the decrease in real interest rates has supported the high growth rates of demand and GDP observed in Greece in recent years,³⁷ offsetting the consequences of unchanged (in 2001) or even falling (in 2002 and 2003) price competitiveness (for the relaxation of monetary conditions, see also the chart in Box 4, Chapter V). In the years to come, however, the improvement of competitiveness – especially in the context of the enlarged European Union – will constitute a key prerequisite for sustaining high growth rates. Thus, as far as competitiveness is concerned, priority should be given to the elimination of the inflation differential as regards tradables (and, additionally in the case of Greece, tradable services, e.g. tourism).

It should also be noted that, on the basis of har-

³⁵ In practice, interest rates differ across the euro area, reflecting differences in the functioning of markets which have not yet disappeared, despite the pressure exerted by cross-border competition.

³⁶ See the most recent (September 2003) ECB report (mentioned in footnote 25), pp. 39-42.

³⁷ Of course, the largest part of the decrease in real interest rates reflected the reduction in nominal interest rates in the run-up to EMU entry. However, in the 2000-2002 period, it also reflected the acceleration of inflation and the increase in the positive differential between Greek and euro area inflation rates.



monised indices, the positive differential between Greece and the euro area as regards the average annual rate of increase in the prices of *non-energy industrial goods* (which constitutes an important category of tradable goods) narrowed significantly, from 2.0 percentage points in 2001 to 1.0 percentage point in 2002 and 0.9 percentage point in the first eight months of 2003. By contrast, the inflation differential in the sector of *services* (which, excluding tourism, are not tradable) remained almost stable or increased slightly (it was 1.4 percentage points in 2001 and 2002 and 1.6 percentage points in the first eight months of 2003). Finally, as regards *processed food* (which also constitutes an important category of tradable goods), the positive inflation differential rose slightly, from 2.2 percentage points in 2001 to 2.4 percentage points in 2002, but was almost eliminated (only 0.1 percentage point) in the first eight months of 2003 (see Chart 20).³⁸

3. Economic activity and employment – developments and prospects

According to the latest estimates of the Bank of Greece, which take into account economic developments in the first 6 to 9 months of 2003³⁹ and

prospects for the remaining months, GDP is expected to rise by 4.0% this year, i.e. slightly faster than in 2002 (3.8% based on revised data).⁴⁰ The Ministry of Economy and Finance arrives at the same estimate in the draft budget report for 2004 (see Table VII).⁴¹ On the basis of these forecasts, the Greek economy's growth rate this year will be the highest in the EU-15, while among the 30 OECD members Greece will be second only to South Korea.

The most recent provisional NSSG estimates (concerning the first and the second quarter of 2003) indicate that the annual growth rate of GDP was

³⁸ Revised data for 2001-2002. These three categories (non-energy industrial goods, processed food and services) constitute the "basket" for the calculation of harmonised core inflation.

³⁹ Depending on the availability of data regarding the various economic activity indicators.

⁴⁰ National accounts data for the period 1999-2002 were revised by the NSSG in September this year.

⁴¹ The International Monetary Fund arrived at the same estimate in its latest report on the world economy. See IMF, *World Economic Outlook*, September 2003. It should be noted that in June the Ministry of Economy and Finance had forecast that GDP growth for 2003 would be 3.8% (see *Biannual Report*, June 2003). This official estimate was not essentially different from forecasts published up to then by the European Commission (*Spring 2003 Economic Forecasts*, April 2003), the OECD (*Economic Outlook*, June 2003) and the IMF (*Greece: Staff Report*, June 2003), which concurred on a rate of 3.6%, as well as by the Bank of Greece, which had forecast in April a growth rate of 3.7% (*Annual Report 2002*).

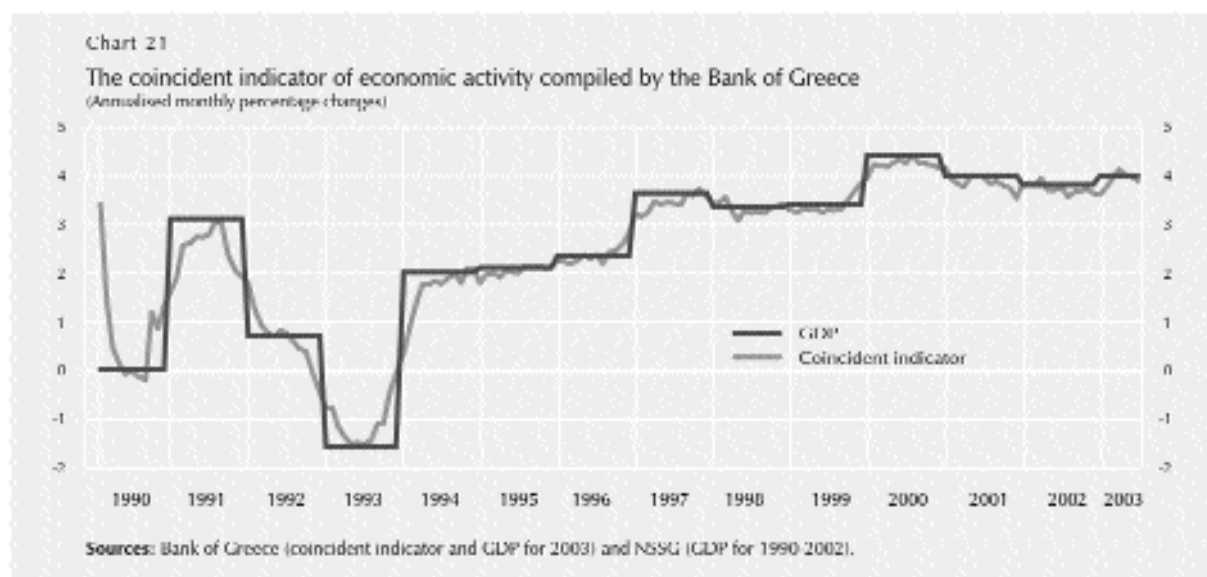
Table VII

Demand and gross domestic product (2001-2003)

(At constant market prices of year 1995, annual percentage changes)

	2001	2002 (estimate)	2003 (estimate)
Final consumption	2.3	3.2	2.7
Private consumption	2.9	2.8	3.1
Public consumption	-1.0	5.1	0.5
Gross fixed capital formation	6.5	5.7	9.7
Dwellings	4.8	8.8	...
Other constructions	8.2	0.7	...
Equipment	4.9	6.9	...
Other investment	20.1	20.8	...
Stocks and statistical discrepancy (percentage of GDP)	0.0	0.1	...
Domestic final demand	2.9	3.8	...
Exports of goods and services	-1.1	-7.7	1.9
Exports of goods	-1.6	-7.1	...
Exports of services	-0.7	-8.1	...
Imports of goods and services	-3.4	-4.7	3.0
Imports of goods	-4.2	1.1	...
Imports of services	-0.3	-26.6	...
Gross domestic product at market prices	4.0	3.8	4.0

Sources: NSSG/National Accounts Department (September 2003) for the years 2001 and 2002, Ministry of Economy and Finance estimates (draft budget for 2004) for 2003. For Bank of Greece estimates, see text.



4.4% in the first half of 2003, compared with 4.1% in the same period last year.⁴² Moreover, the coincident indicator of economic activity compiled by the Bank of Greece (see Chart 21),⁴³ points to a steady acceleration in economic activity, from 3.6% in January 2003 to 4.1% in April, and a slight

⁴² In the second half of 2002, the GDP annual growth slowed down to 3.4%.

⁴³ This indicator is compiled on the basis of short-term indicators on the supply and demand of goods and services. See Bank of Greece, *Monetary Policy 2002-2003* March 2003, Box 3. See also S.G. Hall and N.G. Zonzilos, "An indicator measuring underlying economic activity in Greece", Bank of Greece Working Papers, No.4, August 2003.

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

	2001	2002	2003 (available period)
Volume of retail sales ¹	4.4	4.5	4.6 (Jan.-June)
Food	2.3	4.5	4.3 (» »)
Clothing-footwear	3.3	2.8	3.3 (» »)
Furniture-household equipment	4.7	4.4	5.6 (» »)
Books-newspapers-office equipment	5.9	5.2	9.7 (» »)
Retail trade business expectations indicator	-8.0	1.2	6.7 (Jan.-Sept.)
New passenger car registrations	-4.4	-4.2	-4.4 (Jan.-Aug.)
Piraeus Port Authority (OLP) passengers	7.9	7.6	3.3 (Jan.-June)
Tax revenue from mobile telephony fixed charges	48.2	27.5	18.0 (Jan.-Aug.)
Outstanding balance of total consumer credit extended by banks	42.5 (Dec.)	24.2 (Dec.)	23.1 (Aug.)

1 Revised retail sales volume index (2000=100) excluding the value of VAT.

Sources: NSSG-Eurostat (retail sales), NSSG (cars), IOBE (expectations), Bank of Greece (consumer credit), Ministry of Economy and Finance (mobile telephony charges) and OLP.

Table IX
Retail sales value index (2003)
(Percentage changes over same period of previous year)

Categories	2003 (Jan.-June)
1 Big food stores	11.9
2 Department stores	6.7
3 Food-beverages-tobacco	3.0
4 Pharmaceuticals-cosmetics	9.7
5 Clothing-footwear	5.8
6 Furniture-electrical appliances-household equipment	5.7
7 Books-stationery-other goods	13.8
8 Retail sales not in stores	8.4
General retail sales value index	8.2

Source: NSSG.

slowdown thereafter, to 3.9% in July (annualised monthly rates).⁴⁴

On the demand side, GDP growth is being supported, in descending order, by strong growth in private consumption, business investment, residential investment and general government investment, as well as by a recovery in goods exports.

Specifically, *private consumption* growth (see

Table VIII) remains robust, as implied by a rise in retail sales volume (all goods except cars), at an annual rate of 4.6% during the first half of the year (See Table IX and Chart 22). Furthermore, even though the number of new passenger car registrations declined at an average annual rate of 4.4% during the first eight months of the year, sale volumes may recover after September, due to the indirect tax cuts announced by the government on 2 September 2003. Moreover, the increase of about 10% in the import bill for passenger cars during the first half of 2003 (see Table XIII.B on page 64) implies – given that prices increased at a much slower pace – an increase in the volume of car imports stemming from a rise in average engine capacity. It is estimated that the rise in private consumption will exceed 3%⁴⁵ (compared

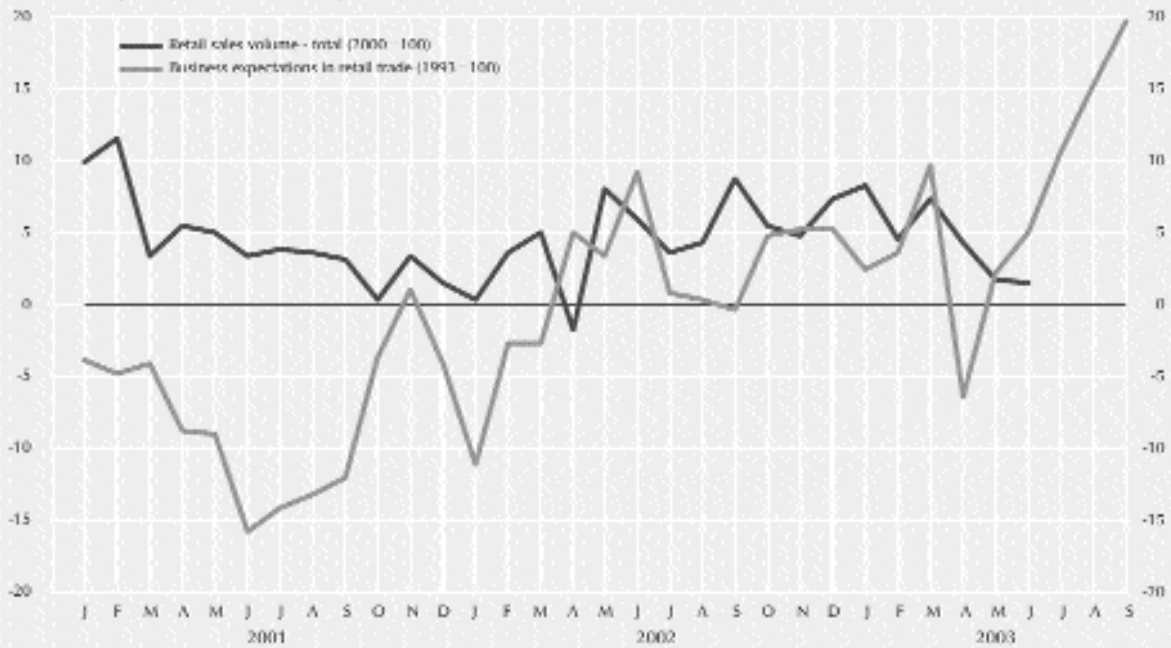
⁴⁴ By contrast, Greece's economic sentiment index (compiled by the European Commission but based exclusively on conjunctural survey findings) showed an almost continuous decline from November 2002 (98.8, with 2000=100) up to, and including, April 2003 (97.3), while it recovered in the five following months (98.3 in September).

⁴⁵ According to the NSSG's quarterly estimates on a national accounts basis, private consumption (at constant prices) grew at an annual rate of 4.0% in the first half of the year.

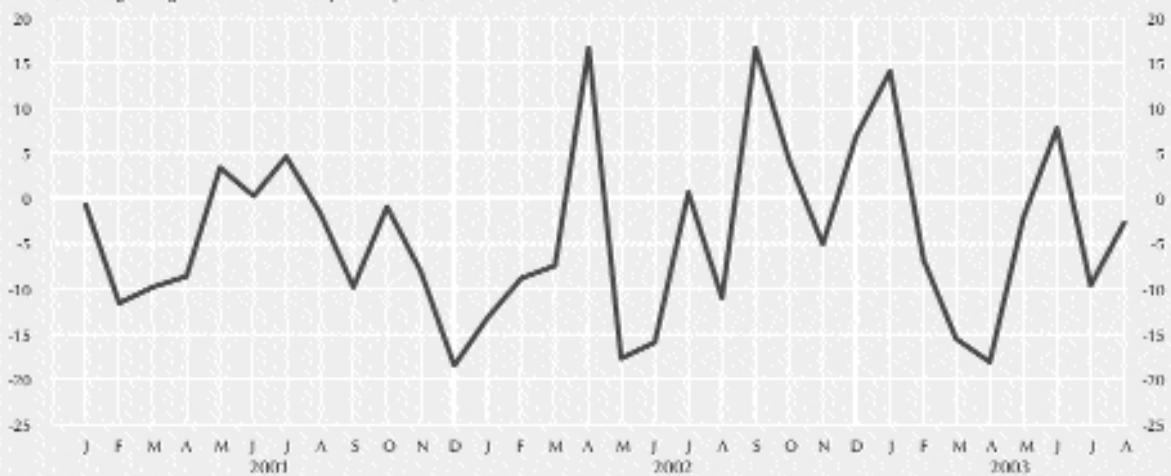
Chart 22

Consumer demand (January 2001 - September 2003)

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



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



Source: NSSG-Eurostat (retail sales), NSSG (cars) and IORF (business expectations). The revised index of retail sales volume is constructed excluding the value of VAT. The business expectations index is constructed on the basis of firms' estimates on sales and stocks, and of firms' forecasts on business activity for the next six months.

with 2.8% in 2002), supported by the growth of households' real disposable income; the latter reflects the expected rise of 2.5% in average real pre-tax earnings of employees, tax relief measures (which result in an even bigger rise in average real disposable income) as well as the increase in the number of employees and in total employment at a faster pace than in 2002 (see below). At the

same time, the annual growth rate of outstanding consumer loans remains high, although its overall trend is downward (23.1% in August 2003, compared with 24.2% in December 2002). Finally, the rise in the market value of households' assets continues to have a positive effect on private consumption. According to available evidence, the prices of dwellings –major assets of Greek

Table X
Dwelling price index

Period	Urban areas-total			Athens			Other urban areas		
	Index	Percentage changes		Index	Percentage changes		Index	Percentage changes	
	1997=100	Over previous period	Over corresponding period of previous year	1997=100	Over previous period	Over corresponding period of previous year	1993 IV=100	Over previous period	Over corresponding period of previous year
1994	76.1	...	...	73.4	9.5	9.5	106.0	...	...
1995	82.6	8.5	8.5	80.1	9.2	9.2	114.3	7.8	7.8
1996	91.2	10.5	10.5	88.9	11.0	11.0	125.7	10.0	10.0
1997	100.0	9.7	9.7	100.0	12.5	12.5	134.7	7.1	7.1
1998	114.4	14.4	14.4	115.5	15.5	15.5	152.6	13.3	13.3
1999	124.5	8.9	8.9	129.6	12.2	12.2	161.5	5.8	5.8
2000	137.6	10.5	10.5	149.1	15.1	15.1	171.2	6.0	6.0
2001	157.7	14.6	14.6	175.4	17.6	17.6	190.6	11.3	11.3
2002	178.2	13.0	13.0	203.8	16.2	16.2	208.8	9.5	9.5
2002 I	171.5	4.4	13.9	193.6	5.8	16.8	203.9	3.0	10.7
II	178.8	4.3	14.4	208.0	7.4	19.4	205.3	0.7	8.8
III	179.4	0.3	12.4	205.4	-1.3	14.9	209.9	2.3	9.7
IV	183.1	2.0	11.5	208.2	1.4	13.8	215.9	2.8	9.0
2003 I	187.2	2.3	9.2	214.6	3.1	10.8	219.0	1.4	7.4
II	186.9	-0.2	4.5	210.6	-1.8	1.3	223.0	1.8	8.6
2002 July	...	...	...	204.7	-1.4	15.6	...	...	...
Aug.	...	...	...	203.5	-0.6	14.6	...	...	...
Sept.	...	...	...	208.0	2.2	14.7	...	...	...
Oct.	...	...	...	205.5	-1.2	13.0	...	...	...
Nov.	...	...	...	211.6	3.0	14.1	...	...	...
Dec.	...	...	...	207.5	-1.9	14.2	...	...	...
2003 Jan.	...	...	...	212.2	2.3	13.1	...	...	...
Feb.	...	...	...	212.2	0.0	13.5	...	...	...
March	...	...	...	219.3	3.3	6.3	...	...	...
Apr.	...	...	...	213.5	-2.6	2.3	...	...	...
May	...	...	...	210.8	-1.3	1.5	...	...	...
June	...	...	...	207.6	-1.5	0.0	...	...	...
July	...	...	...	208.6	0.5	1.9	...	...	...

Sources: For the other urban areas: Bank of Greece (quarterly data). For Athens: calculations based on data from "Danos and Associates" (1993-97) and "Property Ltd" (monthly data for 1997-03). For all urban areas: weighted index based on the housing stock in Athens and the other urban areas.

households— continued to increase during the first quarter of 2003 in urban areas, but the rise came to a halt in the second quarter (see Table X). Overall, the annual growth rate of residential property prices during the first half of 2003 fell to 6.8% (from 14.1% in the same period in 2002); it is estimated, however, that at the same time the volume of dwellings grew faster (see below). Moreover, from April to August equity prices on the Athens Stock Exchange (ASE) showed a recovery, which nevertheless came to a halt in September.⁴⁶

However, the average level of equity prices for the period from January to September 2003 declined at a slightly slower rate than in the corresponding period in 2002 (-19.2%, compared with -22.4%).

On the basis of budget implementation data for the period January-August 2003, made public by the

⁴⁶ In September 2003, the ASE composite share price index was 37.7% higher than in March 2003 and 15.5% than in December 2002. Year-on-year, the rise was 9.9%.

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

	2001	2002	2003 (available period)
Capital goods output	5.1	-5.1	-6.1 (Jan.-July)
Investment expenditure (at current prices) of private industrial firms ²	-15.2 ³	-21.5 ⁴	10.2 ⁴
Capacity utilisation rate in the capital goods industry	(81.4)	(79.4)	(78.1) (Jan.-Sept.)
Disbursements out of the public investment budget	7.3	-9.4	37.9 (Jan.-Sept.)
Volume of private construction activity (on the basis of permits issued)	12.1	9.1	10.6 (Jan.-May)
Cement production	4.6	-2.3	-3.1 (Jan.-July)
Construction business expectations indicator	-5.6	0.1	-0.4 (Jan.-Sept.)
Outstanding balance of total bank credit to housing	38.9 (Dec.)	35.6 (Dec.)	27.3 (Aug.)

1 Excluding capacity utilisation.

2 Estimates of firms participating in the IOBE investment survey.

3 Estimate of the March-April 2002 survey.

4 Estimate or forecast of the March-April 2003 survey.

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

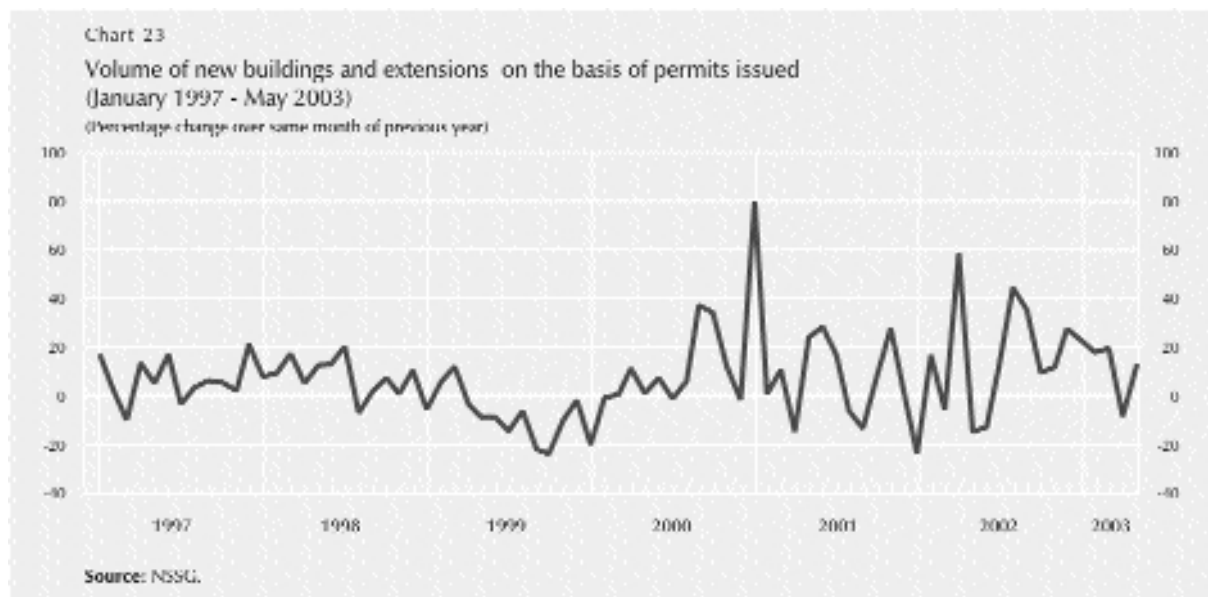
Ministry of Economy and Finance, *public consumption* is expected to rise at constant prices in 2003. This rise, however, will be far smaller than the considerable increase (5.1%, according to revised national accounts data) recorded in 2002. According to provisional quarterly estimates of the NSSG (based on national accounts data), public consumption rose by 2.9% at constant prices and by 8.9% at current prices over the first half of 2003. According to estimates for the whole year, taken from the draft budget report for 2004, the rise will be eventually limited to 0.5% (at constant prices). The number of civil servants grew at an annual rate of 1.7% in the first half of 2003 (1.4% in the first quarter and 2.1% in the second quarter).

Total gross fixed capital formation (see Table XI) is expected to increase, at constant prices, by about 8%, i.e. faster than in 2002 (5.7%).⁴⁷ Specifically, general government investment is expected to increase by almost 10% at constant prices.

According to Bank of Greece data, disbursements out of the Public Investment Budget (PIB) grew at an annual rate of 37.9% during the first nine months of 2003. It should be noted that this very high increase reflects: (i) PIB cutbacks in 2002 and the deferral of certain expenditures to 2003; (ii) the need to complete, within 2003, the major projects related to the Athens 2004 Olympics, or at least make significant progress towards their completion; and (iii) equity injections by the State to public enterprises. The latter factor is recorded under business investment, therefore not all PIB disbursements are recorded as general government investment in the national accounts.

Private residential investment is projected to increase substantially (by about 10%), as implied

⁴⁷ According to NSSG provisional quarterly estimates on a national accounts basis, total investment (at constant prices) rose by 7.9% during the first half of 2003.



by developments in private building activity. The volume of private construction activity on the basis of permits issued, which is a leading indicator, increased at an average annual rate of 9.1% in 2002 and by 10.6% in the first five months of 2003 (see Chart 23). This type of investment is supported by strong credit expansion: the rate of increase in outstanding housing loans, although decelerating, remains high (27.3% in August 2003, compared with 35.6% in December 2002).

Business investment is also expected to rise markedly (by about 7%). Specifically, according to recent estimates of the Ministry of Economy and Finance, investment by public enterprises⁴⁸ should increase by about 20% (at current prices). Moreover, business investment in telecommunications, hotels, coastal shipping, as well as in other services industries, is estimated to be very buoyant in the run-up to the Olympic Games. The rise in investment in these branches is expected to overshoot the rather subdued recovery of investment in manufacturing. Specifically, according to the March 2003 investment survey of the Foundation for Economic and Industrial Research (IOBE), private manufacturing firms expect a

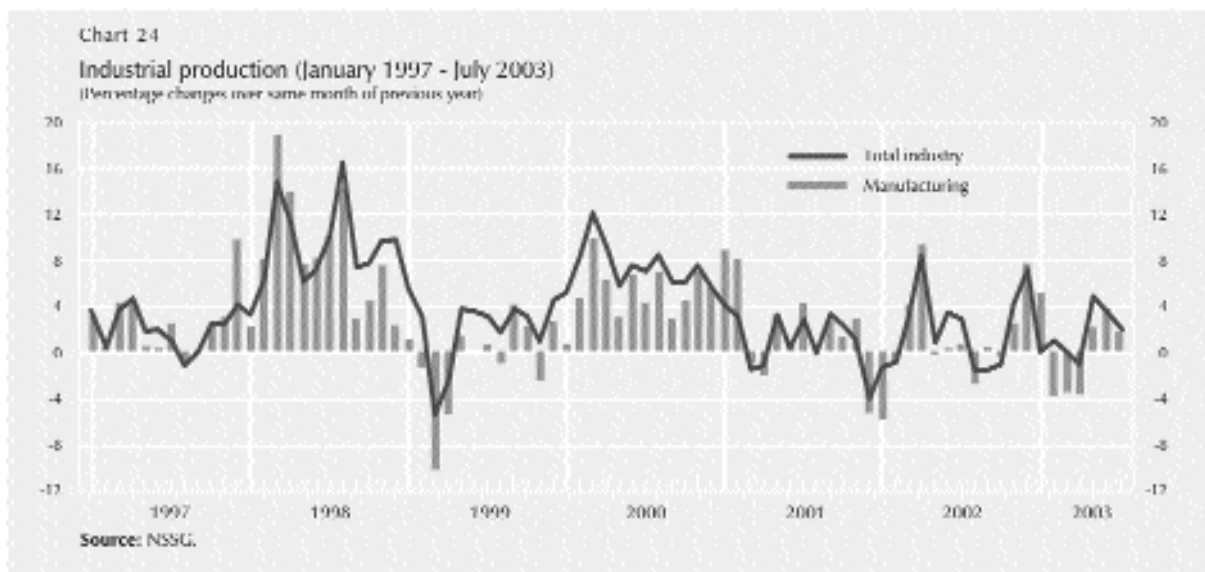
10.5%⁴⁹ rise in their investment expenditure (at current prices) in 2003 (against a 21.5% decline in 2002), whereas, according to a more recent survey jointly conducted by the Federation of Greek Industries (SEB) and ICAP,⁵⁰ investment expenditure will increase by only 4.6% (compared with a 37.7% reduction in 2002, based on the same survey). Regarding the *financing of manufacturing* investment expenditure, it should be noted that the SEB-ICAP survey found that firms expected an increase of 20.3% in profits before tax per firm this year, compared with just 7.6% in 2002. Also, credit expansion to industry is accelerating: its annual rate reached 15.1% in August 2003, compared with 13.9% in December 2002 and 7.9% in August 2002.⁵¹ Finally, concerning the *financing of total business investment*, the following should be taken into account: (i) the significant increase in net profits before tax of ASE-listed firms during the first half of 2003; (ii) the considerable accel-

⁴⁸ OTE is no longer included.

⁴⁹ As evidenced by previous IOBE surveys, initial forecasts by enterprises usually prove overly optimistic.

⁵⁰ The survey (*The Greek industry: estimates for 2002 and prospects for 2003*) was released on 12 June 2003.

⁵¹ Data include short-term loans for working capital.



eration of the annual growth rate of *outstanding corporate loans with a maturity of over a year*, to 26.8% in June 2003, from 17.1% in December 2002 and 12.9% in June 2002;⁵² and (iii) the doubling of total funds raised through the stock market in the form of share capital increases during the first nine months of 2003, compared with the same period last year (see Chapter IV.4.2).

The *real external balance on a national accounts basis*⁵³ is expected to have a negative contribution to GDP growth in 2003 as well, because, although exports of goods and services are expected to recover and rise by about 2.5% (following a 7.7% decline in 2002⁵⁴), imports will grow much faster by some 3.5%, compared with a 4.7% decline in 2002. Specifically, exports of goods show a notable recovery, whilst exports of services, which had declined in 2002, show no change.⁵⁵ Given that, at the same time, imports of goods and services are increasing in 2003,⁵⁶ having declined last year, and also given that the volume of imports is significantly higher than that of exports, it follows that the contribution of the real external balance to GDP growth will be around -0.5 percentage point, slightly higher than in 2002 (-0.4 percentage point).

On the *supply side*, data on the evolution of agricultural production are insufficient, while, as noted in the foregoing discussion of developments on the demand side, activity in construction and retail trade has risen significantly. It is also worth noting the continuing growth of telecommunications services.⁵⁷ Moreover, total industrial production⁵⁸ rose at an average annual rate of 1.5% during the first seven months of the year, but manufacturing production remained unchanged (see Chart 24). It is encouraging, however, that the annual rate of change in manufacturing production, which was

⁵² During the first eight months of the year, the outstanding balance of these loans increased by 16.1%.

⁵³ Defined as the difference between exports and imports of goods and services, at constant prices.

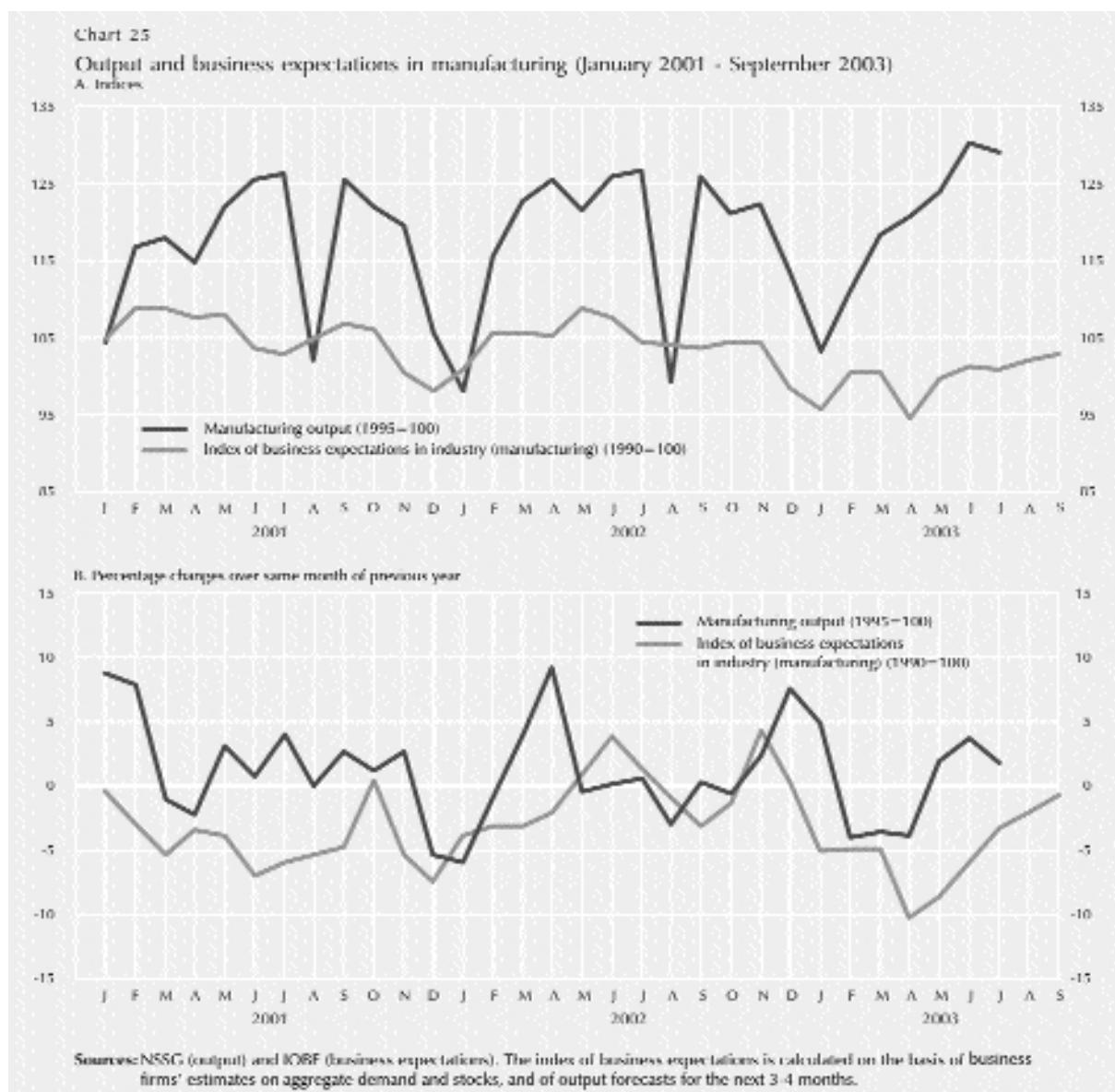
⁵⁴ According to revised national accounts data (NSSG, September 2003).

⁵⁵ Current account data suggest a reduction in exports of travel services (i.e. a decline in tourist spending in Greece) and an increase in exports of transport services.

⁵⁶ According to NSSG data, the value of imported goods increased at an average annual rate of 16.0% in the first half of 2003, while, according to Bank of Greece data, payments for imports of goods increased by 3.1% during the first seven months of the year. However, imports of services are estimated to have declined, given that payments for such imports declined at an average annual rate of 9.0% during the first seven months, as indicated by current account data. This decline mainly reflects a steep drop (22.7%) in Greek tourist spending abroad.

⁵⁷ Public revenue from mobile telephony fixed charges rose at an average annual rate of 18.0% during the first eight months of the year.

⁵⁸ Including – in addition to manufacturing – mining, quarrying and electricity, as well as water and natural gas supply.



steadily negative from February to April 2003,⁵⁹ turned positive, averaging 2.5% in the May-July period (see Chart 25). This development is corroborated by the Purchasing Managers' Index (PMI), which implies that manufacturing output rose steadily during the May-September period (while in March and April the index pointed to a decline – see Chart 26). Developments in manufacturing are more directly affected by the slow recovery in Greece's main trading partners,⁶⁰ as well as by a decline in the price competitiveness of Greek products (due to the appreciation of the euro and the inflation differential).⁶¹

⁵⁹ The rate was strongly positive in January 2003, owing to base-effects from the sharp drop in manufacturing production in January 2002, which was associated to bad weather.

⁶⁰ GDP growth rate is estimated to be decelerating in the euro area (to about 0.5%, compared with 0.8% in 2002) and in the EU and to be accelerating only slightly in the world economy (3.2%, from 3.0% in 2002 – see Chapter II).

⁶¹ The decline in the price competitiveness of Greek products is reflected in the estimated rise of about 3.5% in the real effective exchange rate of the euro (weighted on the basis of Greece's external trade and using relative unit labour costs in manufacturing) this year, compared with 1.8% in 2002. The rise in this index reflects mainly the appreciation of the euro and, less importantly, the positive differential of unit labour cost growth in manufacturing between Greece and its competitor countries. It should be noted that the strengthening of the euro affects exporters' pricing policies and leads to an only limited rise, or even a decline, in the prices of exported goods in euro terms, so as to contain price increases in foreign currency and thus prevent a decline in the market shares of Greek firms in world markets (see Table XII).



Table XII

Export price index and effective exchange rate of the currency (2002-2003)

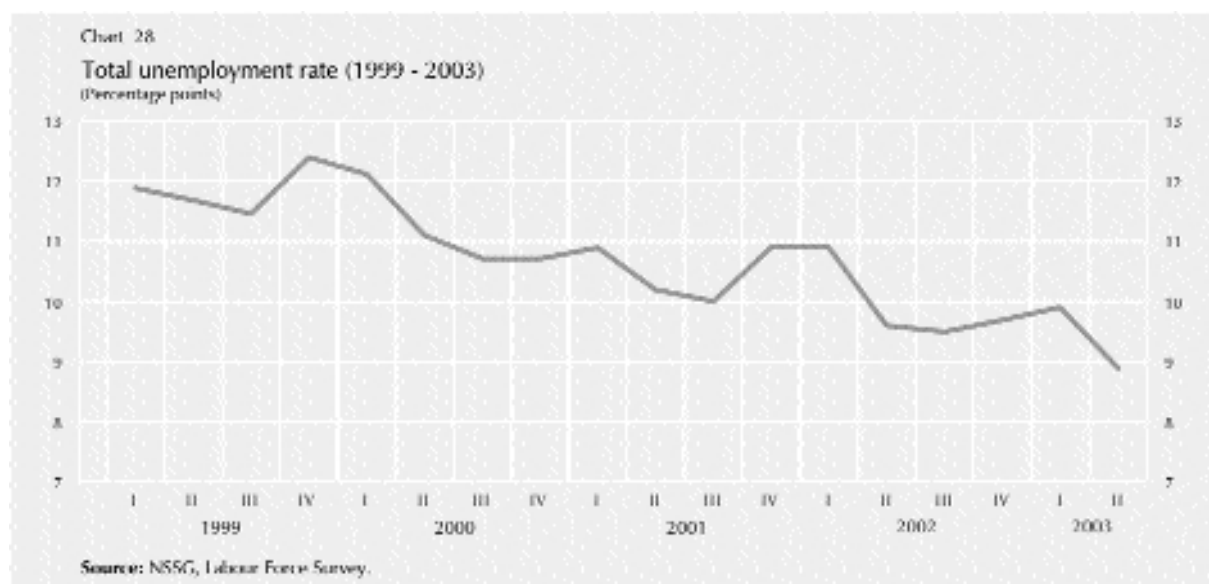
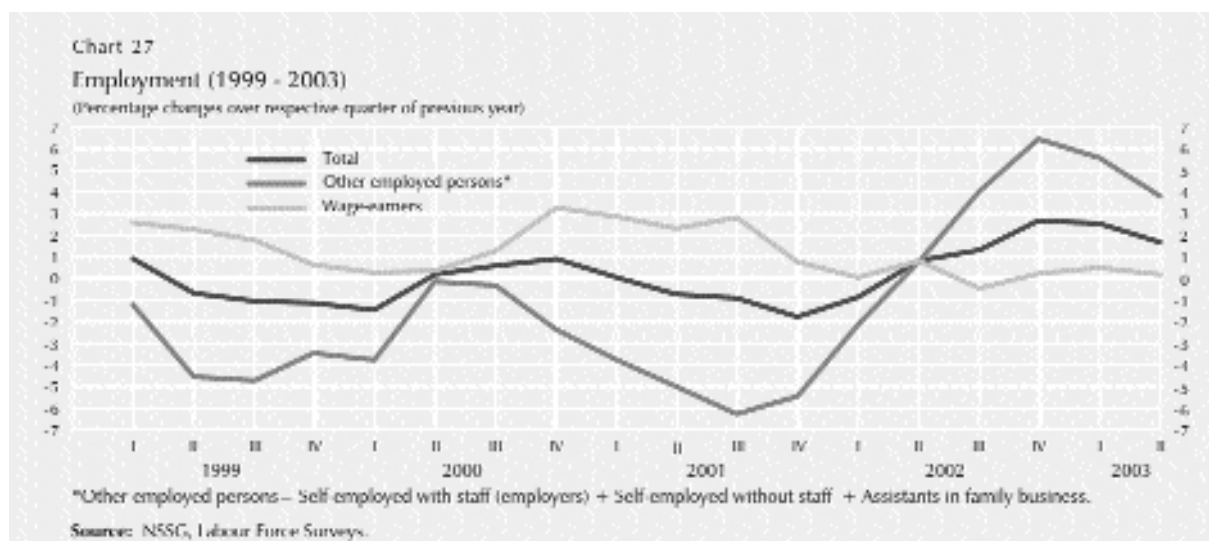
(Percentage changes over same month of previous year)

	Effective exchange rate of domestic currency	Wholesale prices of exported products			
		Total		Excluding oil	
		In domestic currency	In foreign currency	In domestic currency	In foreign currency
2002 Jan.	-0.3	2.4	2.1	3.9	3.7
Feb.	-0.2	1.9	1.7	4.1	3.8
March	-0.4	2.8	2.4	3.6	3.2
Apr.	0.0	2.8	2.8	3.7	3.8
May	1.0	1.2	2.2	3.0	4.0
June	1.9	-0.3	1.6	1.2	3.2
July	2.0	0.5	2.5	1.4	3.3
Aug.	1.1	1.6	2.7	2.2	3.3
Sept.	1.1	1.7	2.8	1.6	2.7
Oct.	1.2	3.2	4.5	2.0	3.2
Nov.	1.8	2.2	4.1	1.2	3.0
Dec.	1.8	2.7	4.5	1.0	2.8
2003 Jan.	2.4	1.4	3.7	-1.0	1.3
Feb.	3.0	1.9	4.9	-1.4	1.6
March	3.2	0.0	3.2	-1.5	1.6
Apr.	3.3	-2.2	1.0	-1.3	1.9
May	3.9	-3.3	0.5	-2.4	1.4
June	3.4	-0.3	3.1	-0.2	3.2
July	2.8	0.7	3.5	0.3	3.1
Aug.	2.7	0.7	3.3	0.1	2.7

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

Developments in *employment*, according to available data and indications, are clearly better than in 2002. Following average annual increases of 1.0% in total employment and just 0.2% in the number

of employees in 2002, total employment in the first half of 2003 rose at an annual rate of 2.1% and the number of employees by 0.4%, according to the NSSG labour force survey (see Chart 27). At

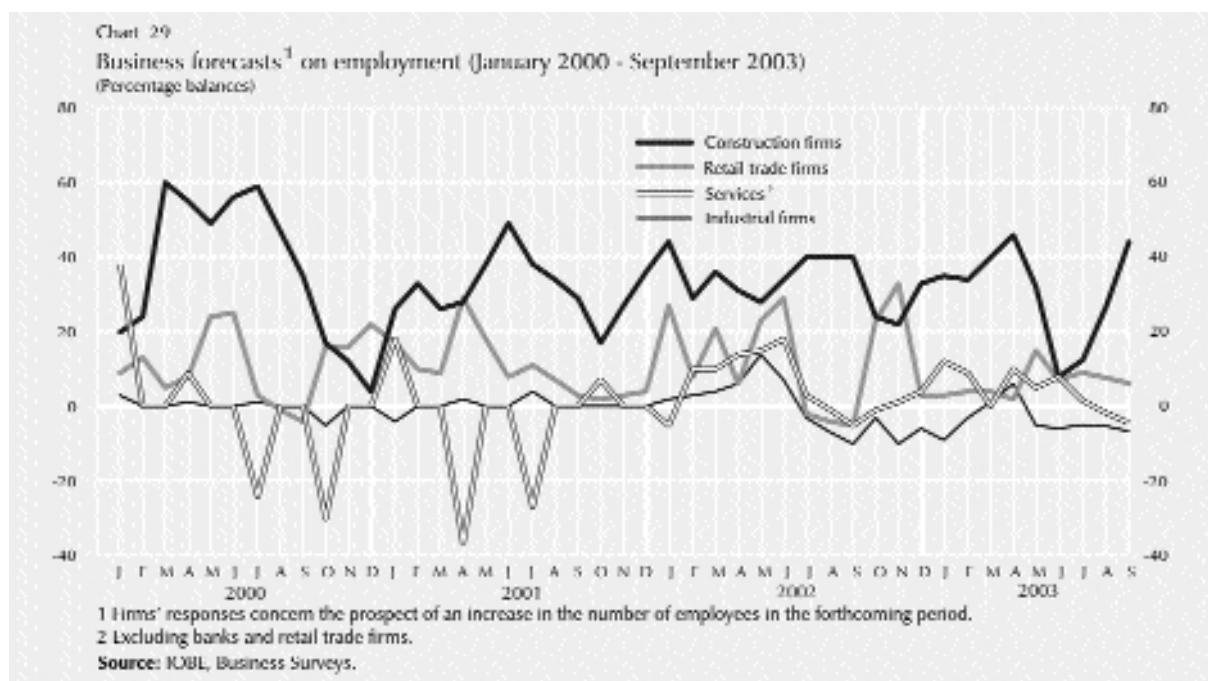


the same time, the unemployment rate declined to 8.9% in the second quarter and averaged 9.4% in the first half of 2003 (compared with 10.3% in the same period of 2002 – see Chart 28). *It is worth noting that the increase in employment by 82,000 in the first half of 2003 (relative to the same period of 2002) reflects both a drop in the number of jobless by 35,000 and the entry of 47,000 into the labour force. It is also interesting that the rise in employment over the same period concerned in its entirety the fully employed, while part-time and temporary employment declined.*⁶²

As concerns sectoral dynamics, the NSSG survey reports a considerable increase in agricultural employment (*contrary to the historical trend*)⁶³

⁶² In the first half of 2003, the number of full-time employees increased by 87,000, while part-time employees declined by 5,000, compared with the same period in 2002. Temporary employment (that is, workers with fixed-duration contracts) declined by 10,000 in the first quarter of 2003, compared with the same period in 2002.

⁶³ Employment in agriculture had shown a positive annual rate of change since the third quarter of 2002. The reversal of this trend may be connected to the legalisation of immigrant workers and the fact that many of them are employed in agriculture and have been insured in the Farmers' Insurance Fund (OGA).

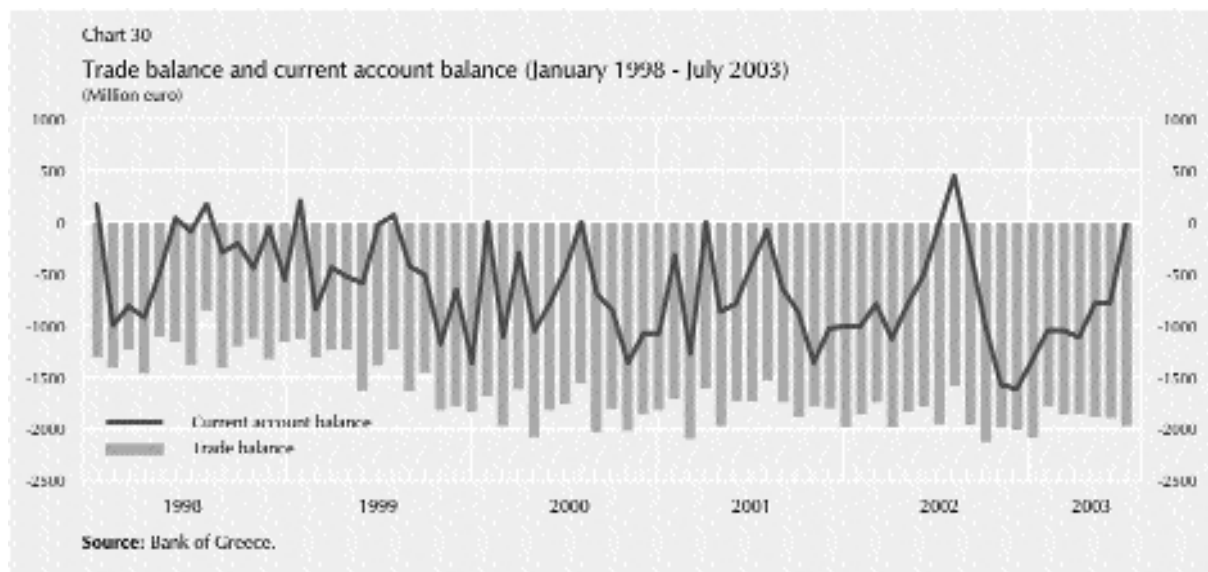


and a significant further decline in manufacturing employment. In the first half of 2003, non-agricultural employment increased at an average annual rate of 1.5%, i.e. slightly less than employment in the whole economy, while the number of employees outside manufacturing increased by 1.8%. It is characteristic that, while the number of employees in manufacturing dropped at an average annual rate of 6.9% in the first half of the year, it rose by 8.1% in construction and by 7.6% in transport-storage-communications. Therefore, an increase in employment is observed in sectors related to preparations for the Olympic Games. In hotels-restaurants, the number of *employees* declined by 0.2%, but total employment, which includes the self-employed, increased by 3.9%. This suggests that the rise in domestic tourism more than offset the decline in foreign tourist arrivals.

These estimates are confirmed by firms' expectations as regards salaried employment, which are recorded in the IOBE business surveys (see Chart 29). Specifically, construction firms' employment

expectations were strongly positive in the first three quarters, while also positive were the expectations of retail trade and services firms (excluding the third quarter of 2003 and hotels-restaurants and travel agencies). By contrast, manufacturing firms expect either no change or a drop in employment, as recorded both in the IOBE and the PMI surveys. Finally, data on employment flows from the Manpower Employment Organisation (OAED) imply continuing job creation in the *private sector*. While the net employment flow (net job creation) was negative from October 2002 to January 2003 (and again in March 2003), it became strongly positive in February and during the second quarter of 2003. In July and August, the flow turned negative again, probably reflecting the decline of salaried employment in tourism. Overall, for the entire *January-August period*, a net positive flow of 77,000 jobs was recorded.⁶⁴

⁶⁴ The net employment flow (hiring minus layoffs and voluntary quits or retirement) should be treated with caution, because voluntary quits are not accurately recorded.



4. Developments and prospects of the balance of payments

4.1 Current account

According to the latest available data for the first seven months of 2003, the current account deficit amounted to € 5,776 million, up by € 866 million compared with the same period of 2002 (see Chart 30). Specifically, during the period under review, the non-oil trade deficit decreased, whereas the services surplus increased. These positive developments were more than offset by the widening of the oil and income account deficits, as well as the decline of the transfers surplus, thereby ultimately increasing the current account deficit.

For the year as a whole, the current account deficit as a percentage of GDP is expected to stand close to the levels observed in the past two years (6.1% in 2002 and 6.2% in 2001). In the last few years, the size of the deficit has been linked, to a significant degree, with the higher growth rate of the Greek economy compared with its major trading partners and, to some extent, with

price competitiveness losses. However, the increase observed in recent years in the current account deficit could adversely affect the growth prospects of the economy if it becomes a permanent feature. Nevertheless, it should be noted that, to a large extent, the widening of the deficit is a direct consequence of the entry of the country into the euro area and, in this sense, it is a temporary phenomenon. In accordance with two recent studies,⁶⁵ the considerable narrowing of real interest rate spreads between Greece and the euro area, owing to the integration of financial markets caused by the country's participation in the monetary union, has led both to reduced domestic savings and increased investment expenditure, thereby contributing to relatively large current account deficits. Blanchard and Giavazzi have estimated that the rise in the current account deficit stemming solely from the convergence of real interest rates owing to the country's entry into the euro area is in the order of 1.5% of GDP.

⁶⁵ (i) Blanchard, O. and F. Giavazzi, "Current account deficits in the euro area: the end of the Feldstein-Horioka puzzle?", *Brookings Papers on Economic Activity* 2002/2, (ii) IMF, Greece: *Selected Issues*, June 2003, Chapter II.

Table XIII

Breakdown of Greece's non-oil external trade by product category

A. Export receipts

	Percentage share of each product category in total export receipts					Percentage change in export receipts		
	2000	2001	2002	2002 Jan.-June	2003 Jan.-June	2001/2000	2002/2001	Jan.-June 03/ Jan.-June 02
Agricultural products	17.0	17.1	19.3	19.5	23.8	14.9	6.4	32.9
Chemicals, plastics	8.6	8.0	11.0	11.1	12.8	5.0	30.0	21.9
Manufacturing (excluding metallurgy)	19.9	17.7	19.2	20.3	21.1	1.8	1.7	10.6
Metallurgy	10.6	9.5	8.6	8.6	7.8	2.4	-14.4	-3.2
Machinery, appliances	4.7	5.6	5.4	4.4	8.0	37.1	-9.5	95.7
Transport equipment	0.4	0.4	0.7	0.4	1.4	32.9	54.4	295.0
Other goods	0.0	0.0	0.0	0.0	0.0	122.4	-87.0	-84.4
Non-classified goods ¹	38.9	41.7	35.8	25.2	25.2	22.1	-19.2	-25.6
Total	100.0	100.0	100.0	100.0	100.0	14.0	-5.9	6.6

B. Import bill

	Percentage share of each product category in the total import bill					Percentage change in the import bill		
	2000	2001	2002	2002 Jan.-June	2003 Jan.-June	2001/2000	2002/2001	Jan.-June 03/ Jan.-June 02
Agricultural products	13.7	14.2	14.7	14.3	14.4	6.6	4.0	-0.4
Chemicals, plastics	12.8	15.1	16.7	16.2	15.6	21.7	10.6	-4.5
Manufacturing (excluding metallurgy)	20.4	21.8	21.9	21.8	22.0	10.3	0.5	0.0
Metallurgy	7.9	7.9	8.1	7.7	9.4	2.8	3.1	19.8
Machinery, appliances	21.8	22.4	21.4	20.8	21.4	5.8	-4.1	2.0
Consumer durables	3.8	4.2	3.5	4.1	3.7	12.3	-15.2	-11.4
Capital goods	12.6	12.9	13.0	11.5	13.3	5.5	0.6	13.6
Computers	2.7	3.0	2.3	2.9	1.8	12.4	-22.4	-34.4
Fixed-voiced and mobile telephony	2.6	2.3	2.6	2.2	2.5	-8.9	12.3	14.0
Transport equipment	12.3	12.0	12.8	12.3	15.3	0.8	6.5	23.4
Passenger cars	6.6	6.4	7.3	6.3	7.0	0.2	14.7	10.2
Other goods	0.3	0.7	0.4	0.5	0.3	133.6	-47.9	-30.3
Non-classified goods ¹	10.8	6.1	4.0	6.4	1.6	-42.0	-33.4	-75.4
Total	100.0	100.0	100.0	100.0	100.0	3.2	0.0	-0.9

¹ Products without code number.

Source: Bank of Greece.

Trade balance

In spite of the slow pace of economic recovery of Greece's trading partners, export activity shows a clear upturn, given the increasing penetration of certain Greek products, such as chemicals and telecommunications equipment, into international markets. On the other hand, the uncertainty connected with the war in Iraq has been lifted, but

weighed heavily on the net oil import bill on an annual basis.⁶⁶ By contrast, the non-oil import bill

⁶⁶ The €572 million increase in the net oil import bill partly reflects the rise in oil prices world-wide at the beginning of 2003 (owing to the uncertainty surrounding developments in Iraq). During the period under review, the share of the oil import bill in the total value of imports amounted to 16% and the share of oil export receipts in the total value of exports amounted to 12%, while the net oil deficit represented 18.5% of the trade deficit.

remained almost unchanged, in spite of the relatively fast growth of domestic economic activity and low interest rates.

Although the *non-oil* trade deficit fell by 3.4%, the 30.5% rise in the net oil import bill during January-July 2003 led to a small increase (+1.4%) in the *total* trade deficit compared with the seven months of 2002. The non-oil trade deficit was €384 million lower than that of 2002, mainly owing to the 5.2% increase in export receipts, whereas the import bill remained substantially unchanged (-0.6%) over the same period.⁶⁷ Taking the change in prices into consideration (on the basis of the respective wholesale price indices compiled by the NSSG), it is estimated that the non-oil export volume increased by about 6.5% and the non-oil import volume decreased by 1.5%, compared with the same period of 2002.

According to available Bank of Greece data on the breakdown of non-oil export receipts by product category (see Table XIII.A), exports in almost all categories picked up in the first half of 2003. Specifically, exports of agricultural products, as well as mechanical and electric equipment, had the largest share in the overall growth of export receipts. The first category comprises mainly exports of traditional products (such as dairy products and fruit juices), the quality, range and trading methods of which have been substantially improved. The second category, comprising several non-traditional products (such as telecommunications material) still represents a relatively small share of total export receipts. Moreover, a significant increase is recorded in exports of chemical products (mainly pharmaceuticals and plastics), whose share in total export receipts has risen substantially in the last few years.

The non-oil import bill remained more or less unchanged in the first half of 2003 compared with

the same period of 2002. In accordance with detailed Bank of Greece data (see Table XIII.B), imports of chemicals, especially pharmaceuticals, decreased. The import bill for agricultural and manufactured products (except metallurgical and chemical products) remained unchanged compared with the first half of 2002. By contrast, there was an increase in imports of metallurgical products (mainly iron, steel, aluminium and bauxite), transport equipment and machinery and appliances. Specifically, the rise in imports of transport equipment is mainly due to increased payments for imports of means of sea and air transport, as well as passenger cars. Increased payments for imports of machinery and appliances mainly concern capital goods.

Regarding the geographical breakdown of exports (see Table XIV.A), it is worth mentioning that, on the basis of the latest available NSSG data for the first half of 2003 compared with the same period of 2002, the proportion of exports to the euro area and the EU in general increased, while exports to non-EU countries declined (except the Balkans, the share of which remained substantially unchanged, and excluding the USA). This development should be attributed, to a large extent, to the appreciation of the euro. No significant change was observed in the geographical breakdown of imports (see Table XIV.B).

Services balance

The services surplus grew by 6.9% to €5,922 million during the seven months January-July 2003 compared with the same period of 2002, owing to

⁶⁷ In the corresponding seven-month period of 2002, non-oil export receipts declined by 7% and the non-oil import bill remained virtually unchanged (-0.6%). In 2003, the commodity trade statistics compiled by the NSSG show an average increase of 7.9% in non-oil export receipts for the first half of the year. However, non-oil imports have also increased (by 14.3% compared with the same period of 2002).

Table XIV

Breakdown of Greece's external trade by geographical area

A. Exports

	Percentage share in the value of total exports					Percentage change in the value of exports		
	2000	2001*	2002*	2002* Jan.-June	2003* Jan.-June	2001/2000	2002/2001	Jan.-June 03/ Jan.-June 02
European Union (15)	47.3	42.0	43.5	42.6	47.5	-18.9	-3.3	17.1
Euro area	38.5	32.3	35.2	34.4	38.5	-23.4	1.6	17.7
Acceding countries	7.6	9.2	8.8	9.7	8.0	14.9	-13.5	-13.3
USA	5.4	5.5	5.3	5.9	7.5	-7.9	-9.3	33.4
Other OECD countries ¹	8.0	6.9	6.4	7.2	6.5	-21.5	-12.6	-4.3
Balkan countries ²	14.7	18.4	16.6	16.2	16.3	13.9	-15.6	5.6
Commonwealth of Independent States	3.2	4.3	4.3	3.9	3.1	22.2	-5.8	-15.9
Northern Africa & Middle East countries ³	6.8	6.7	7.1	6.9	5.1	-10.4	-1.2	-22.0
Other countries	7.0	7.3	7.9	7.6	6.0	-10.6	7.1	-17.4
Total	100.0	100.0	100.0	100.0	100.0	-8.6	-6.7	5.1

B. Imports

	Percentage share in the value of total imports					Percentage change in the value of imports		
	2000	2001*	2002*	2002* Jan.-June	2003* Jan.-June	2001/2000	2002/2001	Jan.-June 03/ Jan.-June 02
European Union (15)	61.0	54.5	52.2	53.3	53.6	-21.6	-0.5	22.4
Euro area	52.0	47.3	46.3	47.2	47.0	-20.2	1.6	21.1
Acceding countries	1.8	2.0	2.0	2.2	1.8	-2.2	4.0	-2.2
USA	3.2	3.5	4.7	4.0	3.3	-5.3	40.3	-1.4
Other OECD countries ¹	7.3	7.3	7.2	4.9	8.7	-13.0	3.3	72.6
Balkan countries ²	2.8	3.6	2.7	2.6	2.7	14.0	-21.2	23.6
Commonwealth of Independent States	1.9	4.7	6.6	6.7	7.4	114.3	45.0	34.3
Northern Africa & Middle East countries ³	9.8	10.4	7.0	7.4	6.7	-6.3	-30.6	9.8
Other countries	12.2	14.0	17.7	18.9	16.0	0.8	30.8	2.7
Total	100.0	100.0	100.0	100.0	100.0	-12.3	3.9	21.7

1 The OECD Member States not included in any other category (except for Mexico and South Korea).

2 Albania, Bulgaria, Romania and former Yugoslavia countries (Bosnia, Croatia, FYROM and New Yugoslavia).

3 Greece's major trading partners in Northern Africa and the Middle East.

* Provisional data.

Source: NSSG.

increased net receipts from transport services following the rise in international freight rates. This rise, the absolute size of which was limited by the appreciation of the euro against the US dollar, was more than offset by the drop in net receipts from travel services.

The decrease in net receipts from travel services reflects the decline of gross receipts, which was

only partly offset by the drop in gross payments. The fall in travel receipts is largely associated with economic conditions in the tourists' countries of origin⁶⁸ and with the uncertainty that prevailed until the end of the war in Iraq. The restoration of relative stability in the region removed this uncer-

⁶⁸ The appreciation of the euro does not affect arrivals from euro area countries, only those from the UK, USA, Japan etc.

tainty, thereby gradually –towards the end of summer– limiting (but not eliminating) the adverse effects on tourism. Of course, to restore competitiveness in the tourist trade requires an appropriate pricing policy, as well as an improvement in tourist infrastructure and more effective promotion of the Greek tourist product, which is expected to be boosted by the 2004 Olympic Games.

It should be pointed out that, following the euro cash changeover, travel receipts are no longer recorded using data reported by commercial banks, but on the basis of the sample border survey conducted since mid-May 2002. The data of this survey, however, are not fully comparable with those of previous years. For the same reason, data for the entire period January-July 2003 are not fully comparable with those for the same period of 2002. Data for June and July 2003 are nevertheless comparable with those of 2002 and show a decline in travel receipts.

Income account

In the first seven months of 2003, the income account deficit rose to €1,803 million, mainly owing to the increase in net payments of interest, dividends and profits, especially payments of interest on Greek government bonds. These increased payments are consistent with the rise in non-residents' investment in such instruments over the same period.

Transfers balance

Net transfers (receipts minus payments)⁶⁹ to general government (mainly from the EU) during the period January-July 2003 fell to €2,268 million, from €2,981 million in the same months of 2002.⁷⁰ This trend is expected to reverse over the coming months, because of the repayment for

projects under CSF II⁷¹ and the faster rate of absorption of funds for the implementation of projects under CSF III.⁷²

4.2 Financial account

In the period January-July 2003, financial investment, i.e. the sum of direct investment, portfolio investment and "other" investment, showed a net inflow of €1,919 million, compared with a substantial net inflow of €7,016 million in the same period of 2002. This was due to the fact that the considerable net inflow of €10,520 million⁷³ under portfolio investment was largely offset by the net outflow of €8,022 million under "other" investment and, to a smaller extent, direct investment (€580 million).

The continuing, very large foreign investment in Greek bonds was again the main factor of the substantial net inflow under portfolio investment. Specifically, non-residents' investment in Greek

69 It should be noted that, as from September 2002, receipts from and payments to the European Union are recorded separately in the balance of payments. Data for earlier periods were adjusted accordingly to ensure comparability with the new data.

70 Any discrepancies between Ministry of Economy and Finance data and Bank of Greece data, as the latter are depicted in the balance-of-payments statistics, are due to the fact that the former are expressed on an accrual basis whereas the latter on a cash basis.

71 According to the official procedure of the EU for the implementation of projects under CSF II, the deadline for Member States to submit payment applications was 31 March 2003. On the basis of submitted applications, the total rate of absorption of CSF II funds stands close to 98%.

72 By end-September 2003, approximately 61% of the projects under CSF III were approved and ready to be implemented. On the basis of payments made by the end of September, the rate of absorption of community funds reached 25% while, by the end of the year, it is estimated to reach approximately 30% (statements by the Deputy Minister of Economy and Finance, 7 October 2003).

73 Net inflows under portfolio investment and, therefore, total net inflows have declined due to the restructuring of the Bank of Greece portfolio, involving the decrease of its reserve assets and the purchase of bonds issued by euro area Member States (see Box 3). It should therefore be noted that the recorded decrease in reserve assets is attributable to a large extent to these operations of the Bank of Greece and is not related to the need to finance the current account deficit.

bonds during January-July 2003 amounted to €14.7 billion, more than double the amount recorded in the same period of 2002 (€6.7 billion). At the same time, residents' investment in foreign bonds was substantial (€4.9 billion compared with only €1.6 billion in the same period of 2002). It should be noted that the increased resi-

dents' investment in bonds that occurred mainly in February and March reflects to a large extent the Bank of Greece investment in bonds issued by euro area Member States and the respective decrease of its reserve assets in non-euro area currencies (mainly US dollars), in the framework of the restructuring of its portfolio (see Box 3).

BOX 2

The TARGET¹ system: the implications of its operation for the balance sheet of the Bank of Greece

1. Objectives and features

TARGET is an EU-wide system for euro payments. It commenced operation at the beginning of 1999, with the start of Stage III of the Economic and Monetary Union (EMU). It was developed in order to serve the needs of the single monetary policy and to provide a safe, efficient and reliable mechanism for the settlement of cross-border payments in euro between EU Member States.

TARGET comprises 15 national real-time gross settlement (RTGS) systems for large-value payment orders of central banks and the ECB Payment Mechanism (EPM), which are interlinked so as to provide a uniform platform for the processing of cross-border payments in euro. Greece participates in TARGET through the HERMES system, which has been developed and is operated by the Bank of Greece. Credit institutions participate in TARGET as members of their respective national RTGS systems.

TARGET settles in central bank money² and on a one-by-one basis and is used for payments related to the single monetary policy, such as refinancing operations, standing facilities offered to credit institutions, as well as for credit institutions' (own and customer) payments. Settlement is final once the funds have been credited, thus eliminating counterparty risk and reducing systemic risk.

Turnover data

The total volume and value of payments settled by the 15 national components of TARGET have shown an

upward trend since the inception of its operation. In 2002, 53.7 million payments with a total value of €395.6 trillion were settled, which represents a 20% increase in comparison with 2001.

In 2002, payments processed through the HERMES system increased by 14.3% in volume terms and 11.3% in value terms relative to 2001, reaching 1.2 million and €2.7 trillion respectively. The value of payments to the other EU Member States (cross-border payments) reached €1.3 trillion or 47% of the total value of transactions in 2002. It should be noted that, despite the small share (about 2%) of the HERMES system in the total volume and value of payments through TARGET, the value of HERMES payments is 19 times the Greek GDP.

2. Implications of payments through the TARGET system for the balance sheet of the Bank of Greece

From an operational point of view, payments through TARGET inevitably affect the balance sheet of the Bank of Greece, as is also the case with any other national central bank (NCB) of the euro area. Settlement in central bank money generates claims and liabilities between credit institutions participating in a RTGS, as reflected in their accounts with their respective NCBs. However, while the settlement of payments between domestic credit institutions does not affect the size of →

¹ Trans-European Automated Real-time Gross settlement Express Transfer system.

² Settlement in central bank money is defined as settlement directly through an account kept at the central bank.

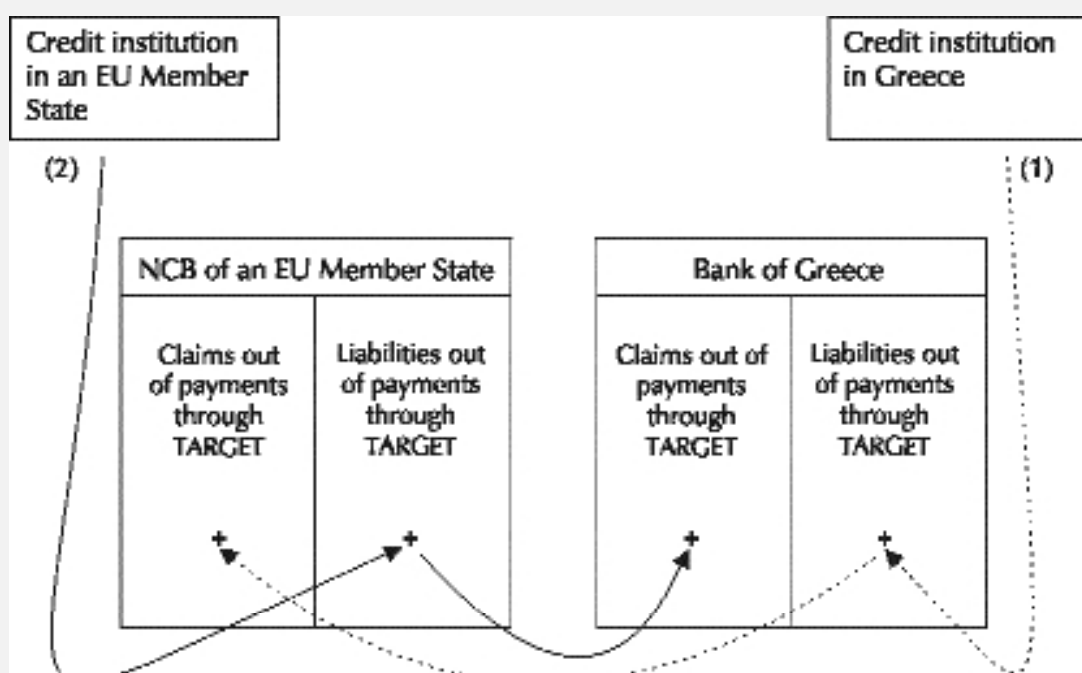
→ the NCB's total liabilities vis-à-vis them (but only the allocation of such liabilities), the settlement of cross-border payments does affect the claims or liabilities between the NCBs of the EU Member States.

Specifically, any euro payment by a resident of one Member State to a resident of another Member State (i.e. a cross-border payment, whether interbank or cus-

tom payment) through TARGET results in an equal increase in the sending NCB's liabilities to the receiving NCB. This is so because the receiving NCB transfers the amounts involved to the banks that participate in its RTGS by creating a corresponding claim on the sending NCB, and the latter is not required to cover this claim immediately. The opposite applies to the NCB that receives a cross-border payment (see figure below).

Operation of the TARGET account

The figure below illustrates the effect of cross-border euro payments on the balance sheet of the Bank of Greece.



Cross-border euro payments are settled according to the following procedure:

(1) *Payment by a Greek resident to a resident of another EU Member State*

The payment can be related to any cross-border transaction, such as import of goods and services, transfer of funds or interbank lending.

- The transferor instructs a bank in Greece (sending bank) to transfer an amount of funds to the beneficiary's account with a designated bank (receiving bank).
- The sending bank transmits a payment order to the Bank of Greece.
- The Bank of Greece debits the current account of the sending bank and at the same time credits the →

► account of the receiving NCB, while the payment order is automatically forwarded to the receiving NCB. As a condition for the settlement of a payment order, there must be sufficient funds in the current account held by the sending bank with the Bank of Greece.

– The receiving NCB debits in its books the Bank of Greece account and credits the account of the bank at which the beneficiary keeps an account.

It is obvious that euro payments by Greek residents to residents of other EU Member States cause a decrease in the Bank of Greece liabilities to domestic credit institutions (i.e. in the balance of their accounts with the Bank of Greece) and an equal increase in its liabilities to the other NCBs. Thus, in the balance sheet of the Bank of Greece, its liabilities to domestic credit institutions are substituted with liabilities to the Eurosystem, provided that no direct payment out of the assets of the Bank of Greece is effected.

(2) Payment by a resident of another EU Member State to a Greek resident

The payment can be related to any transaction, such as export of goods and services, transfer of funds or repayment of interbank loans.

In this case, upon receiving the payment order, the Bank of Greece:

- debits the account of the sending NCB; and
- credits the current account of the receiving bank in Greece.

Thus, incoming payments from other Member States lead to an increase in the Bank of Greece claims on the Eurosystem and, at the same time, an equal increase in its liabilities to domestic banks.

To prevent the artificial growth of the balances that arise from multiple bilateral settlements, the ECB Governing Council has decided that, with effect from 30 November 2000, all TARGET-related bilateral claims and liabilities between the EU NCBs are netted daily at close of business, leaving each NCB with a single net, bilateral position (asset or liability) vis-à-vis the ECB only.³

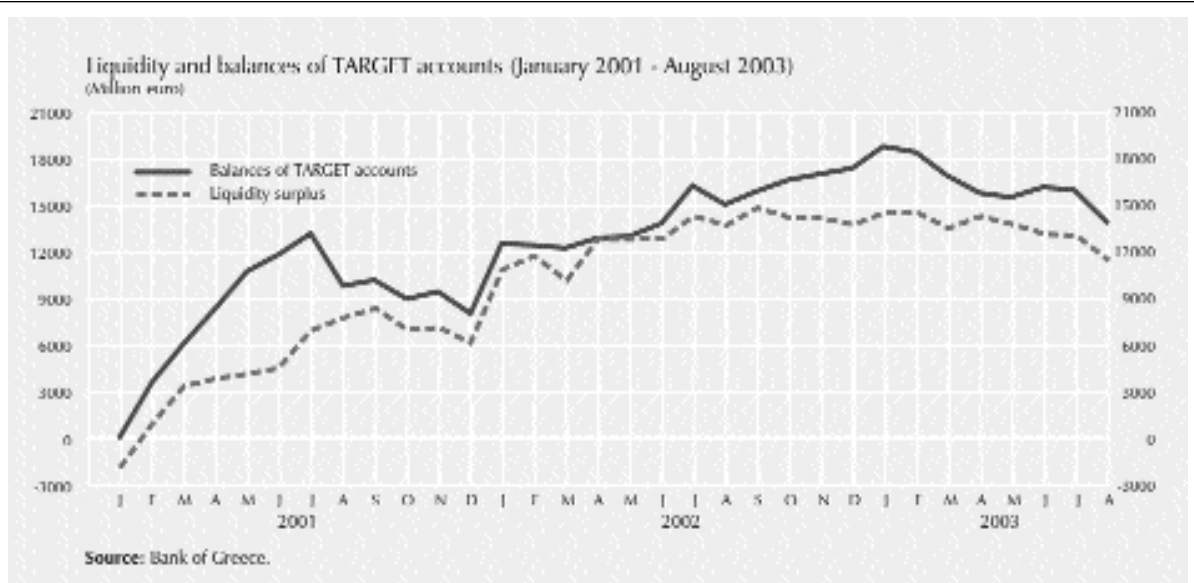
³ The balance of net liabilities is remunerated on a monthly basis at the marginal interest rate of the main refinancing operations of the Eurosystem. NCBs with a debit position pay on a monthly basis interest to the ECB, which is responsible for the clearing and payment to NCBs with a credit position.

This category of net claims or liabilities is recorded as a separate item in the balance sheet of the Bank of Greece as from Greece's entry into EMU in 2001, when the drachma was replaced by the euro.

3. Factors affecting the size of claims or liabilities arising from TARGET payments

The liabilities or claims arising from cross-border payments through TARGET are affected by the liquidity con-

ditions prevailing in the banking system, as well as by the activity of credit institutions in the single market. The amount of liquidity is a function of developments in all the items of the balance sheet of each NCB. Specifically, it increases (decreases) when the NCB's net euro-denominated assets –including claims related to holdings of currency and gold– increase (decrease); conversely, it decreases (increases) when the liabilities stemming from banknotes put into circulation by the NCB and from government deposits increase (decrease). →



→ This relation is expressed by the following identity:

Liquidity surplus =

= Net assets, denominated in foreign currency or euro, of the Bank of Greece (other than claims related to monetary policy operations)

less minimum reserve requirement of credit institutions

less currency in circulation

less government deposits with the Bank of Greece.

According to data from the balance sheets of the euro area NCBs, the Bank of Greece and certain other NCBs show net intra-Eurosystem liabilities stemming from TARGET transactions. This is associated with the liquidity surplus in their banking sectors and the net claims stemming from cross-border interbank loans in the context of the single interbank market.

The relation between the liquidity surplus and the net balance of the Bank of Greece TARGET accounts is expressed by the following identity:

Balance of net liabilities stemming from TARGET transactions =

= liquidity surplus

plus refinancing of credit institutions by the Bank of Greece in the context of monetary policy

and is shown in the chart above.

According to the chart, in the period 2001-2002, liabilities arising from TARGET transactions showed an upward trend, which was reversed in early 2003. However, liabilities remained higher than the liquidity surplus throughout the reviewed period. This differential reflects the extension of credit by the Bank of Greece to credit institutions in the context of the regular tenders of the Eurosystem.

The liquidity surplus and the corresponding increase in the net balance of the TARGET accounts (to €17.4 billion at end-2002) are largely explained by the gradual release of credit institutions' reserve holdings following the adjustment of the Bank of Greece reserve requirement ratio to that applied by the Eurosystem.⁴ In order to maintain smooth conditions in the money market, the Bank of Greece, in consultation with the ECB, implemented a gradual release schedule, which started in July 2000 and was completed in July 2002.

The total amount of reserve holdings released reached €12,548 million, of which €3,443 million were redeposits in currencies of third countries (outside EU-11) and €9,105 million were redeposits in drachmas and EU-11 currencies. The first category was released in foreign exchange and the second category in euro, by →

⁴ The Bank of Greece remunerated such holdings at an average rate of 5.38% in 2000.

→ crediting the credit institutions' current accounts with the Bank of Greece.

This release led, in the context of the operation of the single market, to a restructuring of the liability items and their substitution with intra-Eurosystem liabilities. However, it should be noted that the Bank of Greece liabilities stemming from TARGET transactions reflect the overall liquidity surplus of the banking system, which, in addition to the release of reserve holdings, was also affected in 2001-2002 by developments in the other items of the Bank of Greece balance sheet (which rose by €3,001 million) and by increased borrowing (by €2,444 million) of credit institutions from the Bank of Greece, which led to a widening of the liabilities stemming from TARGET transactions by €9,319 million at end-2002 in comparison with end-2001.

4. Policy co-ordination for maintaining a desirable liquidity level in the euro area

As already mentioned, central banks can reduce excess liquidity in the banking system by increasing currency circulation (which, however, is not under their control), in particular by selling their assets. However, this would be a matter of the NCBs' asset management policy, as the relevant decisions are based on a cost/benefit analysis from the viewpoint of the NCB concerned (see Box 3). It should be noted that the maintenance of a debit balance on its TARGET account enables the Bank of Greece to hold securities and other assets denominated in euro or in foreign currency that have a positive contribution to its operating results.

However, as members of the Eurosystem, NCBs are required to contribute to the effectiveness of the single monetary policy. The Eurosystem's monetary policy

framework has been established on the recognition that it is preferable for the interbank market to operate in an environment of a sufficient liquidity deficit, so that the ECB can provide regular refinancing to credit institutions and thus remain capable of steering short-term interest rates.

As the factors that determine total liquidity include the securities portfolio, deposits in foreign exchange and other investments of the NCBs, an uncontrolled increase in these items would decrease the liquidity deficit and reduce the effectiveness of the single monetary policy. The members of the Eurosystem have therefore decided to co-ordinate their policies regarding changes in their balance sheet items that affect liquidity (other than the items related to monetary policy operations and currency in circulation) and gear them towards the objective of maintaining a liquidity deficit in the Eurosystem. In this context, if for a given NCB the sum of these items (mainly those under the direct control of the NCB, such as net claims in euro and foreign exchange) exceeds the agreed level, this NCB would have to adjust its asset or liability items accordingly. The decision on the method of adjustment (sale of assets, non-renewal or increase in government deposits) is at the discretion of the NCB and is made on the basis of risk/return criteria (see Box 3).

In conclusion, the existence of TARGET-related liabilities in the balance sheet of the Bank of Greece enables it to maintain a securities portfolio and other assets denominated in euro and foreign exchange that have a positive contribution to its operating results. However, to the extent that there is excess interbank liquidity in Greece, the size of the Bank of Greece asset items that are not associated with monetary policy may not exceed the agreed level.

Moreover, foreign investment in Greek bonds, which, at least during the first few months of the year, mainly reflected a world-wide portfolio shift towards safer investments owing to the uncertainty caused by the war in Iraq, continued to grow in May and June, whereas in July non-residents liquidated a part of their investments in Greek bonds.

The net outflow under direct investment is mainly attributable to residents' investment abroad (€416 million) and, to a smaller extent, to non-residents' direct investment in Greece, which recorded an outflow of €163 million.⁷⁴ It should

⁷⁴ It is the (negative) net difference between investments and liquidations by non-residents.

BOX 3

Management of the reserves and other assets of the Bank of Greece

In 2003, the Bank of Greece actively continued to manage its assets, notably its reserve assets, with a view to achieving better yields and, at the same time, reducing the associated risks. It should be noted that, after Greece joined the euro area, both the definition of reserve assets and the need to maintain their level have changed substantially. Reserve assets no longer include claims in euro on residents of non-euro area countries, claims in foreign currency and in euro on residents of euro area countries and the Bank's share in the capital and reserve assets of the ECB. Besides, since the Bank of Greece no longer has to intervene in order to support the Greek currency or cover exposures in the balance of payments, it does not have to maintain a high level of reserve assets. If a market intervention to support the exchange rate of the euro were required, it would be undertaken either centrally by the ECB or on a decentralised basis through the NCBs by using the reserve assets they have transferred to the ECB. Only if the required intervention were to exceed the existing reserve assets would the ECB request the NCBs to transfer additional assets to it.

The reserve assets of the Bank of Greece, which exceeded €5 billion at end-August 2003, are considered sufficient both to cover any requirements of the ECB and to help meet the Bank's own requirements (e.g. to fulfil current obligations to international organisations such as the IMF and to meet contingency requirements of the Greek State). Hence, as it is no longer necessary to maintain high reserve asset levels, the Bank of Greece gradually restructured its portfolio during 2003, increasing its asset items that either offer higher yields or are denominated in euro, in order to improve the return on its investments and reduce the risk of loss in case of appreciation of the domestic currency. It should be noted that, in the current conjuncture, the yields on investments in euro exceed the yields on investments in other currencies. In the management of its assets the Bank of Greece takes into account its obligations deriving from both domestic law and its participation in the European System of Central Banks. It should also be noted that the Bank of Greece invests exclusively in AAA-rated government paper and in prime name banks. Following international practice, the bulk of

the Bank's reserve assets is invested in US dollar-denominated securities. The remainder is invested in currencies of countries with strong economic fundamentals (Japan, United Kingdom, Switzerland etc.). It should be pointed out in this connection that the Bank of Greece portfolio was restructured gradually, so as to avoid adverse repercussions on foreign exchange markets.

In addition to the gradual restructuring of its portfolio, in August 2003 the Bank of Greece sold about 20 tonnes of gold (about 14% of its gold reserves) for €207 million in order to further improve the return on its assets. The Bank took into account the fact that gold holdings do not yield income and that the euro price of gold at that time was high.

The management of gold reserves is a usual practice of central banks. In recent years other EU central banks (e.g. in England, the Netherlands and Austria) have also sold considerable quantities of gold for exactly the same reasons as the Bank of Greece. The International Monetary Fund has also sold off-market gold to realise a profit, which was subsequently used to service the debt of developing countries. Besides, it should be noted that the Bank of Greece is not a party to the 1999 Washington Agreement between certain central banks,¹ whereby they agreed to reduce gold sales so as to avoid causing big fluctuations in market gold prices. Although it is not bound by this agreement, the Bank of Greece did not wish to cause market disorder, so it sold a small quantity of gold, which was almost 5% of the annual quantity it would have been entitled to sell under the Washington Agreement.

¹ The Washington Agreement ("Central Bank Gold Agreement") was signed in September 1999 by the central banks of the then 11 members of the euro area, the ECB and the central banks of England, Switzerland and Sweden, which undertook not to sell gold in quantities exceeding 400 tonnes per year until 2004. The central banks of the USA, Japan and Australia, as well as the International Monetary Fund and the Bank for International Settlements associated themselves with the Agreement by declaring that they would actually implement it. The Bank of Greece did not sign up to the Washington Agreement, as Greece did not participate in the euro area at that time.

be noted that a substantial part of the net outflow in non-residents' investment was offset by an equal increase in portfolio investment liabilities.⁷⁵ The most substantial investment by non-residents during January-July 2003 was the purchase of 16.65% of the capital stock of ELPE (€ 326 million) by Paneuropean Oil in June.

The considerable net outflow under "other investment" was a result of both the increase in residents' external assets (by € 3,636 million) and the concurrent decrease in residents' external liabilities (by € 4,386 million). The rise in assets is almost exclusively attributable to increased residents' (mainly credit institutions') investment in deposits and repos, while the decline in liabilities reflects the substantial repayment of loans (especially by the general government sector) and the decreased deposits and investments in repos by non-residents. This partly reflects the decline (€ 1,391 million) of the relevant liabilities associated with the TARGET system (also see Box 2).

During the period under review the country's reserve assets declined by € 3,958 million to € 5.1 billion at end-July 2003, mainly owing to the restructuring of the Bank of Greece's portfolio noted above (also see Box 3). It should be recalled that, since Greece's entry into the euro area in January 2001, reserve assets – as defined by the European Central Bank – include monetary gold, the "reserve position" in the International Monetary Fund, "special drawing rights" and Bank of Greece's claims on non-euro area residents denominated in foreign currency. By contrast, they *do not include* claims on non-euro area residents denominated in euro, claims on euro area residents denominated in euro or in foreign currency, and the Bank of Greece share in the capital and reserves of the ECB.

⁷⁵ Specifically, the decrease of TELENOR participation in the capital stock of COSMOTE, amounting to approximately € 270 million, was initially recorded as an outflow in direct investment by non-residents. However, the purchase of the shares held by TELENOR by non-residents who – on an individual basis – have a small share in the capital of COSMOTE was then recorded as portfolio investment.

IV. Money, credit and capital markets in Greece

1. Developments in main monetary aggregates

The main components of the Greek contribution to the euro area M3¹ (i.e. deposits, repurchase agreements and money market fund units/shares) showed divergent trends in the period of January-August 2003. However, the growth rate of the sum of these components was lower than the corresponding rate for the euro area in the same period. In detail, the annual growth rate of deposits included in M3 (according to the ECB definition), after declining strongly in the first few months of this year, eventually rebounded to 8.3% in the second quarter of 2003 (last quarter of 2002: 9.2%) and reached 10.6% in August (see Table XV). However, the twelve-month rate of change in deposits varied significantly across individual types of deposits.

Specifically, although the growth rate of savings deposits and of deposits redeemable at notice of up to three months slowed down, the growth rates of overnight deposits (sight deposits and current accounts) and deposits with an agreed maturity of up to two years picked up appreciably. In more detail, the rate of change in overnight deposits rose to 12% in the second quarter of 2003, from 5.7% in the fourth quarter of 2002, and continued to be high (14.7%) in August. This reflected the lower opportunity cost of holding overnight deposits, as their interest rate differential over other types of deposits narrowed during the period under review. In addition, the relatively

¹ The Greek M3 (and likewise any euro area national M3) can no longer be accurately calculated, since part of the quantity of euro banknotes and coins that have been put into circulation in a euro area country is held by residents of other euro area countries and/or by non-residents. Due to these technical problems in calculating individual euro area countries' currency in circulation, no analysis of the evolution of the Greek M3 as a whole will be made in the future, but only of its main components (except currency in circulation).

Table XV

Greek contribution to the monetary aggregates of the euro area

(Not seasonally adjusted data)

	Outstanding balances on 29.08.03 (million euro)	Annual percentage changes ¹				
		2002		2003		
		Q3 ²	Q4 ²	Q1 ²	Q2 ²	August ³
1. Overnight deposits	16,129	15.8	5.7	4.4	12.0	14.7
2. Savings deposits and deposits redeemable at notice of up to three months	59,999	14.6	9.7	3.7	3.9	1.2
3. Deposits with agreed maturity of up to two years	33,003	6.1	10.1	11.6	17.3	31.5
4. Total deposits (1+2+3)	109,131	12.3	9.2	5.7	8.3	10.6
5. Repurchase agreements (repos)	12,227	-20.2	-19.0	-18.6	-31.8	-46.4
6. Money market fund units	15,722	-18.8	-3.7	30.7	64.7	76.0

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 2001 and the accumulated monthly flows, adjusted for exchange rate variations, reclassifications etc.

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

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

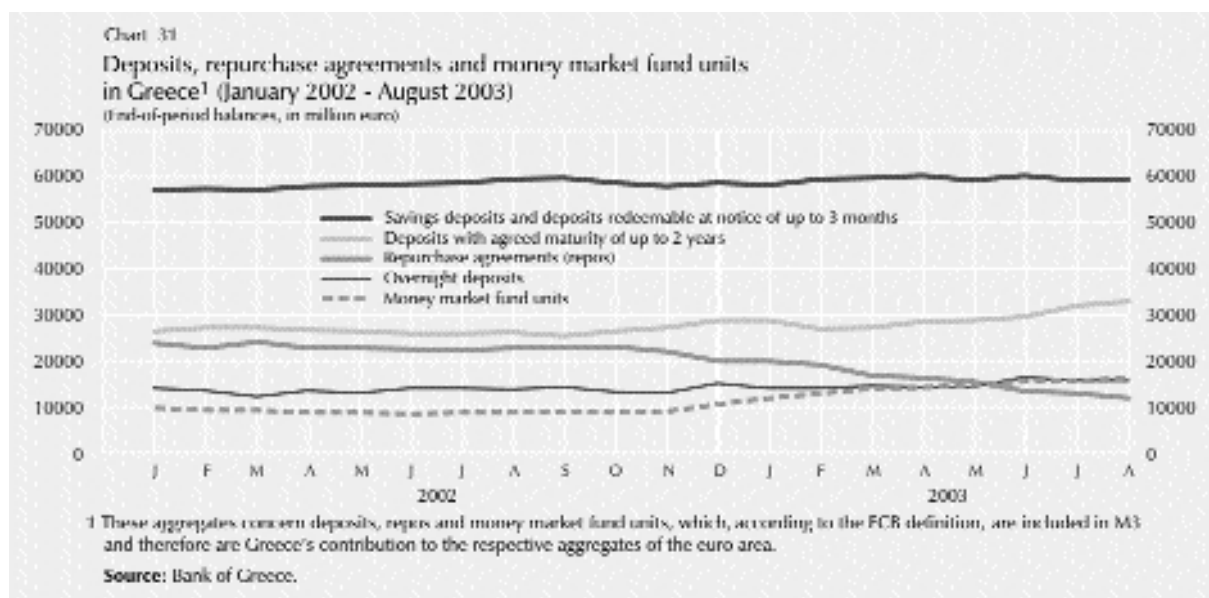
Sources: Bank of Greece and European Central Bank (ECB).

rapid growth of overnight deposits in the three-month period from June to August 2003 was also associated with the increase in Athens Stock Exchange transactions during the same period.² The annual growth rate of savings deposits and of deposits redeemable at notice of up to three months remained low throughout January-August 2003 and stood at 3.9% in the second quarter, down from 9.7% in the fourth quarter of 2002, while in August it declined further to 1.2%. Underlying this pattern were cuts made in the interest rates on savings deposits during this period, which prompted savers to seek higher-yield investments (see Section 3, below).

Unlike savings deposits, the annual rate of increase in deposits redeemable at notice of up to two years remained high throughout the reviewed period. Specifically, after edging up to 17.3% in the second quarter of 2003, from 10.1% in the fourth quarter of 2002, it accelerated further in July-August (August: 31.5%), partly because of base effects associated with the relatively low level of these deposits during the corresponding

period of last year. Developments in deposits redeemable at notice reflected a shift away from repurchase agreements (repos) and – to a smaller extent – from savings deposits, as well as the comparatively higher yields of deposits redeemable at notice. Among the other main components of M3, repo holdings continued to fall in the eight months from January to August 2003 and their outstanding balance in August was 46.4% lower than in the respective month of 2002 (see Chart 31). This was due to the 7% tax imposed on repo yields for agreements made as from January 2002, as well as to saver shifts towards higher-yield investments. Finally, holdings of money market fund units grew considerably in January-August 2003 (annual rate of increase in the second quarter of 2003: 64.7%, compared with a 3.7% decrease in the fourth quarter of 2002), owing to a “flight to safety” (which is usual at times of heightened stock market uncertainty) in the first

² The overall value of stock market transactions in June-August rose to €4,149 million (monthly average), up from €1,674 million (monthly average) in January-May 2003.



few months of this year, as well as because of the comparatively higher yields of these units. In August, the annual growth rate of money market fund units remained particularly high (76%).

2. Credit expansion

The growth of credit extended by Monetary Financial Institutions (MFIs) to the economy as a whole decelerated considerably between January and August 2003 (August 2003: 5.1%, fourth quarter of 2002: 7.1%), reflecting a steep fall in MFI credit to general government,³ which was only partly offset by faster credit expansion to enterprises and households.

Specifically, credit to general government declined by 16% between January and August 2003, compared with a 4.3% decrease in the respective period of 2002. As a result, its twelve-month rate of decrease came to 13.4% in August 2003, compared with 5.2% in the fourth quarter of 2002 (see Table XVI). The decline in MFI credit to general government in January-August 2003 was mainly accounted for by the reduction in Bank of Greece

and other MFI holdings of Greek government paper (by –€1,065 million and –€7,709 million, respectively).⁴ Also, as a result of the gradual repayment of loans granted to the Greek government by the Bank of Greece, their outstanding balance⁵ shrank by €515 million. Moreover, the outstanding balance of loans granted to general government by other credit institutions decreased by €1,083 million. The above imply a significant restructuring in the portfolios of MFIs other than the Bank of Greece during the period under review: as a percentage of their total assets, MFI claims on the Greek government dropped to 16.7% in August 2003 (from 21.3% at the end of 2002), whereas total claims (loans and bonds) on the private sector and holdings of shares of private sector enterprises rose to 48% (up from 44.4% at

³ MFI credit to general government comprises the outstanding balances of (i) MFI lending to general government and (ii) MFI holdings of government paper.

⁴ The drop in MFI credit to general government is exclusively attributable to a decrease in credit institutions' holdings of Greek government paper. By contrast, money market funds' holdings of Greek government paper increased by €345 million.

⁵ This refers to loans granted until 31 December 1993, as after that date the Bank of Greece may no longer extend credit to the Greek government, owing to the prohibition of monetary financing of the broader public sector.

Table XVI

Total credit expansion in Greece

(Annual percentage changes)

	2002		2003		
	Q3 ¹	Q4 ¹	Q1 ¹	Q2 ¹	August ²
1. Total credit expansion	5.3	7.1	6.4	4.0	5.1
2. Credit expansion to general government	-9.1	-5.2	-7.1	-13.5	-13.4
3. Credit expansion to enterprises and households	19.5	18.3	18.2	18.0	18.7
3.1. Credit expansion to enterprises	12.0	11.4	11.3	12.0	14.0
3.2. Credit expansion to households	36.7	33.1	32.3	29.8	27.3
<i>of which:</i>					
3.2.1 Housing loans	38.7	35.4	34.4	31.1	27.3
3.2.2 Consumer loans	31.1	27.4	26.1	23.8	23.1

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

2 Annual rate of change at the end of the month.

Source: Bank of Greece.

the end of 2002). It should be noted that, during January-August 2003, the central government borrowing requirement, on a cash basis, amounted to €6,920 million, compared with €2,714 million in the respective period of 2002, and was financed by inflows of funds from abroad and by increases in domestic private sector holdings of government paper. In more detail, while, as already mentioned, domestic MFI credit to general government fell in January-August 2003, holdings of government paper by non-residents and by the domestic private sector (individuals and enterprises) rose by €17,334 million and €3,208 million, respectively.

Bank credit to enterprises and households

In August 2003, credit expansion to enterprises and households accelerated from 16.9% (at end-2002) to 18.7%, remaining close to the level seen in the fourth quarter of 2002 (see Table XVI). This came as a result of a rather strong increase in credit to enterprises. By contrast, a slowdown was recorded in credit expansion to households, especially in housing loans, which, however, continued to grow rapidly.⁶

Bank credit to enterprises grew by 10.5% in the eight months from January to August 2003 (compared with a 6.2% increase during the corresponding period of 2002) and its twelve-month rate of change rose to 14% in August 2003, from 11.4% in the fourth quarter of 2002. The sectoral breakdown of credit to enterprises shows that credit expansion to agriculture, industry, shipping, tourism and – most notably – “other” sectors picked up, whereas a weakening was observed in credit expansion to trade and non-bank financial institutions, such as leasing, factoring and insurance companies (see Table XVII).

In more detail, the twelve-month growth rate of credit to industry stood at 15.1% in August 2003, compared with 11.5% in the fourth quarter of 2002, recording relatively strong fluctuations in the period under review. It should be noted that fund-raising through the Athens Stock Exchange

⁶ In the euro area, a marginal pickup was recorded in credit expansion to the private sector, which however remains rather subdued (August 2003: 5%, December 2002: 4.8%, source: ECB, *Monthly Bulletin*, October 2003).

Table XVII

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

	Outstanding balances on 31.08.03 (million euro)	Annual percentage changes			
		2002		2003	
		Q4 ¹	Q1 ¹	Q2 ¹	August ²
A. Enterprises	60,782	11.4	11.3	12.0	14.0
1. Agriculture	3,102	-14.0	-0.9	1.8	3.7
2. Industry ³	15,682	11.5	14.1	13.5	15.1
3. Trade	16,701	7.8	3.9	1.1	0.7
4. Tourism	3,255	33.7	33.8	32.6	35.7
5. Shipping	4,421	5.5	5.1	7.1	11.1
6. Other financial institutions (non-MFIs)	2,986	72.5	51.9	31.1	15.1
7. Other	14,635	14.3	12.9	22.7	31.3
B. Households	36,569	33.1	32.3	29.8	27.3
1. Housing credit	24,573	35.4	34.4	31.1	27.3
2. Consumer credit	11,075	27.4	26.1	23.8	23.1
–Credit cards	5,801	37.1	36.1	33.0	32.0
–Other consumer ⁴ credit	5,274	19.2	17.1	15.0	14.6
3. Other	921	62.6	77.5	117.1	119.2
TOTAL	97,351	18.3	18.2	18.0	18.7

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

2 Annual rate of change at the end of the month.

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

4 Including personal loans and loans against supporting documents.

Source: Bank of Greece.

by industrial firms seems to remain very subdued this year too, although it is noticeably higher than in 2002 (January-August 2003: €46.5 million, January-August 2002: €12.2 million). On the other hand, several firms have expressed their intention to issue bonds in the second half of 2003, under the recently enacted Law 3156/2003, aimed at promoting corporate bonds as an alternative source of finance for business firms. Bank credit to enterprises is expected to decline as corporate bonds develop.⁷ Credit expansion to trade, following a considerable slackening last year, seems to stand at very low levels this year.⁸

The outstanding balance of loans to agriculture rose slightly between January and August 2003, recording an annual rate of change of 3.7% in August, compared with -14% in the fourth quar-

ter of 2002. It is worth noting that this rate was negative throughout 2002, mainly reflecting the portfolio restructuring policy of the Agricultural Bank of Greece. Credit expansion to tourism recorded a small acceleration in August 2003 (35.7%, compared with 33.7% in the fourth quarter of 2002) and thus continued to stand at very high levels this year. This seems to be associated with investments in tourist infrastructure in antic-

⁷ The development of corporate bonds requires an adequately wide and deep secondary market that can ensure the dispersion of risks and the liquidity of these securities.

⁸ The twelve-month rate of change in the outstanding balances of loans to trade stood at 0.7% in August 2003 (against 0.9% in December 2002 and 7.8% in the fourth quarter of 2002). Nevertheless, owing to the introduction (in September 2002) of a revised form for statistical reporting by banks, several banks reclassified loans from "credit to trade" to "other" credit. This caused a significant acceleration in the growth rate of the latter. In June 2003, the loans reclassified as above amounted to €425 million.

ipation of the 2004 Olympic Games. To a large extent, however, it also reflects the low outstanding balance of loans to the tourist industry. Loans to non-bank financial institutions decelerated to 15.1% in August 2003, from 72.5% in the fourth quarter of 2002, but this slowdown was to be expected, given the relatively strong growth of this type of bank credit witnessed last year. Within this sector, two major leasing companies are planning to launch bond issues by the end of this year in order to finance their considerably increased turnover. Relative to the fourth quarter of last year (5.5%), credit expansion to shipping also picked up in August 2003 (11.1%).⁹

On the other hand, as already mentioned, credit expansion to households moderated between January and August 2003, most markedly in the case of housing loans (see Table XVII). Specifically, the twelve-month rate of increase in housing loans fell to 27.3% in August 2003, from 35.4% in the fourth quarter of 2002. It seems that the changes¹⁰ (which applied to loans granted from 2003 onwards) in the system of tax deductions for first-time homebuyers prompted a front-loading of borrowing within 2002. It is characteristic that new borrowing for house purchase in December 2002 amounted to €800 million, up from a monthly average of €450 million for September-November 2002 and for the first two quarters of 2003. However, it should be noted that for certain categories of housing loans interest rates rose during the period under review, in contrast with an overall downward trend in lending rates this period (see Section 3).

The annual rate of increase in consumer loans stood at 23.1% in August 2003, down from 27.4% in the fourth quarter of 2002. However, data for June-August suggest that the growth rate of consumer loans, after having declined since mid-2001 when it stood above 50%, exhibits

some signs of recovery. It should be noted that all remaining restrictions on consumer credit were abolished last June by Bank of Greece Governor's Act 2523/12 June 2003. The breakdown of consumer credit reveals that, while the growth rate of loans through credit cards decelerated to 32% in July 2003, from 37.1% in the fourth quarter of 2002, it continued to be strong (August 2003: 14.7%, December 2002: 15.4%), as credit cards offer easier access to bank credit, which offsets the disadvantage of their considerably higher rates relative to other types of consumer credit.

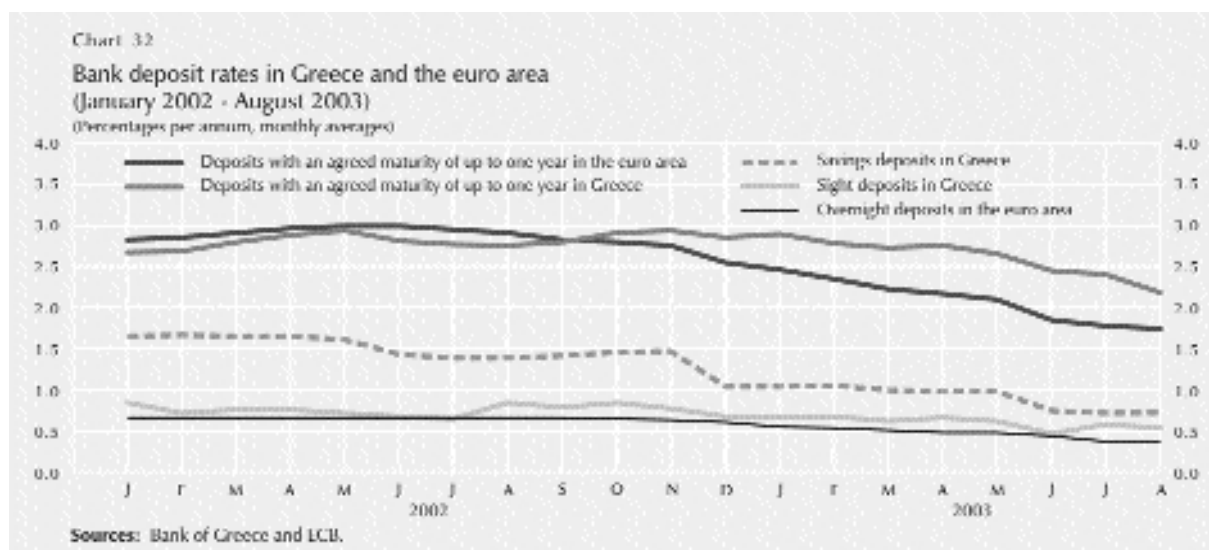
Significantly weaker (compared with the growth of loans through credit cards) was the combined growth of personal loans and of loans against supporting documents (August 2003: 14.6%, fourth quarter of 2002: 19.2%). As a result, the share of loans through credit cards in total consumer credit increased to 52.4% in August 2003, from 50.8% in December 2002.

The twelve-month rate of increase in "other" household loans¹¹ (mainly overdrafts on current accounts) soared, reflecting – to a large extent – the low level of the respective outstanding amounts. Consumer loans and non-housing loans

⁹ Credit extended to shipping by the domestic banking sector is highly volatile, as it is mostly denominated in US dollars and thus subject to foreign exchange valuation differences. Such differences are created when loans denominated in third countries' currencies are expressed in euro.

¹⁰ According to the Introductory Report on the 2003 Budget submitted to the Greek Parliament in November 2002.

¹¹ The twelve-month rate of increase in the outstanding balance of these loans was 119.2% in August 2003, compared with 62.6% in the fourth quarter of 2002. However, it should be noted that in May 2003 a number of banks reclassified overdrafts (worth €206 million) on household current accounts, which until then were wrongly recorded under "loans to enterprises", to "other" household loans. If the effect of this reclassification is not taken into account, the twelve-month growth rate of "other" loans to households stood at 70.2% in August 2003 and the overall rate of increase in household loans was 26.6% (instead of 27.3%). Accordingly, credit expansion to enterprises was 14.4% (instead of 14%) that month.



to households in January-August 2003 accounted for 15.9% of total credit expansion to enterprises and households, compared with 16.8% in 2002 as a whole. The outstanding amount of these loans as a percentage of total bank credit to enterprises and households rose from 9.6% at the end of 2000 to 12.3% in August 2003. Still, this share is rather low relative to the euro area average (16.4%) for August 2003.¹²

3. Bank interest rates

In line with the downward path followed by euro area money market rates, as a result of the cumulative 75 basis point reduction in ECB key rates between January and August 2003, retail deposit rates decreased further in the period under review. Specifically, the average rate on overnight (sight) deposits dropped by 0.2 percentage point to 0.5% in August. However, the most marked declines were seen at the longer end of the maturity spectrum. The interest rate on savings deposits fell by 0.3 percentage point to 0.8% in August 2003 (see Chart 32), while that on deposits with an agreed maturity of up to one year – which is generally quite higher than the former rate – dropped by 0.5 percentage point and reached

2.3% in August 2003. The lower interest rate on savings deposits partly reflects the cost of the facilities offered by such accounts (e.g. bill payments under standing payment orders and transfers of funds via cards), as well as their higher liquidity. Euro area deposit rates also followed a downward path in the same period, but, compared with the respective Greek rates, they recorded a heavier fall in longer maturities. Thus, in August 2003, the Greek interest rates on deposits with a maturity of up to one year were 0.6 percentage point (against only 0.3 percentage point in December 2002) higher than the corresponding euro area rates,¹³ whereas no significant differences were observed between the Greek and the euro area overnight (sight) deposit rates (see Chart 32).

The Greek bank lending rates also experienced declines between January and August 2003 (see Chart 33). While the average interest rate on short-term loans to enterprises was reduced by

¹² Consumer and other household loans outstanding at the end of 2002 corresponded to 7.3% of Greek GDP, while the respective figure for the euro area was 15.6%.

¹³ Among Greek deposit rates, the interest rates on sight deposits and on deposits with an agreed maturity of up to one year are the most comparable with those of other euro area countries.

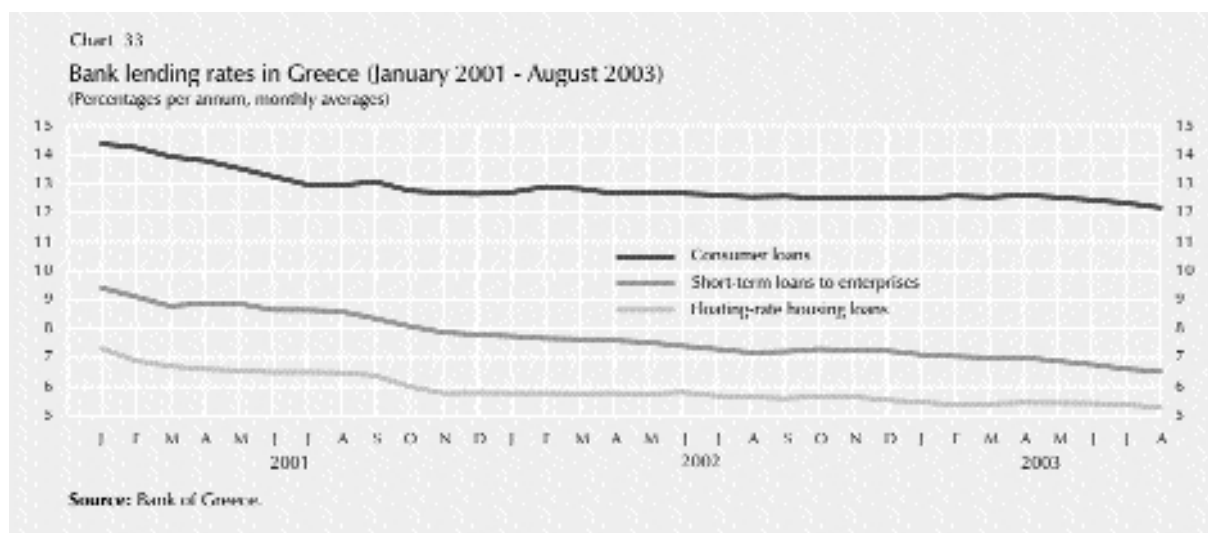


Table XVIII
Lending rates in the euro area and Greece
(Percentages per annum)

	December 2001	December 2002	August ¹ 2003	Change Aug. ¹ 2003/Dec. 2002
Short-term loans to enterprises				
Weighted average interest rate in the euro area	6.26	5.98	5.23	-0.75
Maximum interest rate in the euro area	8.89	8.70	8.43	-0.27
Minimum interest rate in the euro area	4.45	4.20	4.12	-0.08
Interest rate in Greece	7.79	7.23	6.59	-0.64
Fixed-rate housing loans				
Weighted average interest rate in the euro area	5.52	5.10	4.22	-0.88
Maximum interest rate in the euro area	6.29	5.95	5.53	-0.42
Minimum interest rate in the euro area	4.52	4.00	3.13	-0.87
Interest rate in Greece	5.40	4.91	5.31	0.40
Consumer loans (personal loans)				
Weighted average interest rate in the euro area	9.81	9.58	9.06	-0.52
Maximum interest rate in the euro area	11.62	11.64	11.78	0.14
Minimum interest rate in the euro area	5.45	5.09	4.14	-0.95
Interest rate in Greece	11.62	11.64	11.70	0.06

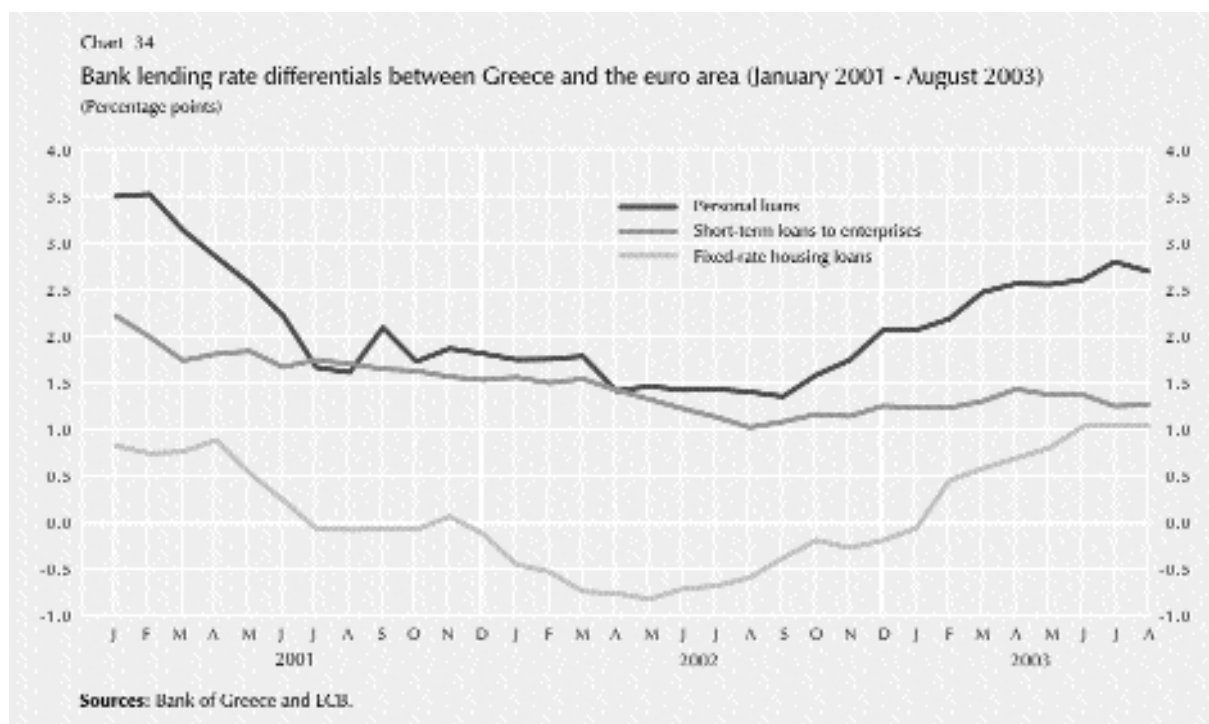
¹ Maximum and minimum interest rates concern June, since the ECB has not published complete data after that month.

Sources: Bank of Greece and ECB.

0.6 percentage point to 6.6% in August,¹⁴ the decrease was somewhat greater in the corresponding euro area rate. As a result, the spread between the two rates increased marginally to 1.4 percentage points in August, from 1.3 percentage points in December 2002 (see Table XVIII and Chart 34). The average interest rate on long-term loans to enterprises dropped by 0.7 percentage

point, i.e. slightly more than the corresponding euro area rate, to 6.1% in August 2003, bringing

¹⁴ It should be noted that, for Greece, the term "interest rates on short-term loans to enterprises" refers to interest rates on open-account loans, which represent the main form of short-term financing to enterprises. Interest rates on loans with agreed maturity are considerably lower; in August 2003, they were 4.9% (for loans of up to € 1 million) and 3.6% (for loans of over € 1 million), against 5.8% and 4.5% respectively in December 2002.

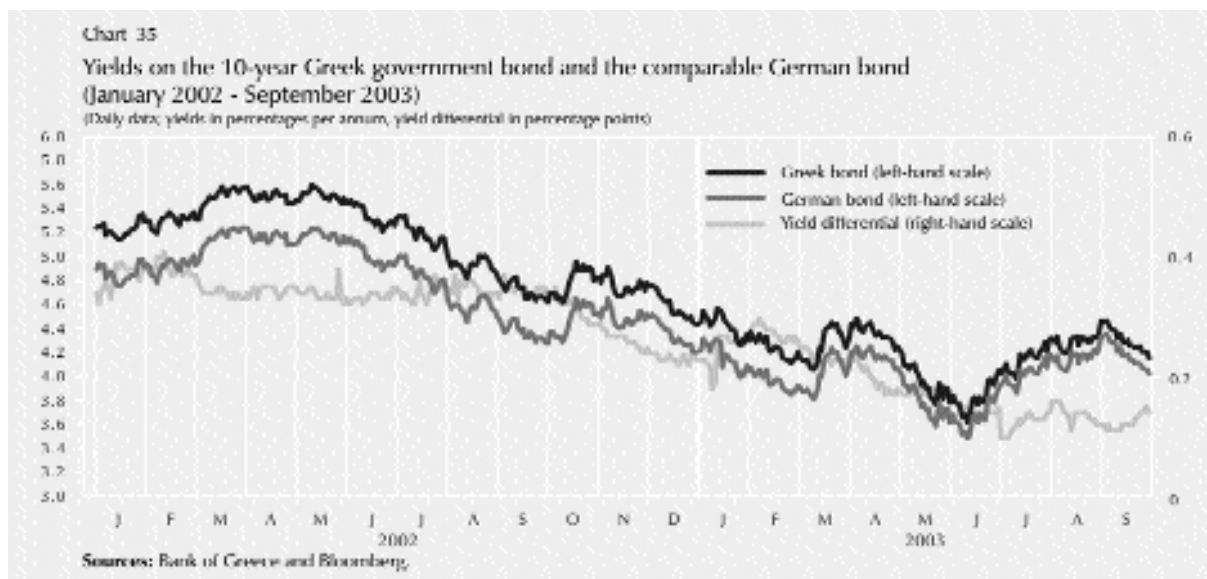


the spread between the two rates to 1.3 percentage points that month, down from 1.5 percentage points in December 2002.

Developments in consumer loan rates during January-August 2003 suggest a mixed picture. The interest rate on loans through credit cards, after remaining unchanged until the end of April, fell by 0.7 percentage point to 14.7% in August. It should be noted that interest rates on loans through credit cards are generally higher than those applicable to other consumer loans, owing to the higher credit risk and management costs they entail. The interest rate on loans against supporting documents dropped less than that on loans through credit cards during the same period (August 2003: 10.1%, December 2002: 10.5%). By contrast, a marginal increase (+0.1 percentage point) was recorded in the interest rate on personal loans in the period under review. This, combined with a 0.5 percentage point cut in the corresponding euro area rate, resulted in a widening of the spread between the two rates, from 2 percentage points in December 2002 to 2.6 percentage points in August 2003.¹⁵

Divergent developments have also been experienced in housing loan rates. Specifically, the interest rate on floating-rate housing loans with a maturity of over 5 years decreased by 0.3 percentage point to 5.2% in August 2003. By contrast, the interest rate on fixed-rate housing loans with similar maturity rose by 0.4 percentage point, from 4.9% in December 2002 to 5.3% in August 2003. It should be noted that keen competition between banks in the field of housing credit over recent years has driven the relevant interest rates to particularly low levels. However, a number of banks have proceeded to adjust upwards their housing loan rates this year, partly because the Bank of Greece raised the minimum provisioning requirements (especially those applicable to housing loans) in the early part of the year, which in turn affected the cost of money. In the period under review, the euro area housing loan rate dropped by 0.9 percentage point. As a result, its spread over

¹⁵ The Greek interest rate on personal loans is the most comparable with the euro area rate on consumer loans, which is published in the *Monthly Bulletin* of the ECB.



the corresponding Greek rate shifted from positive (+0.2 percentage point) in December 2002 to negative (-1.1 percentage points) in August 2003.

The weighted average interest rate on new bank loans has dropped more than the corresponding deposit rate in recent years. Thus, their spread narrowed to 5.7 percentage points in December 2002, from 8.9 percentage points in December 1998. This can be partly attributed to the abolition or reduction of some taxes and levies,¹⁶ as well as to the harmonisation (in the second half of 2000) of Bank of Greece reserve requirements with those of the Eurosystem. Apart from these adjustments, which had a significant (both direct and indirect) impact on the cost of money, the narrowing of the spread came also as a result of keener competition between banks, especially in loans to households. Furthermore, it is connected to the cutdown on banks' operating costs (which, as a percentage of their total assets, fell by 0.5 percentage point to 2.3% between 1997 and 2002). In January-August 2003, both the lending and the deposit rate (weighted averages) decreased by 0.5 percentage point. Consequently, the spread between the two rates remained unchanged at its December 2002 level.

4. Capital markets

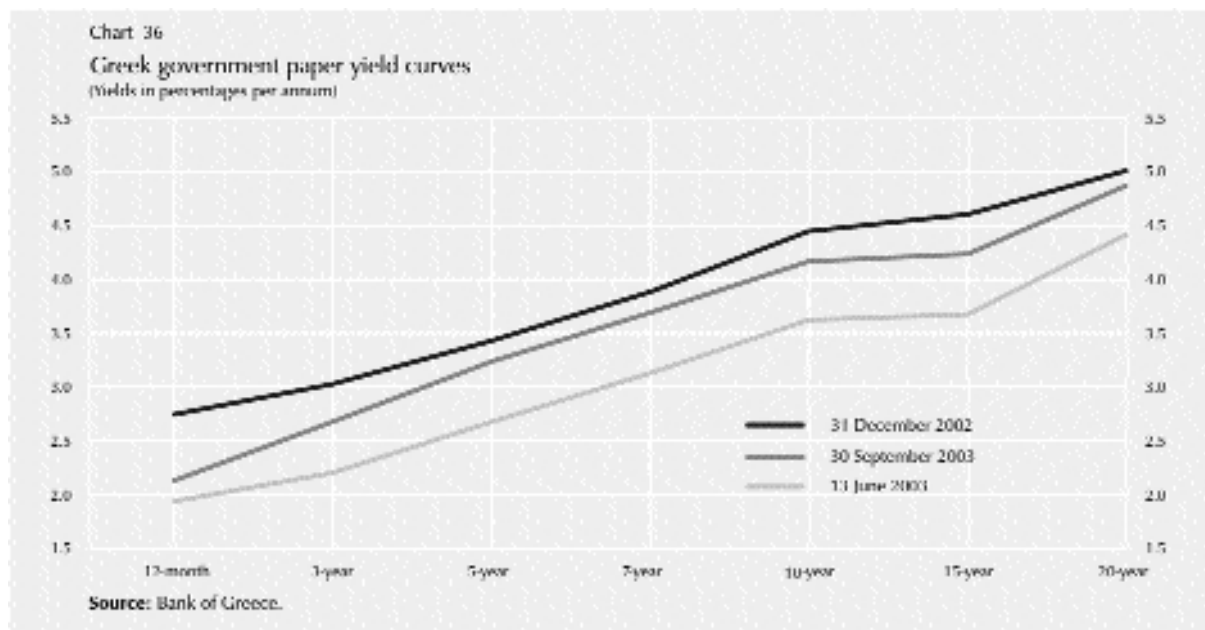
4.1 The bond market

Greek government bond yields fell considerably between early January and mid-June 2003, and again in September 2003, following a noticeable recovery in July-August. By contrast, secondary market trading of these securities rose in January-September 2003, compared with the corresponding period of 2002.

In line with developments in their euro area¹⁷ and US counterparts, the yields of Greek government bonds followed a broadly declining path between mid-May 2002 and mid-June 2003 and plunged to historically low levels at the end of this period, before rebounding markedly until mid-August 2003; the 10-year bond yield, in particular, regained three fourths of the losses it had suffered over the first five and a half months of this year (see Chart 35). Initially

¹⁶ The Special Tax on Banking Transactions was cut from 4% to 3% on 1 September 1997 and was abolished on 1 January 2001. Also, the levy under Law 128/75 was reduced to 0.6% on 1 April 2000, from 1.2%.

¹⁷ For a discussion of developments in the euro area bond market, see Chapter II.3.3.



underlying these developments were heightened geopolitical tensions, military operations in Iraq and uncertainty about the recovery of the world economy. Later on, however, the easing of geopolitical tensions and releases of more optimistic data on the world economic outlook (especially regarding the US economy) and on corporate profitability shifted investors' attention to stock markets and thus dampened demand for government bonds.¹⁸ This trend was reversed in September 2003, mainly because of the drop in stock market prices.

The yield of the 10-year Greek government bond recorded strong fluctuations – between a trough of 3.62% (13 June) and a peak of 4.57% (14 January) – in January-September 2003¹⁹ and at the end of September 2003 it was 4.17%, i.e. 27 basis points lower than at the end of December 2002 (4.44%). The yield differential between the Greek 10-year bond and the comparable German bond narrowed to 14 basis points in September 2003, from 23 basis points in December 2002 and 34 basis points in December 2001 (end-of-month figures, see Chart 35).

Between end-December 2002 and end-Septem-

ber 2003, government bond yields decreased across the whole spectrum of maturities. As a result, the government bond yield curve shifted downwards and the positive slope of its segment corresponding to twelve-month to ten-year maturities steepened (see Chart 36). Indeed, during the aforementioned period, the spread between the yields of the 10-year government bond and the 12-month Treasury bill widened by 35 basis points.

The average daily value of transactions in the Electronic Secondary Securities Market (HDAT) rose to €2.7 billion in January-September 2003, from €2.3 billion in the respective period of 2002 (see Chart 37). This boosted the liquidity of the secondary market, as reflected in the further narrowing of the bid-ask spread in bond prices (September 2003: 8.1 basis points, December 2002: 9.4 basis points, December 2001: 9.8 basis

¹⁸ The sustained strength of the euro against the US dollar until early June 2003, combined with significant capital inflows in bond markets, contributed, *inter alia*, to delaying by about three months a shift in the focus of euro area investors from government bonds to shares.

¹⁹ Euro area government bond yields also fluctuated sharply during January-September 2003.

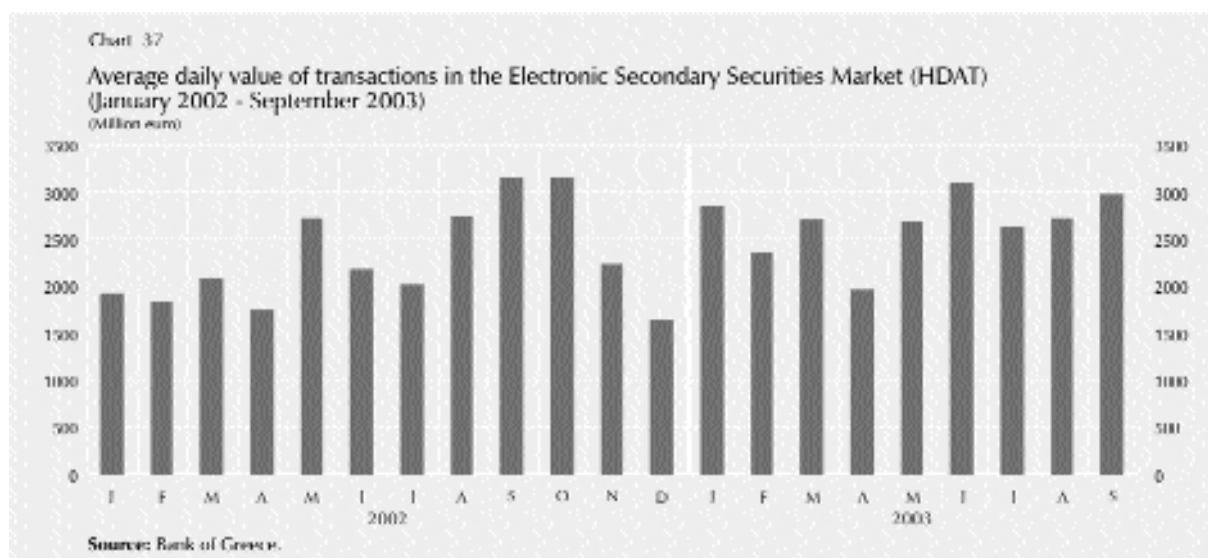


Table XIX
Greek government paper issuance

Type of security	January - September			
	2002		2003	
	Million euro	Percentage of total	Million euro	Percentage of total
Treasury bills	1,087	4.1	1,737	5.5
Bonds ¹	25,443	95.9	29,980	94.5
1-year	–	–	2,053	6.8
3-year	5,136	20.2	6,430	21.5
5-year	7,351	28.9	9,002	30.0
7-year	1,541	6.1	191	0.6
10-year	7,265	28.5	8,195	27.3
15-year	–	–	649	2.2
20-year	4,150	16.3	2,214	7.4
23-year	–	–	1,246	4.2
Total	26,530	100.0	31,717	100.0

¹ By initial maturity.

Source: Ministry of Economy and Finance.

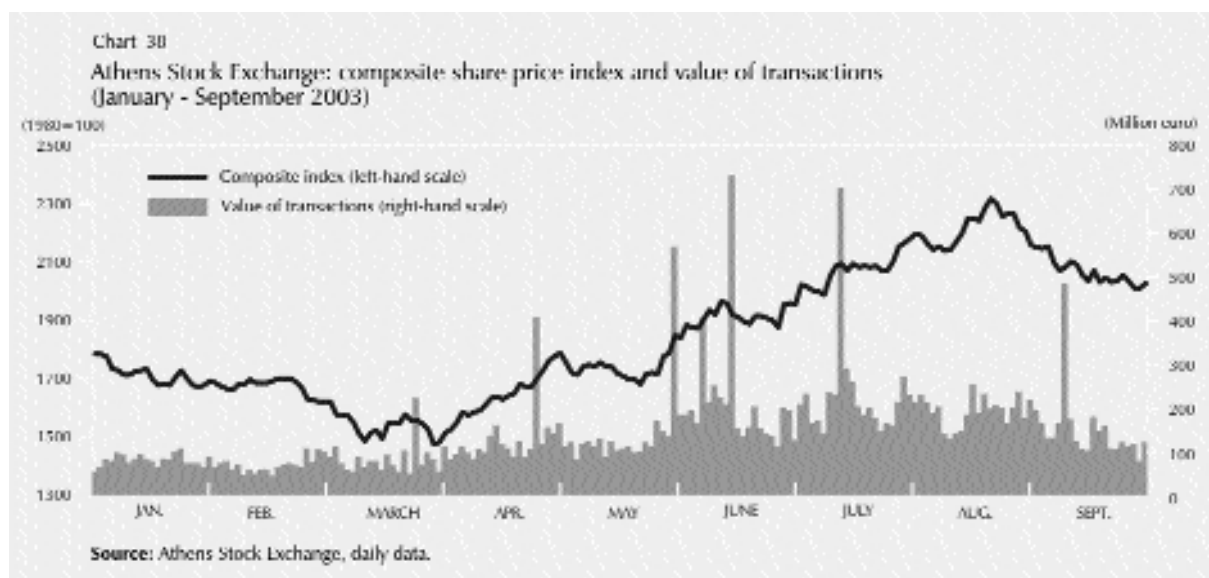
points), which, in turn, implies that the secondary market has become more efficient.

Funds raised through the primary market for Greek government paper totalled €31.7 billion in January-September 2003, compared with €26.5 billion in the same period last year (see Table XIX). New issues were dominated by syndicated bonds and, to a smaller extent, by auction bonds, while reopenings of past government issues were also

made by auction or syndication procedures. Also, it should be noted that in 2003, for the first time, 1-year and 23-year bonds were issued (in amounts of €2.1 billion²⁰ and €1.2 billion,²¹ respectively),

²⁰ Special savings bonds offered through public subscription at an interest rate of 3.6%. They were issued in February 2003 (€0.8 billion), in May 2003 (€0.7 billion) and in September 2003 (€0.6 billion) and they are exempted from tax, provided that their holder keeps them until maturity.

²¹ Syndicated bond issue, linked to the EU HICP (excluding tobacco).



together accounting for about 11% of the total value of bond issues. Three-year and 5-year bond issues (€15 billion) had a share of 51% in the total value of bond issues, 7-year bond issues (€0.2 billion) had a share of 1%, while the remaining 37% concerned 10-year, 15-year and 20-year bond issues. Moreover, Treasury bill issues represented around 5% of the total value of government paper issues in January-September 2003, compared with 4% in the respective period of 2002. All of the above point to a slight decrease – through a small shift from maturities of 7 years (or more) to maturities of 5 years (or less) – in the weighted average maturity of Greek government paper issued in the period under review.

4.2 Stock market developments

In the first quarter of 2003, the composite share price index of the Athens Stock Exchange (ASE) followed a downward course, which was interrupted by a marked improvement between early April and end-August. However, share prices fell again in September 2003 (see Chart 38). This pattern mirrored developments in the US and the euro area stock markets, which experienced declines and high volatility in share prices

between early January and mid-March, mainly as a result of geopolitical tensions, the prospect of war in Iraq and the downward revision of projected economic growth in the US and the euro area in 2003. In the following months (with the exception of September 2003), share prices picked up appreciably, as the termination of the war on Iraq, the somewhat brighter outlook of the US economy and the recovery of corporate profits brought about a considerable easing of geopolitical tensions and uncertainty. A 12% increase in the profits of domestic ASE-listed firms during the first half of this year was another supportive factor in this connection.

In detail, between end-December 2002 and end-September 2003, the ASE composite share price index rose by 15.5%, i.e. faster than the US Standard and Poor's 500 (13.2%) and the euro area Dow Jones EURO STOXX (4.1%), ranging between a high (2,310.5 points) on 22 August 2003 and a low (1,467.3 points) on 31 March 2003. Moreover, both stock market trading volumes and the amounts of funds raised through the stock market (which have declined considerably in the last few years) recorded a significant upswing in January-September 2003. Specifically,

Table XX

Fund-raising through the Athens Stock Exchange

(Million euro)

Branches	January - September			
	Number of firms		Funds raised ¹ (million euro) ¹	
	2002	2003*	2002	2003*
Listed companies	19	31	75.6	244.4
Newly listed companies	12	11	73.7	48.1
Total	31	42	149.3	292.5
– Banks	2	4	12.6	105.8
– Investment	0	2	–	3.0
– Insurance	0	1	–	60.2
– Holding	3	1	46.3	0.3
– Industrial	6	15	12.2	49.6
– Construction	0	1	–	7.5
– Commercial	4	3	22.0	21.3
– Telecommunications	2	3	8.0	3.0
– Information technology	9	11	18.3	33.6
– Health services	1	0	18.8	–
– Other	4	1	11.2	8.2

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

* Provisional data.

Sources: Athens Stock Exchange and Bank of Greece

the average daily value of stock market transactions came to €130 million in the period under review (compared with €102 million in January-September 2002), while funds raised through the stock market²² totalled €293 million,²³ compared with €149 million in the same period last year (see Table XX). These funds were raised by 42 companies (January-September 2002: 31 companies), of which 11 were newly-listed and accounted for €48 million (January-September 2002: 12 newly-listed companies, €74 million).

The banking sub-index performed better than the composite index during the period under review. In more detail, share prices, trading volumes and the market capitalisation of banks with ASE-listed shares all grew at rates above the respective figures for the stock market as a whole. To a large extent, this was associated with a notable improvement in commercial banks' profits, which had

been on a declining path throughout 2000-2002. Specifically, pre-tax profits of Greek commercial banks with ASE-listed shares rose by around 18% in the first half of 2003 (relative to the first half of 2002), compared with decreases of 45% and 14% for the whole years 2002 and 2001, respectively. The main factors behind the improved bank profitability in the first half of this year were the growth of net interest income and, to a lesser degree, the increase in income from financial operations, whereas operating costs rose only moderately.

²² By means of capital increases.

²³ Another €883 million (compared with €507 million in the corresponding period of 2002) was raised through secondary offerings mostly by public sector enterprises during the period under review.

The development of the Greek financial system over the last decade

The Greek financial system has undergone considerable transformation since the late 1980s, both in terms of the operation of individual banks and the structure of the system itself. Total assets of financial intermediaries (banks, mutual funds and insurance companies) as a percentage of GDP, though lower than those of the euro area, increased from 132% in 1996 to 167% in 2002.¹ In the main, this transformation can be attributed to the liberalisation of the financial system both in Greece and abroad, in association with technological developments in the areas of information and telecommunications. Much of the change, which has been compressed into the last decade, has accompanied developments at the European level – the completion of the Internal Market, in particular the measures associated with the creation of the Single Financial Area (single banking licence, mutual recognition and home country control of solvency) and, more recently, the introduction of the euro and those measures promoted by the European Commission within the framework of the Financial Services Action Plan.² Financial liberalisation has been accompanied by growing integration of the Greek financial system with that in the rest of the EU. The transformation of the financial system has played a crucial role in improving growth and investment performance, thus fostering real convergence of the Greek economy. Moreover, the financial sector is important in its own right, employing around 93,000 people.³ For these reasons, the changes which have been occurring in the financial system bear a closer look.

Whilst the degree of financial development is important for economic growth, it is also the case that the structure of the financial system exerts considerable influence, as reflected, for example, in the relative importance of financial institutions and markets, since each

has a comparative advantage in rather different areas. A financial system should be able to intermediate between savers and borrowers efficiently, in the sense that the cost of financial services should be as low as possible. In addition, scarce financial resources should be allocated among potential borrowers optimally. The very nature of financial transactions, which frequently involve the exchange of financial resources now for a promise of repayment in the future, implies that the financial system also has to be able to deal effectively with severe problems which arise from information asymmetries. The nature of financial transactions gives rise to such asymmetries because one party to the transaction usually has more information than the other about the use to which the funds will be put.

Financial markets, such as stock or bond markets, are in general very efficient at providing finance at low cost to those who have access to such markets. However, they are not so efficient at dealing with information asymmetries, since assessing investment projects and monitoring managers' behaviour is a costly enterprise, often too costly for individual equity or bond holders. As a result, access to bond and stock markets is usually limited to large firms with a good reputation; small and medium-sized firms are less able to raise funds from these sources.

By contrast, banks are thought to be better able to deal with information asymmetries, especially when they develop long-term relationships with their customers. This makes it possible for a wider range of firms and individuals to get access to finance from banks than would from capital markets. Accordingly, current analy-

¹ Comparable data on the euro area are available only for 2000 (363% of GDP, see ECB (2002), *Report on financial structures*).

² The Financial Services Action Plan suggests priorities and time-scales for legislative and other measures to tackle three strategic objectives by 2005: completing a single wholesale banking market, developing open and secure markets for retail banking services and ensuring the continued stability of EU financial markets. It also addresses the importance of eliminating tax obstacles and distortions for the creation of a single financial market.

³ End-June 2002 data.

sis suggests that bank-based financial systems perform better when firms are smaller and less formally organised and when there is less transparency. By contrast, market-based financial systems are more suited to economies where firms are bigger and more formally organised and when there is better legal enforcement and transparency.⁴

One feature of the evolution of the Greek financial system over the past decade or so is that, although bank intermediation has grown at a rapid pace, capital markets have expanded even more quickly. Thus, despite the transformation of the banking system, the degree of intermediation has declined in relative terms. Moreover, the rapid growth of bond and equity markets in the 1990s had favourable effects on the real economy and the convergence process. The development of the bond market has helped reduce the cost of borrowing for the government and promote the fiscal consolidation process, while the development of the equity market reduced the cost of capital for firms, with positive effects on private sector investment. The protracted decline in equity prices over the recent past has certainly affected developments in the financial sector and has led to a reversal in the declining trend observed in bank intermediation, but it can be expected that, in the long run, the equity market will continue to play an important role in the financing of the economy.

The transformation of the banking system and financial markets has also been accompanied by an increase in the importance of other types of financial institutions offering new services. In particular, insurance companies and mutual funds have experienced a rapid growth in their customer base, as demand for a broader range of financial services, beyond the traditional bank deposit, increased significantly.

The banking system

At end-June 2003, the Greek banking system comprised 23 Greek commercial banks, 2 specialised credit

institutions (the Postal Savings Bank and the Deposits and Loans Fund), 21 foreign banks with branches in Greece and 15 cooperative banks (although the latter do not account for more than 1% of total assets of the banking system). The assets of all domestic banks account for around 91% of total assets of the banking system.

As noted above, the banking system has experienced significant structural change as a consequence of domestic deregulation, increased European financial integration and, lately, euro area entry. In recent years, consolidation through mergers and acquisitions (see Table A1) has been the main feature of the system, a process which, to a great extent, has been facilitated by the privatisation of state-controlled banks. Although the period 1993-2002 was largely one of consolidation, a number of new banks did set up operations both in the period 1990-93 and again since 2000. An examination of the evolution of the concentration ratio is one way of getting a handle on the degree of competition in any sector. In the case of Greek banks, the concentration ratio, as measured by the share of assets of the two largest banks in total bank assets, fell between 1993 and 2002 from 54% to 49%, while the share of the next four largest banks rose from 30% to 44%. What is interesting about these figures is that, for the top six banks, the largest has been losing market share whereas the other five have been gaining market share. Thus the 93% concentration ratio for the largest six banks comprises one bank with just over 30%, one with almost 20% and the other four with around 10% each. These six banks are of a sufficient size now to compete with one another over a wide range of bank services. This suggests that competition has indeed increased as a result of financial liberalisation and consolidation.

⁴ See Allen F. and D. Gale (2000), *Comparing Financial Systems*, MIT Press, and Raghuram R. and L. Zingales (2003), "Banks and Markets: the Changing Character of European Finance" in Gaspar V. et al. (eds), *The Transformation of the European Financial System* ECB.

Table A1

Mergers and acquisitions of banks in Greece

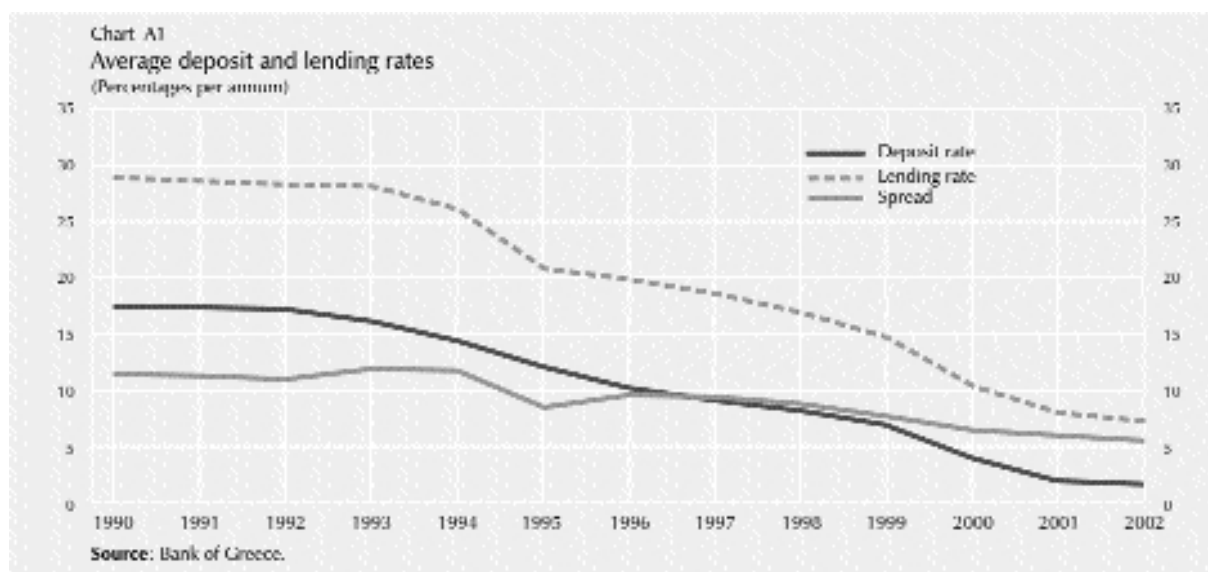
(The year refers to the date when the merger or acquisition was announced)

Year	Acquirer	Acquired
1991	Group of investors	Piraeus Bank
1993	Hanwha First Investment	Bank of Athens
1996	Eurobank	Interbank
1997	National Mortgage Bank of Greece	National Housing Bank
	Piraeus Bank	Chase Manhattan (branch network in Greece)
1998	Piraeus Bank	Macedonia-Thrace Bank Crédit Lyonnais Grèce Xiosbank
	Eurobank	Bank of Athens Cretabank
	Egnatia Bank	Bank of Central Greece
	National Bank of Greece	National Mortgage Bank of Greece
1999	Piraeus Bank	National Westminster (branch network in Greece)
	Alpha Credit Bank	Ionian Bank
	Telesis Securities	Dorian Bank
	Eurobank	Ergobank
2001	Eurobank Ergasias	Telesis Investment
	Marfin Investment	Piraeus Prime
	First Business Bank	Nova Scotia (branch network in Greece)
	Piraeus Bank	Hellenic Industrial Development Bank (ETBA)
2002	National Bank	Hellenic Industrial Development Investment Bank (ETEBA)
	Aspis Bank	ABN-AMRO (part of business and retail branch network in Greece)
2003	Marfin Bank	Investment Bank of Greece
Strategic alliances		
1998	Eurobank and Deutsche Bank	
2000	Commercial Bank of Greece and Crédit Agricole	
2001	Piraeus Bank and ING Group	
Source: Bank of Greece.		

Future developments are likely to include further consolidation, as the size of Greek banks remains small by European standards and the process of integration of the European financial sector has assumed a new momentum. In particular, competition among European banks has intensified, especially in the wholesale segment of the market. Of course, foreign entry into the domestic retail banking market is hampered by the costs of developing a network of branches and by the fact that familiarity with a bank's name plays an important role. Customers may thus prefer to remain with the bank with which they have established a relationship. As a result, domestic banks will continue to enjoy a comparative advantage over foreign banks in retail

banking business. Foreign entry is thus more likely to come about through strategic alliances between domestic and foreign institutions (see Table A1).

The consequences of increased competition for the banking system have been many, including an improvement in the quality and range of services offered to both households and firms and a narrowing of the spread between borrowing and lending rates. Thus, for example, increased competition in the supply of consumer and mortgage credit has contributed to a decline in borrowing costs over and above that which resulted from the general fall in interest rates as a consequence of euro area entry and an increase in the range of loan



types available. As a result, the outstanding balances of both housing and consumer credit as a percentage of total credit to the private sector have risen in recent years, reaching 25% and 11% respectively in 2002 (as against only 14% and 2% in 1993).⁵ New services to firms comprise leasing and factoring, as well as a variety of derivative instruments including options and swaps.⁶ The spread between average lending and deposit rates is shown in Chart A1. The overall spread has fallen by around 6 percentage points compared to the early 1990s, although as an absolute measure (at about 5.6 percentage points) it remains one of the highest in the EU. As competition intensifies in the coming years, it is expected that spreads will decline further.

Despite a considerable increase in the number of bank branches (from 2,103 in 1995 to 3,263 in 2002), the number of inhabitants per branch (3,158 in 2001) still remains significantly higher than the euro area average (1,852). In part, this reflects Greece's lower *per capita* GDP and hence the lower level of financial intermediation. Modern technology, which has made remote and electronic banking possible, tends to reduce the importance of a branch network for serving customers and carrying out bank operations. Thus, the relatively limited branch network of some Greek banks may actually turn out to be an advantage in that they do not have to engage

in the costly downsizing undertaken recently by other European banks. At present, remote and electronic banking are not used extensively in Greece and this points to an area of potential growth over the coming years.

Banks have become more productive. Real loans (that is the value of outstanding loans deflated by the consumer price index) per employee, real total assets per employee and real bank deposits per employee have all increased sharply in recent years. These increases have surpassed those in other EU countries, although productivity remains low by European standards. Moreover, staff costs as a proportion of total assets, which in comparison with other EU countries are still relatively high, have been falling since the mid 1990s. However, further improvements are necessary in order to enhance Greek banks' competitiveness in the highly competitive environment of the euro area.

Traditionally, net interest income is the main source of

⁵ These amounts represent 15% of GDP for housing credit and 7% of GDP for consumer credit, up from 3% and 0.6% in 1993, respectively.

⁶ Banks offered derivatives over the counter from the mid-1990s. Derivative markets did not exist until 1999 when the Athens Derivatives Exchange began to offer standardised financial derivatives contracts.

income for banks world-wide, although its significance has been waning in recent years. In the case of Greek banks, net interest income corresponds to a relatively small percentage of total income, although there is a clear tendency for it to increase both as a percentage of total income and total assets. This reflects the rather large increase in loans to the private sector (especially households) which has occurred as banks have responded to the pent-up demand, especially for consumer and housing loans, which, until recently, were subject to credit restrictions. Following financial deregulation (in particular the abolition of the investment ratios that commercial banks were required to observe in the past⁷) and fiscal consolidation, there has been a shift in bank credit towards the private sector as such credits yield higher rates of return than investment in government paper (the returns on the latter have fallen significantly as spreads over the German Bund have narrowed).

These trends are expected to continue in the future, not least because of the declining share of income from commissions and fees that has been a feature of the operating results of Greek banks since 1994. This development partly reflects increased competition which has been driving commissions downwards. Entry into the euro area and the adoption of euro banknotes and coins from January 2002 have reduced commissions from foreign exchange transactions. More recently, banks have also experienced reduced fees and commissions from stock exchange transactions. However, the continued growth of off-balance-sheet business, which in general generates fees and commissions, is expected to offset, partly or fully, this downward trend.

The profitability of Greek banks compares favourably with that of banks in other EU countries, since the high interest rate spreads compensate for the somewhat poorer productivity levels. The rate of return on assets peaked at 3% in 1999 as banks benefited from the buoyant conditions on the stock market by realising

profits on shares held, and earned greater fees than usual from trading on behalf of customers. The decline in subsequent years (the rate of return on assets in 2001 was 1.4% compared to an EU average of approximately 1%) has reflected a return to more normal levels as well as the fact that some banking groups have been incurring adjustment costs associated with mergers and acquisitions.

The capital base of Greek banks has improved substantially in the last few years, having benefited both from banks' increased profits and also from new capital issues which were relatively easily placed in the buoyant stock market conditions of 1999. At the end of 1996, the risk-adjusted capital adequacy ratio stood at just over 8%; it then more than doubled to 15.5% at the end of 1999. This gave banks a solid base on which to expand their business. At the same time, high profitability and the favourable economic environment prevailing in Greece at the time provided banks with ample room to increase their loan loss provisions and write-offs and enhance their lending and risk management policies, thereby helping to improve the quality of their loan portfolios. As a result, Greek banks were well positioned and had sufficient room to absorb the effects on their capital and profitability of the downturn in the Athens Stock Exchange that began in late 1999, as well as the reversal of positive trends in the global economy and the ensuing uncertainty and drop in international capital markets, and thus to ensure their soundness and stability. In this respect, the risk-adjusted capital adequacy ratio on a consolidated basis currently stands at just over 10% (June 2003 data).

The extent of bank-intermediated finance has increased in recent years, although it is still relatively low by European standards. The total assets of credit institutions as a percentage of GDP rose from 103% in 1990

⁷ Before liberalisation, banks were required to lend a certain proportion of their funds to certain specified sectors and they were not free to choose where deposits would be invested.

Table A2

The presence of Greek banks in South Eastern Europe

Country	Greek banking groups	Form of presence	Number of units	Personnel
Albania	2	Subsidiaries	9	156
	2	Branches	9	103
Armenia	1	Subsidiary	1	31
Bulgaria	3	Subsidiaries	267	3,670
	3	Branches	5	112
Georgia	1	Subsidiary	1	26
Cyprus	3	Subsidiaries	63	980
	2	Branches	2	10
FYROM	2	Subsidiaries	104	1,572
Romania	5	Subsidiaries	147	4,127
	1	Branch	1	39
Serbia-Montenegro	2	Branches	5	20
Turkey	1	Subsidiaries	2	30
	1	Representative Office	1	

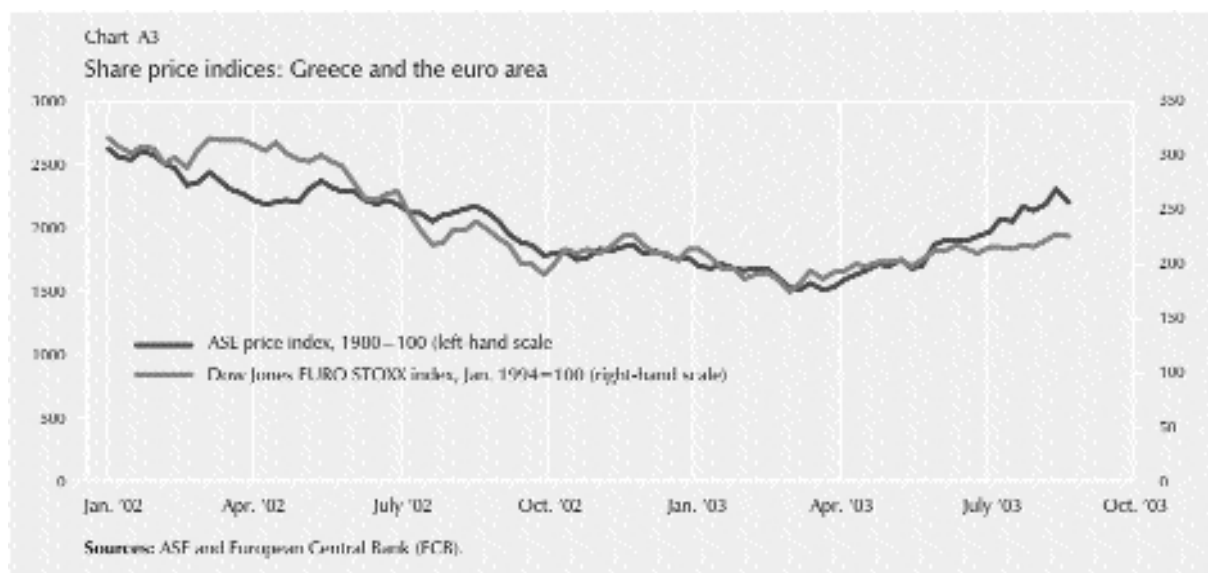
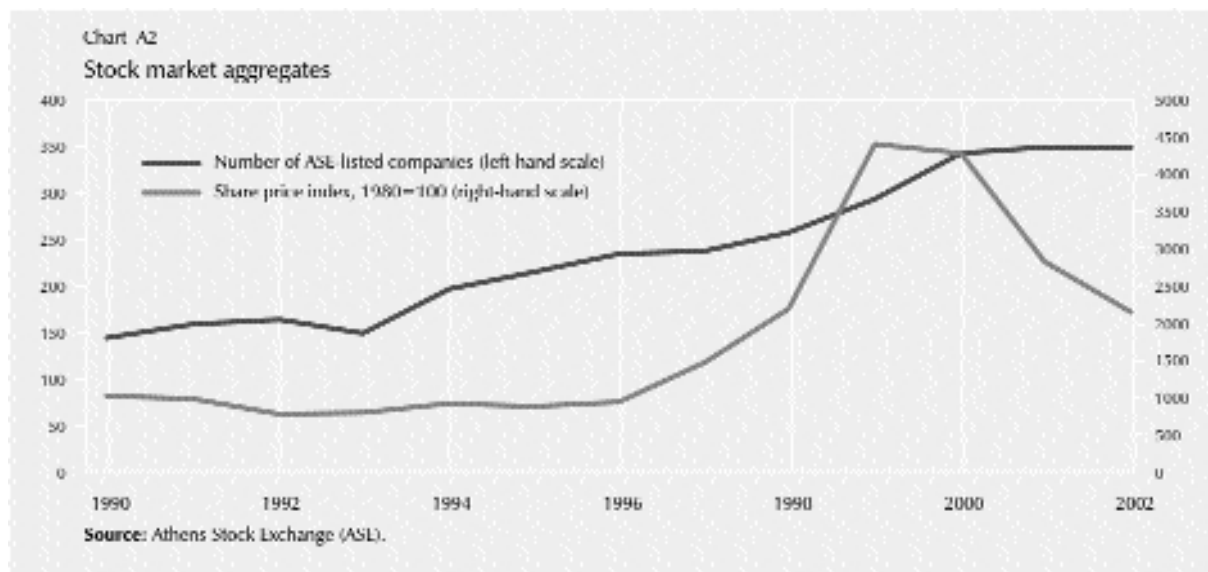
Source: Bank of Greece.

to just over 144% in 2002. There is also evidence that Greek banks are becoming more outward looking. The larger banks have been present in the major international financial centres for some time now. In addition, they have been expanding their operations overseas through cooperative agreements with foreign credit institutions and by opening branches or acquiring banks in countries in the wider area of South Eastern Europe, some of which are prospective EU members (see Table A2). As a consequence, Greek banks own a large proportion of the financial sectors in some of these countries and they are helping to promote investment and finance trade with Greece. Overall, the picture that emerges is that of a banking system which has undergone significant change over the past decade and which, in many respects, is gradually becoming similar to that of other European countries. However, various challenges still remain. Over the coming years, Greek banks will have to continue their efforts to become more efficient and improve the range and quality of services offered to their customers in order to be able to compete effectively in the euro area. At the same time, heightened competition and the European orientation of the banks dictate the further development of risk management systems.

Capital markets

Capital markets have been growing in parallel with the expansion of the banking system. In particular, the Greek interbank money market became progressively deeper and more liquid until it was fully integrated into the euro area money market in 2001, when Greece entered the euro area. Banks have been increasing their reliance on it for funds or for placing excess liquidity. This development contributes to a more efficient distribution of liquidity within the system. In addition, major structural changes in both equity and bond markets have also been witnessed.

The growth of the equity market in Greece is manifested in the rise in the number of companies listed on the Athens Stock Exchange (ASE). Chart A2 shows the number of companies listed on both the main and parallel markets. The sharp rise has helped to improve the breadth and depth of the market and increase its contribution to the overall growth of the economy. Market capitalisation of ASE-listed shares (which reflects both the number of companies as well as their share prices) has also risen from less than 15% of GDP at end-1991 to 47% at end-2002. With the steep rise in equity prices



in 1999, market capitalisation reached 170% of GDP at the end of that year. This sharp rise in equity prices can only partly be explained by the improved macroeconomic performance, in particular the substantial decline in actual and anticipated interest rates. It also reflected a general euphoria which surrounded the expected entry of Greece into the euro area. The subsequent fall was initially a correction of the overvaluation which had occurred in 1999; its continuation more recently is a consequence of the severe bear market sentiment which has inflicted stock markets the world over. At the same time, the Greek stock market is gradually becoming

more integrated into the corresponding European markets, though at a slower pace than the bond market. Converging dynamics in share price developments between the Athens Stock Exchange and the other European stock markets observed over the past 18 months reflect this ongoing process of integration (Chart A3).

The stock market can play an important role in financing firms and helping with the restructuring of the economy. It can accelerate the process of capital accumulation and enhance the productivity of capital, thereby encouraging

Table A3
Fund-raising through the Athens
Stock Exchange
(Million euro)

Year	Listed firms	Firms listed for the first time
1990	378	173
1991	289	156
1992	86	12
1993	237	58
1994	479	259
1995	191	65
1996	123	273
1997	1,511	59
1998	1,450	977
1999	8,587	1,124
2000	6,967	1,820
2001	367	470
2002	267	86

Source: ASE.

real economic growth. Table A3 shows the amount of capital raised through the Athens Stock Exchange in the period 1990 to 2002 through initial public offerings and new share issues. Both show a strong upward trend which ended in 2001. More recently, the amounts raised have been much lower, being negatively affected by the market correction in 2000/2001 and the subsequent bear market. The financial sector has been an important issuer, especially in 1999 when, as noted above, banks took advantage of the bull market to strengthen their capital base significantly.

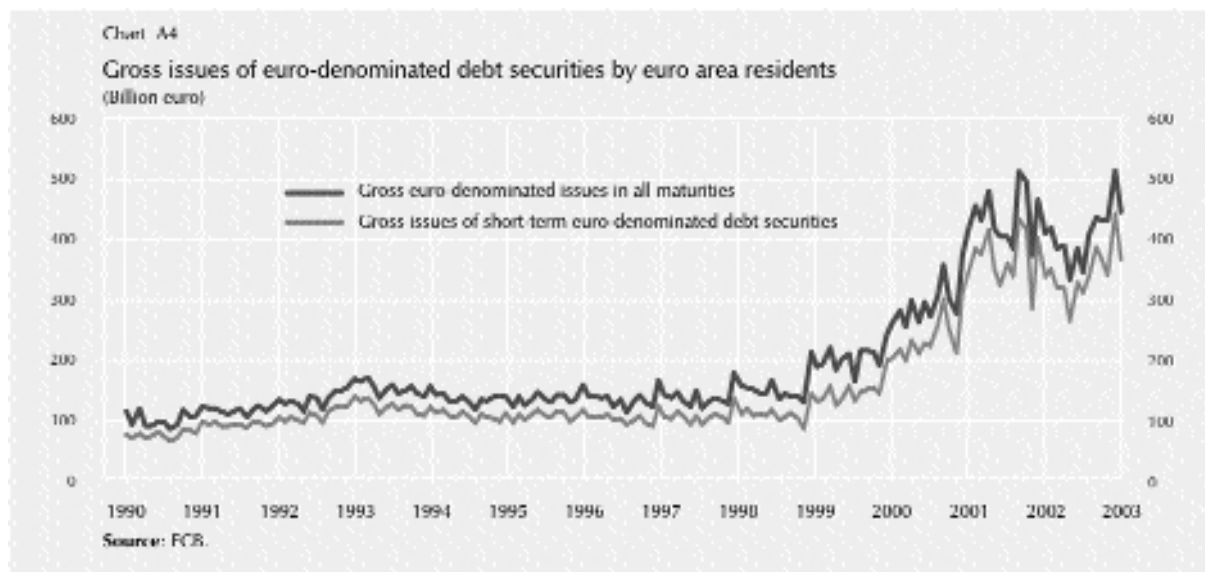
Aside from providing a source of funds for financing investment, the stock exchange has also been a vehicle that facilitated corporate restructuring through mergers and acquisitions, since share issues are often used to finance such deals. This enabled firms to expand into new markets, consolidate their existing operations and benefit from economies of scale. Such developments can be an important part of the restructuring of Greek industry and commerce, which is required for enhancing the competitiveness of companies within the euro area. Moreover, these trends are expected to intensify in the future, as fur-

ther restructuring and consolidation are encouraged by competition from other euro area companies.

Bond markets have also grown rapidly in the last years. The market is dominated by government bonds, since legislation to remove disincentives for companies to raise funds on this market was enacted only in June 2003.⁸ This dominance by the government sector also reflected the need of the State to finance deficits throughout the 1990s. From the middle of the decade onwards, the State attempted to broaden the variety of bond types and lengthen their maturity with a view to a more efficient management of its debt. At the same time, in 1998, the Bank of Greece established the Greek Electronic Secondary Securities Market, which comprises both a spot market in existing bond titles as well as the repo market. Some 67 different government bonds are quoted throughout the maturity spectrum, 9 of which are stripped bonds. Foreign interest in the market has been encouraged by the fact that of the 36 members of the electronic market (at end-June 2003), 14 are Greek institutions, 5 are branches of foreign banks operating in Greece and 17 are foreign financial institutions. Thus, foreign members can operate directly from their base abroad via remote access.

The operation of the electronic secondary securities market and the broadening of the variety of bonds have decisively contributed to the deepening of the bond market. Government bonds are now more liquid and marketable. These developments contributed to the sharp fall in bond yields over the past few years, which, however, was fundamentally a consequence of the nominal convergence of the Greek economy and its entry into the euro area. As a result, the volume of transactions has risen very sharply since the establishment of the electronic securities market, especially following

⁸ In the past, the cost of bond issues by private companies was prohibitively high and there existed no infrastructure (e.g. a settlement system) to promote the development of corporate bond markets.

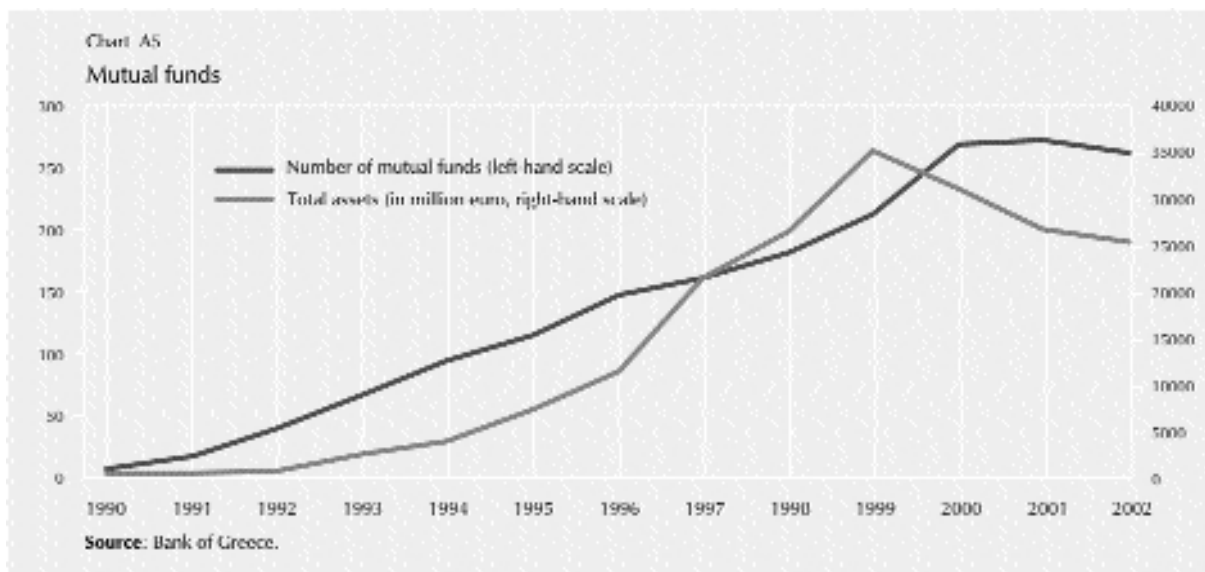


the adoption of the euro by Greece: in 1998 the average daily volume of transactions was around € 100 million and this rose to €2,280 million in 2002. At the same time, spreads on Greek government bond yields over the yields of other euro area government bonds were significantly reduced. For example, the spread between the Greek and the German 10-year government bond had fallen to 12 basis points by September 2003 from 300 basis points at the end of 1998.

With fiscal consolidation, the need for government borrowing will diminish in the coming years and the fall in outstanding public debt will reduce the dominance of the State in the bond market. Over time, it is to be expected that companies will use this market more to raise funds. Indeed, as firms become more sophisticated in their treasury operations, it is likely that the more well-known companies will turn not only to the stock market, but also to the bond market for funds. It is estimated that the new law on bond loan issues will decisively contribute to this end, since the relevant institutional framework is modernised, specific procedures and guarantees are foreseen for investment security and a special tax regime is introduced that makes bond loans issues easier and more flexible. The shift of investors to bonds is further encouraged by the low inflation and interest rates that are expected to prevail with the implementation of

the stability-oriented single European monetary policy. However, the development of an efficient primary corporate bond market depends on the functioning of a secondary market with sufficient breadth and depth that would facilitate the risk spread and ensure high liquidity. The Greek Electronic Secondary Securities Market could perhaps serve as a model.

Some basis for these projections is to be found in market trends in debt securities issuance in the euro area in general. While non-financial companies still rely heavily on bank debt and unquoted shares as sources of external financing, the introduction of the euro acted as a catalyst for a sharp pick-up in the growth rate of issuance of debt securities. Chart A4 shows gross euro-denominated issues by monetary financial institutions, non-monetary financial corporations and non-financial corporations from 1990 onwards. Most of the securities issued are short-term (less than one year) and a clear break in the series occurs from 1999 onwards. This can be attributed to the introduction of the euro, which, by eliminating foreign exchange risk between the euro legacy currencies, significantly deepened the market for debt securities. The growth in new issues can also be attributed to the heightened merger and acquisition activity in the euro area, associated with corporate restructuring to meet the challenge of increasing competition in the euro area.



Of course, the larger and more dynamic Greek companies may well find that, with the elimination of a significant amount of exchange rate risk associated with euro area entry, they will be able to tap European capital markets for funds.⁹ Institutional investors will become increasingly disposed to invest across the euro area rather than confining their activities to one or two countries. Moreover, investors from outside the euro area may be more willing to purchase euro-denominated debt securities issued by a Greek company than they were to acquire drachma-denominated securities. Such a development would have beneficial effects for Greek companies in the future.

Other financial institutions

Alongside the transformation of the banking system and financial markets, rapid change has been occurring in both the investment and insurance sectors. The growing importance of financial markets led to a rapid rise in the number of mutual funds offering supplementary financial instruments to savers. Chart A5 shows the growth in the number of these funds and their assets. What is clear from the chart is that, in spite of the negative climate on the stock exchange, mutual funds have now established themselves as an alternative to the traditional bank deposit. Whilst they are in

direct competition with banks for savings, most are owned by banking groups themselves.

The insurance sector has seen a large amount of consolidation during the 1990s, through both mergers and acquisitions and closures. Chart A6 shows the number of insurance companies and their assets. The majority of the companies (102 in 2002) have their base in Greece and the larger ones are owned by banking groups. At the same time, insurance business, as measured by insurance companies' total assets, grew at a rate almost twice that of nominal GDP.¹⁰ However, at the end of 2002 insurance technical reserves corresponded to only 4.5% of GDP (1996: 2.9%) as against 42% on average in the euro area,¹¹ indicating a market with considerable growth potentialities.

Life and pensions insurance accounts for about 70% (68.7% in 2002) of total insurance business. As is the case with the banking sector, the insurance market is quite concentrated, with the five largest insurance com-

⁹ Indeed, a few Greek companies made use of the eurodrachma market in London from the mid-1990s to raise funds.

¹⁰ In the period 1996-2002, insurance companies' total assets increased at an average annual rate of 15.8%, while (in the same period) nominal GDP grew by 8.2% on average.

¹¹ See ECB (2002), *Report on financial structures*.



panies conducting more than 50% of total business (54.5% in 2002). Despite mergers and acquisitions in recent years, the market is still characterised by the presence of a large number of small firms, with those falling in the first quartile (that is, the 26 smallest firms) conducting just 0.6% of total sector business. Further consolidation may be expected in coming years; first, because some companies have been negatively affected by developments in world equity markets, secondly because a relevant Community Directive is expected to be adopted at the beginning of 2004, which, *inter alia*, entails a substantial increase of insurance companies' equity capital and, thirdly, because the envisaged restructuring of the social security sector and the creation of the "third pillar" will widen the choices available to individuals for additional insurance cover. All three factors are expected to accelerate the consolidation process currently observed, while increased competition among insurance firms may call for enhanced supervision of the sector.

Conclusions

All the changes in the financial system highlighted here have gone a long way to developing a modern system which can best help serve the needs of the real economy, thereby contributing to growth and convergence.

For, ultimately, if the investment opportunities exist but firms and entrepreneurs are constrained by a lack of finance, then this will hinder and slow down the convergence process. These substantial changes and increased competition in the banking sector, along with developments in capital markets, suggest that Greek firms will have a wider choice of financing methods in the future.

As in other euro area countries, banks are likely to continue to be the dominant providers of external finance for industry. This has to do with the very nature of the product on offer and the information asymmetries which arise in its provision. In the Greek case, the role of banks is even greater if we consider that most have subsidiaries which offer investment and insurance services.

For these reasons, the role of the Bank of Greece as the supervisor of the banking system is an important one. In particular, the Bank's task has been to guide the banking system through much of its recent transformation via the successful deregulation of the system. Within the new liberalised environment, the role of the central bank is primarily to ensure financial stability. The experience of many countries has taught that a more liberalised environment with heightened compe-

tition between financial institutions can lead to excessive risk taking and, in the extreme, financial crisis. In the past few years, Greek banks have been improving their capital adequacy ratios as noted above. At the same time, the Bank of Greece has been introducing the provisions of various EU directives which promote the adoption of best practices and has been taking a series of measures designed to improve the quality of banks' balance sheets and encourage the development of internal risk management systems within the framework of the new Basle Capital Adequacy Agreement.

Supervision of capital markets and the insurance sector is equally important. The Capital Market Commission has been establishing an appropriate institutional framework of the Athens Stock Exchange, and various rules and regulations have been adopted to protect investors, enhance the capital adequacy of firms operating in the market, increase the transparency of information flows, etc. In the insurance sector, the government is moving

to set up a supervisory authority along the lines of the Capital Market Commission. The interrelationship between banks and other financial institutions requires particular vigilance, since, as we have seen, many mutual funds and insurance companies are part of the large banking groups. Cooperation between the various supervisory authorities is thus invaluable if the stability of the whole financial system is to be safeguarded. To this end, it is desirable that a National Council of Supervisory Authorities, similar to that of other European countries, be established to enable the supervisory authorities to keep each other abreast of developments in their particular area, facilitate cooperation in matters of common concern and ensure equal terms of competition in the supply of similar financial products. All these developments are designed to generate not only a dynamic and vibrant financial sector fit to meet the needs of the real economy, but also to preserve stability and contribute to the ongoing process of real convergence.

V. The situation of the economy, and challenges for economic agents

1. Key characteristics of 2003 developments and the “coordinates” of the Greek economy

A number of positive conclusions can be drawn from the analysis of economic developments on the basis of the latest data, as presented in the preceding chapters. First, economic activity, as measured by gross domestic product (GDP), is currently rising at an annual rate of 4%, which is slightly higher than both the initial forecasts for 2003 (3.6-3.8%¹) and last year's rate of 3.8%,² and significantly exceeds the average euro area GDP growth rate (roughly 0.5%). This increase in activity is primarily supported by domestic demand and, to a lesser extent, by the recovery in exports of goods. Second, employment is rising faster this year than in 2002, while the rate of unemployment has dropped by nearly one percentage point. Third, the annual rate of inflation has gradually decreased in the course of the year; on average, for the entire year, both HICP and CPI are expected to be roughly 3.5%, i.e. slightly smaller than in 2002. Furthermore, the inflation differential between Greece and the euro area has narrowed, after increasing in 2001 and 2002.

In spite of this improved economic performance, inflation remains relatively high, with adverse effects not only on the real disposable income of households but also –to the extent that it involves tradable goods and services– on the price competitiveness of the Greek economy. Moreover, although total employment is increasing, the growth of salaried employment over the past two years has been sluggish and has not been in line with GDP growth. Meanwhile, the

¹ According to forecasts made in the first half of 2003 by the Ministry of Economy and Finance, the Bank of Greece and international organisations.

² Revised NSSG data.

rate of unemployment, though on the decline, remains high at 8.9%, as is the case in the euro area.³ The current account deficit as a percentage of GDP appears to have stabilised since 2002 and 2001 (*inter alia* owing to the recovery in exports of goods), but still exceeds 6% for the fourth year in a row. Finally, the public debt-to-GDP ratio is projected to decrease further this year to 101.7%, from 106.9% in 2001 and 104.7% in 2002, though remaining one of the highest in the EU. These chronic problems reflect structural weaknesses of the Greek economy, which in order to be resolved will require further structural reforms and institutional adjustments, as detailed in previous reports.⁴

2. Prospects and challenges

Greece is already in its third year of euro area participation. The adoption of the single currency has brought about radical and irrevocable changes in the monetary policy framework and the conditions under which monetary policy is conducted, and has had a decisive impact on the functioning and performance of the Greek economy. A high degree of macroeconomic stability has been achieved in recent years, following the longstanding efforts to achieve sustainable convergence as a prerequisite for entry into the third and final stage of EMU. This stability has brought about multiple benefits, one of the most important being the bolstering of business and consumer confidence. As a result, economic growth has been sustained at close to 4% for the fourth consecutive year, in spite of adverse developments in the external environment, including in particular the sharp economic slowdown in the euro area over the last three years.

Notwithstanding this prolonged strong growth performance, the sustainability of high growth

rates should not be taken for granted, nor should it be seen as an automatic consequence of the adoption of the euro. While the prospects for real convergence are significantly enhanced by the adoption of the euro and the resulting monetary and exchange rate stability, the sustainability of strong growth in the long run will importantly depend on efforts at the national level to implement an appropriate economic policy that will complete fiscal consolidation and bring about a steady improvement in both productivity and the international competitiveness of the economy. Another primary objective must be the achievement and maintenance of price stability in Greece, which, as shown by developments over the last three years, cannot be secured solely via the implementation of the single monetary policy (the latter being geared to securing a rate of inflation slightly lower than 2% in the medium term in the euro area as a whole and not in individual countries).

Since 1999, euro area inflation has remained low, at annual rates that do not markedly exceed 2%. In fact, euro area inflation has averaged exactly 2% over the last five years (1999-2003). Although Greece's inflation can be plausibly expected in the long run not to diverge significantly from the euro area average, this has not been the case in the last three years. As mentioned in Chapter III.2, the inflation differential between Greece and the euro area comes not only as the result of the real convergence process of the Greek economy, but also reflects: (i) the Greek economy's different cyclical position relative to the euro area economy, (ii) the asymmetric effects of oil price fluctuations, (iii) differences in the degree of flexibility in product and

³ The rate of unemployment in the second quarter of 2003 was 8.9% in Greece, compared with 8.8% in the euro area.

⁴ See Bank of Greece, *Monetary policy: Interim Report 2002*, November 2002, pp. 101-11, as well as Bank of Greece, *Annual Report 2002*, April 2003, pp. 56-67.

labour markets, which amplify the inflationary impact of external or domestic shocks, and (iv) the impact on prices of the substantial relaxation of monetary conditions in Greece, which was an inevitable consequence of euro area entry.

These asymmetric effects on inflation cannot possibly be addressed by the single monetary policy. Thus, in order to eliminate the inflation differential between Greece and the euro area as a whole it is necessary to conduct an appropriate economic policy at the national level. The social partners must also make their own contribution by implementing prudent pricing policies and by containing real wage increases so that the latter are close to productivity growth and unit labour cost growth in the whole economy does not diverge from the euro area average.

Relaxation of monetary conditions

As already stressed, the single monetary policy is formulated by the European Central Bank for the entire euro area and not for individual countries. This, together with the economic slowdown observed in the euro area as a whole, has led to a decline in nominal interest rates, which, given Greece's higher rate of inflation, means that monetary conditions have become markedly relaxed. The stance of monetary policy, as far as Greece is concerned, has thus become highly expansionary. Real short-term interest rates, as measured by the

nominal yield of twelve-month Treasury bills less current inflation, are negative, meaning that they are too low for an economy with an annual growth rate of 4% and an inflation rate of over 3%. The effect of the significant appreciation of the euro against the US dollar⁵ has only partly offset the effect of declining interest rates. Therefore, overall monetary conditions remain relaxed, as measured by a special index (see Box 4) that captures changes in both real interest rates and the real (trade-weighted) effective exchange rate of the euro. Meanwhile, the annual rate of credit expansion to the private sector (enterprises and households) came to 18.7% in August 2003, up from 18.3% in the fourth quarter of 2002.

So long as monetary conditions in Greece remain relaxed and no interest rate or exchange rate policy can be conducted at a national level, then the only option is to adjust the policy mix. More specifically, the other policy-mix components must be activated in such a way as to eliminate the Greek inflation differential and prevent further losses in price competitiveness and the ensuing adverse repercussions on employment and growth. Meanwhile, higher productivity growth and a substantial *improvement* in competitiveness must also be achieved.

⁵ By 11.1% from end-December 2002 to end-September 2003. Over the entire period of its rise, the euro has appreciated against the US dollar by 29% between February 2002 and September 2003 (on the basis of average monthly exchange rates).

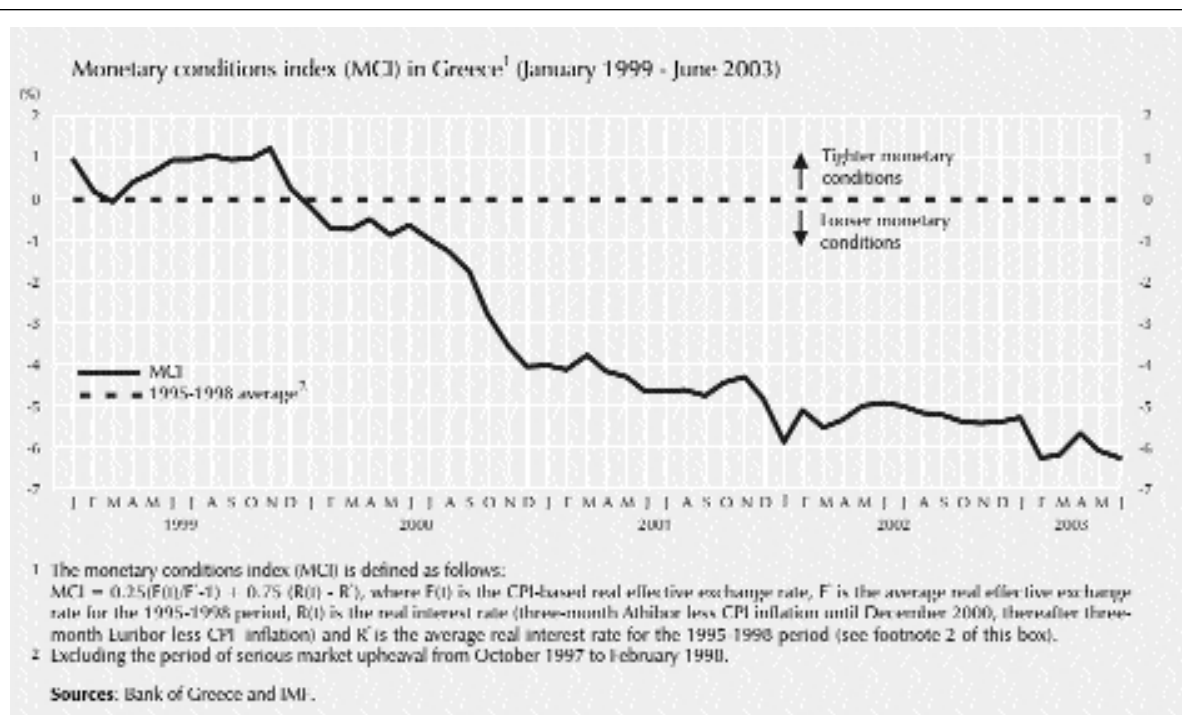
BOX 4

Recent developments in monetary conditions in Greece

To assess developments in monetary conditions in an economy, some central banks and international financial organisations use indices depicting the changes and stance of monetary policy.¹ Such a "monetary conditions index" (MCI) is the weighted average of

changes in the real short-term interest rate and the real effective exchange rate in comparison with a base →

¹ Such an index was first introduced by the central bank of Canada in the early '90s.



→ period.^{2,3} A rise in the interest rate and/or an appreciation of the exchange rate leads to an increase in the MCI, which points to tighter monetary conditions; conversely, a decrease in either or both of these variables leads to a drop in the index, which suggests looser monetary conditions. This box presents an MCI constructed by the Bank of Greece. The index is used, together with other data, for the evaluation of monetary conditions in Greece.

The chart shows the path of the MCI in Greece over the January 1999-June 2003 period. The “base” of the index is the average of the period 1995-1998, while the weights of the interest rate and exchange rate variables are 3 and 1 respectively.⁴ According to the chart, the MCI falls sharply after the end of 1999 and during 2000, pointing to looser monetary conditions in comparison with the base period. From 2001 to the first half of 2003, the index continues to show a declining trend, albeit slower.

The path of the index shown in the chart combines the changes in its two components (i.e. the real interest rate and the real effective exchange rate), which do not always move in the same direction. The real effective exchange rate of the drachma shows a decline until

end-2000 (immediately before the adoption of the euro). This drop mainly reflected the adjustment of the drachma exchange rate to its central rate within the European Monetary System’s Exchange Rate Mechanism in the context of the transition to the single currency, as well as the appreciation of the US dollar against the euro during the same period.

Since January 2001, the real effective exchange rate of the euro, weighted on the basis of the external trade →

2 For instance, this definition of the MCI is used by the OECD (OECD, *Economic Surveys-Greece* July 2002, p. 25, Chart 3) and the European Commission (see Directorate General for Economic and Financial Affairs, *Quarterly Report on the Euro Area* No. II/2003, 2 July 2003, p. 9). By contrast, the International Monetary Fund uses an MCI calculated on the basis of *nominal* (short-term and long-term) interest rates and the *nominal* effective exchange rate (see IMF, *World Economic Outlook*, September 2003, Chapter 1, Box 1.1, pp. 14-16). For short time periods, the above two definitions of the index lead to similar results, as relative prices and the inflation rate do not change significantly.

3 The main advantages of an MCI are its easy construction and comprehensibility. However, it should be interpreted with caution, given that (i) there is uncertainty concerning the weighting of variables, which depends on the model used and the model’s estimation method; and (ii) monetary policy is also transmitted through channels other than the interest rate and the exchange rate.

4 The weights are the same as those used by the OECD for Greece (see footnote 2).

→ of Greece, has appreciated. In 2001 and 2002, this rise was mainly attributable to the inflation differential between Greece and its trading partners, while in 2003 it mostly reflects the appreciation of the euro against the US dollar and other currencies. The effect of these developments in the real effective exchange rate was offset by the downward course of the real interest rate (the second variable of the MCI). Throughout the

January 1999-June 2003 period, the real short-term interest rate⁵ showed a declining trend and in January 2002 it became negative.

⁵ Until December 2000, the real interest rate was calculated on the basis of the three-month Athibor and since January 2001, when Athibor was abolished, on the basis of the three-month Euribor. These nominal rates are deflated by the CPI.

Fiscal policy

Fiscal policy is essentially the only macroeconomic policy instrument available at a national level in the euro area. The latest available data for 2003 show that Greece's fiscal policy stance was more relaxed than the target set in the Updated Stability and Growth Programme of December 2002. According to fiscal data from the Ministry of Economy and Finance, the deficit of the state (central government) budget came to 4.7% of GDP in the first eight months of 2003, from 2.7% of GDP during the same period of 2002, and thus exceeds the budgeted deficit of 3.5% of GDP for 2003 as a whole. Bank of Greece data on a cash

basis for the same eight-month period indicate that the central government deficit rose to 4.5% of GDP, from 1.9% over the corresponding period in 2002. Based, however, on available provisional data and estimates included in the 2004 draft budget,⁶ the general government deficit-to-GDP ratio, on a national accounts basis, is expected to come to 1.4% this year, compared with 1.2% in 2002 and an initial forecast of 0.9% for 2003. Data on the public deficit (obtained with the three different methods of calculation) are presented in detail in Box 5.

⁶ Submitted to Parliament on 6 October 2003.

BOX 5

Fiscal deficit: Indicators and available data

1. Definition of the fiscal deficit

The Maastricht Treaty ("the Treaty") provides that the criteria for measuring and evaluating the fiscal performance of the EU Member States are the fiscal deficit-to-GDP and the debt-to-GDP ratios.

According to the Treaty,¹ the fiscal deficit is defined as the general government deficit calculated on the basis of the conceptual framework, the definitions and the common rules on the compilation of national accounts. These rules are today embodied in the European System of Accounts (ESA 95). "General government" comprises central government, regional and local

authorities, social security funds and other legal entities of public law (e.g. hospitals, universities etc.). By contrast, it *does not* include public enterprises. It should be noted that the financial transactions of general government are not taken into account in calculating the deficit. →

¹ Article 104c(2) and the "Protocol on the Excessive Deficit Procedure" to the Maastricht Treaty. In implementation of the relevant provisions, Council Regulations (EC) No. 3605/1993 and 475/2000, as well as Commission Regulation (EC) No. 351/2002 were issued. There is also a publication by Eurostat, *ESA 95: manual on government deficit and debt*, 2nd ed., 2002.

→ 2. Types of data

For the calculation of the fiscal deficit in Greece, there are three types of data: *accrual data*, *cash data* and *national accounts data*.

i) **Accrual data:** These are compiled by the State General Accounting Office (primary source) and refer to the government budget (central government). They are released every month.² These data are comparable with the data of the government budget, as submitted to Parliament, and are suitable for monitoring budget execution on a monthly basis. Revenue and expenditure are mainly recorded in the year they concern³ (accrual basis), even though some of them may be collected or incurred with a time lag.

ii) **Bank of Greece cash data:** These are compiled on the basis of transactions recorded in the accounts of central government and public entities kept with the Bank of Greece and show the *actual* expenditure and revenue in the reference period, i.e. they are calculated on a cash basis and in fact reflect the borrowing requirement of central government and public entities. These data are released every month⁴ and differ considerably from both the accrual data and the national accounts data.

It should be noted that, as regards social security funds, the Bank of Greece has data concerning *only* the deposits of these entities with it and other banks (Emergency Law 1611/1950) and their investments in government paper (Treasury bills and bonds) carried out *through* the Bank of Greece. By contrast, the Bank of Greece *does not* have data on other types of investment of these funds (e.g. in shares, real estate etc.) or on their direct investment in government paper; as a result, *it does not have a complete picture of the annual increase in their reserves and, therefore, their surplus.*

iii) **National accounts data:** These are compiled by the NSSG National Accounts Department according to the national accounts definitions, concepts and rules contained in ESA 95. They are submitted biannually by the NSSG to Eurostat. In the context of the

Excessive Deficit Procedure,⁵ Eurostat examines the consistency of these data with the ESA 95 rules and definitions.

The central government national accounts data are based on the corresponding accrual data of the State General Accounting Office, after being adjusted so as to be consistent with the ESA 95 definitions. As there are no full data available on the consolidated balance of social security funds, local authorities and other public entities, the NSSG collects primary data by a sample survey and supplements them with information derived from the banking system. As is the case with accrual data, revenue and expenditure are recorded in the reference year.

Detailed national accounts data are so far available only on an annual basis and cannot be used for monitoring the implementation of the budget during a given year. Hence, the monitoring and evaluation of the execution of the budget is based primarily on monthly accrual data, which are the only data comparable with the budget data, and secondarily on monthly cash data.

3. The available data for the January-August 2003 period

Available accrual data⁶ concern the government budget and cover the January-August 2003 period (see first table). They show that the government budget deficit (on an accrual basis) rose to 4.7% of GDP in this →

² These data are summarised in the *Bulletin on the Execution of the Government Budget* published by the State General Accounting Office (GAO). With a considerable time lag, detailed monthly revenue data are published in the GAO's monthly *Execution of the Revenue Budget* and detailed monthly expenditure data are published in the GAO's monthly *Execution of the Expenditure Budget*.

³ I.e. the year for which collection of revenue has been scheduled or a payment obligation has been undertaken.

⁴ See Bank of Greece, *Bulletin of Conjunctural Indicators*, monthly issues, Table V.6.

⁵ Council Regulation (EC) No. 1467/97 on "Speeding up and clarifying the implementation of the Excessive Deficit Procedure" enhanced the importance of the excessive deficit procedure and clarified its implementation.

⁶ See GAO, *Bulletin on the Execution of the 2003 Budget*, issue 8, August 2003. These data are reproduced in the Bank of Greece's *Bulletin of Conjunctural Indicators* (Tables V.1 to V.5).

Government budget balance (accrual data)¹

(Million euro)

	January - August					Annual data				
	1999	2000	2001	2002	2003 ²	1999	2000	2001	2002 ³	2003 ³
Government budget	-3,337	-3,037	-2,380	-3,768	-7,222	-5,645	-5,212	-5,210	-4,807	-6,205
% of annual GDP	-3.0	-2.5	-1.8	-2.7	-4.7	-5.0	-4.3	-4.0	-3.4	-4.1
- Ordinary budget	-82	534	1,150	-694	-2,825	-2,006	-1,056	-163	-350	-810
- Public investment budget	-3,255	-3,572	-3,530	-3,074	-4,397	-3,639	-4,156	-5,047	-4,457	-5,395

1 Deficit (-), surplus (+).

2 Provisional data.

3 Data and estimates from the 2004 Draft Budget.

Sources: Ministry of Economy and Finance, GAO, *Bulletin on the Execution of the Government Budget*, No. 8, August 2003, and 2004 Draft Budget.

Borrowing requirement of central government and public entities¹ (cash data)

(Million euro)

	January-August					Annual data			
	1999	2000	2001	2002	2003*	1999	2000	2001	2002
1. Central government²	-2,024	-3,572	-3,416	-2,714	-6,920	-6,043	-7,090	-7,812	-7,102
% of annual GDP	-1.8	-2.9	-2.6	-1.9	-4.5	-5.4	-5.8	-6.0	-5.0
- Government budget	-3,198	-4,854	-4,197	-3,616	-8,170	-5,836	-6,844	-7,909	-6,674
(Ordinary budget) ³	-704	-2,380	-2,656	-1,993	-4,045	-1,907	-1,888	-3,125	-2,128
((Public investment budget)	-2,494	-2,474	-1,541	-1,623	-4,125	-3,929	-4,956	-4,784	-4,546
- OPEKEPE ⁴	1,174	1,282	781	902	1,250	-208	-247	97	-428
2. Public entities	1,235	1,716	1,505	2,248	2,136	1,866	2,248	2,097	1,560
% of annual GDP	1.1	1.4	1.1	1.6	1.4	1.7	1.8	1.6	1.1
- Financing by the banking system	147	-284	405	256	-131	15	-387	-98	-101
- Reserves ⁵	1,088	2,000	1,100	1,992	2,267	1,851	2,635	2,195	1,661

1 Deficit (-), surplus (+).

2 Results from the respective accounts with the Bank of Greece, the Agricultural Bank and commercial banks

3 Including transactions recorded in the public debt management accounts.

4 Organisation for the Payment and Control of Guidance and Guarantee Community Subsidies.

5 Including bank deposits of public entities and investments in government paper *only* through the Bank of Greece; *excluding* other investments, such as in shares, real estate etc.

* Provisional data.

Source: Bank of Greece.

→ period, overshooting the 3.5% budget forecast for the whole year.

account, reached 4.5% of GDP in this period, while the public entities' surplus came to 1.4% of GDP.⁸ →

Available cash data also concern the January-August 2003 period and cover both the central government and public entities (see the second table). These data show that the central government deficit, which is conceptually wider than the government budget deficit, as it includes transactions recorded under the OPEKEPE⁷

⁷ Organisation for the Payment and Control of Guidance and Guarantee Community Subsidies.

⁸ These data are published regularly by the Bank of Greece in its *Bulletin of Conjunctural Indicators* (Table V.6), *Economic Bulletin* (Table IV.1) and *Annual Report* ("Public Finance" chapter).

Central and general government balance¹

(Percentages of annual GDP)

	January-August					Annual data				
	1999	2000	2001	2002	2003 ³	1999	2000	2001	2002 ⁴	2003 ⁴
Accrual data										
Central government	-3.0	-2.5	-1.8	-2.7	-4.7	-5.0	-4.3	-4.0	-3.4	-4.1
Cash data										
Central government	-1.8	-2.9	-2.6	-1.9	-4.5	-5.4	-5.8	-6.0	-5.0	-
Public entities ²	1.1	1.4	1.1	1.6	1.4	1.7	1.8	1.6	1.1	-
National accounts data										
General government	...	...	...	...	...	-1.8	-1.9	-1.5	-1.2	-1.4

1 Deficit (-), surplus (+).

2 Including bank deposits of public entities and investments in government paper *only* through the Bank of Greece; *excluding* other investments, such as in shares, real estate etc.

3 Provisional data.

4 Data and provisional estimates from the 2004 Draft Budget.

Sources: Bank of Greece, Ministry of Economy and Finance, GAO, *Bulletin on the Execution of the Government Budget* (monthly issues), Excessive Deficit Procedure, September 2003, and 2004 Draft Budget.

General government deficit (-)/surplus (+): targets and outcomes

(Percentages of annual GDP)

	Annual data			
	2000	2001	2002	2003
Updated Convergence Programme – December 1999	-1.2	-0.2	0.2	-
Stability and Growth Programme – December 2000	-0.8	0.5	1.5	2.0
Updated Stability and Growth Programme – December 2001	-1.1	0.1	0.8	1.0
Updated Stability and Growth Programme – December 2002 ¹	-	-1.2	-1.1	-0.9
Outcome²	-1.9	-1.5	-1.2	-1.4³

1 After the revision of deficit and debt data by Eurostat.

2 As defined by the Excessive Deficit Procedure. The outcome for a given year should be compared with the target set in the preceding year. It should be noted that for the 2000-2002 period outcomes also reflect the *ex post* revision of fiscal aggregates by Eurostat.

3 Provisional estimates from the 2004 Draft Budget..

Sources: Updated Convergence Programme 1999, Stability and Growth Programmes 2000, 2001 and 2002, Excessive Deficit Procedure, September 2003, and 2004 Draft Budget.

→ The third table summarises the deficits (as percentages of GDP), calculated on the basis of all three types of data.⁹

4. Fiscal deficits: Targets and outcomes

The deficit targets are set in the Stability and Growth Programmes. These targets are expressed on a national accounts basis and concern general government.

The fourth table presents the general government deficit targets and outcomes for the years 2001-2003. As the targets of the Stability and Growth Programme are updated

every year, the outcome for a given year should preferably be compared with the target set at the end of the preceding year. It should be noted that outcomes for the 2000-2002 period reflect the *ex post* revision of deficit data by Eurostat, owing to definition changes and reclassifications of items used for calculating the deficit and the debt.

⁹ The table does not include national accounts data for the January-August period, because such data are not available. Since 1996, a similar table has been included in the Bank of Greece *Annual Report* (chapter on "Public Finance"), where the differences between the three types of data are explained.

Given the inevitable relaxation of monetary conditions in Greece following entry into the euro area, continued fiscal consolidation efforts can and must be geared to containing inflationary pressures, as a means of achieving and maintaining price stability. Meanwhile, the increase in public saving that will arise from the reduction in the fiscal deficit⁷ will help reduce the current account deficit. In this respect, it is encouraging that the Draft Budget anticipates a slight reduction in the general government deficit from 1.4% of GDP in 2003 to 1.2% in 2004. Even though this figure is higher than the target of 0.4% of GDP set for 2004 in the Updated Growth and Stability Programme of December 2002, it should be recalled that the coming year will see an increase in public expenditure associated with the Athens Olympic Games.

Under the Stability and Growth Pact, which provides the framework for the conduct of fiscal policy in EU countries, the general government budget must be close to balance or in surplus in the medium term. Controlling primary expenditure (by enacting procedures and rules that have already been announced by the government⁸) and curbing tax evasion (with the help of tax reforms that are already being implemented) should help sustain high primary surpluses in upcoming years. This is essential, to start with, in order to achieve long-term fiscal equilibrium, given that public debt remains very high and burdens the economy. Moreover, it is also necessary to meet the additional financing needs of the social security system until 2032 under Law 3029/2002, and to address the fiscal implications of population ageing in the post-2032 period.⁹ Furthermore, adherence to the basic rule of the Stability and Growth Pact (i.e. a medium-term budgetary position close to balance or in surplus) would enable fiscal stabilisers to operate fully, symmetrically and without undesirable side-effects throughout the eco-

nomic cycle, thereby allowing fiscal policy to deal in the short run with the effects of cyclical disturbances.

As mentioned above, the government intends to pursue its fiscal consolidation effort in 2004. However, as substantial economic demands are being put forward by various social groups and general elections are to be held in 2004, it would be useful at this stage to recall that in the 1990s the efforts towards nominal convergence succeeded in significantly reducing the economic impact of the so-called electoral or political cycle. This achievement has made an essential contribution to establishing conditions of macroeconomic stability and achieving the growth performance recorded in the past few years. Thus, it must be safeguarded. Failure to do so would undermine the credibility of economic policy and adversely affect economic expectations, thus prompting enterprises, workers and households to put forth demands and make decisions that would have negative consequences for the economy.

Structural policy

Significant structural policy measures have been taken in recent years,¹⁰ while the privatisation programme also progresses (in spite of adverse stock market conditions). However, there is an urgent need to pursue the structural reform effort at a vigorous pace, in order to further enhance

⁷ Public saving is defined as the difference between the general government's current revenue and current expenditure. Thus, a reduction in fiscal deficit implies an increase in public saving only if it is generated by an increase in current revenue and/or a decrease in current expenditure and not by a decline in investment expenditure.

⁸ The relevant draft law ("Public expenditure control systems, internal control organisation of Economy and Finance Ministry services and other provisions") was made public on 25 June 2003.

⁹ See Bank of Greece, *Monetary Policy: Interim Report 2002* November 2002, pp. 103-07.

¹⁰ See footnote 4 above.

flexibility in product, labour and capital markets, boost competition and reduce administrative barriers. This would help to further improve the business climate and encourage both investment by domestic firms and foreign direct investment. All these factors would ultimately serve to increase productivity, secure conditions of price stability, improve the country's international competitiveness and thereby help sustain high rates of output and employment growth.

Wage bargaining, pricing policies and competitiveness

Moderation in wage increases played an important role in the gradual deceleration of Greek inflation in the late 1990s and was achieved thanks to the social partners' adoption of a more responsible wage demand and bargaining stance, which was more consistent with the long-term (rather than short-term) interests of both sides. Indicatively, the annual rate of increase in average nominal earnings in the whole economy slowed steadily from 13.0% in 1994 to 4.5% in 1999.¹¹ However, in the last four years (2000-2003) the annual rate of increase in average nominal earnings has picked up again to an average of 6.3% (see Chapter III, Table IV), owing perhaps to a feeling of relaxation or complacency induced by the fulfilment of the nominal convergence criteria set out in the Maastricht Treaty, and by the high rates of economic growth. Compensation per employee in the whole economy has risen at an average annual 6.0% over the last four years,¹² compared with only 2.6% in the euro area, causing the average differential between the two figures to widen to 3.4 percentage points.

Of course, as far as inflation and competitiveness are concerned, what is important is the increase in wages compared with the rise in productivity, i.e. unit labour cost developments. Given that

productivity growth has been significantly higher in Greece than in the euro area as a whole – reflecting the real convergence process of the Greek economy and the different cyclical position – it turns out that the unit labour cost differential between Greece and the euro area has in fact been much lower over the same period, averaging no more than one percentage point.¹³

Turning to the pricing policies of enterprises, cases were already discussed in Chapter III.1 where excess demand and inefficient market operation allowed some prices to increase more than was justified by cost developments, thus leading to a widening in operating profit margins. Similar phenomena were also observed in 2002, when the euro changeover served as an occasion or a pretext for some enterprises to raise prices.

Satisfactory business profits are certainly necessary, if the profitability of investment and self-financing are to be enhanced. However, firms' pricing policies must strike a balance between this need and the need not to feed inflationary pressures and avert an erosion of competitiveness. Obviously, what an enterprise stands to gain in the short term, as far as profits are concerned, from its excessive price increases will eventually be lost when its market share decreases.

If the deterioration in the economy's competitiveness is to be reversed (considering that exchange rate policy at a national level is no longer an option within the euro area), the social partners must help achieve and maintain price stability by implementing prudent pricing policies and by ensuring that real wage increases stay close to productivity growth. This would help protect the

¹¹ According to Bank of Greece estimates.

¹² Bank of Greece estimates.

¹³ See also footnote 34, Chapter III.

purchasing power of workers' income, strengthen competitiveness, reduce unemployment and contribute to a faster and steady increase in real incomes.

* * *

In sum, it is clear that the Greek economy's strong growth performance and the credibility that was hard-earned in recent years must be safeguarded. This will in particular require an improvement in competitiveness, a decrease in the current account deficit, a drastic reduction in Greece's high public debt, the speeding up of both produc-

tivity growth and the real convergence process and the creation of new employment opportunities. The attainment of these objectives will vitally depend on: (i) the tightening –rather than the relaxation– of fiscal policy and its consistency with the rules of the Stability and Growth Pact, (ii) the intensive continuation of structural reforms, (iii) workers' self-restraint in wage demands so that real wage increases do not exceed the rise in productivity, and (iv) the adoption by businesses of longer-term oriented pricing policies, more in line with their own interests and their social responsibility.

Monetary policy measures of the Eurosystem

9 January, 6 February 2003

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

23 January 2003

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

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

2. The maturity of the MROs will be shortened from two weeks to one week.

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

– Further to the press release of 10 July 2002, the Governing Council also decides to maintain at €15 billion the allotment amount for each of the longer-term refinancing operations to be conducted in the year 2003. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2003 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

6 March 2003

– Effective from 12 March 2003, the Eurosystem's minimum bid rate on the main refinancing

operations is reduced by 0.25 percentage point to 2.50%.

– Effective from 7 March 2003, the interest rate on the marginal lending facility is reduced by 0.25 percentage point to 3.50%.

– Effective from 7 March 2003, the interest rate on the deposit facility is reduced by 0.25 percentage point to 1.50%.

3 April, 8 May 2003

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.50%, 3.50% and 1.50% respectively.

5 June 2003

– Effective from 9 June 2003, the Eurosystem's

minimum bid rate on the main refinancing operations is reduced by 0.50 percentage point to 2.00%.

– Effective from 6 June 2003, the interest rate on the marginal lending facility is reduced by 0.50 percentage point to 3.00%.

– Effective from 6 June 2003, the interest rate on the deposit facility is reduced by 0.50 percentage point to 1.00%.

10 July, 31 July, 4 September, 2 October 2003

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.00%, 3.00% and 1.00% respectively.

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, 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.

Deposits with agreed maturity (time deposits): mainly time deposits with a given maturity, which, depending on national practices, may be either unconvertible prior to maturity or convertible only subject to the payment of a penalty. Some non-marketable debt instruments, such as non-marketable (retail) certificates of deposit, are also included. Deposits with an agreed maturity of up to two years are included in M2 (and hence in M3), while those with an agreed maturity of over two years are included in the (non-monetary) longer-term financial liabilities of the euro area MFI sector.

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

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

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

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

European Central Bank (ECB): the ECB lies at the centre of the European System of Central Banks (ESCB) and the Eurosystem and has legal personality under Community law. It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either by its own activities or through the national central banks, pursuant to the Statute of the ESCB and of the ECB. The ECB is governed by the Governing Council and the Executive Board and, as a third decision-making body, by the General Council.

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

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

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

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

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

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

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

Key ECB interest rates: the interest rates which reflect the stance of the monetary policy of the ECB. At present, the key ECB interest rates are the minimum bid rate on the main refinancing operations, the inter-

est rate on the marginal lending facility and the interest rate on the deposit facility. Prior to the decision to conduct the main refinancing operations as variable-rate tenders, the rate on fixed-rate tenders had played the role of “key rate”. This role is currently performed by the minimum bid rate on the main refinancing operations of the ECB.

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

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

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

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

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

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

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

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

Statistical appendix

Tables

1	Consumer price index: general index and basic sub-indices	123
2	Harmonised index of consumer prices: general index and basic sub-indices	124-125
3	Wholesale price index: general index and basic sub-indices	126
4	Gross value added at basic prices and gross domestic product at market prices	127
5	Balance of payments	128
6	Monetary aggregates in the euro area	129
7	The Greek contribution to the monetary aggregates of the euro area	130
8	Deposits of domestic firms and households with Other MFIs, by currency and type	131
9	ECB and Bank of Greece interest rates	132
10	Money market interest rates	133
11	Greek government paper yields	134
12	Domestic MFI loans to domestic firms and households, by currency and branch of economic activity	135
13	Bank deposit and lending rates in Greece	136

Table 1
Consumer price index: general index and basic sub-indices

Period	General index		Goods		Services		CPI excluding fresh fruit/ vegetables and fuel		CPI excluding food and fuel	
	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year	(1999=100)	Percentage change over previous year
1999	99.7	2.6	100.0	1.7	99.3	4.1	99.5	2.9	99.3	3.0
2000	102.9	3.2	103.4	3.4	102.1	2.8	101.4	2.0	101.3	2.0
2001	106.4	3.4	106.7	3.2	105.9	3.7	105.3	3.8	105.0	3.7
2002	110.2	3.6	110.1	3.2	110.4	4.3	109.0	3.6	108.7	3.6
2002 I	108.6	4.0	108.6	4.0	108.6	3.9	106.9	3.3	106.5	3.4
II	110.8	3.5	111.2	3.0	110.2	4.4	109.4	3.9	109.3	3.9
III	109.6	3.5	108.8	2.7	110.9	4.6	108.8	3.7	108.4	3.6
IV	111.9	3.6	111.8	3.0	112.1	4.5	111.0	3.5	110.9	3.5
2003 I	112.8	3.8	112.4	3.4	113.4	4.5	110.7	3.6	110.1	3.4
II	114.9	3.7	114.9	3.4	114.7	4.1	112.8	3.1	112.5	3.0
2001 Jan. . . .	103.8	3.4	103.2	3.3	104.9	3.7	103.1	3.6	102.7	3.7
Feb. . . .	103.7	3.5	103.4	3.3	104.2	4.0	102.5	3.9	101.9	3.9
March . .	105.8	3.0	106.7	2.3	104.4	4.1	104.7	3.9	104.4	3.7
Apr. . . .	106.8	3.5	107.4	3.1	105.8	4.1	105.4	3.9	105.1	3.7
May . . .	107.2	3.6	108.4	3.8	105.4	3.3	105.2	3.5	105.0	3.3
June . . .	107.1	3.9	108.2	4.0	105.5	3.7	105.6	3.8	105.4	3.8
July . . .	105.2	3.9	104.8	4.0	105.8	3.9	104.2	4.1	103.8	4.1
Aug. . . .	105.3	3.8	104.8	4.0	105.9	3.6	104.4	4.0	103.8	3.9
Sept. . .	107.3	3.6	107.9	3.8	106.3	3.3	106.4	3.8	106.1	3.6
Oct. . . .	107.6	2.8	108.1	2.2	106.8	3.7	106.9	3.7	106.7	3.5
Nov. . . .	107.7	2.4	108.1	1.4	107.1	3.9	107.2	3.8	107.0	3.6
Dec. . . .	108.7	3.0	109.2	2.9	108.0	3.3	107.7	3.3	107.5	3.1
2002 Jan. . . .	108.4	4.4	108.5	5.2	108.4	3.3	106.5	3.3	106.0	3.2
Feb. . . .	107.3	3.4	106.7	3.1	108.3	3.9	105.7	3.1	105.2	3.2
March . .	110.0	4.0	110.7	3.8	109.0	4.4	108.4	3.6	108.3	3.7
Apr. . . .	110.9	3.8	111.7	4.0	109.6	3.6	109.0	3.4	108.8	3.5
May . . .	110.8	3.4	111.1	2.4	110.5	4.9	109.7	4.2	109.5	4.3
June . . .	110.6	3.3	110.9	2.5	110.3	4.5	109.7	3.9	109.5	3.8
July . . .	108.7	3.3	107.6	2.7	110.5	4.4	108.1	3.7	107.4	3.5
Aug. . . .	109.0	3.5	107.9	2.9	110.7	4.5	108.2	3.6	107.6	3.6
Sept. . .	111.0	3.5	110.8	2.7	111.5	4.8	110.3	3.7	110.1	3.8
Oct. . . .	111.6	3.7	111.6	3.2	111.7	4.6	110.7	3.5	110.6	3.6
Nov. . . .	111.6	3.6	111.5	3.1	111.9	4.5	110.9	3.5	110.8	3.5
Dec. . . .	112.4	3.4	112.3	2.8	112.7	4.3	111.4	3.5	111.2	3.5
2003 Jan. . . .	111.8	3.1	110.8	2.1	113.4	4.7	110.4	3.7	109.9	3.6
Feb. . . .	112.0	4.3	111.1	4.1	113.3	4.7	109.7	3.8	108.9	3.5
March . .	114.5	4.1	115.2	4.1	113.4	4.1	112.0	3.4	111.6	3.1
Apr. . . .	114.6	3.4	114.6	2.6	114.6	4.5	112.6	3.4	112.3	3.1
May . . .	115.1	3.8	115.4	3.9	114.7	3.7	112.8	2.9	112.6	2.8
June . . .	114.9	3.8	114.9	3.6	114.9	4.2	113.0	3.0	112.7	3.0
July . . .	112.7	3.6	111.1	3.2	115.0	4.1	111.2	2.9	110.5	2.9
Aug. . . .	112.6	3.3	110.9	2.8	115.2	4.0	111.4	3.0	110.7	2.9

Source: Calculations based on NSSG data.

Table 2

Harmonised index of consumer prices: general index and basic sub-indices

Period	HICP (general)		Unprocessed food		Processed food		Non-energy industrial goods	
	Index (1996=100)	Percentage change over previous year	Index (1996=100)	Percentage change over previous year	Index (1996=100)	Percentage change over previous year	Index (1996=100)	Percentage change over previous year
1999	112.6	2.1	115.0	2.4	111.6	3.1	111.1	1.2
2000	115.8	2.9	116.9	1.7	114.6	2.7	111.8	0.6
2001	120.1	3.7	124.8	6.7	120.4	5.1	115.1	2.9
2002	124.8	3.9	133.5	6.9	127.0	5.5	118.0	2.5
2002 I	122.6	4.3	139.9	15.8	123.8	4.7	114.8	2.8
II	125.6	3.8	134.0	5.3	127.5	6.8	119.9	2.7
III	124.0	3.7	127.4	4.2	128.3	5.5	115.8	2.3
IV	126.8	3.8	132.5	2.8	128.5	4.9	121.3	2.1
2003 I	127.3	3.8	141.0	0.8	129.6	4.7	116.8	1.7
II	129.9	3.5	150.4	12.3	130.6	2.4	122.0	1.8
2001 Jan.	116.8	3.2	118.7	0.5	117.7	4.4	110.3	2.7
Feb.	116.6	3.5	120.7	0.0	118.4	4.6	108.5	2.5
March . . .	119.3	3.2	123.1	1.1	118.5	4.3	116.3	3.1
Apr.	120.6	3.7	125.6	1.7	118.6	4.3	116.4	3.1
May	121.2	3.9	129.6	6.0	118.8	4.3	116.6	3.2
June	121.1	4.5	126.4	11.2	120.7	5.7	117.1	3.1
July	118.7	4.2	121.9	9.5	121.3	6.3	111.1	2.9
Aug.	118.7	4.0	121.8	7.9	121.6	6.4	111.1	2.8
Sept.	121.2	4.0	123.2	8.9	121.9	6.3	117.5	3.0
Oct.	121.6	3.2	124.5	9.4	122.3	4.7	118.6	3.1
Nov.	121.7	2.9	126.3	10.1	122.5	4.5	118.9	2.9
Dec.	123.1	3.5	135.9	15.7	122.8	4.9	118.9	2.8
2002 Jan.	122.4	4.8	143.4	20.9	123.3	4.8	113.9	3.3
Feb.	121.0	3.8	137.5	13.9	123.5	4.3	111.4	2.6
March . . .	124.5	4.4	138.8	12.8	124.6	5.1	119.3	2.6
Apr.	125.5	4.1	138.3	10.1	126.9	7.0	119.4	2.6
May	125.8	3.8	132.4	2.2	127.6	7.4	120.0	2.9
June	125.5	3.6	131.2	3.9	128.0	6.1	120.2	2.6
July	123.0	3.6	126.6	3.8	128.2	5.7	113.7	2.4
Aug.	123.2	3.8	127.3	4.5	128.4	5.6	113.7	2.4
Sept.	125.8	3.8	128.4	4.2	128.4	5.3	120.1	2.2
Oct.	126.4	3.9	130.8	5.1	128.5	5.0	121.1	2.1
Nov.	126.5	3.9	132.4	4.8	128.6	5.0	121.4	2.1
Dec.	127.4	3.5	134.5	-1.1	128.6	4.7	121.4	2.1
2003 Jan.	126.4	3.3	136.6	-4.7	128.9	4.5	116.1	1.9
Feb.	126.1	4.2	141.6	3.0	129.7	5.0	113.1	1.5
March . . .	129.3	3.9	144.8	4.4	130.2	4.5	121.3	1.7
Apr.	129.6	3.3	147.7	6.8	130.5	2.8	121.5	1.7
May	130.2	3.5	153.8	16.1	130.6	2.3	122.2	1.8
June	130.0	3.6	149.8	14.2	130.7	2.1	122.2	1.7
July	127.3	3.5	141.2	11.6	130.8	2.1	115.5	1.6
Aug.	127.3	3.3	137.8	8.3	132.0	2.9	115.2	1.3

Source: Calculations based on NSSG data.

Table 2 (continued)

Harmonised index of consumer prices: general index and basic sub-indices

Period	Energy		Services		HICP excluding unprocessed food and energy	
	Index (1996=100)	Percentage change over previous year	Index (1996=100)	Percentage change over previous year	Index (1996=100)	Percentage change over previous year
1999	92.3	-2.5	120.2	3.8	114.6	2.6
2000	108.3	17.3	123.3	2.6	116.7	1.8
2001	106.4	-1.7	128.1	3.9	121.1	3.8
2002	106.1	-0.3	133.8	4.5	125.8	3.9
2002 I	101.4	-4.4	131.5	4.1	123.0	3.7
II	107.8	-3.1	133.8	4.6	126.6	4.2
III	107.9	0.6	134.3	4.7	125.4	3.9
IV	107.4	6.4	135.8	4.5	128.2	3.6
2003 I	114.1	12.6	137.4	4.5	127.3	3.5
II	106.8	-1.0	139.0	3.9	130.2	2.8
2001 Jan.	103.7	6.0	126.9	3.3	118.2	3.3
Feb.	107.7	6.5	125.8	4.0	117.2	3.6
March	106.9	0.6	126.1	4.1	120.4	3.7
Apr.	110.1	6.0	128.3	4.1	121.3	3.8
May	113.7	6.6	127.7	3.4	121.2	3.5
June	110.1	-0.3	127.8	4.3	121.8	4.1
July	107.3	-2.0	128.1	4.3	119.7	4.2
Aug.	106.5	-0.6	128.2	3.9	119.8	4.0
Sept.	108.1	-1.7	128.7	3.9	122.6	4.0
Oct.	103.8	-10.5	129.2	4.1	123.3	3.8
Nov.	100.6	-15.2	129.6	4.5	123.6	3.9
Dec.	98.4	-11.8	131.1	3.5	124.3	3.5
2002 Jan.	99.9	-3.7	131.4	3.6	122.5	3.6
Feb.	100.6	-6.6	130.9	4.1	121.3	3.5
March	103.7	-3.0	132.0	4.7	125.1	4.0
Apr.	108.6	-1.4	133.0	3.7	126.0	3.8
May	108.1	-4.9	134.5	5.4	127.0	4.8
June	106.8	-3.0	133.8	4.7	126.8	4.1
July	107.0	-0.2	134.0	4.6	124.3	3.9
Aug.	108.2	1.5	134.1	4.6	124.4	3.9
Sept.	108.6	0.5	135.0	4.9	127.4	3.9
Oct.	108.9	4.9	135.2	4.6	127.9	3.7
Nov.	105.1	4.5	135.4	4.5	128.1	3.6
Dec.	108.1	9.9	136.8	4.4	128.7	3.6
2003 Jan.	111.0	11.2	137.7	4.8	127.0	3.7
Feb.	115.2	14.5	137.2	4.7	125.7	3.6
March	116.1	12.0	137.3	4.0	129.1	3.2
Apr.	107.9	-0.6	139.0	4.5	130.0	3.2
May	105.9	-2.0	138.8	3.2	130.2	2.5
June	106.5	-0.3	139.1	4.0	130.4	2.8
July	108.4	1.3	139.3	4.0	127.8	2.8
Aug.	110.1	1.7	139.6	4.1	128.0	2.9

Source: Calculations based on NSSG data.

Table 3
Wholesale price index: general index and basic sub-indices

Period	General index		Domestic primary products ¹		Domestic industrial products ¹		Exported products		Imported products	
	Index (1995=100)	Percentage change over previous year	Index (1995=100)	Percentage change over previous year	Index (1995=100)	Percentage change over previous year	Index (1995=100)	Percentage change over previous year	Index (1995=100)	Percentage change over previous year
1999	116.4	1.8	124.6	2.2	119.0	2.8	114.0	0.5	111.3	0.6
2000	124.0	6.6	126.5	1.5	125.2	5.2	128.1	12.3	118.5	6.4
2001	126.8	2.3	139.2	10.0	128.7	2.7	128.9	0.7	120.7	1.9
2002	129.8	2.4	154.7	11.2	132.0	2.6	131.4	1.9	121.2	0.4
2002 I	130.3	4.3	174.1	34.7	130.3	2.6	130.5	2.4	120.8	0.6
II	129.9	1.7	153.1	6.9	131.9	2.2	132.3	1.2	121.2	0.2
III	129.1	1.6	142.6	4.8	132.5	2.4	131.2	1.3	121.3	0.2
IV	130.0	2.0	149.0	0.6	133.1	3.1	131.5	2.7	121.6	0.6
2003 I	132.6	1.7	169.8	-2.5	134.9	3.6	131.9	1.1	122.6	1.5
II	132.7	2.2	183.1	19.6	134.4	1.9	129.6	-2.0	122.3	0.9
2001 Jan.	124.0	3.2	125.6	-5.8	126.3	3.8	126.4	5.3	119.7	4.6
Feb.	125.1	3.2	130.1	-0.3	127.3	4.1	127.5	3.3	120.1	3.9
March	125.8	2.8	132.3	0.2	127.6	3.6	128.8	2.6	120.4	3.5
Apr.	127.0	3.4	139.7	2.6	128.7	4.2	129.9	4.2	120.7	3.0
May	127.9	3.5	145.0	7.4	129.3	4.2	130.7	3.1	120.9	2.7
June	128.1	4.0	145.2	17.1	129.2	3.6	131.4	3.0	121.1	2.8
July	127.1	3.4	136.9	17.1	129.2	3.3	129.8	2.1	121.1	2.6
Aug.	126.5	2.1	132.1	6.7	129.3	3.1	128.7	0.4	121.0	1.9
Sept.	127.6	1.3	139.2	13.0	129.9	2.2	130.1	-2.4	121.1	0.9
Oct.	126.9	-0.4	138.0	17.4	129.2	0.3	128.2	-5.2	121.2	-0.7
Nov.	126.8	-0.5	140.9	17.9	129.0	0.1	127.8	-5.1	120.9	-1.1
Dec.	128.7	1.5	165.1	30.8	129.2	0.5	128.1	-1.7	120.7	-0.5
2002 Jan.	130.4	5.1	181.4	44.4	129.7	2.7	129.4	2.4	120.7	0.8
Feb.	129.6	3.6	168.5	29.5	129.8	2.0	129.9	1.9	120.7	0.5
March	131.1	4.2	172.6	30.5	131.4	3.0	132.3	2.8	121.0	0.5
Apr.	131.7	3.7	172.2	23.3	132.1	2.7	133.5	2.8	121.2	0.4
May	129.5	1.2	147.0	1.4	132.0	2.1	132.2	1.2	121.2	0.2
June	128.5	0.3	140.2	-3.4	131.5	1.8	131.0	-0.3	121.1	0.0
July	128.2	0.8	136.0	-0.7	132.1	2.3	130.4	0.5	121.0	-0.1
Aug.	129.2	2.1	144.3	9.2	132.5	2.5	130.8	1.6	121.5	0.4
Sept.	130.0	1.9	147.5	6.0	133.1	2.5	132.3	1.7	121.6	0.4
Oct.	130.0	2.4	145.7	5.6	133.3	3.1	132.3	3.2	121.6	0.3
Nov.	129.5	2.1	147.2	4.5	132.7	2.9	130.6	2.2	121.5	0.5
Dec.	130.5	1.4	154.0	-6.8	133.3	3.2	131.5	2.7	121.8	0.9
2003 Jan.	131.0	0.5	155.6	-14.2	134.3	3.5	131.2	1.4	122.4	1.4
Feb.	133.0	2.6	172.7	2.5	135.2	4.1	132.3	1.9	122.7	1.6
March	133.7	2.0	181.0	4.9	135.4	3.0	132.4	0.0	122.7	1.4
Apr.	133.0	1.0	183.4	6.5	134.5	1.8	130.6	-2.2	122.4	1.0
Μάρτιος	132.6	2.4	188.3	28.1	134.3	1.7	127.8	-3.3	122.3	0.9
June	132.5	3.1	177.5	26.6	134.4	2.2	130.5	-0.3	122.3	1.0
July	131.9	2.9	164.3	20.9	134.9	2.1	131.3	0.7	122.4	1.2
Aug.	132.1	2.2	159.7	10.6	135.8	2.5	131.7	0.7	122.6	1.0

¹ For home consumption.

Source : Calculations based on NSSG data.

Table 4
Gross value added at basic prices and gross domestic product at market prices

	Million euro	Annual percentage changes (at constant prices of year 1995)					
		1995	1998	1999	2000	2001	2002	2003
Primary sector (agriculture)	7,277	2.3	3.5	-4.2	-4.1	-1.3	...
Secondary sector	16,550	7.2	2.4	5.4	5.8	2.8	...
Mining and quarrying	476	13.0	-17.9	23.2	2.2	8.6	...
Manufacturing	9,572	5.3	1.3	4.6	3.3	3.0	...
Electricity - natural gas - water supply	1,751	6.8	13.4	4.8	0.3	2.9	...
Construction	4,751	10.6	2.3	5.7	13.0	2.0	...
Tertiary sector	50,031	3.1	2.0	5.1	5.2	4.1	...
Trade	10,018	3.6	-0.8	3.1	11.7	1.2	...
Hotels -restaurants	4,821	3.7	-5.7	5.4	6.2	4.0	...
Transport-Communications	4,978	4.1	33.4	16.2	1.3	5.9	...
Financial intermediaries	3,112	11.5	11.0	10.0	5.9	-0.3	...
Real estate management and other activities	12,577	2.5	-5.9	3.3	3.0	4.0	...
Public administration - security	5,308	-0.6	0.9	-2.8	2.3	5.2	...
Education	3,298	-0.7	-2.2	1.6	-1.2	9.6	...
Health	3,855	1.2	-2.0	3.0	1.0	7.9	...
Miscellaneous services	2,064	6.5	9.6	7.6	15.2	6.8	...
Gross value added	73,858	3.9	2.1	4.4	4.6	3.5	...
Imputed bank services	-2,175	16.5	2.8	13.7	12.1	1.6	...
Gross value added at basic prices	71,683	3.6	2.1	4.1	4.3	3.6	...
Final consumption	70,655	3.2	2.4	2.1	2.3	3.2	2.7
Private consumption	58,405	3.5	2.5	2.0	2.9	2.8	3.1
Public consumption	12,250	1.7	2.1	2.2	-1.0	5.1	0.5
Gross fixed capital formation	14,867	10.6	11.0	8.0	6.5	5.7	9.7
Housing	4,031	8.8	3.7	-4.3	4.8	8.8	...
Other construction	5,391	9.4	6.6	8.9	8.2	0.7	...
Equipment	4,679	16.5	21.4	14.1	4.9	6.9	...
Other	766	-14.0	-2.4	7.6	20.1	20.8	...
Change in stocks and statistical discrepancy (as a percentage of GDP)	252	0.3	0.0	0.4	0.0	0.1	...
Domestic final demand	85,774	4.6	3.8	3.7	2.9	3.8	...
Exports of goods and services	14,087	5.3	18.1	14.1	-1.1	-7.7	1.9
Exports of goods	8,344	2.7	6.3	8.7	-1.6	-7.1	...
Exports of services	5,743	7.7	29.0	18.2	-0.7	-8.1	...
Final demand	99,861	4.7	6.1	5.6	2.1	1.7	...
Imports of goods and services	19,934	9.2	15.0	8.9	-3.4	-4.7	3.0
Imports of goods	18,084	9.4	8.5	7.6	-4.2	1.1	...
Imports of services	1,849	8.5	52.9	14.4	-0.3	-26.6	...
GDP at market prices	79,927	3.4	3.4	4.4	4.0	3.8	4.0

Source: NSSG/National Accounts Directorate, September 2003: final data for 1998-1999 and estimates for 2000-2002. Ministry of Economy and Finance (draft 2004 budget) for 2003.

Table 5
Balance of payments
(Million euro)

	January – July			July		
	2001	2002	2003*	2001	2002	2003*
I CURRENT ACCOUNT BALANCE (I.A+I.B+I.C+I.D)	-4,358.0	-4,910.4	-5,776.5	-361.8	18.2	15.5
I.A TRADE BALANCE (I.A.1-I.A.2)	-12,607.8	-13,079.8	-13,267.7	-1,726.7	-1,941.7	-1,961.2
NON-OIL TRADE BALANCE	-10,902.1	-11,202.8	-10,818.5	-1,533.4	-1,653.9	-1,690.6
OIL TRADE BALANCE	-1,705.7	-1,877.0	-2,449.2	-193.3	-287.8	-270.6
I.A.1 Exports of goods	6,937.5	6,000.3	6,397.1	1,227.4	989.3	968.8
Fuel	1,200.4	665.4	783.7	179.6	89.4	83.1
Other goods	5,737.0	5,334.9	5,613.4	1,047.9	899.9	885.7
I.A.2 Imports of goods	19,545.3	19,080.1	19,664.8	2,954.2	2,931.0	2,930.0
Fuel	2,906.1	2,542.4	3,232.9	372.9	377.2	353.7
Other goods	16,639.2	16,537.7	16,431.9	2,581.3	2,553.8	2,576.3
I.B SERVICES BALANCE (I.B.1-I.B.2)	4,943.9	5,539.2	5,921.7	1,146.4	1,918.4	1,951.5
I.B.1 Receipts	12,462.7	11,504.2	11,350.0	2,343.4	2,890.2	2,828.3
Travel	5,712.5	5,064.7	4,605.2	1,367.8	1,913.9	1,780.0
Transport	5,423.4	5,034.3	5,444.5	778.0	764.5	838.0
Other services	1,326.7	1,405.1	1,300.3	197.6	211.8	210.3
I.B.2 Payments	7,518.9	5,965.0	5,428.3	1,197.0	971.7	876.8
Travel	2,618.3	1,301.7	1,006.3	460.9	266.9	156.9
Transport	3,162.1	2,977.0	2,763.1	480.5	436.4	410.1
Other services	1,738.4	1,686.3	1,658.9	255.6	268.5	309.8
I.C INCOME BALANCE (I.C.1-I.C.2)	-1,185.8	-1,242.2	-1,802.7	-205.3	-144.3	-320.3
I.C.1 Receipts	1,317.4	991.4	989.5	165.7	156.5	157.3
Wages, salaries	357.7	329.8	203.6	59.3	47.4	36.6
Interest, dividends, profits	959.7	661.6	785.9	106.4	109.1	120.7
I.C.2 Payments	2,503.3	2,233.6	2,792.2	371.0	300.8	477.5
Wages, salaries	167.4	155.9	90.5	24.7	22.3	15.6
Interest, dividends, profits	2,335.9	2,077.7	2,701.6	346.3	278.6	462.0
I.D CURRENT TRANSFERS BALANCE (I.D.1-I.D.2)	4,491.8	3,872.3	3,372.2	423.9	185.8	345.4
I.D.1 Receipts	5,852.0	5,356.7	4,797.7	638.5	364.2	582.8
General government (mainly transfers from the EU)	4,290.4	4,087.2	3,387.4	360.0	160.3	333.6
Other sectors (emigrants' remittances etc.)	1,561.6	1,269.6	1,410.4	278.5	203.9	249.2
I.D.2 Payments	1,360.2	1,484.4	1,425.6	214.6	178.4	237.3
General government (mainly payments to the EU)	914.4	1,106.5	1,119.4	132.8	121.3	187.3
Other sectors	445.9	377.9	306.2	81.8	57.1	50.1
II FINANCIAL ACCOUNT BALANCE (II.A+II.B+II.C+II.D)	3,063.6	5,493.5	5,876.6	577.8	464.3	78.1
II.A DIRECT INVESTMENT¹	746.8	-333.0	-579.7	985.8	-159.4	-36.5
By residents abroad	-461.5	-368.1	-416.4	-27.5	-149.6	-50.5
By non-residents in Greece	1,208.3	35.1	-163.3	1,013.2	-9.9	14.1
II.B PORTFOLIO INVESTMENT¹	2,244.0	6,055.7	10,520.4	1,191.8	-460.1	-907.8
Assets	211.4	-1,710.2	-5,238.5	-1,110.2	-271.5	-241.7
Liabilities	2,032.6	7,765.9	15,758.9	2,302.1	-188.6	-666.0
II.C OTHER INVESTMENT¹	-5,604.3	1,293.8	-8,022.1	-1,727.8	1,486.8	1,132.3
Assets	-1,170.8	-7,119.8	-3,636.3	-1,265.7	-3,052.8	691.9
Liabilities	-4,433.4	8,413.6	-4,385.7	-462.1	4,539.6	440.4
(General government loans)	(-2,188.6)	(-2,123.7)	(-1,882.6)	(-529.1)	(-168.7)	(-24.6)
II.D CHANGE IN RESERVE ASSETS²	5,677.0	-1,523.0	3,958.0	128.0	-403.0	-110.0
III ERRORS AND OMISSIONS	1,294.4	-583.1	-100.1	-216.0	-482.5	-93.6
RESERVE ASSETS				7,195 ³	8,554 ³	5,056 ³

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

2 (+) decrease, (-) increase.

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

* Provisional data.

Source: Bank of Greece.

Table 6
Monetary aggregates in the euro area¹
(Outstanding balances in billion euro, not seasonally adjusted)

End of period	Currency in circulation	Overnight deposits	M1	Deposits with agreed maturity up to two years	Deposits redeemable at notice up to three months	M2	Repurchase agreements	Money market fund shares/units	Money market paper and debt securities up to two years	M3 ²
(1)	(2)	(3)=(1)+(2)	(4)	(5)	(6)=(3)+(4) +(5)	(7)	(8)	(9)	(10)=(6)+(7) +(8)+(9)	
2000	348.4	1,728.8	2,077.1	991.8	1,221.1	4,290.0	174.9	300.0	135.7	4,900.7
2001	239.7	1,968.2	2,207.9	1,088.8	1,371.0	4,667.7	218.5	398.0	145.9	5,430.2
2002	341.2	2,084.4	2,425.5	1,075.5	1,463.5	4,964.6	226.9	470.6	127.7	5,789.7
2001 Jan. ³	336.1	1,692.8	2,028.8	1,036.1	1,275.1	4,340.0	211.4	327.9	139.0	5,018.3
Feb.	335.0	1,692.9	2,028.0	1,049.0	1,269.7	4,346.7	213.2	336.0	145.5	5,041.3
March	336.3	1,703.2	2,039.5	1,065.9	1,269.8	4,375.1	222.6	346.1	139.3	5,083.1
Apr.	336.2	1,735.9	2,072.1	1,067.8	1,273.4	4,413.3	221.4	354.1	140.0	5,128.7
May	332.9	1,759.2	2,092.1	1,069.0	1,273.2	4,434.3	233.8	363.0	135.0	5,166.1
June	333.0	1,798.4	2,131.4	1,066.2	1,283.0	4,480.6	221.5	360.5	145.2	5,207.8
July	328.0	1,780.3	2,108.3	1,073.2	1,287.2	4,468.7	223.4	369.6	140.4	5,202.1
Aug.	319.2	1,747.5	2,066.7	1,088.8	1,292.9	4,448.4	230.8	380.7	142.5	5,202.4
Sept.	309.6	1,815.1	2,124.7	1,070.9	1,299.7	4,495.3	225.7	384.7	147.6	5,253.4
Oct.	295.5	1,816.1	2,111.6	1,074.7	1,311.6	4,497.9	235.1	395.9	149.5	5,278.4
Nov.	279.7	1,864.6	2,144.3	1,077.6	1,326.4	4,548.2	225.9	404.5	152.2	5,330.8
Dec.	239.7	1,968.2	2,207.9	1,088.8	1,371.0	4,667.7	218.5	398.0	145.9	5,430.2
2002 Jan.	246.5	1,921.9	2,168.4	1,081.0	1,389.9	4,639.2	216.2	416.6	141.8	5,413.9
Feb.	240.3	1,917.1	2,157.4	1,076.8	1,394.2	4,628.4	221.1	427.0	138.8	5,415.2
March	254.3	1,914.2	2,168.5	1,088.5	1,397.7	4,654.7	229.6	431.2	137.2	5,452.8
Apr.	261.7	1,945.5	2,207.2	1,092.1	1,391.4	4,690.6	228.1	437.5	134.7	5,490.9
May	273.8	1,945.4	2,219.3	1,099.6	1,393.5	4,712.4	234.8	442.6	144.0	5,533.8
June	285.7	1,992.1	2,277.8	1,074.9	1,399.6	4,752.2	229.6	439.2	132.8	5,553.8
July	296.6	1,959.4	2,255.9	1,083.7	1,402.7	4,742.3	228.8	450.3	125.5	5,546.9
Aug.	301.1	1,927.4	2,228.6	1,096.9	1,408.8	4,734.2	236.5	463.4	126.5	5,560.7
Sept.	306.7	1,984.4	2,291.1	1,073.6	1,411.4	4,776.1	238.3	460.4	131.3	5,606.1
Oct.	313.9	1,968.4	2,282.2	1,093.7	1,418.4	4,794.4	235.6	462.7	133.7	5,626.3
Nov.	321.4	2,020.5	2,341.9	1,086.3	1,430.0	4,858.3	229.6	477.1	131.1	5,696.1
Dec.	341.2	2,084.4	2,425.5	1,075.5	1,463.5	4,964.6	226.9	470.6	127.7	5,789.7
2003 Jan.	312.1	2,031.6	2,343.7	1,077.9	1,485.2	4,906.7	233.0	535.0	108.3	5,782.9
Feb.	319.3	2,032.5	2,351.8	1,080.3	1,501.0	4,933.1	233.8	547.4	108.8	5,823.1
March	327.2	2,070.6	2,397.8	1,073.2	1,514.3	4,985.3	224.0	550.8	99.4	5,859.5
Apr.	336.3	2,089.4	2,425.7	1,081.9	1,523.7	5,031.2	230.5	563.0	124.0	5,948.6
May	343.8	2,114.2	2,458.0	1,096.9	1,531.0	5,085.9	231.4	571.1	105.0	5,993.4
June	351.0	2,150.1	2,501.1	1,060.5	1,546.0	5,107.6	215.0	571.2	96.3	5,990.0
July	361.5	2,122.3	2,483.8	1,063.6	1,555.7	5,103.2	219.9	584.9	89.8	5,997.9
Aug.*	362.7	2,105.6	2,468.3	1,069.6	1,563.3	5,101.2	218.7	587.0	89.2	5,996.1

1 Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.
2 M3 and its components exclude holdings by non-residents of the euro area of money market fund shares/units, money market paper and debt securities up to 2 years.
3 Data for the euro area until the end of 2000 concern the Euro-11. As from 1 January 2001, they concern the Euro-12.
* Provisional data.
Source: ECB.

Table 7

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

End of period	Overnight deposits (1)	Savings deposits and deposits redeemable at notice up to three months (2)	Deposits with agreed maturity up to two years (3)	Repurchase agreements (repos) (4)	Money market fund shares/units (5)	Debt securities up to two years (6)	Total ² (M3 without currency in circulation) (7)=(1)+(2)+(3)+(4)+(5)+(6)
2000	13.3	49.9	28.9	18.5	15.4	0.2	126.2
2001	16.1	57.2	29.4	24.2	9.7	0.1	136.7
2002	15.2	58.8	28.9	20.0	10.7	0.2	133.8
2001 Jan.	12.5	49.0	28.1	21.0	14.7	0.2	125.5
Feb.	12.4	49.1	27.4	22.6	13.7	0.2	125.3
March	11.5	49.1	27.5	24.2	12.9	0.2	125.4
Apr.	12.4	50.0	27.3	25.2	12.4	0.2	127.4
May	11.8	50.1	27.1	26.1	11.8	0.2	127.1
June	12.4	51.2	26.5	27.3	11.2	0.2	128.8
July	12.5	51.5	26.1	28.6	11.2	0.2	130.1
Aug.	12.3	52.1	25.8	28.5	10.9	0.2	129.8
Sept.	12.2	52.6	24.0	29.3	10.5	0.2	128.8
Oct.	12.4	52.9	24.8	28.7	9.6	0.2	128.6
Nov.	13.2	53.7	26.3	26.8	9.4	0.1	129.5
Dec.	16.1	57.2	29.4	24.2	9.7	0.1	136.7
2002 Jan.	14.3	57.2	26.5	23.9	9.8	0.1	131.8
Feb.	13.8	57.5	27.3	23.0	9.4	0.1	131.1
March	12.5	57.4	27.2	24.2	9.3	0.1	130.7
Apr.	13.7	58.0	26.9	22.9	8.9	0.0	130.4
May	13.3	58.2	26.6	22.8	8.9	0.0	129.8
June	14.2	58.7	26.0	22.6	8.7	0.0	130.2
July	14.3	58.8	26.0	22.5	8.9	0.0	130.6
Aug.	14.1	59.5	26.3	22.8	8.9	0.1	131.7
Sept.	14.7	59.9	25.4	22.9	9.1	0.1	132.2
Oct.	13.5	58.9	26.6	23.2	9.0	0.1	131.2
Nov.	13.3	58.1	27.3	22.0	9.1	0.2	130.0
Dec.	15.2	58.8	28.9	20.0	10.7	0.2	133.8
2003 Jan.	14.2	58.2	28.9	20.2	12.0	0.2	133.7
Feb.	14.4	59.7	27.1	19.2	12.9	0.2	133.5
March	14.9	59.8	27.3	16.8	14.1	0.2	133.2
Apr.	14.6	60.4	28.7	16.3	14.4	0.3	134.7
May	14.5	59.4	28.8	15.7	14.7	0.3	133.4
June	16.7	60.3	29.7	13.5	15.7	0.4	136.3
July	15.8	59.2	32.0	13.0	15.8	0.4	136.2
Aug.	16.1	60.0	33.0	12.2	15.7	0.4	137.5

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

2 As in all other euro area countries, Greece's M3 can no longer be calculated accurately, since the quantity of euro banknotes and coins in circulation in each country is also held by residents of other euro area countries (as well as non-euro area residents). Owing to these technical problems, the compilation of Greek M0, M1, M2 and M3 was discontinued in January 2003.

Source: Bank of Greece.

Table 8

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

End of period	Total deposits	Breakdown by currency		Breakdown by type		
		Deposits in euro ²	Deposits in other currencies	Sight deposits	Savings deposits	Time deposits ³
2000	90,737.8	73,720.2	17,017.6	11,007.0	50,917.8	28,813.0
2001	101,809.5	79,566.0	22,243.5	13,385.2	58,323.1	30,101.1
2002	104,761.1	87,732.3	17,028.8	13,367.3	60,406.1	30,987.7
2001 Jan.	88,672.8	71,364.1	17,308.7	10,004.0	50,097.1	28,571.6
Feb.	88,128.8	71,100.2	17,028.6	10,019.8	50,121.5	27,987.5
March	87,506.4	69,835.1	17,671.3	9,376.2	50,163.9	27,966.3
Apr.	89,005.3	72,383.4	16,621.9	10,149.5	50,991.1	27,864.7
May	88,126.9	71,588.8	16,538.1	9,522.3	51,161.0	27,443.6
June	89,219.5	73,009.8	16,209.7	10,132.4	52,280.3	26,806.8
July	89,196.9	73,484.2	15,712.7	10,146.2	52,527.7	26,523.0
Aug.	89,264.4	73,797.9	15,466.5	9,826.6	53,222.9	26,215.0
Sept.	88,095.4	72,815.9	15,279.6	9,849.7	53,730.0	24,515.9
Oct.	89,382.6	74,146.8	15,235.8	10,125.1	53,972.1	25,285.4
Nov.	92,567.2	73,956.4	18,610.7	10,928.3	54,790.3	26,848.6
Dec.	101,809.5	79,566.0	22,243.5	13,385.2	58,323.1	30,101.1
2002 Jan.	97,542.0	78,693.6	18,848.4	11,839.1	58,355.2	27,347.7
Feb.	98,302.4	79,029.9	19,272.4	11,356.7	58,674.4	28,271.3
March	96,741.8	77,970.2	18,771.6	10,267.5	58,309.6	28,164.7
Apr.	98,685.7	80,274.3	18,411.5	11,584.4	58,979.2	28,122.2
May	97,779.9	79,934.6	17,845.3	10,795.2	59,174.0	27,810.7
June	98,751.5	81,549.4	17,202.1	11,758.3	59,654.1	27,339.2
July	99,132.9	81,816.4	17,316.4	11,888.0	59,768.1	27,476.8
Aug.	99,924.1	82,255.7	17,668.4	11,656.2	60,475.4	27,792.5
Sept.	101,076.4	84,497.2	16,579.2	12,328.6	61,820.2	26,927.6
Oct.	100,492.7	83,175.9	17,316.8	11,399.8	60,572.9	28,519.9
Nov.	100,771.6	83,612.4	17,159.2	11,686.3	59,933.8	29,151.4
Dec.	104,761.1	87,732.3	17,028.8	13,367.3	60,406.1	30,987.7
2003 Jan.	102,687.7	85,423.3	17,264.4	11,703.0	59,707.7	31,277.0
Feb.	102,455.9	85,527.5	16,928.4	12,419.8	60,981.4	29,054.7
March	103,684.4	86,637.5	17,046.9	12,996.7	61,203.6	29,484.0
Apr.	105,407.4	87,642.8	17,764.6	12,664.5	61,690.6	31,052.2
May	104,593.8	86,997.3	17,596.5	12,586.4	60,809.6	31,197.8
June	108,637.5	90,199.0	18,438.5	14,702.7	61,700.5	32,234.3
July	108,694.9	89,934.1	18,760.8	13,670.6	60,471.2	34,553.1
Aug.	110,793.2	91,498.3	19,294.9	14,035.9	61,242.3	35,515.0

1 Other Monetary Financial Institutions (Other MFIs) comprise credit institutions other than the Bank of Greece and money market funds.

2 Including (until 31 December 2001) deposits in drachmas and the other euro legacy currencies.

3 Including blocked deposits.

Source: Bank of Greece.

Table 9
ECB and Bank of Greece interest rates
(Percentages per annum)

1. ECB interest rates				2. Bank of Greece interest rates				
With effect from ¹	Deposit facility	Main refinancing operations ³	Marginal lending facility	With effect from	Overnight deposit facility – first tier ⁴	Overnight deposit facility – second tier ⁴	14-day intervention rate	Lombard rate
1999 1 Jan.	2.00	3.00	4.50	1999 14 Jan.	11.50	9.75	12.00	13.50
4 Jan. ²	2.75	3.00	3.25	21 Oct.	11.00	9.75	11.50	13.00
22 Jan.	2.00	3.00	4.50	16 Dec.	10.25	9.25	10.75	12.25
9 Apr.	1.50	2.50	3.50	27 Dec.	10.25	9.00	10.75	11.50
5 Nov.	2.00	3.00	4.00					
2000 4 Feb.	2.25	3.25	4.25	2000 27 Jan.	9.50	8.50	9.75	11.00
17 March	2.50	3.50	4.50	9 March	8.75	8.00	9.25	10.25
28 Apr.	2.75	3.75	4.75	20 Apr.	8.00	7.50	8.75	9.50
9 June	3.25	4.25	5.25	29 June	7.25	–	8.25	9.00
28 June ³	3.25	4.25	5.25	6 Sept.	6.50	–	7.50	8.25
1 Sept.	3.50	4.50	5.50	15 Nov.	6.00	–	7.00	7.75
6 Oct.	3.75	4.75	5.75	29 Nov.	5.50	–	6.50	7.25
				13 Dec.	4.75	–	5.75	6.50
				27 Dec.	3.75	–	4.75	5.75
2001 11 May	3.50	4.50	5.50					
31 Aug.	3.25	4.25	5.25					
18 Sept.	2.75	3.75	4.75					
9 Nov.	2.25	3.25	4.25					
2002 6 Dec.	1.75	2.75	3.75					
2003 7 March	1.50	2.50	3.50					
6 June	1.00	2.00	3.00					

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

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

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

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

Sources: ECB and Bank of Greece.

Table 10
Money market interest rates
(Percentages per annum, period averages)

Period	Overnight deposits ¹	1-month deposits ²	3-month deposits ²	6-month deposits ²	9-month deposits ²	12-month deposits ²
2000	8.24	8.28	7.89	7.32	6.90	6.55
2001	4.39	4.33	4.26	4.16	4.10	4.09
2002	3.29	3.30	3.32	3.35	3.41	3.49
2001 Jan.	4.75	4.81	4.77	4.68	4.60	4.58
Feb.	4.99	4.80	4.76	4.67	4.61	4.59
March	4.78	4.78	4.71	4.58	4.49	4.47
Apr.	5.06	4.79	4.69	4.57	4.50	4.49
May	4.65	4.67	4.64	4.57	4.53	4.53
June	4.54	4.53	4.45	4.35	4.33	4.31
July	4.51	4.52	4.47	4.39	4.33	4.31
Aug.	4.49	4.46	4.35	4.22	4.14	4.11
Sept.	3.99	4.05	3.98	3.88	3.80	3.77
Oct.	3.97	3.72	3.60	3.46	3.39	3.37
Nov.	3.51	3.43	3.39	3.26	3.20	3.20
Dec.	3.34	3.42	3.34	3.26	3.25	3.30
2002 Jan.	3.29	3.35	3.34	3.34	3.39	3.48
Feb.	3.28	3.34	3.36	3.40	3.48	3.59
March	3.26	3.35	3.39	3.50	3.65	3.82
Apr.	3.32	3.34	3.41	3.54	3.70	3.86
May	3.31	3.37	3.46	3.62	3.80	3.95
June	3.35	3.38	3.46	3.59	3.73	3.87
July	3.30	3.36	3.41	3.48	3.54	3.64
Aug.	3.29	3.33	3.35	3.38	3.40	3.44
Sept.	3.32	3.32	3.31	3.27	3.23	3.24
Oct.	3.30	3.31	3.26	3.17	3.12	3.13
Nov.	3.30	3.23	3.12	3.04	3.01	3.02
Dec.	3.09	2.98	2.94	2.89	2.87	2.87
2003 Jan.	2.79	2.86	2.83	2.76	2.72	2.71
Feb.	2.76	2.77	2.69	2.58	2.53	2.50
March	2.75	2.60	2.53	2.45	2.42	2.41
Apr.	2.56	2.58	2.53	2.47	2.45	2.45
May	2.56	2.52	2.40	2.32	2.27	2.26
June	2.21	2.18	2.15	2.08	2.04	2.01
July	2.08	2.13	2.13	2.09	2.07	2.08
Aug.	2.10	2.12	2.14	2.17	2.21	2.28
Sept.	2.02	2.13	2.15	2.18	2.21	2.26

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

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

Sources: Bank of Greece and Bloomberg.

Table 11
Greek government paper yields
(Percentages per annum, period averages)

Period	Yield on one-year Treasury bills	Government bond yield					
		3-year	5-year	7-year	10-year	15-year	20-year
2000	6.22	5.99	5.98	6.05	6.10	6.26	6.35
2001	4.08	4.28	4.58	4.82	5.30	5.51	5.76
2002	3.50	4.06	4.45	4.78	5.12	5.24	5.52
2001 Jan.	4.57	4.66	4.91	5.03	5.35	5.61	5.81
Feb.	4.59	4.66	4.90	5.04	5.35	5.56	5.78
March	4.47	4.50	4.73	4.94	5.28	5.49	5.71
Apr.	4.48	4.53	4.79	4.89	5.39	5.55	5.77
May	4.52	4.59	4.89	5.01	5.54	5.70	5.92
June	4.31	4.40	4.73	4.88	5.48	5.66	5.91
July	4.31	4.39	4.75	4.89	5.52	5.71	5.94
Aug.	4.11	4.17	4.52	4.68	5.33	5.56	5.82
Sept.	3.77	3.78	4.27	4.47	5.31	5.55	5.88
Oct.	3.37	3.40	3.97	4.20	5.07	5.30	5.64
Nov.	3.20	4.12	4.14	5.07	4.90	5.10	5.36
Dec.	3.30	4.15	4.37	4.73	5.13	5.28	5.52
2002 Jan.	3.48	4.27	4.51	4.95	5.24	5.36	5.55
Feb.	3.59	4.37	4.73	5.07	5.31	5.41	5.60
March	3.81	4.58	5.00	5.27	5.51	5.58	5.78
Apr.	3.86	4.59	4.99	5.27	5.51	5.60	5.84
May	3.98	4.63	5.00	5.27	5.52	5.60	5.86
June	3.87	4.46	4.81	5.09	5.36	5.47	5.71
July	3.65	4.23	4.59	4.90	5.21	5.33	5.57
Aug.	3.44	3.90	4.29	4.60	4.95	5.07	5.34
Sept.	3.24	3.59	3.98	4.33	4.73	4.86	5.18
Oct.	3.13	3.52	3.95	4.34	4.79	4.94	5.32
Nov.	3.02	3.40	3.87	4.26	4.76	4.90	5.33
Dec.	2.87	3.19	3.63	4.05	4.58	4.71	5.13
2003 Jan.	2.70	2.91	3.36	3.81	4.43	4.51	4.97
Feb.	2.50	2.65	3.31	3.89	4.24	4.27	4.83
March	2.41	2.82	3.38	3.83	4.26	4.33	4.90
Apr.	2.46	2.99	3.50	3.96	4.38	4.45	5.02
May	2.25	2.64	3.12	3.57	4.02	4.09	4.73
June	2.02	2.38	2.88	3.33	3.81	3.86	4.57
July	2.08	2.62	3.18	3.65	4.12	4.16	4.83
Aug.	2.28	2.98	3.51	3.91	4.29	4.34	4.90
Sept.	2.26	2.91	3.47	3.91	4.32	4.37	4.96

Source: Bank of Greece.

Table 12

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

(Balances in million euro)

End of period	Total	In euro	In foreign currency	Branches of economic activity						
				Agriculture	Industry ¹	Trade	Housing	Tourism	Consumer credit	Other
2000	59,330.0	50,065.6	9,264.4	3,884.9	11,823.7	12,374.2	11,271.9	1,814.3	5,511.3	12,649.7
2001	74,027.4	66,722.6	7,304.8	3,724.2	12,614.9	15,524.3	15,652.2	2,171.3	7,852.0	16,488.5
2002	86,510.5	80,099.7	6,410.8	3,224.7	14,364.0	15,670.8	21,224.7	2,903.2	9,755.4	19,367.7
2001 Jan. . . .	59,938.1	51,062.9	8,875.2	3,809.7	11,617.1	12,370.5	11,542.8	1,851.0	5,601.0	13,146.0
Feb.	60,758.1	52,131.0	8,627.1	3,723.9	11,813.8	12,374.8	11,775.0	1,894.5	5,715.7	13,460.4
March. . .	62,687.0	54,138.2	8,548.8	3,869.2	11,972.1	12,731.5	12,067.4	1,946.9	5,973.5	14,126.4
Apr.	63,300.2	54,967.1	8,333.1	3,957.4	11,802.2	12,716.1	12,327.2	1,998.4	6,109.2	14,389.7
May	65,437.2	56,478.3	8,958.9	3,838.0	12,184.5	13,619.7	12,752.8	2,042.1	6,322.2	14,677.9
June	67,191.8	58,451.6	8,740.2	3,802.5	12,493.1	14,110.5	13,053.2	2,066.5	6,577.4	15,088.6
July.	67,876.5	59,419.2	8,457.3	3,807.4	12,712.7	14,014.7	13,531.7	2,055.5	6,727.6	15,026.9
Aug.	68,345.9	60,214.8	8,131.1	3,767.4	12,630.0	14,031.4	13,859.7	2,040.1	6,887.2	15,130.1
Sept. . . .	69,886.2	61,843.1	8,043.1	3,821.8	12,843.6	14,456.8	14,250.8	1,990.0	7,117.5	15,405.7
Oct.	70,591.5	62,887.0	7,704.5	3,735.5	12,718.4	14,510.7	14,695.7	1,992.2	7,379.6	15,559.4
Nov.	72,434.1	64,675.3	7,758.8	3,666.9	12,733.1	14,755.9	15,187.6	2,007.1	7,535.4	16,548.1
Dec.	74,027.4	66,722.6	7,304.8	3,724.2	12,614.9	15,524.3	15,652.2	2,171.3	7,852.0	16,488.5
2002 Jan. . . .	73,982.0	66,648.1	7,333.9	3,230.0	12,435.1	15,174.6	16,024.7	2,236.0	7,783.7	17,097.9
Feb.	75,202.2	67,723.9	7,478.3	3,030.3	12,724.5	15,846.7	16,417.5	2,267.5	7,944.7	16,971.0
March. . .	76,235.3	69,080.0	7,155.3	3,139.4	13,168.1	15,788.0	16,891.9	2,316.4	8,129.8	16,801.7
Apr.	76,958.0	69,886.9	7,071.1	3,196.1	12,801.1	15,939.4	17,362.1	2,341.0	8,301.2	17,017.1
May	78,009.6	71,192.8	6,816.8	3,193.0	12,912.6	16,064.7	17,721.8	2,372.2	8,508.3	17,237.0
June	79,960.9	73,475.3	6,485.6	3,167.7	13,360.0	16,516.2	18,194.3	2,414.5	8,678.1	17,630.1
July.	81,233.9	74,622.8	6,611.1	3,167.7	13,720.8	16,570.9	18,759.9	2,411.6	8,868.0	17,735.0
Aug.	82,041.4	75,311.8	6,729.6	3,191.4	13,625.4	16,580.6	19,304.9	2,399.3	8,997.7	17,942.1
Sept. . . .	82,662.6	75,930.7	6,731.9	3,212.8	13,785.6	16,059.8	19,503.8	2,560.0	9,228.1	18,312.5
Oct.	83,996.1	77,164.1	6,832.0	3,221.6	13,961.2	16,161.2	19,914.7	2,635.0	9,420.9	18,681.5
Nov.	85,614.8	78,732.9	6,881.9	3,167.1	14,528.2	15,663.2	20,416.6	2,761.1	9,612.9	19,465.7
Dec.	86,510.5	80,099.7	6,410.8	3,224.7	14,364.0	15,670.8	21,224.7	2,903.2	9,755.4	19,367.7
2003 Jan. . . .	88,241.8	81,751.6	6,490.2	2,964.2	14,529.2	16,321.5	21,599.4	2,978.4	9,884.9	19,964.2
Feb.	88,787.7	82,332.2	6,455.5	2,980.5	14,485.6	16,310.3	22,062.6	3,049.0	10,023.3	19,876.4
March. . .	89,363.0	83,075.2	6,287.8	2,994.0	14,422.3	16,053.5	22,366.8	3,095.5	10,247.3	20,183.6
Apr.	90,770.3	84,710.6	6,059.7	3,043.0	14,565.0	16,113.4	22,747.1	3,149.2	10,344.7	20,807.9
May	92,497.1	86,811.4	5,685.7	3,027.6	14,866.7	16,488.6	23,183.1	3,085.8	10,432.6	21,412.7
June	94,344.1	88,447.4	5,896.7	3,062.3	15,165.2	16,139.3	23,705.7	3,201.0	10,600.9	22,469.7
July.	96,253.7	90,203.0	6,050.7	3,062.9	15,674.1	16,307.5	24,267.2	3,207.5	10,871.8	22,862.7
Aug.	97,350.8	91,177.5	6,173.3	3,102.1	15,681.4	16,700.8	24,573.2	3,255.1	11,075.2	22,963.0

1 Including mining and small-scale manufacturing.

Source: Bank of Greece.

Table 13
Bank deposit and lending rates in Greece
(Percentages per annum, period averages)

Period	Deposit rates			Lending rates			
	Sight deposits	Savings deposits	Deposits with agreed maturity up to one year	To firms		To households	
				Short-term	Long-term	Consumer ¹	Housing ²
2000	2.73	5.71	6.14	12.33	11.52	17.00	9.76
2001	1.45	2.40	3.32	8.58	8.66	13.35	6.45
2002	0.82	1.51	2.76	7.41	7.43	12.64	5.70
2001 Jan.	1.66	2.93	3.84	9.40	9.12	14.37	7.31
Feb.	1.62	2.69	3.74	9.10	9.31	14.25	6.89
March	1.60	2.70	3.71	8.78	8.99	13.93	6.70
Apr.	1.69	2.71	3.62	8.88	9.08	13.80	6.60
May	1.54	2.57	3.64	8.87	8.98	13.53	6.55
June	1.52	2.47	3.57	8.65	8.69	13.25	6.49
July	1.42	2.46	3.55	8.64	8.61	12.97	6.50
Aug.	1.51	2.47	3.45	8.59	8.74	12.94	6.48
Sept.	1.31	2.30	3.05	8.35	8.38	13.07	6.38
Oct.	1.09	1.93	2.71	8.08	8.33	12.76	6.00
Nov.	1.28	1.90	2.51	7.87	8.00	12.68	5.77
Dec.	1.20	1.69	2.41	7.79	7.65	12.65	5.78
2002 Jan.	0.90	1.66	2.62	7.74	7.36	12.70	5.77
Feb.	0.79	1.68	2.63	7.66	7.81	12.89	5.77
March	0.83	1.66	2.74	7.63	7.60	12.82	5.76
Apr.	0.83	1.66	2.82	7.59	7.69	12.66	5.77
May	0.79	1.62	2.87	7.52	7.78	12.69	5.74
June	0.75	1.46	2.75	7.40	7.58	12.67	5.80
July	0.72	1.41	2.72	7.29	7.41	12.61	5.68
Aug.	0.90	1.41	2.70	7.17	7.49	12.54	5.64
Sept.	0.85	1.44	2.74	7.20	7.49	12.57	5.59
Oct.	0.91	1.48	2.84	7.29	7.20	12.49	5.66
Nov.	0.84	1.50	2.87	7.24	6.90	12.53	5.65
Dec.	0.75	1.09	2.80	7.23	6.82	12.53	5.53
2003 Jan.	0.74	1.09	2.83	7.10	6.68	12.48	5.46
Feb.	0.75	1.10	2.73	7.04	6.58	12.58	5.37
March	0.69	1.05	2.68	6.99	6.48	12.53	5.40
Apr.	0.73	1.04	2.70	7.00	6.58	12.61	5.44
May	0.70	1.03	2.61	6.88	6.49	12.52	5.43
June	0.55	0.81	2.44	6.76	6.36	12.43	5.42
July	0.60	0.79	2.38	6.61	6.21	12.32	5.39
Aug.	0.52	0.79	2.29	6.59	6.14	12.17	5.20

1 Average rate on all categories of consumer loans.

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

Source: Bank of Greece.

